MANITOBA PUBLIC UTILITIES BOARD

Re: 2008/'09 GENERAL RATE APPLICATION
MANITOBA HYDRO

Before Board Panel:
Graham Lane - Board Chairman
Robert Mayer - Board Member
Susan Proven - Board Member

HELD AT:
Public Utilities Board
400, 330 Portage Avenue
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APPEARANCES

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UNDERTAKINGS

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93	MIPUG to provide Coalition with report filed with the Newfoundland Public Utility's Board in February of 2008	3519

--- Upon commencing at 9:01 a.m.

THE CHAIRPERSON: Okay, welcome everyone. Another fine day and we're enclosed once more.

Ms. McCaffrey, do you want to introduce the three (3) exhibits that we have in front of us. I'm sorry, from Manitoba Hydro which is a response to Manitoba Hydro Undertaking Number 78 with respect to Power Smart Savings so we'll take that one and is Exhibit Number 91 for Manitoba Hydro.

--- EXHIBIT NO. MH-91: Response to Undertaking 78

THE CHAIRPERSON: Ms. McCaffrey, you've got two (2) then.

MS. TAMARA MCCAFFREY: Yes, we have two (2) more. The first one is illustrative examples of potential reserve fund operation on Hydro's IFF.

THE CHAIRPERSON: Okay.

MS. TAMARA MCCAFFREY: And we'll have -- I believe we're at Exhibit 14.

THE CHAIRPERSON: Yes.

--- EXHIBIT NO. MIPUG-14: Illustrative examples of potential reserve fund operation on Hydro's IFF

MS. TAMARA MCCAFFREY: And then the second exhibit we have -- just give me a moment and I'll read the title in: Marginal Costs EPMC Method by Function.

And this is essentially a document that flows from Exhibit Manitoba Hydro's Number 68. And the date is taken from that and the PCOSS '08 so it's not new -- not new numbers but presented in perhaps a different way. And that would be Exhibit 15.

THE CHAIRPERSON: Very good, thank you.

--- EXHIBIT NO. MIPUG-15: Document entitled, "Marginal Costs EPMC Method by Function"

MIPUG PANEL RESUMED:

PATRICK BOWMAN, Resumed

ANDREW MCLAREN, Resumed

CONTINUED EXAMINATION-IN-CHIEF BY MS. TAMARA MCCAFFREY:

MS. TAMARA MCCAFFREY: Mr. Bowman, why don't we start with Exhibit 14. Before we move into cost of service, yesterday you were explaining to the Board your ideas in terms of developing a potential reserve fund for the purpose of guarding against risks.

I'm going to give you an opportunity now to tell us about this exhibit and take us through what you did here and what this table is showing us.

MR. PATRICK BOWMAN: Thank you, good morning, Mr. Chair, members of the panel.

Yesterday, in walking through the revenue requirement section of our evidence, Section 3, I realized there was a few things that I may have made slightly less than -- than clear and I -- I thought it might help to put a few numbers in front of people that would explain something that I was trying -- trying to go through. It's nothing -- nothing different than is in the -- the response to PUB-6 as a -- as a framework as a concept. But it's just to put some numbers on it so that it can be understood a little better what we were -- what I was trying to go through in the direct.

In -- in short, what we were dealing with in the revenue requirement section, focussed on the types of reserve concepts that this Board has expressed an interest in at least on two (2) previous occasions, one in the Status Update Hearing and one in the 2004 GRA, and has issued some directives on and -- and in our view hasn't received much in the way of responses. We wanted to try to show a bit of a different position that there is a -- there is merit to the concept and there's a need to think about it more seriously perhaps than -- than has been provided in the filings to the Board previously.

So just to put some -- some numbers around the concept so that people can understand what it was I was trying to say perhaps a little better -- and I -- I apologize if I was a little bit less than clear yesterday -- this -- the table that we've done, the top part of it focusses on the things I was talking about yesterday and the bottom will focus on a bit of the things that I'm going to move to today.

But in the top part, we were -- we were suggesting that the concept of setting up a reserve doesn't necessarily link to -- to any higher rates to ratepayers or -- or first call on export earnings or any of that sort of thing. That'll be in the bottom of the table and we'll talk about that in a moment.

But all it's -- all it's saying is that if in the event you're dealing with IFF '07-1 brought before the Board, it's presented in the first column there, IFF '07-1 per Hydro in the form in -- of Coalition Round 1 Question 1(A), which sets out the exact same numbers you'll find in the IFF. It just puts them in a different order. And it calculates a row called at line 7, "Extra-Provincial Revenues Net."

Now in -- in the notes you'll see -- and this is the same note that's in PUB-6 -- you will see that -- that what this really is -- is the sum of all of the items in the IFF that are materially affected by water flows. It's not necessarily a -- a net export revenue the way you'd see it in a cost of service study. But it's -- it's the term that -- that Hydro was using, Extra-Provincial Revenues Net of Fuel Purchase Power and Water Rentals, but it's effectively the sum of those rows that are -- that are very materially affected by water flows and -- and markets outside the province.

And in the IFF the forecast for that grouping of costs is -- is a net of 213 million. As a result of that, combined with the general consumer revenues at line 1 of 1086, at existing rates, plus the 31 million at line 2 of additional rates, which is the 2.9 percent rate increase before the Board, and considering the other revenue at line 8, and the expenses at line 9, Hydro would be forecasting a net income of 156 million. And that's the same number that's in the -- in the IFF '07 and interest coverage of one point two nine (1.29).

What we're seeing in terms of a -- a

overall mechanism for initiating this is, one could conceive of doing what's in the second column instead which have -- is have two (2) matters addressed in this -- in -- in a Board decision -- or in this Board's decision -- which would be both to give -- and in this case we haven't varied any rate increases or anything of that nature -- but to give the same 31 million that Hydro's requesting, but to have that as a transfer to a -- a new form of reserve, such that the extra-provincial revenues line and the extra-provincial revenues net comes out a -- a maximum of one eighty-two (182). And that would be the -- the number with that $31 million adjustment.

The -- the net income of Hydro would -- would be reduced but the overall position in terms of dollars being made available for the -- the same purposes is the same. We haven't changed anything, in terms of rates or dollars being put aside.

Now to show how this would work in practice we -- we've put three (3) examples -- sample years there in the box next to that. And we showed what would happen now if -- if one goes forward with that type of -- of situation in a good water year, a -- a year that has some minor adverse impact, and a -- a moderate drought. And the idea is that in a good water year that extra-provincial revenues net is maximized at 182 million.

So if you have higher export revenues, and -- and lower fuel costs, and higher water rentals they would serve to offset each other, and as a result the transfer instead of 31 would be become in that case 147 million, such that the 182 was held constant. Hydro's net income because their O&M costs in the controllable component of their operations are held the same, comes out the same, 125 million.

If you had, and I'll just say that good water year that we -- we forecast was based on 2007/'08 values in the -- the IFF, so it was meant to represent a reason -- reasonable sample of a good water year.

If you had a minor adverse year, which is the next column, and your export revenues were down by 20 million, and fuel was up by five (5), and water rentals were down by six (6) which is a the -- the type of effect that one might see in a minor adverse year, you could see that you end up with -- with somewhat of a less of a -- of a transfer, but Hydro's net income isn't impacted; that the -- the stabilizing effect of -- of a reserve would serve to stabilize the -- the bottom line and it's again because controllable costs are held at the time same level, at -- at row 9.

And then finally the last example is if you did indeed have a -- a moderate drought, you -- because you started with nothing in the reserve and you don't -- we would -- we wouldn't imagine it's something that would go -- be permitted to go into a negative position, you'd have the exact same outcome as you would of if the reserve never existed in the first year, because you haven't got any funds to deal with that stabilization.

If there were a balance in the reserves you could actually have a draw-down, a transfer from the regulated reserves, showing up at line 4, such that all efforts are made to retain line 7, a 182 million. So that even if things turned somewhat sour, and there were balance in the reserve, due to those factors those about -- par factors largely beyond Hydro's control, you would end up with -- with the same net income.

Now that's -- that's the top of he page. We were also suggesting yesterday -- and we'll talk about this a bit more today -- that a mechanism of this type would also permit one to do something more along the lines of what was commented on in the Cost of Service Hearing.

And perhaps I'll leave that bottom part of the table until we -- we move into the cost of service section and we can talk about how that -- how that plays out to it. But I just wanted to try to help put some numbers around because I wasn't sure I was -- I was perfectly clear about -- about the type of opportunities that a concept like this might provide and -- and -- were one to do all of the necessary homework to put something in place.

MS. TAMARA MCCAFFREY: And again, the concept here is that it would be essentially revenue neutral from a -- from the ratepayer's point of view.

MR. PATRICK BOWMAN: Yeah, that's right. The -- the concept would be revenue neutral to ratepayers. We've just sort of suggested that the simplest step is that it's revenue neutral to ratepayers in -- in any given year -- in -- in the test year.

When we move to the bottom of the page, we'll talk about a concept that may be revenue neutral over the long term, but it's not necessarily revenue neutral in any given year because it's -- it's doing a different balance of reserves and rate levels.

MS. TAMARA MCCAFFREY: And I note, Mr. Bowman, just because it was mentioned in Manitoba Hydro's rebuttal evidence, that such a reserve fund would have to be funded by debt, and -- and the type of concept that you're describing here doesn't do that.

MR. PATRICK BOWMAN: Well, it doesn't do that, that's correct. One could imagine, I don't' know, ten (10) or twelve (12) different ways you could think about doing this and perhaps some of those leave you to being funded by debt, but it's a type of -- of creative thinking in terms of imagining those different concepts that we haven't really seen to-date here before the Board.

MS. TAMARA MCCAFFREY: Thank you, sir. Now moving onto Section 4 of your evidence, that begins at page 26 for those that are following along, that's the Cost of Service Study.

This is the first time we've had the opportunity to review the new Board approved Cost of Service Study; what is it telling us in this Hearing?

MR. PATRICK BOWMAN: Well, our review of the Cost of Service Study is a little bit lighter than -- than some of the other areas for a good reason; is that we've just spent a lot of time and effort in the last two (2) years to -- to deal with all of the different cost of service methodology questions.

We don't comment to any great degree here about -- about methodology concerns that remain for us with the Cost of Service Study, given that -- that it's -- it's not that different than representing the -- the discussions that occurred last time and the Board has made its determination.

Our review of the Cost of Service Study focussed on two (2) things. First, did Hydro implement the Board's directives in our view the way they were intended to be implemented? And second, now that we've got a Cost of Service Study that's been confirmed by this Board, what does it tell us? That's -- and -- and our -- our evidence focuses on those two (2) areas.

MS. TAMARA MCCAFFREY: I'm going to give you an opportunity to take us through them now.

MR. PATRICK BOWMAN: Well, the -- the key summary we did to understand a bit more of the detail is at page 28, which is a landscape table called "Table 4.1."

MS. TAMARA MCCAFFREY: That's the levelized RCC ratios per kilowatt hour from the PCOSS '08, and you add with it -- with a DSM correction.

MR. PATRICK BOWMAN: Yes. I note the table heading comments on RCC ratios. This is the data that feeds into the RCC ratios. It doesn't actually present the RCC ratios here but it's -- it's the same underlying data.

And I'll -- I'll sort of foreshadow the fact that when we get to the more detailed aspects of the

Cost of Service Study we found one (1) aspect. We found that Hydro had correctly applied this Board's order in respect of -- of all matters but one (1), and there was one (1) that we believe the way they have applied it has led to a double counting, and it -- it relates to DSM.

And so we've -- this table makes the correction which is again out of Hydro's numbers filed in an IR but it -- but it does have that correction built in. You could do the same table for the DSM -- or the PCOSS without the DSM but we elected to work with the one that we thought reflected what it was the Board was really looking for Hydro to do.

So the table has small numbers in italics which are the millions of dollars to a class, and larger numbers, not in italics, which are the cents per kilowatt hour, so that you can track it by the numbers that -- that make sense to you.

The -- the class -- we elected to show a group of classes without trying to show necessarily every one. We do have a table that does it with every one, but I -- I didn't bring my magnifying glass. But we can provide that.

What we did, going through it, was to look at -- effectively what is on the cost side, in the top; the bulk power costs assigned to each class; the DSM adjustment that occurs as a result; the net bulk power costs assigned to each class; the subtransmission costs at line 4; distribution at line 5, to come to the total costs per kilowatt hour assigned to each class. And this was a way to check at a high level, whether it was seeming to make sense to us what the Cost of Service Study was saying. And -- and I'll say briefly that it, at this level, it did make sense to us.

The key things we were looking for was that one would see a -- a big distinction among the distribution classes -- distribution costs at row 5 because different classes use the distribution system to different extents. And so you'll see when the costs are allocated -- for example, exports receive no distribution cost allocation -- something like general service medium that served at a higher voltage and, as a result, uses less of the distribution system is -- is ending up with about one point three five (1.35) cents per kilowatt hour assigned to it, and something like residential which uses a lot of the distribution system is up at about three and a half (3 1/2) cents.

So, of their costs, about half of them are distribution related. Subtransmission has the same -- the same concept and again, it's -- it's following what one would expect.

When we move up to net bulk power costs at line 3, there's a different variation and it generally follows what we would expect. The main reason is because these are cents per kilowatt hour at the meter and so all of these classes are buying kilowatt hours from the same facilities, but if you're a general service small, for example, you've got to pay for more losses between you and the plant than the -- than the general services large does who served at a high voltage. So your costs at the meter is somewhat higher and it also reflects the characteristics of the class.

Exports is -- is a number that didn't -- didn't surprise us. It seemed to make sense, given that exports -- while four point eight three (4.83) assigned to them -- plus then they're given this DSM cost. But four point eight three (4.83) at a cost level is higher than the other classes and primarily that's because export is given some of the higher cost generation, like -- like thermal and imports, which tracks when you think about -- about the overall cost of the system.

So, in terms of the cost part of it, it was -- it was a way of testing at a high level that it made sense and it -- it did crosscheck.

When we move down to the rates component, we can look at the revenues at line 7 but what was important to add in is that at line 8, there's a uniform rate credit which is an assistance to general service small and residential. And that's at line 8. And that's -- that's added in as a revenue here. It's -- it's a component of their rates. It's something being paid for by exports and the exports shows the 17.2 million there.

It also shows then total PCOSS revenue at line 10. We didn't put the units in for the exports because lines 8 and 9 do not necessarily link specifically to units, but you end up with a -- with the PCOSS revenue being at the level shown. And -- and as a result you can compare costs to -- to revenues and see at line 11 that before anyone does any export reallocation, each of the domestic classes is paying less than it costs to serve them, which is exactly the result that we -- we expect and that we hear about, the degree to which each is paying less than it costs to serve them varies but -- but each is paying less than it costs to serve them before we move on and do an export reallocation.

Line 12 shows the export reallocation. Sorry -- just one last comment on line 11. When you actually look at the -- all of the classes -- I would say that -- that same relationship is true for all of the domestic classes except for the lighting class. The lighting class actually, even before it gets any exports, is -- is above a hundred (100), so that's -- that seemed worthy to comment on.

Line 12 in terms of the net export revenue allocation -- it shows the degree of exports, 137 million, being allocated off to the different classes. It shows where those dollars arise in the Cost of Service Study and, as a result, at row 13, it shows where there are customer classes paying rates after export allocation, that reflect a surplus or a shortfall. And -- and those are what would then go into the customer's RCC ratios, which is why the table is titled as it is.

In terms of what customers are actually paying though, it's important to note that the -- you know, if you track, for example, general service small non-demand, this is a class that is -- has -- is above 100 percent RCC when you get to the end of the day. It is paying rates that are point five seven (.57) cents at row 11 -- point five seven (.57) cents less than it costs to serve them. The Cost of Service study would reflect an allocation of export revenues at point eight six (.86) cents such that by the time you get to the end of the Cost of Service study they would be paying point three (.3) cents more than the cost of services measurement to serve them.

But it's not that they're, at the end of the day, really getting point eight six (.86) cents out of the export system for -- towards their rates. They're only really getting point five seven (.57) because their rates aren't at the -- the level that the Cost of Service Study states.

So if you want to sort of track the benefit of exports as it exists today, it's more the line -- numbers that are shown at row 11 than at -- at row 12.

MS. TAMARA MCCAFFREY: And essentially you've gone through your -- your conclusions from table 4.1 at pages 29 and 30 of your evidence, and you've taken us through the table. You have a table here at page 31 as well, table 4.2.

What is this table telling us, Mr. Bowman?

MR. PATRICK BOWMAN: Well, this is just a table in the more classic format.

THE CHAIRPERSON: Hold on a minute, if you don't mind.

MR. PATRICK BOWMAN: Certainly.

THE CHAIRPERSON: Let's get the table. There's enough numbers flying around as it is, we better get it. Okay, we're fine again.

MR. PATRICK BOWMAN: That's fair.

THE CHAIRPERSON: Okay, we're fine again.

MR. PATRICK BOWMAN: So if you're

following in the document, it's page 31, and it's called table 4.2. And this is just a summary of the results of the Cost of Service Study for all the classes. It -- and it puts the -- the RCC ratios before export credits. We -- we weren't going beyond that as yet. But the RCC before exports credits on the far right hand side by class. And it shows the surplus or -- or shortfall before export credit in millions of dollars in the second last column.

So when we say exports are contributing, if you remember the number from the previous table, 137.5 million above their costs, that is the number at the bottom of the surplus shortfall before the credits come out; that -- you can see where that 137.5 million arises. These are -- this is where the export credit for revenues from exports more than the cost of service measures to serve those as a cost to serve those exports arise in terms of each of the customer classes.

We've typically gone forward from here and talked about it as 130 million, not one thirty-seven (137) because the -- the diesel six seven three-o (6730) is -- is set by a series of rules and -- and such that it's not a -- a number that we -- we dwell on. It -- we understand it's a -- it's a residual from the rest of the calculations. So the -- you'll see me quoting 130 million as me move forward, or one thirty point one (130.1), and that's the general consumers on the -- on the integrated system.

CONTINUED BY MS. TAMARA MCCAFFREY:

MS. TAMARA MCCAFFREY: Mr. Bowman, on page 32 of your evidence, in Section 4.2, you talk about an error that was made and it's been referred to already in implementing one one seven-o-six (11706) with respect to the DSM costs. I'll give you an opportunity now to explain that -- that error.

What is the error -- error and why -- why do you think your approach makes sense?

MR. PATRICK BOWMAN: Well, Order 11706 reviewed a lot of matters related to the study. And among other things it contained a directive that a group of costs that, for lack of a better term I'll call, you know, policy related decisions, were to be charged against net export revenue. And those are as noted at the top of page 32, the uniform rate adjustment, which we've seen as a credit against other classes' revenue. The allocation required by Bill 11, which I won't pretend to understand, but is -- is contained in the Order, and the DSM costs, the costs to operate the demand-side management program.

The uniform rate adjust in Bill 11, to the extent it arises -- I don't believe I've ever seen a dollar value for it -- but are -- are done -- the dollars are allocated against the export dollars as a first -- first call on those funds, if you like. DSM costs are treated that same way; the dollars come off the exports.

But what Hydro's done is also given the exports -- as a result of having paid for DSM -- they've given them a first call on the energy freed up on the DSM program.

So that when you look at exports in the cost of service, and I can -- this is sort of shown at the next page, page 33, exports in the cost of service start at 8.462 terrawatt hours, or 8462 gigawatt hours, row 11 there. But three nine three eight (3938) of those gigawatt hours are served by other sources in Hydro's cost of service paid for otherwise.

Some of that is imports, which it -- it is required to purchase first. Some of that is thermal, which similarly it's required to purchase first, pursuant to this Board's directives. And some of that is the demand-side management energy that Hydro credits to it.

As a result when you get to the residual, the common -- common pool energy, if you like, exports of their eight four six two (8462) are only getting four five two four (4524) served by the common pool. And that's again working our way across row 11.

The problem that you run into is that, in a sense, DSM energy is a little bit different than other forms of energy. You can't necessarily quite identify that kilowatt hour and where it's coming from.

And it's not like when you do a -- a balanced picture of the system in column A, that you have a place called, Here's where all my DSM energy is coming from, or Here's where I'm dispatching my DSM.

You could, you could create that row, but in order to create that row what you'd have to do is go back to those customers who you say, like that house that you say is using a 1,000 kilowatt hours, and then say, No, no. We're going to say it's using 1,100 kilowatt hours because if it hadn't done the DSM, it would be using eleven hundred (1,100).

You have to gross back up the people who did the DSM in order to be able to assign the DSM somewhere else. Hydro didn't do that so at the end of the day the DSM energy is effectively allocated twice in the Cost of Service Study; once to the customer who actually undertook the DSM, and -- because their loads were lower than they would have been, and once to the exports who, under Hydro's approach is effectively purchasing the rights to that DSM.

And this is the issue we call the error in the Cost of Service Study. Now in simple terms you can resolve this two (2) ways. You can either give the exports the DSM energy which means gross back up everyone else's load, or you can leave the DSM energy with the customer who undertook the DSM project and not give exports that -- that -- those kilowatt hours.

In other words, have exports pay for the DSM program as a policy decision, but not necessarily purchase the rights to or annex the benefits of the DSM program from the person who undertook the problem, or the class that undertook the program.

For both technical reasons -- the difficulty of implementation, and policy reasons, as we understand the Board's order intent, we have assumed that the proper resolution of this is to leave the DSM energy credits with the customer who undertook the DSM. So that we're actually charging customer classes for the energy they're using, not the energy they would have used if they hadn't undertaken DSM.

Seems to be that the -- the point of undertaking DSM, so -- so we've resolved it in -- in the earlier versions by doing exactly that, based on a Cost of Service study Hydro did the numbers for that we filed on -- on our request to resolve the issue that way.

MS. TAMARA MCCAFFREY: Now, Mr. Bowman, just let me stop you there. Manitoba Hydro does argue, though, in their rebuttal evidence on this subject around page 32/33 that the approach that you are recommending benefits the industrial class because it assigns further cost to the other classes and away from the industrial costs.

Is this appropriate?

MR. PATRICK BOWMAN: Well, to start with, it's not correct. This -- the approach that we're recommending benefits every class who's undertaken DSM. So if the residential class is undertaking DSM and if the industrials are undertaking it, they maintain the benefits.

And in short, the degree of benefits each class receives we -- we calculate in response to a PUB Informational Request PUB-8, but without having to turn there, I'll just say the -- the biggest beneficiary of this approach is the residential class, who is further ahead in their costs by $9.1 million.

The second biggest is -- is the industrial at 6.5 million, and then the others are shown there, but in sum total, general consumers have lower costs by $27.8 million as a result of this change.

That's the -- the impact of leaving DSM energy with the people who undertook the program. Exports are assigned some additional amount of that cost and some portions of it comes out of the extent to which exports are -- are -- are ultimately allocated back out of the net pool. But when you actually track the cost, it benefits those classes by that -- that degree, those numbers.

MS. TAMARA MCCAFFREY: Well thank you for explaining that for us, sir. Moving on to Section 4.3 of your evidence which starts at page 34, and -- and here we're now getting into rates for general consumers.

Can you take us through your evidence with respect to this?

MR. PATRICK BOWMAN: Yes. Having -- having been through the -- the one (1) item in the Cost of Service Study, the DSM correction and the -- the overall high level view of the Cost of Service Study, we then set out to try to assess whether the rates that Hydro's proposing in this rate application are -- were fair and reasonable given the -- the evidence that's available.

And in doing that assessment, the Board had suggested that it intended to look at RCC ratios after allocation of export credits which are the -- the final results of the Cost of Service Study if you like, the RCC ratios before allocation of the export credit which are the ones that I've -- I've just gone through and the marginal cost information revenue cost coverage ratios that we'll -- we'll speak about in a moment.

But -- so we organized Section 4.3 primarily to deal with the cost of service versions. We don't have the marginal in here at this point.

But when one looks at -- we started looking at the post in export revenue allocation, this is at page 35, meaning the final results of the Cost of Service Study, and we summarized in a table, by the time you get to page 37, the relative rate changes that were reported by Hydro required to get customer classes to each of unity in the first column or to get to the zone of reasonableness in the second column. This is at page 37.

MS. TAMARA MCCAFFREY: Table 4.4?

MR. PATRICK BOWMAN: Correct. Now this is just information that comes out of two (2) different interrogatories or two (2) different sub parts of -- of MIPUG/MH-30.

And the first column then was a request to say, assuming that Hydro needs a 2.9 percent overall rate increase every year for the next five (5) years, just as they say in their IFF, and we were -- but we were to do differential rate increases to each class that got them to unity, what would be the rate increases to each class overall. And that's the numbers that were produced.

In the second column over, the question was, assume we don't have to get to unity, we just have to get everybody within ninety-five (95) to one-o-five (105), to within the zone of reasonableness. And that shows you in the second class -- in the second column where the differential rate increases would arise.

Overall, the main thing we noted is that particularly if you look to the second column, even if you're just trying to get to the zone of reasonableness, there are some classes, particularly general service large, zero to thirty (30), which are below today to a degree that you would need to look at higher than average rate increases. And there are some general service small demand GSL greater than 100 kV and area and roadway lighting that you would need lower than average rate increases, if you're -- if you're going to get to the zone of reasonableness within five (5) years.

If you stuck with Manitoba Hydro's proposal, the forecast is -- you would not get to the zone of reasonableness within five (5) years.

MS. TAMARA MCCAFFREY: And this is

looking -- this is looking at the rate increases, but we're taking into account the export allocation here. This is post exports.

MR. PATRICK BOWMAN: This is post-export allocation, the final number that you see out of the Cost of Service Study. So it includes not only exports receiving a share of their costs, but the net exports, all 130 million, being allocated back to customers based on the rules this Board set on -- on total allocated cost of Hydro system.

MS. TAMARA MCCAFFREY: And then towards the bottom of the page, Section 4.3.2, you're looking at cost of service results pre-net export revenue allocations.

MR. PATRICK BOWMAN: That's correct.

MS. TAMARA MCCAFFREY: So what is that telling us here?

MR. PATRICK BOWMAN: Well we got to the end of Section 4.3.1 and said that's the classic way that one would use a cost of service study. Those are types of -- types of rate changes one might -- might see in other jurisdictions when we are applying a cost of service study.

And -- and we noted that each of these -- any of these options, be it the first column or the second column, would, from our review of it, meet Hydro's own rate design criteria. But we wanted to go on and make sure we were dealing with the types of things this Board said it wanted to look at, which was not just the cost of service results post-expert allocation, but also pre-ex -- pre- allocation of those net export revenues. And that's what Section 4.3.2 does.

It -- it repeats the table that we saw earlier at four point two (4.2), which was the summary of RCCs pre-export revenue allocation, and it was focussed on saying -- when you move to that table, there are today -- when you look before export credits, there are three (3) classes who are within the zone of reasonableness: the area -- the street -- area and roadway lighting class, the general service large greater than 100 kV class and the general service small demand class.

The others are outside of the zone of reasonableness before you get a net export credit to varying degrees. The relationships generally hold though. The customer class farthest outside is the general service large zero to 30 kV, which is the same class we saw at -- needing -- a higher than average rate increase in the previous table. So that was the result pre-net export revenue allocation.

(BRIEF PAUSE)

MS. TAMARA MCCAFFREY: Just let's go to the issue on -- Manitoba Hydro's raised in the rebuttal evidence. On -- on page 35 they provided a table, a Manitoba Hydro 8, and that looks at class revenue cost coverage ratios with no allocation of export revenues.

Sir, do you have any comments with respect to what this table is showing us?

MR. PATRICK BOWMAN: Well, it's the table that Hydro prepared to attempt to do the same thing as we're talking about here, which is to look at various RCC ratios. It -- it included within it the marginal cost -- cost of service ratios coming out of Appendix 11.2. But, of course, it was prepared before 11.2 saw the material correction that occurred in -- in -- that we saw earlier in this Hearing, in Exhibit --

MS. TAMARA MCCAFFREY: Sixty-eight (68).

MR. PATRICK BOWMAN: Manitoba Hydro 68, correct.

MS. TAMARA MCCAFFREY: That's right. So I think we're all familiar to that -- the update to Appendix 11.2, Undertaking 68.

You've developed another table here which we've had marked as MIPUG Exhibit 15. Can you take us through this table. As I understand you're -- you're taking information from Manitoba Hydro Undertaking 68, which is flowing from the Appendix 11.2 and -- and this issue in the rebuttal evidence.

MR. PATRICK BOWMAN: That's correct. Table -- the MIPUG Exhibit 15 that was handed out this morning is -- is simply that the numbers that are in Manitoba Hydro's Exhibit 68. But what we did when we had a chance to review that plus eleven (11) -- Appendix 11.2 -- but as corrected in Manitoba Hydro's exhibit was to note that there has been some incorrect discussion before this Board, in respect of how one uses marginal costs in -- in -- in a cost of service study in a regulated jurisdiction.

There's been some comment that you can do -- with -- when you do a marginal cost -- cost of service study -- you don't end up in the correct dollars at the end of the day. You end up with, on the generation side, frank -- quite a surplus because your marginal cost is higher than embedded and, on the distribution side, quite a shortfall.

People have in -- in a few jurisdictions, not a lot, but a few, four (4) are commonly cited -- California, New York, New Mexico and Illinois, as I recall them -- use that as their cost of service type of information, as opposed to what we have here. But -- and they do it by reconciling, when they get to the end of that marginal cost of service study, using an approach that was mentioned before this Board, Equal Proportion of Marginal Costs, EPMC. It's the same one that Hydro talked about in the -- that -- in -- with their exhibit.

What has been put before the Board incorrectly though, is the -- how EPMC is used. We took the time to investigate California and to speak to some people there at the utilities who -- who deal with this sort of thing and pull up the evidence, and the key factor is that when they use equal proportion of marginal costs in a cost of service study, they do it by function. They do a generation cost of service study, which ends up with the results, and they do equal proportion of marginal cost, and then they do a distribution cost of service study, and they do the same thing.

They don't have transmission because transmission isn't regulated by California, it's regulated by the Federal regulators. So the transmission is -- is a flow through.

And as a result, your costs, your shortfalls or your surpluses, within your cost of service study are allocated back based on the marginal cost by function. That's what our table here set out to do with the same data as is in -- is in Manitoba Hydro's Exhibit 68. It shows the functions, generation and transmission, subtransmission, distribution, as well as distribution plant costs and customer costs. And it reviews the total marginal costs by function, so if you're -- if you're following it, it shows that the total -- marginal cost by function and it allocates them out back on equal proportion of marginal costs.

Mr. McLaren can walk you through math on it in a moment, but I'll just note two (2) or three (3) key things that you'll -- you'll note in this table. The first is that when you get to the marginal revenue costs coverage ratios at the bottom right-hand side of the table, they are, in most cases, not materially different than you get out of the imbedded Costs of Service Study.

The residential somewhat higher, ninety-nine (99) here versus ninety-six (96), and -- and street lighting is much higher, at one twenty-six (126) versus one-o-six (106). That simply reflects the fact that this doesn't yet have the -- the benefit of the -- the bulb cost built into it, it's just the energy component of -- of street lighting. So the -- the other one has the bulbs built in which is a dampening factor on the overall RCC ratio.

And the other main thing you'll note is

that this is -- this -- this -- results are very hard on general service large, less than thirty (30), and general service large, thirty (30) to one hundred (100), which seemed odd to us.

And when we took the time to investigate that we found that it really relates to the -- the distribution component, in which these customers in the Cost of Service Study are allocated almost no distribution, because they almost don't use any. But in the marginal cost information Hydro prepared, they're allocated large amounts of distribution, the same as any other customer imposing a peak on the system.

So particularly at row 42, you can see for the general service large thirty (30) to one hundred (100), on the far right-hand side it notes that Hydro's Cost of Service Study allocates them forty-six thousand dollars ($46,000) of distribution plant; that's the imbedded Cost of Service Study.

The marginal Cost of Service Study, by the time you carry across the earlier ones, allocates them $8.6 million of distribution plant costs, which cause us a bit of concern in terms of the -- the gap there and -- and would -- would lead to a comment that one -- with respect to the marginal cost information that's before this Board, one would be very cautious on how you want to use it. Outside of those two (2) classes though, what we were concluding was that it did not lead to materially different results in the revenue cost coverage ratios than -- than the imbedded cost ratios, when applied the way that other jurisdictions would use it.

MS. TAMARA MCCAFFREY: And Mr. McLaren, I understand you were involved in developing this exhibit. Can you just make sure that everybody's clear as to what we're looking at here. Can you briefly take us through the table sir.

MR. ANDREW MCLAREN: Sure, I can do that. If you read the table from left to right, as Mr. Bowman mentioned, we've -- we've broken it out by function, columns A and B, the first two (2) columns, are taken directly from Manitoba Hydro's Exhibit Number 68, so if you follow along you should be able to find exactly those numbers in Manitoba Hydro's Exhibit Number 68.

And just for example, column A , marked generation marginal cost should be exactly the same as their generation marginal costs the second column on the top part of Exhibit MH-68. And then what we've done in column C is where there were marginal costs that were sort of capital-related on the top part of the table and also some marginal costs estimates for more sort of operations and maintenance type of costs, we've summed them together in column C to arrive at an estimate of total marginal cost.

Then what we did was take the class proportion in each example, for example, row 1, column C, you'll see residential there, marginal cost total of four hundred thirty-one million one hundred thirty-two thousand (431,132,000). We divided that by the total generation marginal costs at the bottom, the one three one four seven eight six (1314786) number to arrive at a ratio of about 33 percent of the total.

Then to reconcile that back to the actual sort of embedded costs on a generation function we took 33 percent multiplied it by the functional breakdown of costs in PCOSS '08, the five three two nine eight four (532984) number, to arrive at a -- a cost allocation for that class related to generation of a hundred seventy-four million seven hundred and seventy-one thousand (174,771,000).

And so we've done that for each class and for each function and then summed them at the bottom and compared them against the forecast revenue in PCOSS '08 to arrive at the marginal RCC ratio.

Mr. Bowman reminds me that I should mention there are no exports here considering this table. And you'll note that it doesn't perfectly reconcile at the bottom either because it also doesn't include surplus energy or diesel communities either, but it -- those classes also were included in MH Number 68, so the reconciliation isn't perfect at that level without those classes.

MS. TAMARA MCCAFFREY: Thank you for that, Mr. McLaren. Just to sum up this section then, Mr. Bowman, before we move on to Section 5, the Industrial Cost Based Rate Design Issues, can you summarize what your conclusions are for the Board?

MR. PATRICK BOWMAN: Yes, our conclusion coming out of the entire review was subject to correcting the one (1) item on DSM. Hydro had correctly applied this Board's directives in respect to the Cost of Service Study, that the Cost of Service Study is a -- is a useful tool -- notwithstanding that each of the parties to the Hearing probably still has slightly different positions on some of the technical details -- that it should be applied, and it can be applied in both of the ways that the Board noted, both pre- and post-export revenue.

And finally that as a result of that there's -- if -- if one is going to move forward to try to target revenue cost coverage ratios that reflect the Cost of Service Study, there would be a basis today for differentiated rate -- differentiated rate increases.

But to the extent those arise in -- in -- as distinct from the overall average, two point nine (2.9), with the exception of roadway lighting at one (1), as Hydro's proposed, those would be set out at -- at page -- they're -- they're the types of numbers that we saw earlier at page 37, which is the final results of the Cost of Service Study.

Looking at the earlier steps didn't necessarily change the conclusions materially with the exception of street lighting, which in the -- in the simple rote calculation to get street lighting to -- to fall 100 percent. Or unity revenue cost coverage it shows a -- a somewhat higher rate increase than -- than possibly is merited, given the overall extent to which they are actually above RCC when you take out the exports.

So that was -- that was one (1) that may not track the numbers exactly in -- in Table 4.4, but beyond that the basis for differentiated rate increases seem sound.

We put in a small comment there too, about the overall trends, in respect of -- of rate increases, and -- and an example of a recent re-balancing order from the British Columbia Utilities Commission which to -- BC Hydro to implement a three (3) year rate re-balancing to get all customer classes to unity. Now that order has since been set aside by legislation of the government, but the order was issued by the BCUC based on the same type of analysis we're doing here.

MS. TAMARA MCCAFFREY: Thank you, Mr. Bowman. Moving to Section 5 of your evidence, commencing at page 40 which is the Industrial Cost Based Rate Design.

MR. ROBERT MAYER: Excuse me a minute, before you move on. We were going to hear about the bottom part of Exhibit 14 and -- and --

MS. TAMARA MCCAFFREY: Why don't we -- let's -- let's -- we --

MR. ROBERT MAYER: Is that -- is that where we're going?

MS. TAMARA MCCAFFREY: Absolutely.

MR. ROBERT MAYER: Okay, sorry.

MS. TAMARA MCCAFFREY: Okay. And we can start with it if -- if you like. Why don't you take it away --

MR. ROBERT MAYER: No, I --

MS. TAMARA MCCAFFREY: -- Mr. Bowman --

MR. ROBERT MAYER: -- I didn't mean to get out of order, and I didn't mean to get you out of order. I thought you were moving on to a different topic, and when we started with the top half of this I thought we were going to finish with the bottom half, but go right ahead.

MS. TAMARA MCCAFFREY: Thank you, Mr. Mayer. Take it away, Mr. Bowman.

CONTINUED BY MS. TAMARA MCCAFFREY:

MR. PATRICK BOWMAN: Well, we put off talking about the bottom half of the Exhibit 14, MIPUG Exhibit 14, until dealing with the cost of service section, because we wanted to take the time to have people's mind around the numbers that were coming out of -- of the -- the earlier reviews in respect of net export revenue.

In the Cost of Service Hearing, if people will recall correctly, Mr. McLaren and I suggested that -- to the extent, an argument was being made that we had surpluses of export revenues that some creative thinking probably was required as to what to do with those, rather than just to allocate them back equally across the cost of Hydro in the Cost of Service Study. From what we saw coming out the Cost of Service Order, it seemed that -- that the Board was looking for some more comment on that by the time we got to this Hearing.

And so when we started talking about the concept of -- of a reserve, a revenue-neutral reserve, to start to deal with the -- the risk, the -- particularly the -- the bulk power risks. We said this same tool also has a potential to serve that objective, in that if you can target -- have an ability to target a -- a balance in a fund or at least a transfer to a fund by this board, it could additionally target effectively a first call on exports although. It would just be another line item in the income statement, but a first call on exports to that reserve as well rather than going simply to lower rates on any given year.

The bottom part of this table starts to address that. And -- and what it's doing is it's saying, Presume for a moment that we could get a reserve concept set-up in step 1 at the top of the table. And that as we move forward, the concept can be crystalized and -- and all -- all the necessary details worked out.

It looks forward to a future year, 2015/16, chosen out of the IFF, where a reserve is in place and for lack of a better number, it presumes that the reserve might have an opening balance of $200 million.

It's got IFF '07-1 per Hydro there in the first column, which Hydro has presented leading up to a two thirty-one (231) net income and a one point two (1.2) net interest coverage, including all of the rate increases -- we -- we weren't -- this is not a quibbling what rate increase is, type of table -- all the rate increases that are in IFF '07-1.

We said, But the -- what this might look like in the event that the reserve was implemented is in the next column. It might look like the same general consumer's revenue, but the row called "additional", which is the rate increases since that time, is actually, for lack of a perfect number, $50 million higher than it -- it would have been. And overall, that's about 3 percent higher on overall rates, just to put a number on it, over -- over this -- this period.

So about $50 million higher, and as a result, that number helps show up in line 18, which is the -- the transfer going to the -- the regulated reserves.

In that year, were there to be an application before this Board that looked like the second column, the order from this Board may say that the additional rates are approved at that level and that the maximum exports or revenues net line, or line 21 maximum is 39 million, which would lead to Hydro forecasting a net income of 119 million which is a one point fifteen (1.15) interest coverage.

And -- and we chose that number specifically, I'll talk about it in a minute, but the -- which would lead to a one point fifteen (1.15) interest coverage.

In this case, rates are higher than they would have been in that year. But we're talking about funds that are made available so that they are not available to ratepayers so that they are available in the future, when the draw downs occur. So they are revenue-neutral to ratepayers over the long term but not in any given year.

In the second box we show how that operates using exactly the same years that we showed above. If one was to go forward with that, in a good water year, you might find that the transfer is higher. In a minor adverse year the transfer would be lower. And in a moderate drought, in this case you have $200 billion in the reserve and you use all of it and you still are not able to fully fund the attempt to keep the extra-provinicial's net line at 39 million.

Had the reserve been higher, you would have only pulled out enough dollars to maintain extra-provincial revenues at the 39 million, which would be a value approved by this board.

And Hydro's net income and interest

coverage is shown at lines 24 and 25, so it -- it remains at the 119 million level on -- on the good year and the minor bad year, but it actually does drop below on the moderate year.

For comparison, we put another box to the right, which is exactly the same situation. It's just showing what would happen under the status quo where there is no such reserve in place. And you can see that what happens is the swings go to Hydro's net income and as a result, it's the same framework we -- we have in place now: rates, status quo rates, no management or -- or stabilization of the bulk power system and Hydro's net income taking the swing; and similarly the Board having to set rates on the top row with its eye to what is coming out the bottom row and -- and that lack of linkage between their -- their control over the amounts going to reserve.

When we -- I just wanted to note that the cost of service aspect of this would be that this would actually cause the cost of service to look different too because rates to ratepayers would have to be $50 million dollars higher and that would show up in a sense inj -- in the transfer to reserve going to the Cost of Service Study.

So it does have that cost of service

flavour that was talked about in Order 117/'06 by this Board that not all export revenues ultimately would flow to the Cost of Service Study.

MR. ROBERT MAYER: Mr. Bowman, I'm not an accountant, and I -- I start off with that. But the reason that the bottom half of this Exhibit 14 interested me was that $50 million higher rates than status quo 3.33 percent higher, and I'm looking at that and saying, Are you actually suggesting that at some point in time Hydro's rates are too low and we ought to be increasing generally across the Board an extra 3.33 percent?

MR. PATRICK BOWMAN: Mr. Mayer, in the first years of thinking about setting aside a reserve, there would be a need to consider rate levels higher than they would have been for the benefit of rate levels down the road which would be the -- the large and unpredictable impacts when a drought occurs.

I'm quite specific about noting in the title that the -- the proposal is meant to be revenue-neutral to ratepayers over the long term. You can't -- you can't move to the concept that's in the bottom half of this table without starting to do something like that.

We -- we specifically broke them out though because we wanted to make the point that moving forward on a reserve proposal, as this Board had suggested twice before, does not necessarily require moving to that second step now or -- or at any particular point in time.

It would probably be something that is worth consideration once one works through the detailed mechanics of it.

And I for one would suggest that we would be able to consider an approach that comes up with the mechanics that would lead to determining a stable level with rates over time or a stability that -- that in some years would be higher and some years would be lower. That -- that's what you mean by stability I guess.

MR. ROBERT MAYER: Thank you.

CONTINUED BY MS. TAMARA MCCAFFREY:

MS. TAMARA MCCAFFREY: Now on the subject of the industrial cost-based rate design, you have a number of comments in your evidence, sir, commencing at page 40.

Can you take us through your observations there?

MR. PATRICK BOWMAN: Well, what is the briefest section of our evidence, we note concern over the lack of progress in getting what one would now consider almost the standard, not even modern, but the standard type of -- of rates in place for industrial customers that -- that you're seeing in other -- in other places designed to provide for the benefit -- pardon me, of both the customer and -- and the Utility and its other customers, the type of price signals that -- that allow people to respond and to see the benefits of responding.

Inverted rates is the first bullet. That's, as I was saying, it's -- it's becoming quite the norm even since we filed this as Mr. McLaren noted. He's been involved in a working group in Newfoundland that now has a -- a report before the Newfoundland Board of Commissioners jointly developed by the Utility and the industrial customers in Newfoundland with one (1) or two (2) outstanding issues for the Board to resolve such that they can move forward with this as well.

So we have a bit of catch-up to do on Newfoundland as well.

The self-generation in -- in a sense in one way could be a subset of -- of the inverted rates with the rate over the price signal you could pick up some of the benefits of the self-generation aspect.

And -- and I note that our concern here with lack of progress on this is the right type of price signals, particularly to industrial customers, gives you a potential to affect way more load than the kind of things that are being talked about with, say, the new industrial rate. You've got 5 to 6 terrawatt hours of -- of load; 6 terrawatt hours of load at -- at just -- just in the GS large greater than a 100 kV alone.

And the reason you're seeing numbers earlier in this hearing that -- that has a bigger elasticity for these loads, it means that they're price sensitive. It means people pay attention to their electricity bill when you're -- when you're running a plant whether that's -- whether that's Inco or Canexus much more than a homeowner does. You can understand the -- the impact, and you can manage it.

It also means that if the price -- the elasticity also has the other side of it which is people also can be pushed out of business by the wrong electricity prices unlike a residence that's probably going to be stuck here. So that's one (1) of the other reasons you see elast -- elasticity is higher.

But they do have a -- a better ability to respond or a better practice of responding and -- and there -- there is a win/win aspect to putting in place these rates, if -- if we can only get on with them.

We go on to talk a bit more about self-generation beyond inverted rates. Hydro's policy in respect of -- of non-utility generation is -- is difficult for existing customers to -- to work their way through. And it means that the system is, in some cases, not offering opportunities for customers to pursue generation that would make both the customer and the system better off.

MS. TAMARA MCCAFFREY: Why do you say it's unfair that the treatment with respect to Manitoba Hydro's customers is unfair when it comes to non-utility generating?

MR. BOB PETERS: I'm not sure I used the word "unfair", but it's definitely inconsistent with what one would call normal system planning or price signals, that, you know, take -- take for a moment the assumption and -- and it's not a given, but the assumption that you had a customer that could -- could do some biomass generation, and could manage to talk the head office into sending some capital their way so that they could develop it, and produce that power at a rate of -- pick a number -- four and half (4 1/2) cents, just to pick a number.

Hydro in the event that were a -- a NUG on Hydro's system that were like a -- a wind generator, or someone they -- devel -- develop power, there would probably be economics there for Hydro to pursue that and to find a way to get that developed.

Due to the policies that's in place

though, because that customer is an existing customer, they're not given the opportunity to have that same relation with Hydro to get that power developed. They're effectively told that it has to offset their existing load and their existing load reflects the benefit of the -- of the existing infrastructure.

So they're left to have to, instead of produce power that's competitive on the market, they're -- they effectively have to produce power that's competitive with Grand Rapids or Pointe du Bois in order to -- to get to an economic proposal. And that's -- that's a barrier to getting something like that in place.

It doesn't mean it's going to flood here, you know. BC has a lot of this because they have a lot of forestry. We don't necessarily have a lot, but -- but it's -- it seems inconsistent what the Utility was trying to put in place resources to -- to move forward for -- to capture future export opportunities and -- and manage it's -- it's local load.

MS. TAMARA MCCAFFREY: Do you have any comments to make with respect to time-of-use rates?

MR. PATRICK BOWMAN: Just at a high level we're -- I think it's a good sign that Hydro is saying there may be some benefit to this. I appreciate the challenges of thinking about time-of-use rates on a daily basis for indust -- industrials or for the system, et al. On a daily basis it -- it becomes very tricky to think about modelling them and confirming the benefit.

On a seasonal basis, I'm not sure the same barriers are in place. Different types of customers can make use of time-of-use different ways. Some have a benefit -- or some can manage their plant such that they -- they can benefit from seasonal, and some can't, and others can manage their plants such as they make use of daily, and -- and some can't do that. And I -- I can give some examples.

But overall, you have a customer class that has a certain profile that's paying certain rates that cover their costs. If you can send the right price signals such that they change their profile in a way that benefits the system and lowers their overall costs, they can see the benefits of doing that; of making their -- their load reflect a profile that's lower cost to the system, say more load in spring and less in summer. So getting something like that in place with -- with price signals via time-of-use rates, again it has a real win/win potential aspect to it.

I -- I just note that the -- the win/win aspect it only works to the extent, it's not punitive to those who don't load shift, but there's no reason it would need to be punitive to those who don't load shift since they're already paying rates that cover their costs at their current profile.

MS. TAMARA MCCAFFREY: You also have some comments with respect to the winter ratchet. You've indicated that the Board also has recognized that it's been used to signal customers regarding the higher cost of winter capacity, but it's a crude signal which sends far too strong an incentive to some customers and not at all to others.

Do you have any comments to make with respect to this area?

MR. PATRICK BOWMAN: I don't think we have much to add to the debate that's gone on in respect to the winter ratchet. Over time, it -- it's a -- a lingering issue. I think all parties recognize that -- that there's far better ways to deal with the price signal associated with the winter ratchet than -- than what's currently in place.

It -- it counts for a fairly modest amount of -- of revenue to Hydro, but it also means it's a fairly modest cost to customers. It's more a -- a point of fairly high concern to one (1) or two (2) customers who take shut-downs in the summer and with a fair bit of notice, and they're still being paid rates based on their winter peak, even though they're always told that summer energy is so valuable and they're freeing up the summer energy, so why are we paying extra.

So it's -- it's a limited number of customers that it -- it impacts, but to them it's -- they see it as a very poor price signal, and I think there's some merit to their -- their perspective.

MS. TAMARA MCCAFFREY: Would you like to summarize your conclusions with respect to industrial rate design, sir?

MR. PATRICK BOWMAN: Well, I think it's the same comment I made at the outset which is there would seem to be a fair bit of potential for -- for a win-win here. There is devil in the details in each of these. It takes time to get them in place. I acknowledge that.

And I think Hydro's comments about twelve (12) to eighteen (18) months are not off base. It's a concern that we're maybe just starting the clock on the twelve (12) to eighteen (18) months today, but whatever it is, I think there's some merit to getting on with it, particularly when you're talking about rates like the inverted rates, where when -- when you look at a new industrial rate where, as we hear most of the customers will never see this price signal. Most of the customers will never pay the rate, we're told.

And new customers aren't inverted at all. It's not an inverted rate. Inverted rates can affect all of the customers and all of the load on the system. And it also doesn't get you into the real heavy level of -- of review and concern over setting the marginal costs precisely, because you're ultimately doing a revenue-neutral design.

Customers aren't necessarily going to be clobbered with a -- a marginal price. They're just going to have a relative balance in their -- in their -- in their rates. So if you set the marginal price a little too high, it means one component of the -- of their rates are a little bit too high and the other component's a little bit too low, but it tends to wash out for the customer.

If somebody's paying the marginal rate on all of their load, it's a whole different standard of review. So the -- these don't have a lot of the same barriers to put in place the - the technical view of marginal cost and -- and that sort of thing that you've brought up against, where you see concern when we talk about the new industrial rate.

MS. TAMARA MCCAFFREY: And when you say "these don't have the same barriers" you're referring of course to the items that you've just been discussing that are also on page 40 and 41 of your evidence?

MR. PATRICK BOWMAN: Correct. Inverted rates, time-of-use rates, self-generation signals, those type of things.

MS. TAMARA MCCAFFREY: Before I ask you just to summarize what your recommendations would be for the Board, pulling from this rate hearing, I'm going to give you an opportunity to comment on the new industrial rate proposal. Manitoba Hydro's, of course, clarified now that they're only seeking the endorsement of the December 31st 2007 date as a benchmark for looking at -- at baselines.

Do you have any comments to make in this regard before we go to your conclusions?

MR. PATRICK BOWMAN: Well, it's -- it's a comment that just to reiterate from our perspective, the premise behind taking the time to make sure that anything of this nature that's put in place is done right is -- is sound and shouldn't be pre -- you know, no party should be prejudiced by taking the appropriate amount of time.

So if someone wants to set a benchmark or a -- crystallize a date in which benchmarks will be set in the event benchmarks link to a date and time, I -- I think just from my own professional perspective it --

it's probably wise, otherwise there may be a lot of incentive to really want to get on with it so you don't have people gam -- or the bench -- the date slipping away on you.

We have noted a concern over extent to which one might base a benchmark on -- on usage through some period in time as opposed to the capability of assets, and I think that's a discussion for another day, but either way, you would need to think about a benchmark.

Probably the other one that's worth noting is there are -- there was some discussion about the Power Smart credits and customers getting credit for the Power Smart programs undertaking, and I think -- I think it's fair to give customers notice if the -- if the Board intends to use some sort of benchmark. It's probably not offside to give them a certain notice that this might be coming or that at least it's -- it's going to another proceeding. I think that's probably already there. Most of the customers are pretty attentive to it.

And -- and I think it's important to make sure that customers who have something like Power Smart activities underway today are still -- and they're counting on the credits arising from that, are still getting the credits from that if -- if the benchmark slides. So -- or if the benchmark is set I mean.

So as -- as long as the benchmark appropriately recognizes the activities underway today and it gives customers fair notice and it takes away some level of -- of the -- the urgency or the gun to Hydro's head to want to get on with this then -- then it's probably a -- probably a good idea.

MS. TAMARA MCCAFFREY: Thank you, sir. Now just in concluding your direct evidence, would you like to just summarize the recommendations that you are making to the Board, flowing from this Hearing?

MR. PATRICK BOWMAN: Well, we summarize the main five (5) at page 3 of our evidence, just to go through them quickly. There -- there was a number of -- of more minor ones and I'll -- I'll try to list those off as well.

But our first recommendation is in regards to the regulatory format and structure. It seems to us that this Board has twice asked Hydro to seriously consider how it could do reserves that follow some of the characteristics of what we've -- what we've put together in an illustrative example and we haven't seen it before come out of Hydro.

I think given all the problems we talk about -- and this is at bullet 1 at page 3 -- the use of a debt equity target as -- for setting rates should -- we use the word "should be discarded", but should be certainly much of a less concern. The Board should consider moving towards putting in place, something that gives it a -- better levers of -- of control and a better ability to manage and understand the rate changes and have customers understand the rate changes than a simple long term debt equity target.

Second: In the event that there is comfort that the rate increase that's been requested by Hydro, the 2.9 percent rate increase overall, will ultimately be -- serve the purpose that -- for which it is intended, in other words be able to build up reserves, than given the information that's available we have no reason to conclude its not fair and -- and reasonable.

Third: The Cost of Service Study should be adjusted to -- to take out the double-counting in respect to DSM, and we suggest it be done by not crediting the DSM to export. If you want to credit the DSM to export, then a methodology is going to be needed that seems quite difficult and contentious to gross back up other people's load for the DSM they otherwise they undertook.

So we recommend that it's done by way of not giving the energy to exports, when instead reflecting that energy with the customer class whose undertaking it now and simply use the -- the forecast out of the load forecast for each class.

The fourth one listed there is that the rate adjustments in this Hearing should be differentiated by customer class with an eye to both pre- and post-net export revenue allocation. As we noted today the marginal cost information can help provide some comfort once -- once it's applied appropriately.

And consideration should be given to whether -- in the event appropriate reserve mechanism can be set up, some level of those net export revenues that are reflected in the Cost of Service Study are better used to enhance the level of reserve in the early years.

Fifth: We are suggesting that in order to maintain -- to keep moving forward with the re-balancing, Hydro should be directed to implement a second rate adjustment on April 1, 2009 in the event it's not here for a rate change, which would be revenue-neutral to the Corporation but would be a series of pluses and minuses in order to move closer to the RCC ratios, the -- the zone of reasonableness, or unity. And that would be based on -- on the -- a five (5) year plan to get to the target, and beyond that the -- the exact rate adjustments would simply mathematically arise.

On top of that, we've, as -- as I've discussed, or suggest that the Board reiterate its recommendation that it receive some level of capital oversight on Hydro's capital program. And as we noted in PUB-3 that could take the form of an s/b certificate of public convenience and necessity requirement on -- on relatively major projects, and -- and as you'd see before at something like the National Energy Board or the BC Utility's Commission.

We suggest that the Board include in its Order a recommendation that -- to the Minister of Finance to -- to exempt Hydro from the requirement for sinking funds, for -- for new debt, particularly borrowed for -- for major new projects.

And the others I can, you know, that -- that recognition is given to the benefits Brandon Number 5 provides to the system, so we're not at the mercy of the imports to backup droughts; to get on with the industrial rate design with aspects like, stepped or potentially seasonal time of use; to find a way to accept NUGs from existing customers, either via stepped-rate design or an amendment to the policy. Overall -- in terms of the overall rates we accept the conclusion of street lights receiving a lower than average increase.

And one (1) other matter that I -- I realize I didn't touch on; pending working out the details on a new industrial rate, it would be a much clearer signal to people today if the rate change were simply applied equally to demand and energy components of the rate, rather than -- rather than simply to the energy, because it -- it impacts different customers differently. And -- and so when you hear 2.9 percent rate increase it -- it -- it's not 2.9 percent across the board, and pending getting on with the industrial rate design, it -- it didn't seem like a major item.

MS. TAMARA MCCAFFREY: Thank you very much. I can advise that completes the direct evidence of Mr. Bowman and Mr. McLaren. They're available for cross-examination. The Board may prefer to take a break at this juncture and resume at --

THE CHAIRPERSON: Yes.

MS. TAMARA MCCAFFREY: -- their pleasure?

THE CHAIRPERSON: Thank you very much. I think what we'll do is have the break and then we'll go to Mr. Williams. Thank you.

--- Upon recessing at 10:18 a.m.

--- Upon resuming at 10:42 a.m.

THE CHAIRPERSON: Mr. Williams, do you want to want to start your cross?

CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: I'm prepared to start my cross, Mr. Chairman, and good morning. Good morning Mr. Bowman and Mr. McLaren, as well.

Just for the benefit of the -- the InterGroup witnesses as well as for the -- the Board, I will be referring fairly extensively to the pre-filed evidence of Mr. Bowman and Mr. McLaren, and as well a bit later this morning, to three (3) responses of MIPUG to the Public Utility's Board, Number 12, Number 3 and Number 11.

Mr. -- Mr. Bowman, I'll -- I'll start with you and of course your -- your colleague can feel free to jump in as he fees -- sees fit. I want to follow-up just a little bit to your direct evidence yesterday when you took -- basically, and I'll -- you can keep your answers short for the -- for the first little bit, and then we'll give you a chance to elaborate in a couple seconds -- you took a fairly close look at two (2) IFs, being '02-1 and '07-1.

Is that fair Mr. Bowman?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And I want to look a little more closely at why you consider IFF'02-1 to be of a somehow analytical consequence and also I'll suggest to you that one (1) of the reasons you do so, it was -- is that it was the first IFF to fully incorporate the -- the purchase of Winnipeg Hydro.

Would that be fair, sir?

MR. PATRICK BOWMAN: Correct, that's my understanding, yes.

MR. BYRON WILLIAMS: And it also, as you indicated yesterday, took into account the special export payment to the province, correct?

MR. PATRICK BOWMAN: That's correct.

MR. BYRON WILLIAMS: And it's the last version available to the Public Utility's Board in the process leading up to the status update decision, Board Order 7-03.

Is that fair?

MR. PATRICK BOWMAN: Yes, that's correct. We thought the status update was a bit of an important event because it was the first time that Hydro went back before this Board to have its -- its costs and rates reviewed for quite some time, six (6) -- six (6) or seven (7) years as I recall.

So it was a period where lots of utilities across Canada were in effect getting re-regulated, and although nothing had changed in legislation here -- or things -- we practically had a sort of re-regulation type of proceeding in 2002. It was a fairly major event.

MR. BYRON WILLIAMS: And -- and I thank you for that, because that's where I was going, Mr. Bowman. Really this is the -- the -- the last IFF before we embarked upon a new regulatory era.

Would that be fair -- correct, Mr. Bowman?

MR. PATRICK BOWMAN: I -- I think that's fair.

MR. BYRON WILLIAMS: And as I understand your answer to me, one (1) question previously you -- you mentioned there was a relative dearth of rate regulation of Manitoba Hydro in the late 1990s and so IFF '02-1 gives us a bit of a snapshot of Manitoba Hydro before it became subject to more rigorous regulation, correct?

MR. PATRICK BOWMAN: Well, more -- more rigorous ongoing review at -- at intervals. I -- not -- practical regulation, I guess, is a better --

MR. BYRON WILLIAMS: Okay.

MR. PATRICK BOWMAN: -- way for me to put it.

MR. BYRON WILLIAMS: And it's also an important document, because it's also -- it was the basis for Hydro's adoption of the current financial target related to a debt/equity ratio of 75:25 by 2011/12, correct, sir?

MR. PATRICK BOWMAN: Yeah, that's what we saw Hydro's response in PUB Question 123(A). That -- that's -- that's where we got that from.

MR. BYRON WILLIAMS: And again, I am going to just cross over briefly what you discussed yesterday, but hopefully there's a -- there's a point to it at the end. And you -- you chose for the -- analy -- analytical purposes of your evidence to compare this IFF '02-1 to IFF '07-1, first of all because IFF '07-1 is the most recently available IFF, correct?

MR. PATRICK BOWMAN: Correct.

MR. BYRON WILLIAMS: And it's also one which suggests that Hydro will not meet its 75:25 target by 2011/'12, correct, sir?

MR. PATRICK BOWMAN: Well, that's a characteristic of the IFF. It wasn't a reason for choosing it, but it is a characteristic of the IFF.

MR. BYRON WILLIAMS: And given that characteristic of the IFF, really a central part of your --your evidence in this proceeding was trying to get your -- your keen analytical mind, your keen analytical mind around the reasons why back in 2002, 74:25 seemed reas --

seemed -- an output of that was hitting the -- hitting the debt/equity target by 2011/'12, well is in a -- to -- today it doesn't seems to be reasonable that we hit 75:25 in -- in 2011/'12.

Is that fair, sir?

MR. PATRICK BOWMAN: Yes. When we get a GRA delivered to our offices we can pretty much count on at some point getting a phone call from members, saying, What's going on, when -- so you better have a pretty simple answer to that. So this is the type of analysis that we would -- we would do to be able to tell them what's -- what's going on.

MR. BYRON WILLIAMS: And in terms of what's going on, you spend a lot of time trying to get your head around why they're -- they're not likely to meet the 75:25 in this IFF and comparing it with the circumstances and the projections in IFF '02-1.

Is that right?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And I just quickly want to direct you to Attachment B of your evidence. And you went through this in some detail yesterday, so again I'll try not to -- to trample too -- too much on it.

And in particular page B6 which is figure B.11, so page B6 in the bottom right-hand corner and the

-- the figure B.11 at the top.

Do you have that Mr. McLaren, or Mr. -- Mr. Bowman?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And again, you, this -- this looks at the comparison between the two (2) IFFs; the darker one or blue one being IFF '02-1; the -- excuse me, the lighter one or blue being IFF '02-1 and the darker one or red one being IFF '07-1.

Is that right, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And the point you made yesterday, when you look at retained earnings for Manitoba Hydro, certainly in the period between '02/'03 and '06/'07. There's a sharp dip which is a consequence of the -- of the drought, but there's what appears to be full recovery as compared to the forecast of IFF '02-1 by '06/'07.

Is that right, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: What I just want to focus on for a couple of minutes is those next years -- the years '07/'08 versus 2011/2012.

And if I look at those -- those years, what it's really telling me that simply not looking at debt/equity but simply look at retained earnings, is that the actual retained earnings for Manitoba Hydro as projected -- projected in IFF '07-1 are actually quite a bit higher than the retained earnings projected way back in IFF '02-1.

Is that fair, sir?

MR. PATRICK BOWMAN: Yes. And if I remember my numbers correctly, it's in the range of $2 to $300 million.

MR. BYRON WILLIAMS: And I think the -- if you're looking for reference to your numbers, it's probably page B-4 or B-5. At the bottom of B-4, top of B-5.

But when we look at the projection, for example, for 2011/'12, under comparing the two (2) IFFs, in the IFF '07-1, we're actually looking at retained earnings being about $295 million or 15 percent higher in that year. Would that be -- based upon the -- the most recent IFF.

Is that correct, sir?

MR. PATRICK BOWMAN: I -- I'll accept the number. It's pretty consistent with what's shown on the chart. I don't have those exact numbers in front of me.

MR. BYRON WILLIAMS: Mr. Bowman, lest you distrust me, if you just go back one (1) page to page B-5 at the top, line 1, you might see that there.

MR. PATRICK BOWMAN: Now I have the number in front of me, thank you.

MR. BYRON WILLIAMS: Do you trust me, Mr. Bowman?

MS. TAMARA MCCAFFREY: Don't answer that.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: I thought I was making real progress with that witness, Ms. McCaffrey.

And again, Mr. Bowman, I won't -- so two (2) key points you made in your -- your evidence yesterday was, one (1) is we can't blame the drought for the fact that Hydro's no longer projected to meet its debt/equity target by 2011/'12. That's one (1) key point.

Is that not right, sir?

MR. PATRICK BOWMAN: Well on -- on critical review of that assertion, it didn't seem to bear out.

MR. BYRON WILLIAMS: Okay. And it would also -- another point flowing from your analysis is that it's not because we have lower retained earnings because in fact, retained earnings, as projected in IFF '07-1, are 15 percent higher than as projected in IFF '02-1 for the 2011/2012 year, correct?

MR. PATRICK BOWMAN: Correct.

MR. BYRON WILLIAMS: And again, we'll -- we'll move on quickly but the other point or another point you made yesterday as well or I'll infer from your evidence yesterday is that there's no basis to support a claim that lower than forecast rate increases or lower than forecast revenues are responsible for Hydro not achieving its debt to equity target by 2011/2012 when you look at the comparison of the two (2) IFFs.

Is that fair, sir?

MR. PATRICK BOWMAN: Lower than forecast rate increases did not bear out on review and lower than forecast total revenues is -- is not correct either.

MR. BYRON WILLIAMS: And, Mr. Bowman, just a point of clarification. In your evidence yesterday you were speaking of the financial results from IFF '07-1 and -- and you used the word "deterioration".

Do you remember using that word, sir?

MR. PATRICK BOWMAN: I probably did.

MR. BYRON WILLIAMS: And just so I'm clear and my clients are clear, when you speak of deterioration between the two (2) IFFs, as we sit here today in '08/'09, it's not a deterioration in terms of retained earnings.

Would that be correct, sir?

MR. PATRICK BOWMAN: No, it was -- it was meant to reference deterioration in the projections that have traditionally been presented by Hydro in respect of explaining what its financial position is. Focussing on things like achievement of a debt/equity target or progress towards the debt/equity target.

And it really has two (2) aspects to it. One (1) being the IFFs now have higher rate increases through time than had been there before, and second is, notwithstanding that they fail to meet the -- the statistic that -- that Hydro portrays as being key over the long term which is the debt/equity ratio.

MR. BYRON WILLIAMS: Okay, so and to -- to cut to the chase and by deterioration, it's notwithstanding higher than forecasted rate increases. The deterioration is that they're not going to meet that target by 2011 -- 20 -- 2011/2012 at least as portrayed in IFF '07-1.

MR. PATRICK BOWMAN: Yeah, det -- deterioration in the context of what is traditionally looked at in respect of rates. I think the rest of this appendix basically questions certain aspects of the assertion of deterioration.

MR. BYRON WILLIAMS: Okay. And, Mr.

Bowman, just you may want to have it at -- at hand your response to PUB/MIPUG Number 12. And if you're flipping around in your evidence, you might want to go about page 9, please, sir.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Not page B-9, Mr. Bowman. Page 9 of your evidence, got it.

And again, using your word "deterioration," the thrust of your evidence on page 9 as I understand it of your direct -- your pre-filed written evidence is, if you try -- you're trying to understand the deterioration, you shouldn't be looking to the special dividend, you shouldn't be looking to the drought, and you shouldn't be looking to higher domestic load, and lower rate increases. Those are not the -- the key drivers.

Is that correct, sir?

MR. PATRICK BOWMAN: Correct, they're -- they're not -- not only not the key drivers, some of them aren't -- are not drivers at all. As a matter of fact some of them are -- are benefits.

MR. BYRON WILLIAMS: Mr. Chairman, I'm just going to -- I'm having some mic problems, so I'm just going to see if I can flip.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And -- and as I understand the thrust of your evidence on page 9, Mr. Bowman, the two (2) key drivers of the deteri -- deterioration would be relatively higher capital spending and a significant increase in OM&A between the forecasts of IFF '02-1 and IFF '07-1.

Is that correct, sir?

MR. PATRICK BOWMAN: Well, when we had been through each of the line items those were the two (2) that -- that sort of left out as being central to the overall change in financial position.

MR. BYRON WILLIAMS: And it's a change you might -- you've described as a deterioration?

MR. PATRICK BOWMAN: Well, they're contributing to the long-term deterioration. I just want to be a bit careful that when you're looking at O&M spending, it is one (1) of the factors that fits into net income, and net income is the -- the factor that cumulatively deal -- deals with the retained earnings. So if the retained earnings are higher than had been the case, that is, of course, the sum of a number of factors which includes O&M, overall -- that -- the -- the picture of retained earnings are higher means net income has been higher.

So is O&M contributing to -- to deterioration? Well, it's one (1) of the line items summing to something that's actually contributing to an improvement, but in that line item alone is a significant amount of difference -- increase offset by changes in the other line items if you like.

And I apologize if that's more explanation than you were looking for, but I think it was probably important.

MR. BYRON WILLIAMS: And -- and I -- probably it's a deserved explanation, Mr. Bowman.

When it comes down to trying to understand why Manitoba Hydro is not going to meet the -- it's financial targets, or is not projecting to meet it's financial target of 75/25 in 2011/2012, the two (2), to use your word, central factors you've identified are higher -- relatively higher capital spending and a significant increase in OM&A.

Is that right, sir?

MR. PATRICK BOWMAN: Yes, but for those two (2) factors we would have a very different IFF in front of us.

MR. BYRON WILLIAMS: To -- to put it in Byron Williams' colloquial terms, you -- I might suggest to you that this is a corporation that, on the spending side, is letting its hair down a little bit. It's -- on -- spending more on capital and it's seeing also significant increases in OM&A.

Is that right, sir?

MR. PATRICK BOWMAN: It's your characterization, not mine.

MR. BYRON WILLIAMS: Well, let me -- let me put it another way. I didn't -- I didn't think you'd go for that characterization, on the record anyways, Mr. M -- Mr. Bowman. But -- it -- with hindsight, if we look at IFF '02-1, on the revenue side, this corporation is over performing. On the costs control side, it may be under performing.

Would you accept that characterization?

MR. PATRICK BOWMAN: On the revenue side, it is exceeding earlier forecasts. On the costs side, it is similarly exceeding earlier forecasts, particularly in respect of the O&M line and the capital line as opposed to, say, water rentals. And -- the -- those are the two (2) directional impacts.

MR. BYRON WILLIAMS: All things being equal, we like to exceed forecasts on the revenue side, and we like to not exceed forecasts on the costs side a lot. All things being equal, sir.

MR. PATRICK BOWMAN: Well, that's correct. And -- the -- the premise you set out is key, all other things being equal. When you deal with aspects like benchmarking, you're often into the situation where you say, Not -- no, other things are not always equal but often you'll look to try to divide costs into things like controllable costs and non-controllable costs, or aspects of an income statement that people can do something about and those that can't in terms of managing the Utility.

These are two (2) items that would -- would often show up in the things they can do something about. They can't do everything about -- Manitoba Hydro can't control the costs of copper, for example -- but it can do some things about.

MR. BYRON WILLIAMS: And we're gonna -- we're going to chat about that for just a couple seconds and thank you for that segue. I wonder if you can turn to the response PUB/MIPUG Number 12, sir?

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Do you have it?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And as I look at -- there's a table on the middle of page 1 of 2, revised Table B-2, and what it's attempting to portray, Mr. Bowman, I'll suggest to you is OM&A expenses from 2002/'03 through to 2012/2013, as projected in a series of IFFs starting with IFF '02-1 and concluding with IFF '07-1.

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes, covering the same series of years and the numbers that are in italics in that table are the actuals from those years. So, for example, IFF '07-1 does not have a forecast for '02/'03. It's the actuals for '02/'03, 272 million.

MR. BYRON WILLIAMS: And my eyesight is no longer refined enough to see italics, Mr. Bowman. But I -- but I have your point. And I guess just in terms of -- let's take a year, for example, '08/'09, if we look at IFF '02-1, the projected cost per customer for that particular year would be 326 million.

Is that right, sir? Am I reading this table correctly?

MR. PATRICK BOWMAN: '08/'09 for IFF '02-1 was three twenty-six (326). I think that's number you were referencing.

MR. BYRON WILLIAMS: I hope it was. That

was my intent. Moving just down that column, we see by IFF '05-1 that -- that the forecast for that year has changed. It's risen to 338 million.

Is that right, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And likewise, IFF '07-1, we see, it's risen again to 360 million.

Correct, sir?

MR. PATRICK BOWMAN: Correct.

MR. BYRON WILLIAMS: And at the final column -- what you've done -- and you spoke of this yesterday is you've -- you've looked at the cumulative results and the point is, I understood you making it yesterday, was that if we look at -- compare again IFF '02-1 versus IFF '07-1, there's about a $250 million difference and that costs are higher in the most recent forecast.

Is that -- that right, sir?

MR. PATRICK BOWMAN: Right. Over the same period, using the same dollars, to use the economics speak, these are -- these are all expected to be in the same year of dollars so it's not inflationary impact. You're up by approximately $250 million.

MR. BYRON WILLIAMS: And -- and again because I -- I wasn't sure I heard you, and I have not had a chance to review the transcript, the point -- one (1) of the points you appear to be making was that if we would have in terms of the debt/equity target, if the results of IFF '02-1 would be realized rather than the projections of IFF '07-1, the debt/equity ratio would be two (2) to three (3) points lower.

Would that be fair, sir?

MR. PATRICK BOWMAN: Well you're going back to your earlier qualifier, all other things being equal. If everything could -- if the Utility could have been run on the series of OM&A forecast in '02-1 compared to '07-1, the debt/equity ratio would be two (2) to three (3) points higher, yeah.

MR. BYRON WILLIAMS: And recognizing that not all costs are controllable but your evidence is that when -- when we look at elements of the cost structure that are more within the control of the Corporation, we would look to OM&A as a significant one.

Correct, sir?

MR. PATRICK BOWMAN: That -- that would be the normal understanding, correct.

MR. BYRON WILLIAMS: And this table and your analysis has led you to conclude that systematic increases and OM&A spending have been a consistent and compounding reason underlying the failure to achieve the debt/equity target.

Would that be fair?

MR. PATRICK BOWMAN: Yes.

(BRIEF PAUSE)

MR. PATRICK BOWMAN: I -- I might note that that statement is in particular commenting on the mathematical relationship that this mathematically you run the two (2) sets of numbers, this is what occurs.

MR. BYRON WILLIAMS: I'm not putting words in your mouth though, Mr. Bowman.

Those are your words, are they not?

MR. PATRICK BOWMAN: Correct.

MR. BYRON WILLIAMS: Mr. Bowman, there's a comment you have in your evidence at page 12, line 15 that I -- I'd like to direct your attention to, please, if you would, sir. Page 12, line 15 to 17.

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: The -- the statement is:

> "Evidence indicates that with respect to Hydro's costs, both for OM&A spending and particularly for normal capital spending, the Board appears to

have had little influence on encouraging and giving effect to cost control."

That's your position, Mr. Bowman?

MR. PATRICK BOWMAN: It was a statement we made leading into the section on analyzing particularly O&M that follows, and it's particularly in order to note the contrast between what we're seeing today and -- and evidence I gave in this same proceeding in -- in -- at the status updates, 2001, which was that at that time you would look at an IFF and Hydro's costs tracked quite nicely along the IFF over periods of five (5), six (6), seven (7) years.

Now we're facing a situation where those -- those escalate in each given year and so the question is, is -- to what extent as this statement says is the -- is the influence of the Board helping Hydro maintain to its -- its forecast, and -- and I would say that there's a -- at least a suggestion that -- that notwithstanding Board directives and orders to try to maintain cost control, that doesn't appear to show up mathematically at least in the IFF.

MR. BYRON WILLIAMS: Okay. And I appreciate that, and I won't belabour this point but just in the period -- you mentioned two (2) periods. One (1) period in the 1990s where you observed greater fidelity to -- to IFFs.

Is that correct, sir?

MR. PATRICK BOWMAN: Yes, I said the 1990s. It was the evidence that I filed before this Board in the status update proceeding in 2001/2002 with Mr. Osler where we did the same review, and we actually had quite a -- a complimentary comment in our evidence about Hydro's ability to maintain on its IFF track over time.

And even looking at the table you took me to which shows all of the IFFs, it suggests that that continued even for some years thereafter until about 2003/'04.

At some point there, the long term trend in the IFF's really started to -- to shift to major jumps in each subsequent year of forecast.

MR. BYRON WILLIAMS: And just in terms of your analysis lest we lose my point, Mr. Bowman, the complimentary comments about -- appeared in the 1990s was really focussed on OM&A class.

Is that correct, sir?

MR. PATRICK BOWMAN: That's correct.

MR. BYRON WILLIAMS: And the concern that you've identified is the divergence between a forecast and results, as well as the upward trend in OM&A costs since about '03/'04.

MR. PATRICK BOWMAN: Yeah, I think a pretty consistent upward trend, yes.

MR. BYRON WILLIAMS: And you use the word, "pretty consistent upward trend", and -- and I think you had an interesting comment yesterday that I want to follow-up on. The -- perhaps the one outlier to that upward trend, Mr. Bowman, might that be IFF '05-01, sir?

MR. PATRICK BOWMAN: Well, if you're -- have PUB/MIPUG-12 in colour, it's notable as an outlier, '06-4 has some of the same effect, but '05-1 which is on there as a purple line has a period which actually looks downward sloping. I think looking at the numbers it's actually flat, but in relation to everything else it looks quite downward-sloping, which is the year that there is -- in that IFF there's a comment about a fairly major productivity factor being built in that year to reflect the new head office.

And -- and so it -- it was just -- when you do a graph like this it's the kind of thing you would cross-check, and so we wanted to see why there -- there was this sort of sharp line -- sharp corner, and -- and that's what our -- the IFF '05-1 indicated.

MR. BYRON WILLIAMS: I really am going to have to get a colour printer, Mr. Bowman, so I can keep up with you.

But in terms of the -- the one outlier, your suggestion is that that's due to forecasted operational savings from the new head office building in that particular year?

MR. PATRICK BOWMAN: Well, that's what IFF '05-1 comments. And if you don't have a colour printer, your graph will note that there's a different pattern for each of the lines, and IFF '05-1 is the one that is comprised solely of long dashes with no dots.

MR. BYRON WILLIAMS: If I look, Mr. Bowman, at the IFF subsequent to IFF '05-1, I'm going to suggest to you it would be difficult to discern or identify any operational savings associated with the new head office building.

Would that be fair, sir?

MR. PATRICK BOWMAN: Well, IFF '06-4 had a certain jagged corner as well. We didn't bother to investigate that one to the same degree, because we'd -- we'd by the point we were receiving that relatively minor update, it -- IFF '07-1 was available so we -- we -- but IFF '07-1 does not have any -- the current one does have any notable sharp corner.

MR. BYRON WILLIAMS: In -- in your review of the evidence in this Hearing -- well let me back a second. You recall in the past there's been a suggestion that this new building might be brought in a revenue-neutral basis.

Do you recall that, sir?

MR. PATRICK BOWMAN: I recall that being Hydro's evidence, yes.

MR. BYRON WILLIAMS: In your review of the evidence in this proceeding, have you reached any conclusions as to whether or not it's -- it's still likely that that new building will be brought in on a revenue-neutral basis, sir?

MR. PATRICK BOWMAN: We -- I'll say in -- in short, no, we haven't reached any conclusion and in particular it's because we didn't have any analysis to -- to review to try to come to a conclusion.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: In your recommendations to the Board this morning, I -- I think you used the word "comfort" in -- in -- near the end your evidence, Mr. Bowman. And looking -- my question to you is: Looking forward to 2008/'09, that year and beyond, and looking at Manitoba Hydro's forecast costs of

2008/2009 and beyond, if you were asked by this regulator whether it ought to have comfort with Manitoba Hydro's cost forecasts, how might you respond?

MR. PATRICK BOWMAN: Well, it's -- it's very difficult to look at a series of numbers that are rolled-up from massive data sets of -- of all sorts of forecast and the like and -- and come to some high-level conclusions. That's one of the challenges of doing regulation of utility. It's one of the reasons why regulators aren't put there to manage the Utility, they're there to look at a -- to try to look at a high level.

The key concern I would have is -- is less with, you know, given the information that's been able to be reviewed, it's difficult to say that, you know, pick a year, in 2011/'12, IFF '07-1 is -- O&M costs are too high by $3 million. To come to some sort of conclusion like that is very, very, very difficult to do.

What it's not difficult to do is to say, if you look at all of these IFFs on a chart, and now you imagine where IFF '08-1 might look, or '09-1, or '10-1, you -- you might have a concern that the pattern you're seeing is something that's continuing.

And -- and at that level the question becomes what -- what do we do to help make sure or help

-- help encourage that that same changes in the forecast isn't happening year over year, because it's -- it can be quite compounding and have -- have quite a -- a grand impact over time on -- on the overall level of financial performance and reserves.

MR. BYRON WILLIAMS: I'll come back to your words, "encourage" as well as "grand impact" in a -- in a moment, Mr. Bowman, but let's -- let me direct you specifically to your evidence at page 2, line 30.

MR. PATRICK BOWMAN: Yes, I'm there.

MR. BYRON WILLIAMS: And I'll -- I'll just read this statement to you and you can con...

> "When Hydro's costs escalate beyond levels with which the Board ought to have comfort [in brackets] (as they have in the present forecast) any higher rates approved by the Board for the purpose of building protection for ratepayers in the form of reserves do not arise -- arise as reserves as intended."

I read that to you correctly, Mr. Bowman?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And that's the -- the dilemma or the Catch-22 that you were referencing yesterday, sir?

MR. PATRICK BOWMAN: Well, the Catch-22 arises from that; it's the question of what do you do next? You have a choice with level of rates. Do you -- do you raise them, grant the increase that's requested, lower them, you know, give no increase? It's a -- it's a -- the rate change becomes a difficult tool to use to react to that situation.

MR. BYRON WILLIAMS: And I'm going to come back to that point in -- in just a second, Mr. -- Mr. Bowman, but perhaps if I might, I'd like to just direct your attention to -- for a couple minutes to MIPUG Number 3. Your res -- the response of MIPUG to the PUB Interrogatory Number 3.

MR. PATRICK BOWMAN: I'm there.

MR. BYRON WILLIAMS: And you might also want to refer to your evidence to page 14. Line 17 to 20, Mr. Bowman.

You have those?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: Okay. And I'll -- I'll come back to your thoughtful comments of just the last couple questions in -- in just a moment, but we -- we have talked about OM&A expenditures, but I want to talk about capital just for a -- a moment or two (2).

On page 14 of your evidence is an excerpt from line 6 to 20, from Board Order 143/'04.

Is that right, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And you'll see starting at line 17 to 20, a concern expressed by the Board that Manitoba Hydro has not developed a threshold for capital expenditures and associated debt growth that considers all projects together with the health and financial stability of the -- the Company.

Do you see that, sir?

MR. PATRICK BOWMAN: Yes, that's from Board Order 143/'04, yes.

MR. BYRON WILLIAMS: And I'm going to get to more specifics in a moment, in terms of capital spending not related to new transmission and generation, but in terms of that specific higher level concern by the Board in '04 about not developing a threshold for capital expenditures and associated debt growth, is that a concern that -- that you share, Mr. Bowman?

MR. PATRICK BOWMAN: I'm not sure that I would use the word "threshold" were I to express it, because it could be read different ways in terms of a, you know, a firm threshold as opposed to a test. There's always a need for -- for a certain level of balance, and when I appear before Boards like this with utilities, this is always one of the challenging areas; is to support the overall level of -- of a capital program.

But if it's -- if threshold is meant to mean not a rigid barrier that one shall not go beyond, but -- but at least some -- some benchmarks against what you can target and understand, and -- and if someone is going beyond or is able to go below, you have some explanations for variance.

That -- that would be useful, and I think it's fair to express a concern, that we don't -- we don't have that in place as a target, that -- as far as I can tell, as a target that is managed to.

MR. BYRON WILLIAMS: And, thank you, Mr. Bowman. That's very helpful and maybe we'll drill down a little bit into the details in a -- in a second.

Turning now to the MIPUG's response to PUB Number 3, I want to direct your attention to lines -- page 2 of 5 and line 29 through 34.

MR. PATRICK BOWMAN: Yeah, this probably expresses what I was just trying to say earlier a little more eloquently.

MR. BYRON WILLIAMS: Okay, well -- well let's walk our way through it.

Start at line 29. Your -- you're

expressly concerned, a particular note, is that:

"Over the -- more than a decade the Board has issued repeated qualitative directions recommendations, suasion to Hydro to maintain diligent control over capital spending not related to major new generation or transmission. There is no practical way to test whether this has been adopted by Hydro outside -- outside of qualitative assertions; is not clear that the Board and Hydro have resolved a suitable framework to quantify tests and guide Hydro's actions in this area."

That's your position Mr. Bowman?

MR. PATRICK BOWMAN: Yes, that -- that is a fair summary about the -- the lack of framework -- what I was calling earlier the -- the threshold or the barrier, as opposed to the framework to assess. But yes, that -- that fairly summarizes it.

MR. BYRON WILLIAMS: And -- and I just wanted to focus on line 20 -- 20 -- 31, excuse me. The comment in this -- in this paragraph appears to be focussed on capital spending not related to major new generation or transmission.

Is that fair, sir?

MR. PATRICK BOWMAN: Yes, we deal with this more going onto the next page where -- when you turn your mind to the different types of capital a utility undertakes, you want to think about it differently.

You have like, for example, if there's a -- if there's a something -- something to be pursued and undertaken like an energy saving retrofit to a building or something, that's going to, you know, pay for itself over time or even pay for itself quickly, you'd hate to see something like that bumped and deferred because someone's trying to get their capital spending below a hard limit. If it's got a business case, we pursue it differently and separately. Major new generation would be a similar type of -- of consideration.

MR. BYRON WILLIAMS: So the issue that you're focussed on, in terms of capital control, is replacements and incremental expansions to the existing system, which -- which some might call sustaining capital?

MR. PATRICK BOWMAN: That's a word that is occasionally used, yes.

MR. BYRON WILLIAMS: And that's where your concerns are focussed, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And your concern specifically, is that there appears to be, in your view, no consistent top-down tests in place today for Manitoba Hydro?

MR. PATRICK BOWMAN: For -- for managing that level of spending, yes.

MR. BYRON WILLIAMS: What do you mean by top-down tests, sir?

MR. PATRICK BOWMAN: Well, it's -- I mean it in contrast to -- to bottom-up, to be sort of summarized at a high level.

But when you talk about developing forecasts and -- and budgets and cost estimates, you can do it two (2) different ways. You can start at the goriest level of detail, if you like, determine every project and everything to do, and -- and add them all up and come to something at the end to determine your budget. That's what people typically refer to as bottom-up.

You can also try to come up with some high level benchmarks and indices for -- for capital spending -- Hydro has referenced a capital coverage target -- but some high level references which would be top-down. It's not getting into the detail of all those individual projects. It's saying at a high level, notwithstanding all that detail, we're going to try to manage the program to this level. That's what I mean by top-down.

MR. BYRON WILLIAMS: And you're not satisfied -- and we don't need to belabour it, but you're not satisfied with the capital coverage ratio as a top-down mechanism, correct?

MR. PATRICK BOWMAN: Well, I'm not satisfied it's being applied as a top-down mechanism as much as it seems to be applied as just a -- a statistics to track. I think that's the -- the key distinction.

There's also some -- some aspects of the capital coverage ratio that -- that one might want to consider carefully if you were using it for -- for a top-down means of tracking or control, because it's -- it's linked to cash and occasionally that has -- has certain variability in it. But outside of that, I'm not satisfied it's applied in that way, which is the key figure.

MR. BYRON WILLIAMS: Well, let me try this another way. If -- you've referenced later in this response a couple of different tools that one might employ: one (1) is the -- one (1) would be the -- BC Hydro sustaining capital ratio that they -- they used in the early part of this decade.

Would that be right, sir?

MR. PATRICK BOWMAN: That's one (1) we reference at page 4, yes.

MR. BYRON WILLIAMS: And you also reference a test employed by -- in Newfoundland, and I'm going to -- to shorthand it as the depreciation balance test. I don't know if you have a name for it or not, Mr. Bowman.

MR. PATRICK BOWMAN: Well, the depreciation test is not a bad name. Occasionally when I'm dealing with other utilities, they call it sort of the rate-based neutral level of spending; what -- what's the level of spending I would do to try to keep my overall rate base for those utilities that -- that are regulated that way at a consistent level.

It's -- it's not -- that different at some levels than a capital coverage number or tar -- concept. The -- the key reason I thought it was useful to put in this quote from Newfoundland is -- is not in regards specifically to this as a -- as a radical concept but as how they are using it, which is to actually try to manage and justify the level of their -- of their capital program, not -- not just to sort of report as a statistic.

MR. BYRON WILLIAMS: Well, Mr. Bowman, just to get down to -- to brass tacks on -- on this specific issue, your advice -- my -- my clients are obviously quite interested in this -- is your advice properly used, the capital coverage test?

Is your advice -- look to the BC example that you cite or that Newfoundland example? Where -- where do you come down on this point?

MR. PATRICK BOWMAN: Well -- and any of the above could serve the purposes. And as you can well appreciate, since I work at times for utilities and at times for Intervenors, I'm very, very cautious about trying to express specific opinions on -- on the details of one (1) approach versus another, which -- which the management of the Utility has a -- has a far better specific knowledge of than -- than somebody who reviews a GRA every -- every few years.

But what I'm saying is that for those of us who do only the -- get the opportunity to review these things every few years rather than every day, we need something to go on to understand this level of capital spending and what is the appropriate level and -- and how does it relate to the overall growth in the Utility.

The reason a depreciation target is -- has some appeal is it effectively is saying, Outside of those special new things, I'm going to find a way that my overall capital or overall investment in the Utility tracks downward over time, that I'm going to depreciate the assets. When I add new assets, fine, I'll add new assets and we'll grow. But outside of that I'm going to track -- track downward or at least hold steady over time, which would be the sort of normal understanding. The -- outside of major periods of expansion you're -- you're not expanding.

MR. BYRON WILLIAMS: Thank you for that thoughtful answer, Mr. Bowman

You used -- do you recall using the words "Catch-22" yesterday?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: Mr. Chairman, I am going to be coming to a hypothetical in a -- in a couple minutes and it might be a good time -- I'm -- I'm leading into that area now, so -- I know My Learned Friend does not object, so it's -- and -- and I'm actually on top of my exhibit numbers so we'll call it Coalition Number 39 and ask Mr. Gaudreau to -- to distribute it. I -- I can continue to talk because we're not quite there yet so.

THE CHAIRPERSON: Thank you. You said Exhibit 39?

MR. BYRON WILLIAMS: Coalition 39, Mr. Chairman.

THE CHAIRPERSON: Very good.

--- EXHIBIT NO. COALITION-39: A Hypothetical: The Regulator's Dilemma

MR. BYRON WILLIAMS: I want to make clear, it's -- I'm not suggesting that it's this regulator's dilemma. It's a hypo --

THE CHAIRPERSON: Thank you, Mr. Williams.

MR. BYRON WILLIAMS: It's a hypothetical. You may have no dilemmas, but I'm trying to -- to follow-up on one of Mr. Bowman's comments, and I'll get to that in a couple of seconds.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Bowman, it might be your dilemma though so I'm going to walk -- walk through it -- come to it in just a couple of seconds. But just to summarize, as I understand it -- and we're not on the hypothetical yet, Mr. Bowman; we're just -- we're getting there.

But what we chatted about this morning, in terms of the -- the two (2) central drivers in the Corporation not achieving its preferred debt/equity target of 75:25, you've identified increased capital expenditures and increased OM&A relative to forecast.

Those are two (2) central drivers, correct, sir?

MR. PATRICK BOWMAN: Yes, although I should just note that there are two (2) central drivers, but when you measure 75:25 on the overall company, you're looking at capital, both what we call sustaining capital, as well as new -- new project capital. And so there are probably three (3) drivers if you really want to get your mind around it: the -- the major projects, sustaining capital, and O&M.

MR. BYRON WILLIAMS: And of those three (3) drivers, two (2) of them, sustaining capital and OM&A, are ones in which you said traditionally they're considered to -- to be more within the control of the Utility; not perfectly, but more within the control in terms of expenditure control, correct?

MR. PATRICK BOWMAN: Yes, that would be a normal understanding, yes.

MR. BYRON WILLIAMS: And as we look forward, I asked you whether one (1) should be -- oh, Mr. Bowman, go ahead.

MR. PATRICK BOWMAN: I -- I just want to clarify that last answer if you don't mind.

All three (3) of the items are within the control of the Utility that you've referenced: major capital, sustaining capital, and O&M. The -- the two (2) that you noted for me, O&M and sustaining capital, are more within the control of the Utility than other items not on that list, like water rentals or taxes or overall level of revenues.

But I -- I didn't want to distinguish control of sustaining capital, but no control of new projects.

MR. BYRON WILLIAMS: So we've got three (3) major drivers we've agreed on, and -- and relative to -- to other factors, all three (3) of them are relatively more within the control of the Corporation than others such as water rentals, correct?

MR. PATRICK BOWMAN: That's correct.

MR. BYRON WILLIAMS: And you've also indicated that when we look at the Corporation's forecasts going forward, you're not going to say with a specific year that you're -- you're going to take issue with 3 million here or 3 million there, but you have some level of discomfort with the past trend, and also with where the Corporation is projecting in the future in terms of some of these key drivers.

Is that right, sir?

MR. PATRICK BOWMAN: Yes. And in particular how -- to what extent we might see IFF '08-1 and '09-1 reflect a sort of sustained trend as we've seen in the last few.

MR. BYRON WILLIAMS: And why you're concerned and you mentioned this about ten (10) minutes ago is over time there can be a relatively, to use your words, "grand impact" on the -- on the bottom line of the Corporation from adverse trends such as these.

MR. PATRICK BOWMAN: Well, that -- that's for sure one (1) of the reasons. The other one (1) is it calls into question Hydro's ability to forecast. But -- but the -- in respect of the mathematical impact, if -- if IFF '08-1 shifts the line upward another step and '09-1 shifts it upward another step, wait till we see that impact start to come out.

MR. BYRON WILLIAMS: So one (1) of the challenges based upon that -- those observations, not if -- you've used the word -- how do you encourage -- a utility to a -- to a -- to temper those -- those trends, to bring them back into line?

Is that right, sir?

MR. PATRICK BOWMAN: Correct.

MR. BYRON WILLIAMS: To use Mr. Williams' words again, you want to help the Corporation to put its hair back up, financially? You're not going to go with me on that?

So in terms of encouraging the Corporation, one (1) way to do so would be to provide them with a lower than sought for rate increase.

Would you agree with that, Mr. Bowman?

MR. PATRICK BOWMAN: Well that -- it would be normally understood that a regulator would review these types of costs if it was not comfortable with the costs as forecast. It would not arrive at the same rate increase that the Utility calculated.

And, as a result, if the Utility indeed was looking to retain its net income or its return to its shareholder, as you'd see under a private sector model, they'd have to deal with their hair, as you say.

MR. BYRON WILLIAMS: Thank you for that modest concession on a probably -- a very poor analogy, Mr. Bowman.

MR. ROBERT MAYER: How long are we going to continue on that, what I perceive to be this sexist analogy here?

MR. BYRON WILLIAMS: Mr. Mayer, we're going to just run away from it as fast as I can after that comment.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Let's go to the

Coalition 39, Mr. Bowman.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: And, again, I'm not suggesting this is the -- the -- any particular regulator or Board member's perspective but again, you mentioned yesterday the topic of a Catch-22.

Correct, sir?

MR. PATRICK BOWMAN: That's correct.

MR. BYRON WILLIAMS: And I'm going to ask you to make three (3) assumptions with me, and hopefully you'll agree to that but, first of all, this is a -- we're -- you're a regulator, Mr. Bowman, dealing with the Crown owned monopoly insurer regulated under cost -- under a cost of service model -- and the Utility has come to you and requested a 2.9 percent rate increase to continue progress towards meeting its debt/equity target.

You're prepared to make that assumption?

MR. PATRICK BOWMAN: I'll make the assumption with the caveat that I don't generally deal with insurers, but -- but all -- I can accept the preface that you are trying to set-up.

MR. BYRON WILLIAMS: Let me -- let me --

I meant to say Hydro company, so let's -- I apologize for that. We'll change that word to Hydro.

Second assumption, that the regulator again does not believe that the Hydro company's forecast OM&A costs are reasonable and necessary and prudent.

You're prepared to make that assumption, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And third, the regulator is of the view that the current reserves need to be enhanced to protect against certain risks.

You're prepared to make that assumption?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: Now, Mr. Bowman, as I understand your catch 22 position or what I've called the dilemma -- there's two (2) or three (3) options to the regulator available to it. One (1) is, it could provide the sought after rate increases or, in fact, even more in -- for the purposes of enhancing reserves.

You'll agree that that's one (1) option it could consider?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And, theoretically, based upon these assumptions, one (1) of the challenges with that sort of option would be that it -- it might be considered to be implicitly endorsing excessive expenditures.

You'll agree with that?

MR. PATRICK BOWMAN: Well, if that's the only -- only decision it made, assuming that was standing alone, yes.

MR. BYRON WILLIAMS: If it chose to send a stronger message to encourage the Corporation to -- the Hydro corporation -- to reign in OM&A expenditures, it could also consider the option of providing less than a sought after rate increase, with the objective of encouraging future expenditure control.

You'll agree with that?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: But the dilemma is that that option might be considered to be potentially delaying the achievement of enhanced reserves.

You'll accept that?

MR. PATRICK BOWMAN: Yes, it might be -- it might be ill-advised for that reason.

MR. BYRON WILLIAMS: Is that the Catch-22 you were speaking of or dilemma, Mr. Bowman, yesterday?

MR. PATRICK BOWMAN: That is it, precisely, Mr. Williams, and it's the kind of thing that might keep me up at night if I was a regulator.

MR. BYRON WILLIAMS: Well, it's kept me and my clients up, Mr. Bowman, particularly me. And really one (1) of the points you make in your -- your evidence is that a simple continued result of higher domestic rate levels doesn't provide us with any real assurance of actual improvements in retained earnings.

Is that fair, sir?

MR. PATRICK BOWMAN: If that is the sole practical decision or -- or impact that the regulator has, that's correct.

MR. BYRON WILLIAMS: And so just to -- to finish up on this point, the point that you've made in your evidence is that the -- retained earnings can only be built to the extent that two (2) conditions are met. First of all, you either enhance or maintain revenues, and secondly that you limit operating to capital-related expenditures.

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: I just want to turn to a -- a I'd consider it certainly a related top subject, the actual validity or merit of the 75:25 debt/equity target for the purposes of rate setting. And you've expressed a concern, Mr. Bowman, that for the purposes of rate-setting, it's no longer a valid tool.

Is that fair?

MR. PATRICK BOWMAN: Well, if you have to make a rate decision at a given point in time, I would say the evidence is that it's not a particularly useful tool if it's designed to be some sort of long-term achievement thing. If, indeed, you can end up with different rate decisions, you know, two (2) months apart because it rained last week or something, it -- it's -- it does not seem to be serving the purpose for which people are trying to use it.

MR. BYRON WILLIAMS: Mr. Bowman, just on that point, and -- and I won't belabour it, but you discussed yesterday about the significantly increased debt level that the Corporation is likely to incur as a result of major expansions, including Conawapa.

Do you recall that, sir?

MR. PATRICK BOWMAN: I recall that.

MR. BYRON WILLIAMS: So when we look at a debt/equity equation recognizing that there's likely to be significant additions to the -- to the debt side of that equation, in the absence of either increased revenues or increased rates, that debt/equity level will -- will fall, by which I mean that the relative proportion of equity with the client.

Is that right, sir?

MR. PATRICK BOWMAN: Yes, that would be the relationship.

MR. BYRON WILLIAMS: In an -- in an era of perpetually or -- excuse me, let me rephrase that -- in a era where debt is expected to continue to grow, do you see the -- the -- the debt/equity target, something like 75:25 acting almost as a perpetual justification to raise rates, even if forecast expenditures are not prudent, reasonable, or necessary?

See the risk of that?

MR. PATRICK BOWMAN: Well, in a sense I -- I may suggest it's even broader than that, whether expenditures are prudent, reasonable or necessary. Using a -- a debt/equity target, in an environment like that, is -- I would say leads to the potential that at any given point in time you end up with -- with sort of an undefinable concept of making sufficient progress -- what is sufficient progress.

We've expressed real concern with the debt/equity target for three (3) reasons. One (1) is the stability reason we talked about. It doesn't -- it hasn't proven to yield long-term stability like you would think a long-term target would.

It's proven to yield this sort of -- of bouncing around of -- of requests. It's not particularly meaningful as a target if it's not going to be achieved for decades, particularly it's not meaningful as a target in setting rates at any given year. It could be converted into that in some way if someone defines some sort of track towards it, but it's not particularly meaningful for that.

And -- and third, in a sense, if you -- if you wanted it not to be decades until you achieved it, you want to suggest it could be achieved, it's actually a bit of a -- of bitter-sweet achievement because it only -- it can only be achieved in the type of time frames that are -- that we think about in this room.

You know, maybe ten (10) to twenty (20) years if, indeed, today's ratepayers are -- are ponying up fairly substantial amounts of equity through higher rates than they would have had to pay for putting Conawapa's and Keeyask's and -- and other assets into service that are being advanced in large part for -- for export even if the -- the first kilowatt hour -- the few first kilowatt hours out of them are required for domestic service.

The -- the -- the decision to go with major projects of that sort hinges on the exports.

MR. BYRON WILLIAMS: I'll come to that last point in just a second. And let me try and rephrase my question. Perhaps I can get you to stand in the shoes of a Utility like Manitoba Hydro.

You could see, from the perspective of a Utility like Manitoba Hydro, how a 75:25 debt/equity target, in a period of rapidly expanding debt, might be attractive because it would serve as a perpetual justification for rate increases.

Could you understand that?

MR. PATRICK BOWMAN: I would say it might be attractive to a Utility in any event regardless of the impact on -- on rate changes because it gives them things to -- to cite as targets and to try to consider and manage to over -- over the long term and forecast.

It's -- it's not -- it's not something I would be critical of a Utility trying to think about in conducting its affairs.

MR. BYRON WILLIAMS: Okay, fair enough. The -- I have a few more questions in this area. Just one (1) very quick one. Perhaps you could turn to page 4 of your evidence, Mr. Bowman.

Page 4 of your evidence, line 19.

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: There's a reference there just immediately above to the MIPUG membership, and there's a suggestion that the MIPUG companies annually purchase small point electricity at a cost of over $100 million from Hydro.

Do you see that, Mr. Bowman, first of all?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: In terms of that just -- I was interested in the figure of over 100 million because it lacked your usual precision. Let's take the '06/'07 year and within 10 million is a -- is a nice range. What do you mean by over 100 million? Are you talking less than 150 million for example?

MR. PATRICK BOWMAN: Well first I -- I would say I don't -- I don't have those numbers here. If I did it would -- MIPUG members make up by far the -- the bulk of the GS large greater than 100 kV class.

There are a couple of members of that class who are not members of MIPUG, but if you wanted to get a sense of the range, you can look to the revenues and the Cost of Service Study for -- for the class and MIPUG members are the bulk of that.

I think even if I was able to come up with a number, by exclusion, it would be suggesting things about the minority of customers in terms of numbers that probably go beyond what -- what we typically share in this -- in this room.

But I can give you the revenues for that

GS large greater than 100 kV class if that's helpful to you.

MR. BYRON WILLIAMS: Well, Mr. Bowman, just
-- can -- is it less than 150 million or -- or more?

MR. PATRICK BOWMAN: My understanding is it would be below a hundred and fifty (150).

MR. BYRON WILLIAMS: Less than a hundred and thirty (130)?

MR. PATRICK BOWMAN: Now you're getting closer to where I couldn't say precisely.

MR. BYRON WILLIAMS: Okay, we will come back to that a little later.

MR. PATRICK BOWMAN: And do you mean before or after the 2.9 percent rate?

MR. BYRON WILLIAMS: I was talking '06/'07, Mr. Bowman. Mr. Bowman, perhaps you can turn to page 2 of your evidence, line 18.

And I'm not going to -- and there's a -- there's a point you make there, which I think you just reiterated just a couple of seconds ago, essentially that either -- and I'm going to paraphrase -- either current debt/equity targets would not be reached for decades, or in the event they are attained that'll indicate that current ratepayers are seeing rate -- rate increases related to major new capital projects advanced for export reasons contrary to clear policy objectives.

That's the point you're trying to make, Mr. Bowman?

MR. PATRICK BOWMAN: That is the -- two (2) out of the three (3) reasons why I say that this Board might have a concern about having a primary focus on the debt/equity ratio in -- in terms of focusing on setting domestic rate levels.

MR. BYRON WILLIAMS: And I want to explore that statement a little bit later, especially in terms of your -- some of your comments that you've made about Wuskwatim in the course of your oral and written evidence.

And just starting with Wuskwatim, you'll recall that it was advanced from its due date for -- for the purposes of seeking opportunities in the export market.

Does that -- is that fair, sir?

MR. PATRICK BOWMAN: From what I recall of the filing it was a project that would have otherwise been -- been Hydro's next project. It would have constructed sometime around 2020 based on the forecasts at the time, and -- and they advanced it, at the time, as I recall, to 2009 was the original target or -- but now we're talking a little bit later than that.

But the idea of the advancement was, put it in service sooner to capture export opportunities.

Is that a fair summary for what -- your purposes?

MR. BYRON WILLIAMS: If that's your understanding, that will work for me as well, Mr. Bowman.

And in terms of the advancement and -- and in going back to you -- your quote about policy objectives -- in terms of the advancement, it was certainly recognized that when -- when you're putting in a project of the magnitude of Wuskwatim, there might be some impact in the short term on the Corporation's debt/equity ratio and interest coverage ratios.

You'll -- you'll agree with that, sir?

MR. PATRICK BOWMAN: Absolutely. That was Hydro's -- we -- we actually put in the quote of Hydro's in -- in a footnote in our evidence at page 10 and it -- this is from the -- what was known as the end-fact filing, "The Need For and Alternatives To The Wuskwatim Project" which said:

"Temporary increases to the Corporation's debt/equity ratio and decreases to the level of interest coverage which may occur in the early

> years of the project are judged to be manageable without impacting the Corporation's financial stability or requiring offsetting increases to domestic rates."

That was -- so it's -- it's the same -- I think they're -- it's quoting Hydro saying the same thing that you are.

MR. BYRON WILLIAMS: So and -- and of course and you -- you said this yesterday so I won't go over it, but that also was the sentiment of the Clean Environment Commission, the extent that Hydro -- the -- the case for advancement was contingent upon its being able to maintain its commitment that domestic ratepayers not experience rate increases as a result of the project.

That's fair, sir?

MR. PATRICK BOWMAN: Well, I'll put it precisely, since I'm sure you've reviewed the footnotes of our evidence in detail. It was the quote at page 16 of the Clean Environment Commission report:

> "The Commission's support for the projects is contingent on Manitoba Hydro being able to maintain its commitment that domestic ratepayers will not experience rate increases as a

result of the projects."

MR. BYRON WILLIAMS: Now, and just on this -- this point, Mr. Bowman, and I just want to see where -- where you're coming down on this point, and, again, to start with, without asking you to elaborate, do you recall suggesting yesterday in your oral evidence in the context of the 75:25 debt/equity target that we, and I'm trying to quote here?

"We were effectively coming close to raising rates for Wuskwatim."

Do you recall making that statement?

MR. PATRICK BOWMAN: I think it's actually written in our evidence and I could find it if it helps you.

But when you look at the mathematics of an IFF and the idea behind the debt equity target, there's a certain point where progress towards 75:25 and achieving 75:25 during a period where Wuskwatim has been put into service but has yet to generate any of its own equity, by definition means other ratepayers have -- have put up the equity. That's -- if -- if I -- I think is at that level is just a mathematical relationship.

The question is whether the 2.9 percent is indeed driven by that, and whether one would need to develop a Wuskwatim without Wuskwatim sort of scenarios and see whether you'd similarly justify the 2.9 percent. I -- I suspect given everything else that's around here, in the evidence that's here, 2.9 percent may be justified whether Wuskwatim was there or not, so that one (1) wouldn't say that this particular rate increase is being driven by Wuskwatim, but the horizon of rate increases in the IFF would -- may start to raise some concern.

MR. BYRON WILLIAMS: And that's the point I just wanted to take you to. You make the point -- and you don't need to turn there, but it's at page 17 if -- if you wish -- that it's not apparent in the materials file -- filed by Hydro that the series of 2.9 percent increase is forecast until 2017/'18 are not in effect being driven by Wuskwatim.

Is that still your position, sir?

MR. PATRICK BOWMAN: Well, recognizing the double-negative in the sentence, it is still my position.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: You're not prepared to say that this rate increase is being driven by Wuskwatim. If Hydro was back in with a two point nine (2.9) next year, you might go that far, Mr. -- Mr.

Bowman?

MR. PATRICK BOWMAN: Well, at -- it's -- at some point in IFF '07-1 horizon if it unfolds as -- as is set out there, that will probably become a more important test in -- in future hearings, to the point where Wuskwatim is -- is effectively covering it's own costs, if you like. Or -- or at least the Wuskwatim Limited Partnership is -- is performing the way that -- that one expects it to over the long term.

MR. BYRON WILLIAMS: Okay. Mr. Chairman, I've got about, I'm guessing twenty (20) minutes left, maybe a half an hour.

THE CHAIRPERSON: Well, we'll take the lunch break then, and we'll come back refreshed. We'll see you all at 1:15.

--- Upon recessing at 11:57 a.m.

--- Upon resuming at 1:21 p.m.

THE CHAIRPERSON: Okay, Mr. Williams.

MR. BYRON WILLIAMS: Yeah, I've just added a thirty (30) minute cross-examination on ethanol, Mr. Chairman, so...

(BRIEF PAUSE)

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: I won't repeat all my poor jokes that -- Ms. McLaren -- Mr. McLaren...

(BRIEF PAUSE)

MR. BYRON WILLIAMS: I'm in the wrong hearing again, Mr. McLaren. I said the Manitoba Public Insurance should -- you'll accept my apologies?

I've been talking to Mr. Bowman for quite a while. I'll -- I'll give you a couple of minutes if I might. Mr. Bowman, feel free to jump in if -- if the need arises.

But you, Mr. McLaren, you've heard my discussion with Mr. Bowman and -- and you've heard his views about the appropriateness of using a debt/equity ratio for rate setting purposes going forward.

You've heard that, sir?

MR. ANDREW MCLAREN: Yes, I have.

MR. BYRON WILLIAMS: Let's assume for a moment that the -- that the regulator still sees some value in using a debt/equity ratio for some regulatory purposes.

You're prepared to make that assumption for a second, sir?

MR. ANDREW MCLAREN: I can go with you there, yes.

MR. BYRON WILLIAMS: Okay. And you're aware that one (1) way a regulator might use to kind of check the reasonableness of a utility's debt/equity target might be through an examination of how bond-rating agencies look at the debt/equity status of the Corporation such as Standard & Poor's?

MR. ANDREW MCLAREN: I would think that's fair, yes.

MR. BYRON WILLIAMS: And another way that you might test the reasonableness of a debt/equity target might be to look at the practice of other activities.

You'll accept that?

MR. ANDREW MCLAREN: I will.

MR. BYRON WILLIAMS: You're aware, for example, that Manitoba Hydro from time to time has referred to the debt/equity ratio of utilities such as BC Hydro, as communicated through BC Hydro's annual reports, is a purported reasonableness check of its rations?

MR. ANDREW MCLAREN: I'm aware that at times Manitoba Hydro has referred to BC Hydro in that respect, yes.

MR. BYRON WILLIAMS: And you're aware as well, are you not, that if you went for example to the BC

Hydro annual report, let's say for whatever year, 2006 or 2007, you'd see a calculation suggesting that the debt/equity rate for BC Hydro was about 70 percent debt and 30 percent equity?

Would that be fair?

MR. ANDREW MCLAREN: That would be fair. And I -- I think we even provided an exhibit, MIPUG-8, that sort of highlighted some of those, yes.

MR. BYRON WILLIAMS: And that's -- and we don't need to turn there but that's -- your -- based upon your work in preparing MIPUG Number 8, you're aware that in BC Hydro in calculating its equity in -- in its -- for the purposes of its debt/equity calculation would include material contributions from sources such as the Columbia River Treaty?

Would that be fair, sir?

MR. ANDREW MCLAREN: Those contributions are included in the equity portion of the calculation, yes.

MR. BYRON WILLIAMS: And would you accept, subject to check, that for the Columbia River Treaty in 2006 the contribution was about 175 million?

MR. ANDREW MCLAREN: That number seems reasonable, yes.

MR. BYRON WILLIAMS: And for the purposes of the fiscal year ending March 31st, 2007 the contribution was $166 million.

MR. ANDREW MCLAREN: I can accept that number as well, yes.

MR. BYRON WILLIAMS: Without asking you to elaborate, at a high level are you aware of any directive or order in council issued by the BC Government in January of 2008, amending the BC Hydro definition of equity for regulatory purposes?

MR. ANDREW MCLAREN: I -- I'm aware of such a directive. I wouldn't say that I've reviewed it in detail and it's not something we've relied on in our evidence.

MR. BYRON WILLIAMS: And I won't go too far down that path, but again without elaborating, would it be your understanding that under the amended definition of equity, items such as a contribution from the Columbia River Treaty would no longer be taken into the calculation of equity -- no longer taken into account?

MR. ANDREW MCLAREN: That's my understanding of that directive, yes.

MR. BYRON WILLIAMS: Thank you. Mr. McLaren, I've -- now that I've got your name correct, I hope anyways, just a couple questions. I believe in your qualifications' stage of your direct evidence, you indicated that you were involved in the -- assisting in the development of the joint proposal by industrials and the Utility company in Newfoundland, with regard to an -- a proposal regarding inverted rates.

Is that correct, sir?

MR. ANDREW MCLAREN: Yes, that's correct.

MR. BYRON WILLIAMS: Could you advise as to the status of that proposal?

MR. ANDREW MCLAREN: There was a report filed with the Newfoundland Public Utility's Board in I believe February of this year, but the rate is not currently in place as of yet.

MR. BYRON WILLIAMS: In terms of the report filed in February of 2008 is that in the public domain, sir?

MR. ANDREW MCLAREN: Yes it is.

MR. BYRON WILLIAMS: Through your counsel, Ms. McCaffrey, I wonder if -- if you'd agree to undertake to provide that in this Hearing. I think it would be of some interest to my clients.

MR. ANDREW MCLAREN: I can provide copies, yes.

We'll take -- we'll take that as an undertaking, I take it? Okay.

--- UNDERTAKING NO. 93: MIPUG to provide Coalition with report filed with the Newfoundland Public Utility's Board in February of 2008

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Bowman, back to you. And just very quickly -- again you don't need to -- to turn here, but at page 38 of your evidence, you made reference to BCUC Order G11-07 and the rate re-balancing plan over three (3) years.

Do you recall that, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And as I understand your -- your evidence this morning, you were indicating that the BC Government has taken some steps to extinguish the rate re-balancing aspects of that -- that Order.

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: It's filed -- and I'm not sure if the name matters, but it's filed or it's tabled in the BC lett -- Legislature, the Utility's Commission Amendment Act.

Would that be fair -- or your understanding, sir?

MR. PATRICK BOWMAN: It -- it is. I'm not aware of the exact status of it. I know it had -- had made it to a third reading, but beyond that I'm not sure, in terms of proclamation or anything of the sort. But what I can advise is, once the BCUC made it's decision in respect of rate re-balancing to occur over three (3) years, the Minister advised them that they intended to pass legislation which would prevent rate changes related to re-balancing, because of other factors that were driving rates at the time. And as a result the BCUC accepted a review in variance of its own Order.

So that -- whether -- whether the legislation has passed I guess, is -- what I'm trying to say, it's not relevant to the -- to the BCUC's decision, because at this point it's been -- it's -- they've neutered their own order -- or they've mended their own order, in any event.

MR. BYRON WILLIAMS: Thank you -- thank you for that. And you're probably about two (2) readings ahead of me in terms of my knowledge of the legislation, so I thank you for that.

Just out of curiosity, when -- when I leaf through that piece of legislation at Section 64.04, I saw a reference to the implementation of a smart metering project by 2012.

Do you -- do you have any knowledge of that, Mr. Bowman?

MR. PATRICK BOWMAN: Not much. I do know that the legislation that was tabled in BC was broader than just a -- a no re-balancing legislation. It did deal with the no re-balancing topic, as you talk about; no re-balancing for two (2) years. And then once re-balancing occurred, no more than two (2) percentage points per year thereafter. So -- so decent guidance on the re-balancing.

But it was a broader piece of legislation to deal with what BC considered their primary concern at the time, which was energy self-sufficiency, insuring that BC produced enough energy in the province to supply the province, which it doesn't currently do. So, the fact that -- that legislation also includes terms on -- on resource plans, DSM, and smart metering would be consistent with that -- my understanding.

MR. BYRON WILLIAMS: Okay. And I'll leave that to the reading pleasure of others. I appreciate that. Hopefully, a short snapper question, it can go to either Mr. Bowman or Mr. McLaren.

In terms of customer service costs, would it be your view that the incremental cost of adding a new industrial customer is the same as the average cost as expressed in the Cost of Service Study?

Do you want me to repeat that?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: It's not something we spend a lot of time thinking about, given that customer service costs are -- make up a very small component of the rates that industrials pay, and are primarily related to things like -- like billing and -- and adding new staff. But to the extent it's relevant, I -- I would imagine that they're not that different than the average, but I -- I couldn't say with any real certainty.

MR. BYRON WILLIAMS: So your view would be that they would be about the same.

Is that correct?

MR. PATRICK BOWMAN: Well, these costs make up, you know, maybe 1 percent of what -- what comprises the rates to industrial customers. So in terms of how adding a new customer would impact the class and the customer service costs, it wouldn't -- it wouldn't be in a number that -- that makes very much difference.

I think others may know more about that this than I do, but when you have a very large customer of that sort, they have a fairly active customer service relationship with the Utility. They have key account representatives and so adding a customer adds a need for key account representatives. And they have, you know, the billing takes a certain amount. A new customer's billing in terms of operating and maintenance costs would be probably not that different than a current customer's billing.

But, like I said, it's -- given it's 1 percent of the costs, it -- it would be a rounding error overall in the -- in the -- in the cost of service, so it's -- I'm not saying with any certainty but I don't -- I don't -- it's not something we spent that much time dealing with them.

MR. BYRON WILLIAMS: And recognizing that caveat, let me just follow along with that same question. In terms of customer service costs, is it your view that the incremental cost of adding a new residential customer in the City of Winnipeg would be the same as the average cost as expressed in the Cost of Service Study?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: That's a little bit harder to say, only because these are more material components of that customer's costs so you're -- you're talking about something that has more potential to make a difference. But, you know, if you have a -- a customer service cost would be related to the relationship in the billing. Surely, you have to mail a new bill but, do you need to add a person in the billing department or a -- or -- or add to the software or -- or add a -- people to call centre because of an additional residential customer?

It -- it seemed it would be very hard type of thing to analyse. It --it's part of the reason why considering marginal costs for distribution systems is a pretty -- you know -- awkward concept at best. And it's not that -- in our experience, it's that not commonly used because it's -- these are pretty challenging types of concepts.

MR. BYRON WILLIAMS: Just to follow-up for a second, Mr. Bowman, given your answer and -- and your point about, you'd have to mail out a bill but you may not have to add another staff person or computer capability, would I be correct in suggesting you -- to you that generally with regards to -- in terms of customer service costs, the incremental cost of adding a new residential customer in the City of Winnipeg would -- your expectation would be that -- it would be lower than the average cost as expressed in the Cost of Service Study.

MR. PATRICK BOWMAN: Well, you -- you've asked just about the customer service component, if I understand you --

MR. BYRON WILLIAMS: That's correct, sir.

MR. PATRICK BOWMAN: -- correctly, and -- and I -- I guess that -- that wouldn't surprise me, but I -- I can't necessarily take that -- a strong position on that.

MR. BYRON WILLIAMS: That would be your inclination?

MR. PATRICK BOWMAN: I -- I think that's fair.

MR. BYRON WILLIAMS: Speaking again just restricting this conversation to customer service costs, as a percentage of total cost, you'll agree that for residential customers they would be more material than they would be for large industrials, the group that you're more familiar with?

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes, compared to the industrials. I -- I told you that with respect to industrials customer service costs make-up about 1 percent of the total rate or bill they pay. With residential it's -- it seems to be closer to about ten (10) based on the numbers.

And I'm looking at MIPUG-15 which does these breakdown of PCOSS '08 by -- by class, and you know, residentials -- customers service costs are listed there at 47 million of about 433 million in -- in total forecast revenues. So about, you know, on the order of 10 percent.

MR. BYRON WILLIAMS: Thank you, and I appreciate your answer. I want to talk about RIM for just a couple of -- couple of minutes, Mr. McLaren; the rate impact measure.

The -- there's two (2) references for your guidance and that of the Board. One (1) is PUB Interrogatory MIPUG dash Number 11, and the other one is page 29 of your evidence, footnote 82, sir.

Mr. McLaren, or Mr. Bowman, sorry, and I can assure you my -- my cust -- my clients are quite taken with -- with this -- with discussion in terms of RIMs, so they'll be reading this part of the transcript closely.

Just -- the rate impact measure, as I understand it, it measures the Utility's benefits against its costs. And by costs I mean things such as loss revenue, program costs including advertising and administration, and incentives.

Would that be fair, at a high level, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And just -- when I use the -- the term "rate impact measure", you'd suggested that in fact that's a bit of a misnomer, because what it really measures is the revenue requirement impact not the rate impact.

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And you'll recall, I -- I certainly had a bit of a discussion with Mr. Chernick, it seems so long ago now, but a couple of weeks ago, and my -- my sense of his evidence was that in -- in terms of the design of demand-side management programming he would recommend doing away with the -- the RIM test.

Was that your understanding as well, sir?

MR. PATRICK BOWMAN: That's what I understand he -- he said. I -- I'm not positive I followed all of -- all of his rationale behind it, but I do understand he said that.

MR. BYRON WILLIAMS: Okay. and I'm more interested when you come down on -- on this issue.

And my sense of your position is that first all it differs with Mr. Chernick's. And you would argue that it's not appropriate within a rate regulated system to pursue DSM projects that do not pass normal economic tests such as the RIM.

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And I -- I see in your evidence -- and if you're looking for a reference it's the response, PUB MIPUG-11, page 3, lines 17 to 18.

It looks like you're really suggesting that the focus and emphasis on projects should be on projects that have a RIM greater than one (1) or at least close to one (1).

Is that your position, sir?

MR. PATRICK BOWMAN: Well, they'd have a -- a positive impact or a neutral impact on overall revenue requirement or -- or at least close to that.

MR. BYRON WILLIAMS: And I'm not -- I'm -- I'm dragging back -- dragging back into my memory, sir, but let's take, for example, a program such as some of the low income energy efficiency ones.

Would it be your recollection that they have -- if we applied the RIM to them that it might suggest that they would be less than one (1)?

Would that be fair, sir?

MR. PATRICK BOWMAN: That's possible.

It's one (1) of the reasons why programs like that become a bit challenging to categorize because -- and -- and it may not get the -- the focus that -- that you would otherwise expect. And it's because when you look to a DSM program, DSM within a utility -- I said earlier DSM and kilowatt hours are a little bit different than other kinds of kilowatt hours. DSM programs are also a little bit unique in a utility in that they're very -- they very much cross different disciplines.

At it -- at its heart you want to be able to think about DSM as a resource option as a way to help plan your system. If you can acquire kilowatt hours from biomass, then we'll do it that way. If you can acquire kilowatt hours from DSM, then we'll do it that way. And you can compare the two (2) and consider it a viable component of your resource planning which would put it within a certain resource planning discipline. But to actually pull that off, you have to combine that with the marketing aspect, right?

You actually have to get people to do the DSM. It's quite a bit different than -- than a biomass where all you've got to do now is build it.

So it -- it sort of crosses disciplines between a customer contact or marketing perspective and a -- and a resource planning perspective. The -- the RIM test is the one that really starts from the resource planning side or -- or a revenue requirement impact test. It measures DSM on an equal footing with other types of resource options like -- like a biomass generation or a new hydro plant, and it helps make sure that you're pursuing DSM on every opportunity where those kilowatt hours can be economically achieved.

Low-income DSM is not always going to meet that test, or at least in the types of programs we're talking about here, as I understand it, but there may still be reasons to want to pursue it that relate more to a policy perspective than a -- than a strict economics perspective.

And they may have to do with things like managing rate impacts and other considerations, but it's -- it's a -- it gets a bit dangerous to not remain with DSM true to each of the -- the two (2) areas; that you do have to sort of remain with DSM as a -- as a resource planning context and not lose sight of that otherwise it becomes just -- it could become just a marketing aspect to the Utility and not -- and -- and lose the linkage to what it's really can be about which is acquiring resources at a -- at an efficient price.

And -- and frankly many times that means that you might even not do as much DSM as you should. I'm not just saying you'd do too much. You might do way too little, and that's our main concern.

MR. BYRON WILLIAMS: I understand your concern, and you'll also be aware that my clients are certainly hopeful that low-income energy efficiency programming will -- will prosper with this Corporation. I just want to -- to tie you down a little bit on this point, Mr. Bowman, if I -- if I might.

From your perspective are these programs, as you understand them based upon your following of the proceeding, are these programs that you would recommend to the Board?

MR. PATRICK BOWMAN: Well, I haven't reviewed the programs in detail, but I can comment generally that when we are talking about DSM in our evidence, and we say there should be an important focus on -- on the RIM test, it's to make sure that we don't lose sight of the fact that all of the economic opportunities for DSM should be pursued. We want to make sure that it's not getting lost in some -- in some marketing context. We want to pursue all of the -- all of the credible resource options.

That doesn't mean there's not other DSM options that are necessary from a policy perspective that may have a positive RIM test or may not, but that you need to pursue it from other perspectives like your low-income example in order to manage rate impacts and that's a relevant consideration. It's just not the -- the aspect of DSM that we were primarily focussing on in our evidence.

MR. BYRON WILLIAMS: I understand your primary focus. Within the context of appropriate regulatory principles those other factors you've mentioned are -- are certainly worthy of consideration.

MR. PATRICK BOWMAN: They -- they are with caution because they're really getting into areas where, you know, you -- you may find a lot of these types of DSM programs run different places, and -- and people will highlight how many different programs you have. But you do want to be careful about the -- the roles of the Utility and other ratepayers in financing this as opposed to a government financing it or -- or some other form of imposed levy to -- to finance them for the -- for the distinguishing features I know between that type of DSM and the resource acquisition type of DSM.

MR. BYRON WILLIAMS: Okay. Thank you Mr. -- Mr. Bowman. Just a final question or two (2). Just going back to your evidence, page 4, line 19.

We talked about this briefly, Mr. Bowman. You see a reference to a -- to the MIPUG group annually purchasing about 5,200 gigawatt hours of electricity at a cost of over 100 million from Hydro in brackets approximately 25 percent of Hydro's domestic sales.

That's the statement there, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And in terms of the reference to approximately 25 percent of Hydro's domestic sales, my understanding of that is -- how that percentage was calculated, you took the annual purchase in the '06/'07 year of 5,200 gigawatt hours of electricity and divided it by the 20,555 gigawatt hours of Manitoba supply for 2006/'07 as reported at the annual report.

Is that right, sir?

MR. PATRICK BOWMAN: That's exactly what the footnote says.

MR. BYRON WILLIAMS: And that's exactly what happened? That's right?

MR. PATRICK BOWMAN: That - that's what was done. This section was just to portray for people the -- the client that we work for -- and the reason they have the type of concerns that they do and why they ask us to look at them.

MR. BYRON WILLIAMS: Yeah, and just in terms so when I see 25 percent of sales, you're referring to its proportion of -- of -- of the Manitoba supply.

Right? You're not talking to a dollar figure. You're talking a gigawatt hour figure, correct?

MR. PATRICK BOWMAN: Measured as gigawatt hours. Energy, yes.

MR. BYRON WILLIAMS: And earlier we discussed -- in terms of the costs of over $100 million, you weren't able to give me a great deal of precision, but you indicated that it would be less than $150 million. Would that be right, sir?

MR. PATRICK BOWMAN: Well, the whole industrial GS large class is just over a hundred and sixty (160) as I recall. This -- this is about 85 percent of the class. So, I'm -- I'm not trying to do any fancier math than that. I'm just saying that -- that -- that's -- that's the type of range. It's -- it's just meant to reflect that there's a substantial basis for concern.

MR. BYRON WILLIAMS: And -- and I respect that, sir. In terms of the annual domestic revenues in Manitoba Hydro in '06/'07, I can give you a reference from the annual report page 100 if you need, but I wonder if you'd accept, subject to check, that it's about a bit over $1 billion.

Would you accept that, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: If I were to divide that -- let's say at or less than $150 million of MIPUG revenues by that $1 billion domestic revenues, would that suggest to me about 15 percent of domestic revenues are attributable to MIPUG in the '06/'07 year -- to the MIPUG numbers, sir?

MR. PATRICK BOWMAN: Well, if you ignore the fact that about half of Hydro's revenue is to pay for a distribution system, and you just wanted to look at ratios, that would be the type of number you would come up with.

MR. BYRON WILLIAMS: And so you'll -- you'll confirm the answer then, sir? 15 percent about? Maybe a bit less.

MR. PATRICK BOWMAN: A bit less.

MR. BYRON WILLIAMS: So in terms of the actual sales, they account for about 25 percent and in terms of the revenues, a bit less than 15 percent.

Would that be fair?

MR. PATRICK BOWMAN: I would have guessed about twelve and a half (12 1/2) because they're about 25 percent of the system, and they use about half of the system so you take a billion, you take half of that, you get to 500 million. You take 25 percent of that, you're at about 125 million, which is about 12 1/2 percent of the billion. It relates to the -- the two (2) systems that Hydro runs.

MR. BYRON WILLIAMS: I thank you for that. Mr. Chairman, I have no further questions.

THE CHAIRPERSON: Thank you, Mr. Williams.

Mr. Gange, are you ready to begin?

MR. GANGE: Yes, thank you, Mr. Chair.

CROSS-EXAMINATION BY MR. BILL GANGE:

MR. BILL GANGE: Mr. McLaren, Mr. Williams asked you a couple of questions about the Newfoundland Study. You -- you participated in that study, is that correct, sir?

MR. ANDREW MCLAREN: Yes, it is.

MR. BILL GANGE: And -- and you make reference at page 41, that -- at the time that -- that your pre-file testimony was prepared, that it was expected that there would be a joint proposal to the Newfoundland Public Utilities Board.

And -- and that -- that is in fact what happened, it was -- it was a joint proposal?

MR. ANDREW MCLAREN: The -- the report is under the cover of the Utility in Newfoundland/Labrador Hydro, but it's fair to say that it's -- aside from a few minor aspects of it, that both the industrial customers and the Utility are -- are recommending it to the Utility Board.

MR. BILL GANGE: Can -- can you describe the process of how that joint proposal was -- was submitted?

MR. ANDREW MCLAREN: Sure, I can try. During the 2006 General Rate Application there was some concern from a variety of parties about having a modern rate design that included a -- a marginal cost sort of price signal. That general re-application was ultimately settled by way of a negotiation, and one (1) of the terms of the negotiation was that there would be a review by customers of a way to implement a -- a two-tier rate for industrial customers that had sort of a marginal price signal component to it.

So following that settlement agreement, we had a sort of working group with -- between the industrial customers and Newfoundland/Labrador Hydro, where we tried to develop a proposal. And there were check-in points along the way with the other interested parties in that application, the consumer advocate, and there's also a distribution utility in Newfoundland -- Newfoundland Power. And so there were check-in points with them along the way to sort of bring them up to speed on progress and -- and how we were proceeding.

MR. BILL GANGE: And -- and in terms of how that joint proposal proceeded, can you say from your perspective as to whether your sense was that the various parties that were involved felt that they had -- that there had been adequate consultation, in terms of -- of getting this joint proposal before the -- the Newfoundland PUB?

MR. ANDREW MCLAREN: I can certainly say that, you know, industrial customers, when this topic first came out, approached it with some trepidation. They weren't sure what to make of it, they weren't sure whether they would like it or not, and there may be individual members that still have aspects of it they don't -- they don't like.

But overall I would -- I would say that I think that the -- both the customers and the Utility thought it was a reasonable process that addressed most of their concerns. Like I said, there are certainly one (1) or two (2) outstanding issues we couldn't resolve.

In terms of the -- the other interested parties, there will be a sort of workshop proceeding where those parties will have a chance to comment, but based on the feedback we've gotten from them to-date, it seems that it's -- it's relatively well aligned with what their expectations were as well.

MR. BILL GANGE: Was there anything unique about the Newfoundland experience that -- that would lead you to conclude that it could work there but could not work here?

MR. ANDREW MCLAREN: Well, I would certainly hope that it's a process that is -- is largely transferable. Certainly there are aspects of the system characteristics that are -- that are different. Newfoundland is an island, which Manitoba Hydro is not; it's not interconnected.

So there's some major sort of system dynamic changes, but in terms of transporting the process, I would think it should be, to a large degree transferable. And I -- I know that -- I wasn't personally involved, but I know that MIPUG members, to some extent, were with the curtailable rates process and that generally the feedback we get from customers who were involved with that, was that that process, they were -- the early 1990s, I believe -- that those customers were happy with that type of collaborative approach to a -- to rate design.

MR. BILL GANGE: I -- I take it, therefore, from those answer, that -- that whole type of collaborative approach is something, from your experience, that would lead you to say that was -- that -- that was a useful approach for considering an issue such as the industrial rate design.

MR. ANDREW MCLAREN: I would certainly agree with that, yes.

MR. BILL GANGE: Thank you, Mr. McLaren.

Mr. Bowman, in -- in one (1) of the recommendations that you have, at -- I believe it's page 3, point 5, is that you've indicated your recommendation is that Hydro should be direct -- directed to implement a second rate adjustment effective April 1st, 2009, on a corporate wide revenue neutral basis. And -- and you commented on that as -- as part of your conclusion this morning.

That -- that's part of your proposal?

MR. PATRICK BOWMAN: Yes, if it would seem to be a necessary step if one is going to move with any reasonable horizon towards achieving the revenue cost coverage ratios within the -- the sort of reasonable range, yes.

MR. BILL GANGE: And what you were focussing on there in your testimony this morning was that it would be a realignment of the cost ratios within the classes?

MR. PATRICK BOWMAN: Well, we -- we

commented on it this morning. I -- I may have elaborated a -- a bit, but this is, you know, in the event Hydro is not otherwise doing a rate increase for 2009 doesn't mean that -- that rates are okay, and we that don't need to worry about changing rates.

This is -- this is a worthwhile step to make sure it happens in the event we're not otherwise here for a -- a rate application twelve (12) months from now. But it was meant to be a re-balancing between the, you know, among the classes as well as where necessary within the classes.

MR. BILL GANGE: And -- and thank you for that because that made -- you may have addressed the issue that -- that my clients would -- would raise an issue with. And that is that given that everyone except perhaps street light -- street lighting pays revenue below the allocated embedded costs, wouldn't it -- wouldn't it make sense that -- that new rates effective April 1st, provide another revenue increase so that -- so that it's moving towards a full recovery?

MR. PATRICK BOWMAN: Well, it -- it probably does go to the comment I just made that in the event Hydro was looking for a rate increase at that time, that would give the opportunity to embed re-balancing within their request for the rate increase. In the event

Hydro was not seeking a rate increase in that time then that's -- then that's different.

Your comment is, you know, in -- in the event an overall rate increase is justified and merited, then -- then that would require -- that would bring forward a -- a general rate application at that time, and -- and we'd all be able to review the -- the merits of the overall proposal then. But -- that -- that request hasn't been made to date.

MR. BILL GANGE: Thank you. In terms of the industrial rate with respect to the large customers, your -- the -- the point that you've made in your evidence is that your preference is for inverted rates as opposed to the -- the methodology that has been -- been outlined by Hydro.

Would that be fair?

MR. PATRICK BOWMAN: Well, if -- if by the comment, "the methodology that's been outlined by Hydro," you mean our preference is for inverted rates as opposed to the rate -- the type of rate structure that's been in place to date for large industrials, meaning one (1) single demand charge and one (1) single energy rate I -- I think the answer is, yes. Assuming the details can get worked out inverted rates would be superior to a simple flat rate.

MR. BILL GANGE: And one (1) of the issues that you focussed on with respect to the inverted rates -- rates is that it's -- it's more effective to send an appropriate price signal to the large industrial users. Is that correct, sir?

MR. PATRICK BOWMAN: Well, the -- yes, the point is to have a -- a price signal they can respond to and -- and in the event they can -- they can respond to it and reduce their load, they see the -- the savings that correspond with -- with that type of change in their bills.

MR. BILL GANGE: In -- in Hydro's suggestion with respect to the -- the new rate design, they've focussed on a baseline energy -- sitting -- sitting baseline energy.

You recall that, sir?

MR. PATRICK BOWMAN: Yes.

MR. BILL GANGE: And that that baseline energy would be fixed and -- and then could only be increased pursuant to certain exemptions that would be established and agreed upon.

MR. PATRICK BOWMAN: Yes, that's my understanding.

MR. BILL GANGE: And -- and whether it be by way of a baseline energy or -- or by way of inverted rates, either one (1) of those processes is intended to send that price signal to the industrial user to attempt to assist the -- the industrial user in reducing and conserving demand.

Is that correct, sir?

MR. PATRICK BOWMAN: Not necessarily because they do entirely different things. An -- an inverted rate structure is something that would apply to every customer so that all of them have the full incentive on every kilowatt hour they consume to be efficient. The rate as -- the new industrial rate, as it's been talked about, would apply to very few customers so that, in fact, most of the load on the system would not see any of those incentives.

To those very few customers who are exposed the new industrial rate, at the margin they would see the same incentive to consume so once they were here, they would have the same incentive to consume a kilowatt hour. And you'd -- you'd get to put one (1) component of that high elasticity, that high industrial elasticity or relatively high, still quite inelastic, but relatively high industrial elasticity to your benefit.

You send a better price signal and -- and they find a way to -- to conserve, but because the infra-marginal component of the rate, the -- the lower blocks are also at that signal, you put the other component of that elasticity to bear on these customers which is the -- the one (1) that says, If that's the case, I won't use power here at all. I'll go somewhere else. So it's a whole different type of situation.

MR. BILL GANGE: Thank you for -- for the distinction. In -- in terms of the baseline energy component, part of Mr. Chernick's testimony is that -- that setting a baseline rate is -- is one (1) thing but that -- that once it's been established there ought to be -- that baseline energy ought to be decreased on a regular basis by a small percentage amount.

Do you recall him testifying about that, Mr. Bowman?

MR. PATRICK BOWMAN: I recall reading it in his evidence, yes.

MR. BILL GANGE: And -- and would you agree with that that would then -- just on that baseline energy component part that it makes sense that if you're going to have a baseline energy, that it be reduced on an -- on an ongoing basis in order to again send the price signal with respect to conservation?

MR. PATRICK BOWMAN: No, I didn't agree with that, and -- and -- I'll -- I'll tell you why. There's two (2) reasons. The first is that if you're designing an inverted rate, the idea is that the customer will always be in the second block. Every month and every year, they remain, as much as possible, using that second block power.

As long as they're purchasing any quantity of the second block power, every kilowatt hour they can save saves them at the marginal price signal. You don't have to ratchet up the quantity available for them to save because the -- the price signal's exactly the same.

If your customers are saving more than you -- you designed the block for, so if you set it, say, at 90:10 and your customer's responding with more than 10 percent, then you can set the blocks differently, 85:15 if you like, but every time you bring those down, those -- those baselines down, if you're going to keep to the spirit of this type of rate which is that it's -- it's revenue-neutral.

It's not to penalize the class. Every time you bring the baseline down, you're adding more of the expensive kilowatt hours which means that the way the mathematics work, you're driving down the price of the first kilowatt hours they use. And at the end of the day, it's not really changing anything in terms of their bill or -- or their price signal so I -- I didn't -- I didn't see in any way the -- the benefits of -- of, you know, the proposal as he's put it.

Now, if indeed you're talking about needing to move the baseline down such that you can keep some level of marginal use every month, then -- then that's fine, that makes sense. You do want to have your baseline low enough that you've got a price signal every month and every year, but I don't know that it needs to creep down over time. It just needs to be set at -- at whatever level achieves that.

MR. BILL GANGE: Your point though on the inverted rates is that -- is that there has to be a price signal that -- that is going to encourage users to be saving on every kilowatt hour.

Do I -- I have that correct, sir?

MR. PATRICK BOWMAN: As long as every billing period has some kilowatt hours at the higher price, then every decision that customer makes affects their -- their bill at the higher price. So it's not that the lights are cheap but the stove is expensive -- I'm using a residential example rather than industrial -- but, it's that every -- the sum total of all of those uses leads to a certain bill, and that bill would change by a given price, assuming you could change the bill by that number of kilowatt hours.

So it doesn't matter whether you turn the stove off or you turn off the lights, each of those saves you equally, even though you -- you haven't necessarily targeted, you know, more extensive energy to one (1) use and less expensive to another. As long as there is one (1) last kilowatt hour out there that's expensive it gives you the opportunity to save that by -- by reducing your uses by one 1 kilowatt hour.

MR. BILL GANGE: And -- and does it follow then, sir, that -- that the more significant, that the -- that the differences between those two (2) blocks of power, the -- the stronger that price signal is going to be?

MR. PATRICK BOWMAN: No, because the price signal is exactly the price of the second block. It wouldn't matter if you're first block is, you know, is -- is free or is -- is, you know, priced at a -- at a very high level.

The classic example would be: previously Manitoba had a structure for residential rates -- are actually I guess still in place -- which was stepped the other way, it was -- went down over time, and it means that the customers who are into that second block are seeing the price signal of their last unit. It actually doesn't really matter what their first units are priced at, it's that last unit is the one that's the price signal.

MR. BILL GANGE: I see, so as long as -- as long as that last unit is -- is significant that that's going to be the incentive to save?

MR. PATRICK BOWMAN: Right. As long as the last unit is the unit you're saving, which -- because every kilowatt hour you use is effectively a new kilowatt hour -- and every time I say that, everyone but the economists in the room sort of look curious -- but -- but because every consumption decision affects your last kilowatt hour your -- every consumption decision receives that same -- that same price signal. It wouldn't matter if it's lower than the first block or higher than the first block or the same as the first block.

(BRIEF PAUSE)

MR. BILL GANGE: Thank you for that, sir. I -- I believe it was in the -- I'm not sure if it was in the -- the MIPUG motion or at the -- in the opening statements, there was evidence -- or commentary -- I'm not sure it came by way of evidence -- but with respect to the -- the TransCanada Pipeline, I believe there was a comment that their load is $10 million at current rates but would be $20 million at the proposed marginal rates.

Do you recall that evidence, sir?

MR. PATRICK BOWMAN: I believe it was at the Motion Hearing and it was -- it was Keystone Pipeline not -- not TransCanada but -- although it's partially owned by TransCanada, but I think their sensitive about that. It's Keystone Pipeline and -- and those numbers sound familiar, but I -- I can't quote them.

MR. BILL GANGE: Whether they're exact or not they're -- they're in the ball park though, that -- that's fair?

MR. PATRICK BOWMAN: I think that's fair, yes.

MR. BILL GANGE; When Professor Miller and I heard those comments, the -- the point that seemed to resonate was that if there's going to be that increase of something close to doubling, that taking that is -- does that lead one to the conclusion that -- that Keystone is in essence obtaining their -- their power right now at -- at about a 50 percent discount from the market value?

MR. PATRICK BOWMAN: Well, Keystone's not taking any power right now, just to be clear. They're not a customer on the system as yet; it's not constructed.

But it's -- it goes to the same question that you and I were discussing earlier about every kilowatt hour is a new kilowatt hour.

If you want to go down the road as saying everybody who's here now, and all of the uses by all the people who are here now, and all of the expanded uses by any of the people who qualify for exemptions is -- has rights in some way to receive the output of Grand Rapids and Pointe du Bois and others, by virtue of -- of something, but Keystone doesn't have those same rights, it has to be, by definition, be the last party -- last person to the party.

Then you're effectively defining all of them as the new kilowatt hours, and none of anyone's else's usage as the new kilowatt hours. You get into that situation, and you -- you find that you end up with a very punitive signal to them simply due to the, you know, the -- the organizing your thoughts around that -- that, you know, acquired rights as the term is sometimes used in regulation.

The acquired rights to the existing assets that -- that is the basis of the entire argument that Hydro's putting forward; that somehow today's ratepayers, and existing customers, and certain types of growth have an acquired right to the cheaper power and -- and these other customers have not acquired it.

It's a concept that's pretty routinely rejected in regulation. But -- but that -- that's the premise. No one's put the -- the name on it yet.

(BRIEF PAUSE)

MR. BILL GANGE: Mr. Bowman, if you could, in the rebuttal evidence of Manitoba Hydro, and I'm at -- at page 13, Hydro has provided a chart that -- that it was provided with respect to debt/equity ra -- ratio. But it -- it would seem to indicate that for a period of approximately ten (10) years, there were no rate changes that were implemented.

You see that chart, sir?

MR. PATRICK BOWMAN: Yes, it -- I think the chart is referencing history of rate changes to -- to industrial customers, and it relates to the basic firm rate. There were other types of changes to the other rates that they're involved in, but to the basic firm rate that's what it's referencing, yes.

MR. BILL GANGE: And then in 2003, there was a 2 percent rate decrease as -- as shown there. And, again, is that the same -- the same qualification that you'd put on that?

MR. PATRICK BOWMAN: Yeah, it's a -- it

was a 2 percent rate decrease and that was coming out of the status update hearing before this Board.

And it was to the -- it's not -- it's not a qualification. It's just to make sure we're -- we're precise, you know. In -- in the midst of this period, there was a curtailable rates program introduced so some customers had their bills effected by -- by participation in that. There was some different surplus energy programs.

So if you were an individual customer you -- you may have seen your -- the rate -- the effective rate you're paying change. But the -- the overall rate schedule had -- had no change in the -- in the basic firm rates that make up most of the persons bill through that period. A 2 percent rate decrease in 2003, and then a -- a 5 percent rate increase and since that, as I recall, two (2) 2 1/4 percent rate increases.

MR. BILL GANGE: I just want to consider this chart in -- in terms of the -- this mornings discussion of the dilemma of creating equity; the equity component when the debt is projected to skyrocket from new infrastructure investments; that -- would -- would you agree, sir, that the policy of low domestic rates being created -- or being maintained through what is basically an export subsidy requires a growing export surplus to match the growing domestic load?

MR. PATRICK BOWMAN: Can I just get you to repeat the question?

MR. BILL GANGE: Well, yes, if our -- if our low domestic rates are achieved in large part through a subsidy created by the export surplus -- are you with me that -- that far?

MR. PATRICK BOWMAN: I followed that part of the question.

MR. BILL GANGE: Okay, then if -- if the growing -- if there's growing domestic load, there's going to have to be a growing export surplus in order to match that growing load -- domestic load, if you're going to continue that subsidy.

(BRIEF PAUSE)

MR. PATRICK BOWMAN: The -- the challenge I'm having, Mr. Gange, is the -- the chart that you're showing starts to show something that's more of a longer term perspective than in any one (1) given year and so you -- you run into different thoughts over a longer term than you do in -- in one (1) year.

Growing -- if I understand where you're -- where you're going, in terms of the -- the question, growing load in Manitoba, while keeping the rates the same in Manitoba, and I take it the premise is not adding assets, is that -- you know as part of -- of this -- this period you're looking at, no -- no new generation was built, no major generation, then you'd have more kilowatt hours used in Manitoba, less kilowatt hours as a result to export, and as a result, if your costs didn't change, if your costs only sort of changed modestly, the -- the few kilowatt hours that are trying to carry the many have to get higher priced, I guess.

Is -- is that the type of relationship -- if that's the case, I -- I think it might be fairly unique for a period where you're not adding assets, but if that's the type of relationship you're -- you're thinking about, I -- I can understand where you're -- where you're going.

MR. BILL GANGE: I may have confused you, Mr. Bowman, by -- by make -- by tying this in at -- at this point, that question to this chart so the -- the chart is really just the background for the fact that for a period of -- of ten (10) years there -- pursuant to this, there's no rate change and then in 2003, there's a rate decrease.

But let's put that chart aside at this point and -- and just go back to the -- to the concept that -- that we do have in Manitoba rates where none of us other than Mr. Buhr pay our fair share and -- and the only -- and -- and the reason for that is because there is an export subsidy that's applied to all of the rates so that's the basic starting point of -- of my question.

And then the second part of that question is that in order to maintain that subsidy, it strikes me that you're going -- that -- that an argument can be made that in order to -- to maintain that same subsidy, you have to increase the export surplus in order to apply it against the growing domestic load.

MR. PATRICK BOWMAN: Well, just to make sure I'm -- I'm following you I would -- I would take you to page 31 of our -- of our evidence, and there's a table there that I think is dealing with the -- the numbers at least in this -- in this year, this PCOSS '08 year. That's the concept you were talking about and it shows Mr. Buhr's situation.

That's page 31, and as you look down the table called "Surplus Shortfall", what I -- the numbers that are there show that outside of diesel and probably we should leave diesel aside for the purposes of this. Outside of diesel, exports pay their fair share of costs as defined by this Board plus they pay 131 odd million.

And that 131 odd million, outside of Mr.

Buhr's clients who pay three hundred twenty-four thousand ($324,000) more than they would have, is distributed among the different customer classes following those numbers in that -- in that chart.

So under PCOSS '08, to -- to use some examples -- residential would be about 80 million of that, and that's the gap between their revenues and their fully allocated costs, and -- and industrials would be about 2.4 million of that.

So, if you had a bigger system, I guess is what is you're saying, if you had your load grow, your -- your -- you'd -- your costs would follow through the costs of service. Your revenues would go up, to the extent there in the Cost of Service, and each of those numbers, if you want to keep rates the same, would have to get a bit bigger; meaning the 131 million that the bottom would have to get bigger is -- if -- if I've got it right. It would help to know if this table is -- is sort of -- doing it in my language, I guess, is what you're looking at?

MR. BILL GANGE: Yes, that's fair. That's fair, sir.

MR. PATRICK BOWMAN: I think the main comment I have is that -- that's true in the -- you know, in the short-term assuming that the types of, you know,

$10 versus $20 million we talked about from Keystone fairly reflects the aspects of the marginal costs, and I have -- I would have comments about that if you wanted to go through that.

But, it becomes a very different concept over a medium to long-term because it's -- it's things like growing domestic load that allowed us to put in place things like Grand Rapids and -- and the plats in the Nelson -- to a largest par -- to a large extent, because we could be interconnected to an export market. It enabled them to be hydro rather than thermal plants, but it was growing domestic load to lead to those plants being able to be developed in my understanding of Manitoba's history.

And that's the reason we have that sort of low cost assets that are here today. So we've seen the same thing when we deal with small utilities in the north. You know anywhere that there was a fairly high bit of load from industrial customers, they have hydro systems like in White Horse or in Yellowknife.

And anywhere there -- where there wasn't that ability for the domestic load to pay for an asset like that, you tend to have diesel, which are very high cost assets today.

Over the long term, past customers and

their loads growing, provide you with the types of heritage assets that bring the low power today. So over longer term horizon, that -- that same relationship between load growth and rates doesn't necessarily -- doesn't necessarily hold.

Now, having said all that, none of that leads you to wanting to design rates that doesn't provide a price signal which is why we'd still say things like inverted rates are meaningful and important because that's key to getting efficient use, but it's not the same level of -- of comment on overall load growth for loads that are sort of efficient and sensible and worthwhile to allow you to put in place next generation's heritage assets.

MR. BILL GANGE: And it is that question of the next generation heritage assets, I think that you were making reference to this morning when you were talking about the dilemma of creating the equity component for the debt that's projected to skyrocket so, with -- given that, the -- the -- we know that the domestic load is growing beyond earlier forecasts.

That's a given, is it not, sir?

MR. PATRICK BOWMAN: The forecasts today are higher than the forecasts were previously. I'm -- I'm not sure that most of this growth that we talk about is -- is well in excess of what was in previous forecasts. We -- we had a few comments about that. It's more in the years to come and on the doorstep or -- or in people's concepts of the forecast than it is necessarily in Manitoba now.

And -- and there's a chart that illustrates some of this in -- in Hydro's rebuttal. But -- but there is -- there is an aspect of load growth built into the forecast today that's above what was there before.

MR. BILL GANGE: And the question then arises how would you, in your analysis, provide for and finance the infrastructure growth that's required for the projected domestic load growth and to -- and to lead us to be in the same position of subsidizing the domestic growth?

How would that be financed?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: Well, in short, it would be financed by rates paid over time, ideally in a regime where those rates were relatively stable and changed in a predictable way -- not necessarily stayed the same for ten (10) years at a time but changed in a --

in a relatively stable and predictable way -- as well as by the overall performance of the assets you're putting in place, recognizing the very long-lived nature of those -- of those plants and assets.

It's -- it's -- you know there -- there will come a time when -- when Wuskwatim is very cheap power. I think it's -- it's probably almost a certainty. How long that time is will depend in part on whether they get a contractor and what the bid is, but -- but there will come a time when Wuskwatim is -- is quite cheap power on the system, and it will -- it will more than -- than help ensure that that plant pays its costs.

The challenge for the rate designer, particularly over a longer term, is to deal with this sort of bulge during the period where it's coming into service, and the tendency would be to want to raise rates and pick up the equity to even further back-end load the benefits of it because it's already had sort of all the rate impacts up front.

It's balancing those rate impacts over the life of the plant and -- and that's -- that's always a -- a tough issue when you're looking at developing hydro plants or -- or that -- that type of asset that -- that has a very low, ongoing cost or very low fuel cost but a very high capital cost.

MR. BILL GANGE: I know that this is -- well, this is a question that lawyers always do because we always like to look back in hindsight and -- and be much smarter than anybody that's looking forward, and I'm going to ask you to look in hindsight.

Given the -- the lack of -- of infrastructure development during the period '93 to 2003, and -- and when one looks at -- at these rate changes or lack of rate changes in the chart on page 13 of 65 of the rebuttal evidence, what -- what should have been happening with respect to rates to deal with the inevitable, at some point, need for new infrastructure?

If you were back in 1993, knowing -- knowing what -- what we know now what -- what should the Public Utilities Board of that day have been doing to -- to provide for infrastructure?

MR. PATRICK BOWMAN: Well, it's -- it's one (1) step removed I think from the way that you may have described it which is in hindsight looking back to 1993 where people sat in a room very similar to this looking with foresight at a long-term forecast.

In that situation I think it's fair to say I haven't reviewed the materials in any detail. I -- I have a -- a strong deference for -- for the wisdom of this Board and for the people who appeared before it in those years and so I'm inclined to say that -- that people who --

MR. ROBERT MAYER: Everybody's assuming there were some hearings in these years. I don't -- were there hearings?

CONTINUED BY MR. BILL GANGE:

MR. BILL GANGE: No, and -- and let's say -- I'm going to make the assumption -- I'm going to make the assumption, Mr. Mayer, that -- that had the Board been sitting in 1993.

How about that?

MR. PATRICK BOWMAN: As -- as far as my recollection goes there was a GRA in each of 1990, '91, '92, and '94 so I think you may have picked the one (1) year that -- that got missed in that series, but I'm just going by the binders on our shelves. But -- but in each of those cases there was an IFF filed. In each of those cases people talked about long-term horizons.

In each of those cases, particularly looking back to 1990 when the Capital Hearing occurred, people were looking at opportunities to put in place infrastructure where it could be done economically. The -- the, you know, markets were different, financial times were different, interest rates weren't quite the same, so trying to do capital developments in that area was a bit different than -- than they are today, and -- and access to the US market was -- was a -- in a whole different structure.

So my inclination is -- is to say, you know, people then didn't do too bad. The chart that we put in on Hydro's retained earnings, you know, suggests that the sum of -- of all the activities that have happened to-date have led to where we're at today; you know, closing in on $2 billion dollars in retained earnings and -- and quite a low cost system.

The -- the challenge becomes looking forward to a series of development where now, compared to a building era, in an era of building, in an era of growth, Manitoba hit for the electricity period -- system a period without that building and that growth. Now things are different again.

And there's -- it's one of the reasons why I think we're pretty cautious about what maybe some lingering -- sort of reactions to -- to things like load forecasts. Like, Oh my gosh, we have growth. Well, we haven't quite -- you know, we haven't quite had that situation, you know, for some time; how do we -- how do we deal with it; let's try to find some reaction.

And I think that's -- that's a flavour

that may be -- may be here for while, but it helps provide the opportunity for, as I say, that next generation of heritage assets to move forward, and be that Hydro, or wind, or -- or whatever other resources can be put into place, including enhanced cross-border transmission.

(BRIEF PAUSE)

MR. BILL GANGE: Thank you, Mr. Chair, those are my questions. Thank you Mr. McLaren and Mr. Bowman.

THE CHAIRPERSON: Thank you, Mr. Gange.

Mr. Buhr, are you going to have any questions for this panel?

MR. DOUG BUHR: No, Mr. Chairman, I won't.

THE CHAIRPERSON: Okay, then we'll have our break now and then we'll move on to Mr. Peters. Thank you.

--- Upon recessing at 2:33 p.m.

--- Upon resuming at 2:51 p.m.

THE CHAIRPERSON: Okay, Mr. Peters.

CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: Thank you, Mr. Chairman. Mr. McLaren and Mr. Bowman, I have some questions. I'm going to jump around a little bit just by necessity, because Mr. Williams has taken a number of my areas; I must have left my notes open during the lunch hour and he came by.

But am I correct that it is certainly InterGroup's position that Manitoba Hydro needs equity to address its risks?

MR. PATRICK BOWMAN: It would be our position that Hydro needs some form of -- of reserves to address its risks. Equity isn't usually the biggest concern of a -- of a regulator; that's a concern of a shareholder of a company, but -- unless of course you have an act that specifies there must be return on equity, for example, but reserves of some form or other, to address risks, yes.

MR. BOB PETERS: And whether that reserve is in the form of equity or retained earnings in a different form, it's still a reserve that you consider necessary to meet the risks of the operations of the business?

MR PATRICK BOWMAN: That's the premise we've been dealing with, yes.

MR. BOB PETERS: And in past, MIPUG has supported achievement of a 25 percent equity level for the Hydro Utility?

MR. PATRICK BOWMAN: I -- I don't believe I can recall a time that there was a position taken to support a 25 percent equity level. My recollection is limited in that I wasn't here at the 1996 GRA where a dead equity type of target was first talked about. But at that time it wasn't necessarily entirely endorsed by the Board as I recall. It was just Hydro starting to shift from an earlier target towards that.

But I -- I don't recall a time when MIPUG sort of, took a strong position supporting a 25 percent equity level.

MR. BOB PETERS: Has InterGroup endorsed a 25 percent equity level as being reasonable in previous years?

MR. PATRICK BOWMAN: We've generally not tried to answer the question in order to stay focussed on the matters that would more normally be in a regulatory regime, which is a level of reserves required, not necessarily equity, which -- like I say is very much more a board of directors or shareholders type of -- of concern.

MR. BOB PETERS: The reason that

InterGroup is saying that while a reserve is needed don't tie it to the level of debt, is for the three (3) reasons you gave this morning, I think in answer to Mr. Williams. And that was:

Stability was the first one. There's no rate stability been shown by having a certain target.

Secondly, 75:25 is not meaningful if it's not achievable for two (2) or more decades out.

And your third reason was, I think your words I wrote down were, "bitter sweet", because today's ratepayers will contribute to the generation that will support tomorrow's ratepayers.

MR. PATRICK BOWMAN: You've summarized them well. My only comment would be, I don't want say there's been no rate stability cause Manitoba's actually had very stable rates. There's been no rate increase request stability, if you know what I mean. A lot of those rate increase requests were in or out, or didn't get followed through on, or -- or the like.

But rate -- rates at the end of the day, once they've been through this Board have been quite stable. It's just the matters that are put before this Board don't reflect that same level of stability.

MR. BOB PETERS: All right. Thanks for your clarification. Can you tell the Board what level of reserves you think are needed for this Corporation today.

MR. PATRICK BOWMAN: No, I don't think believe we can provide an answer to that.

MR. BOB PETERS: Okay. Why can't you provide an answer?

MR. PATRICK BOWMAN: Well, it's not something we spent a lot of time dealing with and -- and that's really for two (2) reasons. One (1) is because our -- our main concern was over the form of the reserves and we didn't necessarily want to be distracted into a debate over the level of the reserves.

At -- at times that debate, or that discussion, has sort of overwhelmed being able to talk about how you could do something different with reserves. It's just gotten into a numbers game or a probabilities game. And I -- I've even got examples from earlier Board orders in that regard. But we -- we thought it best not to get caught into that for the first.

And second, because in assessing the rate increase request that's before the Board and the things we're asked to look at, we didn't think that at the end of the day that the conclusion we would come to would depend on saying it's X billion or Y billion. It's a matter of -- of getting the appropriate systems in place, considering the -- the mechanisms to ensure that it can appropriately be tracked. And then over time as we move towards getting the -- a systems in place that achieved the type things we're talking about one (1) would start to turn their mind to how will we know when -- when we've got there.

But, again, it's -- there is -- some -- some time away, so it -- it wasn't our central focus.

MR. BOB PETERS: You're acknowledging in that answer that the current level of retained earnings or the current reserve, whatever we're going to call it, isn't sufficient at this point in time?

MR. PATRICK BOWMAN: Well, not entirely. We're -- I'm saying we didn't necessarily spend a -- a lot of time assessing it. But when you mix all of the perspectives that lie ahead of you in the IFF there is years ahead that, in the event the IFF forecasts bear out and they don't actually erode by some of the things we talked about, there are years ahead where it's not only debt/equity that becomes a concern it's also the interest coverage that becomes a concern. And if one doesn't start to move forward on a relatively predictable series of rate changes, you -- you may find yourself needing to play a bit of catch up by the time you get there, and -- and that wouldn't contribute to rate stability.

So in -- in light of all of the things

before us, particularly that -- and -- and I don't have that document right here, but the -- the sort of the -- the years -- the lean years, if you like, in the middle of the IFF, that -- that lead to fairly low net incomes and low interest coverage ratios, notwithstanding 2.9 percent rate increase today, it seemed to be supportive of starting to do something on that in the interest of rate stability.

MR. BOB PETERS: You're suggesting then that this Board would -- would soon embark on a process to quantify what that reserve should be?

MR. PATRICK BOWMAN: We are suggesting the Board would embark on that at an appropriate time once it had turned its mind to an appropriate, you know, mechanism for that.

But as I said, I'm -- I'm a little bit cautious about -- about mixing the two (2). There's -- there's probably some level of -- of ordering needed because -- otherwise the debates over the numbers seem to, as we've seen in the last couple of years, seem to overwhelm the debates over what we're really trying to achieve.

MR. BOB PETERS: Do you think it's reasonable to consider the effect or the implications of achieving a particular reserve level on the Province of

Manitoba, as a whole?

MR. PATRICK BOWMAN: Can -- can you repeat the question just so I --

MR. BOB PETERS: Let's start from the premise that all the borrowings of Manitoba Hydro come from the Province of Manitoba and you'll accept that?

MR. PATRICK BOWMAN: Yes, they're all -- come from -- or are guaranteed by, is my understanding.

MR. BOB PETERS: And do you therefore think it's reasonable to consider the effect or implications of achieving whatever reserve level is ultimately set; what that we'll have, in terms of an impact on the -- on the province as a whole?

MR. PATRICK BOWMAN: Well, yes, and that's why I was saying that in terms of looking at a 2.9 percent rate increase today, in the context of the IFF, that's part of a measured series of rate changes aimed at trying to get the interest coverage ratio into a -- into a certain range, above -- you know, above one point one (1.1), which probably wouldn't otherwise occur unless you had some of those rate changes.

My -- all of the -- my experience reviewing Hydro's filings and other utilities that have relatively low levels of -- of equity compared to like a private company like an ATCO or something, looking here, looking at Newfoundland, it's always been -- as long as the Utility on a reasonable basis can cover its interest costs plus some, which is the definition of interest coverage, it -- it wouldn't be at a point where it's negatively impacting on the province's ratings.

So I -- I think that's a relevant point to keep in mind, the interest coverage aspect.

MR. BOB PETERS: Let me just understand that. Are you saying in that answer that the perspective of the bond-rating agencies in the debt market aren't factors to consider as long as the -- the interest coverage ratio is positive; is -- is above one (1)?

MR. PATRICK BOWMAN: Well, the language that I hear suggests that in essence they're pretty much the same thing; that as long as you're not above one (1) in a token way, but above one (1) in -- in a notable way in your forecast, then you're, by anybody's definition, self-sustaining; you're paying your own interest; you're not relying on borrowed funds to pay interest, or you're not -- you're not reverting to your guarantee.

And -- and that self-sustaining nature, as I understand it, is -- is the key aspect of insuring that you're not negatively impacting on -- on the province's overall rating.

MR. BOB PETERS: So regardless of what

the -- the equity percentage is, as long as the interest coverage was above one (1) in a meaningful way you think that would be sufficient to maintain the province in terms of the eyes of the -- the bond-rating agencies?

MR. PATRICK BOWMAN: Well, it's -- it's the same concept as -- as progress, as the term is used by Manitoba Hydro, that you're able to cover your -- your interest plus some is -- is -- would be the concept of progress; the same way Manitoba Hydro talks about if your equity dropped because of a drought but your forecast still showed, you could cover your interest and make progress, in -- in Hydro's language, or keep your interest coverage, you know, some notable amount above one (1); not one point zero zero zero (1.000) of something, but some notable amount above one (1); that would -- that would be saying the same thing.

MR. BOB PETERS: Do you accept that if the -- if capital injections from the province of Manitoba are out of the question for the Hydro Utility, the only other place to get, I guess, resources to develop the capital projects is from either export profits or from the ratepayers through rate increases.

MR. PATRICK BOWMAN: Well, I'm not sure if you said that if the ways to get equity for the projects. if you mean to get equity for the projects, your equity either comes through the shareholder providing equity or the net income of -- of the company. And Hydro operates with most of its -- its revenues coming from either export customers or domestic customers, so those would be the obvious three (3) sources if you're talking equity.

Of course to build projects, the bulk of the capital is actually coming from debt. But the equity, those are the sources you have.

MR. BOB PETERS: You're concern that you itemized earlier is that the debt picture that's before this board in the IFF is really not the whole picture, because just beyond the IFF planning horizon there are some major capital expenditures that will come into focus.

MR. PATRICK BOWMAN: Yes, and in fact, probably even within the IFF horizon if I understand correctly. I think if you look at the capital expenditure forecast, for example, it assumes that Keeyask planning costs stop somewhere along the way here. If someone's proceeding with Keeyask, there -- that's coming into the picture as well. So even within the IFF forecast there's some level.

But -- but just beyond the horizon is

really a picture that is -- that is something quite different than -- than we see in the IFF type of numbers.

MR. BOB PETERS: And the point the Board can take from that answer is that if the target is 75:25 with all those major generation and transmission projects on the -- on the looming horizon, that will either, you know, double or even triple the quantification of the equity target if you use the mathematical formula 75:25?

MR. PATRICK BOWMAN: Correct.

MR. BOB PETERS: I want to turn to your -- what I take is your second systemic issue of the retained earnings and -- and that really is that under the current framework a shortcoming is that the PUB can't ensure the retained earnings are not eroded.

MR. PATRICK BOWMAN: That's one (1) of the things that -- that we expressed concern about, yes.

MR. BOB PETERS: And you expressed concern because you indicate the Board can provide more revenues through rate adjustments but those retained earnings have in past been eroded by Hydro's expenditures on either O&M or on capital matters.

MR. PATRICK BOWMAN: Well, the way the system is set up now what make it to reserves is the residual. It's the -- the last number of the end of the year, so the -- everything that happens in between has an

-- has an impact on it.

MR. BOB PETERS: In terms of the reserve fund, you're envisioning this to be starting from scratch at this point in time or is there a major influx from existing retained earnings into this reserve?

MR. PATRICK BOWMAN: Well, again, Mr. Peters, we wanted to put together for the Board to review something that would give an illustration of some of the ways in which a reserve fund could operate that would in fact pro -- provide benefits compared to what's tended to be put before it before by Manitoba Hydro that there's no benefits of doing something like this.

The -- what we've put together is not a proposal on the mechanics. I -- I wouldn't presume to suggest that in -- in a days testimony we'll have worked out all of the mechanics of something that's a fairly substantial change, but simply to try to keep the topic moving and alive given the Board has -- has pursued it twice before in previous orders.

We -- we didn't structure it to assume some sort of transfer out of retained earnings, in part because for the same reason we didn't structure it to assume major changes to -- to rate levels or something of that nature, because we didn't want the debate to get caught off into other directions.

By the time it's developed that -- that may be where -- where one (1) sees that it needs to go. I -- I don't presume that, but that may be where -- where a -- a serious review of this by this Board, or by a third party they elect to involve in that, or -- or indeed by Hydro being sent back to do it again, that may be where it ends up. But it's not -- we didn't want to put it in for -- to anything that's in here for the -- the purposes I was talking about, to -- to avoid trying to make it into an image of something it's not and to give -- give a -- a reason for concern that -- that doesn't necessarily relate integrally to the concept.

MR. BOB PETERS: I take from that answer you want to -- you want to see if your evidence is assisting the Board in a conceptual way, recognizing that the mechanics are still going to have to be worked out.

MR. PATRICK BOWMAN: Yes. And -- and the way we worded it at page 3 in our specific recommendation was that the Board should target a major review of alternatives to establishing appropriate protected regulated reserves. And I -- I don't want anything I said in -- you know, today to suggest that -- that we go beyond that. As soon as you go talking about detail people take it as -- as specific proposals.

But the point is -- is there is potential benefits. The responses this Board has tended to get from Hydro is that there is no benefits and no point in pursuing this concept further and -- and on that point we -- we strongly disagree.

MR. BOB PETERS: Maybe I should have asked you this earlier, but what do you understand the Board to be saying about the reserves in the prior two (2) orders that you've just referenced in your second last answer?

MR. PATRICK BOWMAN: Well, just so that we don't lose it, the two (2) orders I'm talking about are Board Order 703 which was from the status update filing. And in that order there was some discussion about the concept of risk analysis and reserve levels at page 89, and -- and the quote in particular was that:

> "The Board believes that Hydro should develop a policy to identify a reserve provision amount, and in particular to set the circumstances under which it can be drawn down or increased, keeping in mind the statutory limitations in the Manitoba Hydro Act."

That lead to a directive for Hydro to consider this and what came back out of that was a response that was basically a risk assessment. It never did anything to deal with the concepts of drawn down or increased or any provision amount. It was just simply a risk setting. So that was the first one.

The second one was in the -- was in the 2004 GRA and is Board Order 101'/04 where the Board directed the study being:

> "...a study on the implications of internally restricting retained earnings as a form of self-insurance reserve and rates stabilization fund, to restrict any future dividend payment until the 75:25 debt/equity ratio has been achieved and/or exceeded."

That -- that Hydro gave a four (4) paragraph response to and that was filed with the Board in February 2nd, 2005, which I have a copy of but I'm not sure it's an exhibit in any particular hearing. It was -- but I believe it may have been provided as an attachment to an IR in -- in one of the responses in this Hearing and I apologize for not having that reference.

So -- and I just note that even in this Hearing, there was an IR provided to Hydro by the Coalition which asked about the pros and cons of doing a reserve of this type, and Hydro listed a paragraph of cons and said there are no pros. It didn't strike us as a very carefully considered position.

MR. BOB PETERS: In addition to that, you've said in your evidence that this Board's granting of rate increases in the past to build reserves doesn't appear to have worked in terms of creating the reserves that you think should be in place.

MR. PATRICK BOWMAN: Well, this Board's -- you know, the reserves are ahead of where anyone thought they would be in 2000 -- or IFF '02-1 -- so I -- I don't want to -- I don't want our comments in that regard to be read as overstated either. But the -- the challenge, dilemma, Mr. Williams' word, to us comes through the Board orders and the question is, had something been able to be in place in 2002, coming out of the status update hearing, would we be in a different situation today?

Of course, none of us can answer that, but -- but it does make one wonder about what opportunities lay ahead of us to put something in place -- to do what -- the types of things the Board had been -- been acknowledging in its early orders.

MR. BOB PETERS: I'm going to acknowledge that I understand from your evidence that you're asking the Board to directionally indicate its interest in this concept in this -- proceedings and, if it is interested, to perhaps consider directing future proceedings, because those proceedings are going to address the mechanics that you've mentioned, correct?

MR. PATRICK BOWMAN: I think that's fair. I have been trying to find the right way to suggest that this Board may want to go forward. And Ms. McCaffrey has asked me somewhat the same thing, as Hydro's been asked to review it twice and has come back with the, you know, the responses that we noted.

I'm -- personally go through quite a few of these hearings for both Intervenors and Utility and I'm always very cautious about the presumptuousness of an Intervenor who spends -- doesn't spend their career looking at the Utility's books, coming up with something like this, and so I would want to make sure that there's a right time for the appropriate diligence to come up with the right system or method.

Is there a need to consider a -- a, you know, an act of Board involvement or it will -- be it a proceeding, a third party involvement? It's a good question but we haven't quite got there to-date.

MR. BOB PETERS: All right. If my questions push you on the mechanics I know you're going to push back on them, but do you envision this reserve to be funded only through rate increases?

MR. PATRICK BOWMAN: I don't know what other alternatives may exist, so I -- as opposed to what? I've -- we haven't identified anything other than overall levels of rates being set aside, you know, as opposed to some sort of third party funding or something.

MR. BOB PETERS: No. Well, I was thinking of export revenues and matters over and above the revenues realized from future rate increases.

MR. PATRICK BOWMAN: Oh, I appreciate what you are saying. When you're dealing with the types of numbers we put in the Exhibit that was out this morning, MIPUG-14, you are dealing with the entirety of Hydro's financial statement so where is one dollar ($1) coming from and going to is always a bit of a mug's game. But the premise in the top part of the table would be that rate increases are granted but they are somewhat conditional on making sure that they -- that -- that there's a priority on -- on establishing reserves out of those. The premise in the second half of the table is different though.

That's where we're saying in the event this Board elected to determine that notionally at least a portion of export revenues that's above cost should be prioritized to reserves rather than lower rates today. That's a different concept so -- so perhaps the -- the answer is both, domestic and exported, by -- by the time one -- one turns their mind to all of the possibilities.

MR. BOB PETERS: All right. Does your current thinking on the topic of reserves include one (1) set of financial statements for regulatory purposes and a separate set, a different set, for Manitoba Hydro's external reporting?

MR. PATRICK BOWMAN: Not necessarily but that may depend in part on how the financial reporting world evolves. Certainly there is an aspect of regulatory statements that most utilities file before their regulator that -- that is a little bit different than a utility tends to prepare as its own financial statements.

Hydro's tend to be the -- the least differentiated among all the utilities we work with, but for example there's a -- BC Hydro now has a heritage deferral account set-up under the Heritage Act in BC and the proceeding that came out of that in 2003, the same proceeding which led to stepped rates.

And the Heritage Deferral Account there deals with -- it -- it accepts the -- the changes in cost due to variations in water conditions which is their words which will be both higher and lower than in average conditions and -- and to my understanding that deferral account concept is recorded on their financial statements. So it's -- it's not necessarily the case that for example Hydro would report all of the reserves as retained earnings for its annual report but when it comes here it would identify them as two (2) separate pots for example. It's not necessarily the case, but -- but it -- it may end up that that's required given -- given where financial standards may evolve.

MR. BOB PETERS: And I'm not quite clear then is there -- is there a prohibition or restriction on those funds only being used as approved by this Board or are they otherwise generally available under Manitoba Hydro's current existing accounting methodologies?

MR. PATRICK BOWMAN: Well, I'm going to take caution with the word "funds" because again an alternative here -- there are alternatives here that actually have funds or cash; others that are -- that are merely noted as -- as liabilities or the like on the balance sheet.

The -- the concept as -- as we would put it forward would be that whether it's a set of rules that this Board approves under which it operates or whether it is in fact particular transactions that this Board must individually approve is -- is a kind of matter that could be reviewed.

My -- my thought is it's a kind of thing you could come up with rules more along the lines of what someone would be talking about from -- from BC or from the other accounts rather than necessarily approving individual transactions, but -- but, you know, that -- that doesn't rule out the alternative approach.

MR. BOB PETERS: All right, so my use of the word "funds" instead of "reserves" was one (1) that I need to be cautious about.

Are you suggesting that if GAAP changes, there should be a departure from GAAP for regulatory accounting purposes?

MR. PATRICK BOWMAN: It doesn't make me very popular with the accountants, but I've consistently recommended that regardless of -- of what GAAP does, a regulator should look at the things that the regulator cares about and not have to change how it does things or change the rate increases it thinks are appropriate because of an -- an accounting rule change.

If a regulator determines that it wants to stabilize a cost that GAAP doesn't allow one to defer, I think the regulator has the prerogative and then GAAP has to figure out how to account for it. If a regulator figures that it wants to -- to set up a reserve and -- and deal with something that way again, the point of financial accounting is it comes second in the game.

It figures out how to account for what a Board decides. I hate the idea that a Board is -- is -- has its hands tied because of -- because of the Chartered Accountants' Institute.

MR. BOB PETERS: All right. Mr. McLaren, turning to MIPUG Exhibit 15, the transmission marginal costs that you've shown the Board on -- on MIPUG 15, you sourced that information from Exhibit Hydro-68, correct?

(BRIEF PAUSE)

MR. ANDREW MCLAREN: Yes, that's correct.

MR. BOB PETERS: Would -- would it appear that -- that $241 million of transmission marginal costs reflects future finance and depreciation costs only?

MR. PATRICK BOWMAN: Well, Hydro's transmission marginal costs are actually a little -- a little harder to understand than some of their other components in this proceeding. I had meant to comment on this, but the opportunity hadn't arisen.

But we -- Hydro's transmission marginal costs -- a number is cited in this proceeding and -- and no backup was provided, and it was said to be confidential even though later on, after our evidence was filed, a -- a 2004 study -- copy of their Transmission and Distribution Marginal Cost Study was filed. So we have -- we have an old one (1) that supports some costs that are about, you know, that have increased by about 50 percent in the intervening four (4) years, but we don't have the new one (1).

The premise as we understand it though, or as I understand it, is that one is looking at a change in load and as a result the change in advancement of -- of transmission assets. So it's capital related costs, but whether it's actually the depreciation and interest on those capital related costs, as opposed to a capital cost depreciated back -- or -- or present valued back, we -- I -- I can't necessarily comment.

And -- and had we had the Appendix 63, the Transmission Marginal Cost Study, before we prepared our evidence we might have spent a bit more time with it. But -- but nonetheless it's capital related if that's -- if that's what you were asking.

MR. BOB PETERS: Well, if it is capital related, doesn't that suggest that it might be addition -- it might reflect additional capital in the -- in the range of $2.5 to $3 billion worth of transmission assets?

If you did work it back?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: I -- I can't necessarily follow your math, Mr. Peters. The -- the transmission marginal costs, as I understand it, and this is from IR TREE Round 1, 13(A), if I can read my own writing, is sixty-seven dollars and seventy-five cents ($65.75) per kilowatt year.

And this exhibit -- and that's a coincident peak kilowatt -- this exhibit would then simply take that number and apply it to the coincident peak kilowatts on the system broken down to each of the classes. I presume it uses a cost of service concept of the fifty (50) top hours, but it's broken down to each of the classes to come up with the -- the total marginal cost.

I assume that's the way it's done, and -- and I can't say what underlying capital amount is being switched or by how many years.

MR. BOB PETERS: Okay, well, I'll accept that answer.

Mr. McLaren, maybe last word to you, the distribution marginal cost when you prepared Exhibit 15, you took the distribution marginal cost off the top half of Exhibit 68, and I guess you came up with a different total than the hundred sixty-three (163) that the Utility did?

MR. ANDREW McLaren: We did come up with a different total. I believe it's a summation error on MH Number 68.

MR. BOB PETERS: I think that'll explain some of our issues.

Mr. Chairman, I'm going to stand down and just review my notes, but I believe those answers will assist us in working with the additional points we had. So I'd be prepared to turn the microphone over to My Friend, Ms. Ramage at this time. Thank you.

THE CHAIRPERSON: Thank you, Mr. Peters. Just before we go over to Ms. Ramage, just a couple of questions if you don't mind, Mr. Bowman.

Mr. Bowman, $14 billion of new construction is a lot of money to put at risk.

Would you agree?

MR. PATRICK BOWMAN: It -- it's hard not to agree.

THE CHAIRPERSON: And despite the best of intentions and efforts, etcetera, things can go wrong.

Is that not true?

MR. PATRICK BOWMAN: Absolutely.

THE CHAIRPERSON: Did you review the

debt-rating agencies reports that were filed in -- in this proceeding?

MR. PATRICK BOWMAN: Not in any detail. I have reviewed them in -- in past proceedings when they've been filed, but I didn't spend a lot of time with them that were filed in this proceeding.

THE CHAIRPERSON: Generally, in your opinion, how well does the debt market regard 100 percent loans against a capital investment?

MR. PATRICK BOWMAN: Well, when I've been dealing with other utilities who were trying to finance relatively major capital assets, a fair bit smaller than anything Manitoba Hydro's talking about, but relatively large capital assets, it's pretty hard to walk in and borrow 100 percent of a project cost unless you've got something to back it up.

The -- when one is actually borrowing for -- for the Utility though, you're dealing with the consolidated balance sheet and the consolidated forecast because of your -- your -- the overall way it's accounted for.

It's not like there's, you know, one (1) debt for -- for one (1) project and at least typically, so in that situation you have the -- the benefit of the overall strength of the balance sheet of the -- of the

Company to help back it up, and -- and in this particular case, you also have the strength of the guarantee of the -- of the Government of Manitoba so that -- that changes the rules a fair bit, but I wouldn't want to try setting up my own company to build a -- build Conawapa and try to find $5 billion in debt.

THE CHAIRPERSON: Okay, then in your opinion it would be difficult for a company to get a loan for construction purposes without a substantial capital position?

MR. PATRICK BOWMAN: Well, without a substantial likelihood that the -- that the money's going to be repaid. The capital position is one (1) of the things that helps contribute to that. There -- there are other aspects. Certainly if you're trying to borrow money, there's a relative ranking of debtors. There's guarantees. There's the -- the economics of the project, but capital position would definitely be one (1) of the things that someone might look at.

THE CHAIRPERSON: In your opinion, would current ratepayers gain any benefits from large new construction projects ahead of actually enjoying the finished product? In other words, are there benefits for the -- for ratepayers that exist during construction periods and that come before the product is all done and revenues start flowing from it?

MR. PATRICK BOWMAN: I -- I would say it's a -- it's a difficult question. I think if you get into the numbers the -- the premise behind the way that one would -- would seek to account for -- for a -- a utility or the cost of a utility would -- would suggest that it's -- it's not benefits. The -- that -- that the benefits would -- would show up at the same time the cost would show up. That's sort of the -- the premise behind -- behind basic production.

THE CHAIRPERSON: But just generally speaking. The ratepayers, the customers of the Utility in a particular jurisdiction with say $14 billion of constructions going on, can't you --

MR. PATRICK BOWMAN: Oh --

THE CHAIRPERSON: -- imagine that they would gain some benefits during the period of the construction --

MR. PATRICK BOWMAN: Well --

THE CHAIRPERSON: -- ahead of the projects being finished?

MR. PATRICK BOWMAN: Ratepayers as ratepayers as opposed to -- say, just as Manitobans seeing a benefit in the economy for example -- ratepayers as ratepayers may see some benefits. Some examples would be, you know, the Utility may be experiencing quite an improved relationship with the First Nation communities it deals with, because it's busy embarking on a project and -- and those type of relationships may help it to -- to move certain things forward or deal with past mitigation issues for example.

That's -- that's one (1) of the reasons why one might look at an opportunity for something like Wuskwatim very favourably, to advance it and to -- to use it to -- to build those relationships.

THE CHAIRPERSON: But ratepayers just as residents?

MR. PATRICK BOWMAN: Ratepayers as residents probably would have one (1) -- one (1) aspect of the -- of their experience that would be enhanced in terms of the overall economy of the province. They may have other aspects that are -- that are -- are not so beneficial if it means, you know, that the cost for things go up, inflation goes up because there's a shortage of workers or some other type of aspects. Usually though if you're having a -- a construction project, you think of it as -- as pretty beneficial for the province.

THE CHAIRPERSON: Just one (1) last question. It is just a follow-up to something Mr. Peters asked.

I gather, Mr. Bowman, that you're not concerned with the implications of the upcoming adoption of the IFRS with respect to the IFF '07's forecasts including the retained earning forecast going out?

MR. PATRICK BOWMAN: Well, IFR -- the IFRS and the -- the relative -- I'll say it depends on -- on the week, from what I understand of the -- some of the discussions that are going on; it depends on the person interpreting some of this. But I -- I accept the premise that -- that the IFF '07-01, to the extent it's reflecting financial projections, may change relatively materially.

But our -- our key concern here, as in other places, is the -- the -- to what extent does changing for how you account for something change what a regulator has to do in assessing what is fair and reasonable for rates, and how they want to consider cost going into rates.

And from that perspective there may be some instructive things in looking at an IFRS but -- but primarily -- I think my comment was you -- you want to be careful about the extent to which -- the way you have to account for something leads the dance, and that's true whether you're a regulator or whether or someone planning a capital project.

If someone says you can no longer capitalize overheads, but they really are incremental costs of a project, but you have to account for them upfront, it makes a project look a lot more expensive because now you've got this front-end loaded cost you can't defer and amortize with the project. You'd hate for that to cause you to -- to determine that, well, Conawapa was a good project, but now it's not a good project because we had to account for it differently. It -- you really don't want accounting to be in the driver's seat.

THE CHAIRPERSON: So you are suggesting, in a sense, that if something material developed that the Board consider some form of regulatory accounting set that would be different from the Corporation's books itself?

MR. PATRICK BOWMAN: I would say that's -- that's pret -- pretty much the norm for regulated utilities, and -- and I don't think it would be out of place in Manitoba.

THE CHAIRPERSON: You do not think there would be any implications for the debt rating agencies if we were to have, if you like, two (2) sets of books?

MR. PATRICK BOWMAN: Well, the -- the

debt rating agencies would look at the -- the books that -- that they consider for the purposes of their -- of their rating, which would be the financial statements. Now, in any given year, maybe they would look -- if they were different, maybe they'd look better, maybe they'd look worse. The whole thing relates to timing, so over time they'd look the same. That's the -- that's the basic premise.

But this Board may elect to recognize costs and revenues at a different pace than -- than accounting would otherwise, and the -- the difference would be between the two (2) sets of books.

THE CHAIRPERSON: But they would not look the same presumably through a large construction process that lasted say roughly ten (10) years, would they?

MR. PATRICK BOWMAN: The -- the main cost that I've heard gets heavily affected by the -- potentially, by -- by the IFRS, and I'm going by testimony earlier this week, is the capitalization of overheads. If I'm -- if I'm not thinking the same thing you are, let me know, but -- and in that regard, if -- if the overheads are quite substantial and the Utility had to record them as a cost it would have a quite different net income on its -- on its financial books than it would where this regulator would choose to recognize those costs, were it to choose to recognize them over the life of the asset.

But that hinges on the fact that actions of a regulator will not be accepted with respect to the -- the final accounting systems when they come into effect. And -- and the best I can -- the -- to the best of my knowledge, that's an outstanding question.

THE CHAIRPERSON: Thank you, Mr. Bowman. I do appreciate your comments and reactions to the questions. We will move on now to Ms. Ramage.

Ms. Ramage, do you have questions for these witnesses?

MS. PATTI RAMAGE: Yes, I do. And if I could begin, we have a very small book of documents. And I'd also ask if everybody could pull their annual report out and -- maybe while we're distributing that, so we can be ready to go.

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. So we have Manitoba Hydro's book of documents relating to the MIPUG witnesses and Manitoba Hydro Exhibit 92, is that correct?

MS. PATTI RAMAGE: That is correct..

THE CHAIRPERSON: Okay, very good. Thank

you.

--- EXHIBIT NO. MH-92: Manitoba Hydro book of documents relating to MIPUG witnesses

CROSS-EXAMINATION BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Bowman, in your Exhibit 14, and I've think we've covered some of this ground but, are you suggesting that Manitoba Hydro should depart from generally accepted accounting principles in recording its export revenues and reported net income?

MR. PATRICK BOWMAN: No, my recommendations are not related to the accounting principles and how Hydro relates -- or reports its accounts. They're only related to how this Board goes about setting rates.

MS. PATTI RAMAGE: So that would be for the second set of books you spoke of?

MR. PATRICK BOWMAN: In the event such a thing is necessary. It shouldn't be something that one would -- one would shy away from if it's necessary to achieve the objective of this Board in setting rates. It's not uncommon.

MS. PATTI RAMAGE: Now your evidence that a portion of export revenue should be used -- it's that your portion of export revenue should be used to establish a segregated reserve, correct?

But, to be clear, you're also suggesting that these export revenues be deposited in the form of cash into some sort of an investment or trust account.

Is that correct?

MR. PATRICK BOWMAN: Well, as I reviewed with Mr. Peters, it's one (1) possibility that one would want to review when they did a considered review of the topic and the options. I wouldn't rule it out. The exhibit, MIPUG-14, we've put together doesn't presume that.

MS. PATTI RAMAGE: Well, for the purposes of my questions, if we presume we're talking about cash, would you agree that this -- if we were dealing in cash, it wouldn't be available for investing in Manitoba Hydro's assets as it is today?

MR. PATRICK BOWMAN: Well, I'm not talking about anything necessarily different than what we're otherwise working with. The point is the rate changes would be the same. The premise of setting aside a trust-type of mechanism would lead to some of the outcomes you're talking about, and it's one (1) of the things that would need to be considered.

In the event it's not set aside as a trust-type of mechanism, it would have a different outcome. It's the type of thing that one would want to consider in doing a full review of this.

MS. PATTI RAMAGE: I'm not clear in your answer because -- as I understood the mechanism you were discuss -- that you had proposed essentially boxed in those revenues; that they could only used for certain purposes. Maybe let's go there. The mechanism you're talking about could only be used for certain approved purposes.

Is that correct?

MR. PATRICK BOWMAN: In its simplest form, as we put out in MIPUG-14, it's no different than a form of restricted retained earnings that this Board mentioned. In other variations that might -- that might be worth considering might at the end of the day turn out to be not advised but might be worth considering -- one might think about something more along the lines of a -- of a trust-type of mechanism. That brings in cash implications that didn't otherwise arise under the other scenario. But it doesn't -- as I said -- it's not a necessity, it's a variation.

MS. PATTI RAMAGE: Well, under that scenario, would the cash be available for investing in

Manitoba Hydro's assets as it is today?

MR. PATRICK BOWMAN: Not in the way that the IFF would otherwise consider it. That's the point. It's the being -- if that was the mechanism that was elected, part of the reason for that type of mechanism would be to insure that this type of -- of reserve would be an entity that would earn its own interest, have a potential to grow under that -- that framework, and then -- and not be available for other uses.

It would reduce the cash available to Manitoba Hydro but what -- the benefits that one would need to weigh that against is that it would increase the ability to achieve stable rates during a drought. Part of the aspect of a drought that is a real hangover is that if Hydro has a big loss to its net income and it eventually has to borrow, you end up with a -- more debt going forward which causes an overhang interest effect.

If you wanted to find a way that a drought didn't have that hangover interest effect, you'd have to find a way that it's not being funded by new debt. In other words, you'd have to have the funds available. That's -- that's the tradeoff you'd think about when you were assessing whether some form of cash or trust accounting might -- might work for this. But, like I said, it's a variation.

MS. PATTI RAMAGE: So if you have to have the funds available then, you'd agree they'd have to be invested some how in a fairly short-term instrument. They wouldn't be much use if -- if they were invested in long-term.

Is that correct?

MR. PATRICK BOWMAN: It depends on the horizon under which one needs access to them. We talk about five (5) year droughts. We talk about different horizons for that. So you -- you would probably need to do a consideration of the -- the type of portfolio of investments you might consider.

But it's, you know, it's not that different a concept than -- than people who are -- who are dealing with some aspects of a -- of an insurance business. You -- you can consider a mix depending on the horizon under which you might need them.

MS. PATTI RAMAGE: But you'd agree in terms of as a -- as a drought stabilization fund, Manitoba Hydro doesn't have the ability to determine whether it -- the drought's going to happen in two (2) months, six (6) months, a year, two (2) years.

Is that correct?

MR. PATRICK BOWMAN: True, and indeed Manitoba Hydro doesn't have any idea to how long the drought might last when it starts. And that -- that's part of the -- the difficulty of trying to -- trying to plan the Utility of this type.

MS. PATTI RAMAGE: So when that cash is sitting waiting for the drought, earning a -- I -- I would suggest a relatively low rate of interest, Manitoba Hydro would then be required to borrow money to fund it's capital programs. Is that -- that would be the follow-through of that logic.

Is that not correct?

MR. PATRICK BOWMAN: That is part of the types of tradeoffs that one needs to consider assuming that -- that the relationship you talk about bear out; that -- that the portfolio works out to be quite short, and it's -- it's matched by Manitoba Hydro having to do increased long-term borrowing. That is part of the type of relationships that would bear out and would need to be considered against the -- the benefits of going that way. That's what a considered review would do.

MS. PATTI RAMAGE: And it's your evidence that this cash payment or this cash can be maintained at no incremental cost to Manitoba Hydro and its ratepayers or did I just hear you say there would be an incremental cost -- that that's part of the -- the give and take of this proposal?

MR. PATRICK BOWMAN: Our evidence is that a considered review is required and that that would be one (1) option one would want to consider. Interest rate gaps would be one (1) of the things that would work against the concept of a cash account, but it's not -- or a trust -- a investment of that type. It may not be determinative. It may be offsetting against other types of benefits.

The -- the point is there's an interest rate gap or an interest rate risk there, but there's also an interest rate risk that if Hydro was to hit a five (5) year drought now, it might be into a hell of a round of borrowing for a series of years during which its subject to the interest rates that exist in the market at that time. That's -- that's a risk it faces now.

So there's -- there are offsetting aspects to considering a -- a mechanism of that type that -- that the insurance industry elects to use as opposed to a -- a non-cash verison.

MS. PATTI RAMAGE: Now you agreed with Mr. Mayer that higher rate increases would be required at the front end to establish the segregated reserve.

Would that be another one (1) of those offsetting items?

MR. PATRICK BOWMAN: Again, it's a -- I

spoke with Mr. Peter's -- it's a variation. There is a variation that is solely revenue-neutral to ratepayers in the years in which this -- this is being established and being set-up.

And there's a variation in which it is revenue-neutral over time, but it would lead to a -- a set of stable rates that are higher at certain times than they would have otherwise been and lower at certain times than they would have otherwise been. That's the -- the bottom of the exhibit that we put out. Again, it's not the only verison that one might want to turn their mind to.

MS. PATTI RAMAGE: I'm -- I'm having trouble with the concept, and maybe you can help me. How does restricting the reserves or essentially renaming them as part of -- out of retained earnings reduce the need to incur debt due to a drought?

MR. PATRICK BOWMAN: Well, you -- you've asked about two (2) different types of approaches. One (1) of which was something this Board called restricted retained earnings, and one (1) of it's just something called a -- a trust, for lack of a better term, an account, cash.

If you have a mechanism set up where Hydro hits a year like they did in 2003/'04, they would otherwise have a major loss, a shortfall of cash and, therefore, quite a need to borrow well beyond what they had planned. They end up with debt that ratepayers pay the interest on for some time to come. That's the hangover effect of a drought.

If you have a trust mechanism where there is cash there, rather than having a $400 million net income and no cash to deal with the operations for the year and as a result one needs to borrow, the cash is there. You don't need to borrow from the markets because the cash is available. That's the idea.

MS. PATTI RAMAGE: So at the end of the day what you're really talking about is a cash management issue? This is what we're...?

MR. PATRICK BOWMAN: Not at all. At the end of the day what we're talking about is a means, a comprehensive means to -- to stabilize the -- the bulk power component of Hydro's cost and to offer this Board an opportunity to put building up reserves ahead of the -- the bottom line net income so that it becomes something that they can have a reasonable degree of control over, rather than the simple system of put -- put rates in the top and see what comes out the bottom as net income that exists today.

MS. PATTI RAMAGE: And if I'm hearing

correctly, what you're saying is you borrow sooner rather than later so isn't it better to defer borrowing?

MR. PATRICK BOWMAN: Again, we're talking about one (1) version where you would -- you may otherwise have to borrow sooner rather than later. The point is a certain neutrality over time.

So in other aspects you may borrow later rather than sooner, but in any event you do it in a way where you can manage your borrowings, and you manage a trust, and you're not subject to having to borrow at the time the drought hits, whatever the interest rate may be at that point in time.

MS. PATTI RAMAGE: Thank you, Mr. Bowman. Could I get you to turn to page 77 of Manitoba Hydro's annual report?

(BRIEF PAUSE)

MS. PATTI RAMAGE: You'll see at page 77 a chart with the heading "Risk and Potential Range." And I was wondering if you could read -- please read into the record the list of Manitoba Hydro's major risks?

MR. PATRICK BOWMAN:

"Infrastructure, drought, loss of
export markets, interest rates, and

foreign exchange rates."

MS. PATTI RAMAGE: Thank you. And one (1) of the Utilities that I heard referenced in terms of having a -- some type of stabilization fund was Newfoundland. And I'm wondering if you could turn to Tab 1 of the book of documents and at page -- page 39 of that book of documents?

(BRIEF PAUSE)

MS. PATTI RAMAGE: Now, mid-way down this page you'll see that Newfoundland and Labrador Hydro has set out its three (3) main areas of risk in the -- in the area of operations risk, and I was wondering if you could please read into the record those three (3) areas of risk?

(BRIEF PAUSE)

MS. PATTI RAMAGE: It's under the heading "Operations Risk."

(BRIEF PAUSE)

MR. PATRICK BOWMAN:

"The three (3) main areas of -- or three (3) areas of main business risk in this category include: major damage to critical assets, interruption of electrical service, and liability to third parties arising from property damage, bodily injury, or death."

MS. PATTI RAMAGE: All right, and turning two (2) pages over to their financial risk, just so we have these for comparison, Newfoundland and Labrador sets out its financial risks, and I'm wondering if you could read those into the record. That's at page 41.

(BRIEF PAUSE)

MR. PATRICK BOWMAN: I'm afraid I see the heading, but I don't know what part you're looking for me to read.

MS. PATTI RAMAGE: We can do it two (2) ways. There's -- the headings are set out in orange or in just that first paragraph, it sets out the -- the financial risks identified.

MR. PATRICK BOWMAN:

"Hydro operates in an environment with various forms of financial risk

including changes in interest rates and
fluctuations in foreign currency
exchange rates and commodity prices."

MS. PATTI RAMAGE: And just so the record is clear, there's another risk identified, and that's regulatory risk just so that we have everything that's there but, Mr. Bowman, would you agree that for comparison purposes unlike Manitoba Hydro, Newfoundland and Labrador has not identified drought, water levels, or the loss of an export market as a significant risk factor in its annual report?

MR. PATRICK BOWMAN: Well, absolutely I can agree, and I think it's quite simple the reason why it doesn't identify drought is because it has a rate stabilization plan which is noted two (2) pages back which is one (1) of the mechanisms that we've mentioned. So it is not exposed to the risk of drought in -- in its regulated plants.

MS. PATTI RAMAGE: Thank you. Going back to that page you referenced, I think you were on page 31, and that was the --

MR. PATRICK BOWMAN: It's referenced at page 31?

MS. PATTI RAMAGE: That's correct. Could you, please read into the record, the first sentence of the paragraph under -- the first sentence of the paragraph that's headed, "Rate Stabilization Plan."

MR. PATRICK BOWMAN:

> "The RSP was established in 1986 to mitigate the impacts of fuel volatile -- the impacts of volatile fuel prices on electricity sales."

MS. PATTI RAMAGE: And now I'm going to take you back to page 19 of Manitoba Hydro's record, if you could get there. And here I'm going to help and do some of the reading.

The second sentence under the heading, "Natural Gas Rate" says:

> "The Corporation helps lessen the impact of volatile gas prices through the use of derivative instruments, deferral account, and using gas storage and then through the quarterly adjustment of gas rates."

Can you confirm that I read that correctly?

MR. PATRICK BOWMAN: Perfectly.

MS. PATTI RAMAGE: Now, are you familiar with the use of the deferral accounts referenced in the Manitoba Hydro annual report?

MR. PATRICK BOWMAN: Only generally.

MS. PATTI RAMAGE: If I, and I think there's others in the room who could explain them better than I, but at a high level, a certain value, for example ten dollars ($10) might be embedded in rates, and if it turns out the actual rate is eleven dollars ($11) and nine dollars ($9), that difference is put in a deferral account and then rate riders recover or refund that difference over a period of twelve (12) months.

Does that sound generally -- is -- is that with your understanding?

MR. PATRICK BOWMAN: It -- it generally sounds correct. I wasn't aware of the twelve (12) month number, but I'm not surprised by it. It generally sounds like I would understand fuel stabilization type of accounts to work in many of the Utilities I'm familiar with.

MS. PATTI RAMAGE: Are you familiar with Newfoundland and Labrador's fuel stabili -- rate stabilization plan?

MR. PATRICK BOWMAN: Yes.

MS. PATTI RAMAGE: Okay, could you confirm that the intent of that program is to recover the difference between the cost of fuel consumed to generate electricity and the cost upon which electricity rates are based and the cost upon which electricity rates which accumulates in the RS -- rate stabilization plan?

And then again -- the balance is accumulated in the rate stabilization plan will be recovered in the following year?

MR. PATRICK BOWMAN: Not quite. You -- I see you were reading components of that, but I think you missed the key component.

Newfoundland's rate stabilization plan is effectively three (3) plans in one (1). It's actually got even a little bit of a fourth aspect in it. But in respect of the bulk power system, it is a fuel stabilization fund along the lines of what you note for natural gas or like you would see in many other places.

It is also a hydraulic stabilization fund, which is the component of the sentence in the second paragraph you -- I didn't hear you read it.

And it has a third component which is a load variation component which addresses differences to the Utility's revenues, resulting in changes from its overall loads.

MS. PATTI RAMAGE: Okay, we have the same understanding and to be clear, with respect to the hydraulic variation, that is something that's recovered at a rate of 25 percent annually?

MR. PATRICK BOWMAN: That is -- that is the fact today.

MS. PATTI RAMAGE: And that hydraulic variation was instituted into that fund in 2003, am I correct?

MR. PATRICK BOWMAN: That mechanism was implemented in 2003 as a result of a negotiated process I was involved in. The fact that there is a hydraulic component to the fund has been there since it was first implemented in 1986 and in fact there was a hydraulic fund that predated it. 1986 was just when they all got rolled together into the RSP.

And previously the hydraulic portion of the account had -- had flowed through somewhat quicker. It was three years but it was calculated differently. As a result of that negotiation, it was changed to -- to four (4) years.

MS. PATTI RAMAGE: But would it be fair to say that the hydraulic or fuel, while there's different time frames, the idea is that you recover or refund the monies within a year or within four (4) years?

MR. PATRICK BOWMAN: The fuel, yes. The -- the whole point of the fuel account is not to let increases in fuel prices be a hangover -- that you really want to clear that account as quickly as possible. So you take that component of the account, and you transfer it as quick as possible to current, and you charge it off to ratepayers.

Hydraulic is different. Because you're only taking a -- a small portion of the account if you have surplus water in one (1) year offset by low water in the next, the bulk of the year that you had surplus water those -- those funds made available to offset the low water in the next year. So that -- that 25 percent is of the accumulated balance at any given point in time and it's just to help -- help keep the -- the fund from getting to -- to bounds that -- that the Utility was uncomfortable with.

But the point is it's designed to maintain the bulk of hydraulic variation in that account so that it offsets highs and lows to stabilize it, which hence the name.

MS. PATTI RAMAGE: Would you agree with me that that rate stabilization -- rate stabilization plan is very similar to our own gas deferral accounts?

MR. PATRICK BOWMAN: Well, the -- the fuel aspect of the rate stabilization plan is very similar to your own gas deferral accounts.

MS. PATTI RAMAGE: I --

MR. PATRICK BOWMAN: The hydraulic is

not.

MS. PATTI RAMAGE: -- I assume, from your background, you're also familiar with the historic balances in that RSP account?

MR. PATRICK BOWMAN: Very much so.

MS. PATTI RAMAGE: Can you confirm that in August of 2002, the balance owing from customers to Newfoundland and Labrador Hydro was $105.8 million?

MR. PATRICK BOWMAN: It was an awful situation. Absolutely.

MS. PATTI RAMAGE: And at December 31st, 2003, an additional amount of 61 million was owing to Newfoundland and Labrador from its customers?

MR. PATRICK BOWMAN: The numbers I don't recall precisely, but the very reason I was involved in the negotiation that I talked about is because what had been previously in place in the rate stabilization plan deferred for many years the impacts of a fuel cost from previous years.

Rather than clearing the account within twelve (12) months like, you know, your gas utility wisely does, Newfoundland's account was not set up on that basis. So when it had rates set on twelve dollars ($12) a barrel oil and instead oil went to forty dollars ($40) a barrel, it accumulated a massive balance related to the fuel variation component and that wasn't meant to be cleared out for five (5) years. Well, the next year a bigger balance came in and the next year a bigger balance. That's what -- why in 2003 we moved the fuel component to a much more current flow-through. It clears within a year.

Same time we moved the hydraulic to a longer component because the -- the premise behind hydraulic is it's naturally offsetting. It's not the same as fuel.

MS. PATTI RAMAGE: So that would be the post 2003 account, but the amounts that it accumulated to that point, and I believe that's in excess of $150 million, ultimately the regulator ordered balances be accumulated -- be that -- have that turn -- that converted to a long-term receivable?

Is that correct?

MR. PATRICK BOWMAN: Well, when they were dealing with this long outstanding fuel cost to pay for -- for the same thing as you have in the gas account, they elected to crystalize that balance and find a reasonable horizon they could collect it back from customers. As a matter of fact, my recollection is it's the exact same thing this Board did with Centra's gas rates in -- in 2000 or 2001 when it had the same problem with a deferred account. Crystalize it, start afresh, and amortize the balance off.

But again we're talking about fuel there. It's very different than the hydraulic component account which is naturally offsetting. In fact as my recollection goes, had it not been for the hydraulic component having had relatively good water, the fuel account would have been even worse. But this fund offsets the two (2) against each other.

MS. PATTI RAMAGE: Can you confirm in 2006 the government of Newfoundland found it necessary to inject $10 million into the accumulated debt in the rate stabilization plan?

MR. PATRICK BOWMAN: It's not quite the story. In 2006 where there was a lingering historic balance as you talked about, the crystalized balance being amortized over five (5) years, in 2006 the Abitibi Stephenville mill closed. And it had a share of remaining hydraulic balance that had not been collected from the Abitibi Stephenville mill. And as a result the government picked up the tab for that rather than having other customers pick up Abitibi Stephenville's share of the historic balance.

MS. PATTI RAMAGE: Can you confirm in April of this year, two (2) weeks ago, Newfoundland and

Labrador Hydro applied for a 6 percent rate increase based on the updated fuel price?

MR. PATRICK BOWMAN: The -- they applied for a rate increase related to their retail customers which is through Newfoundland Power. The industrial customer changed companies in January. Pardon me. But again that's because they're buying oil to operate their plant at Holyrood and as -- as I'm told, oil prices have gone up recently.

MS. PATTI RAMAGE: Mr. Chairman, I'm looking at the time, and I'm not --

THE CHAIRPERSON: Ms. Ramage, we -- we can sit for another fifteen (15) -- we have a water and sewer hearing again, but we can sit for another fifteen (15) minutes. Go that long, if that would work for you.

How long do you think it will take? The other alternative we have is we could start tomorrow morning at 8:30.

MS. PATTI RAMAGE: I would suggest to try to keep on schedule, letting me go another fifteen (15) minutes, see where we're at and maybe start up in the morning.

THE CHAIRPERSON: Okay, but we can't go past 4:15 to make the other schedule, that's all. So please proceed. So we may shut down fairly quickly, and that's just the way it is.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Now, another rate stabilization fund you referenced during your direct testimony was that used in the Yukon, and I believe there you referenced two funds, Rate Stabilization Fund and the Diesel Contingency Fund.

Is that correct?

MR. PATRICK BOWMAN: It doesn't sound correct. Yukon rate doesn't have something called a Rate Stabilization Fund operated by the Utility. It has a government-operated Rate Stabilization Fund which is being phased out which was just a bill subsidy to customers when the mine closed.

The Diesel Contingency Fund is the one that -- that we're talking about that is -- has been in place to -- to deal with the type of things we're talking about.

MS. PATTI RAMAGE: Okay. Well, I'm going to divert for a moment and just talk about the Yukon's Rate Stabilization Fund because I -- I think we are talking about the same thing. And you did confirm that that was created by the Yukon government.

Do you -- are you aware of the government's reason for phasing out that rate stabilization fund?

Can you advise?

MR. PATRICK BOWMAN: We're talking about an entirely different matter here. The Yukon government's Rate Stabilization Fund was put in place in 1998 using a bunch of dollars that came to it from Canada to -- to pay for -- to lower rates, to basically subsidize rates throughout Yukon.

And they did that for a number of years, eight (8) years as I recall, and then it elected that the government no longer wanted that as an expense on its books and so it's phasing out the subsidy. They -- they chose to do that at a time where they have a new mine coming on that will help bring rates down. That mine's scheduled to be hooked up this fall. But it's an entirely different matter. That's just a bill subsidy program.

MS. PATTI RAMAGE: Would you be prepared to accept, certainly based on my review of the -- the Yukon Utilities website that the government -- I -- I am not quibbling with that -- has provided as a reason for phasing out that Rate Stabilization Fund that it has prompted energy over consumption by absorbing cost increases and not sending true price signals to customers.

MR. PATRICK BOWMAN: That's the effect of a government handing out a subsidy on their bills. The government writes a check to the utilities every year for something in the order of $4 million, either through the actual consolidated revenue fund or though one (1) of its Crown corporation, such that they don't have to collect that money from ratepayers.

You subsidize bills, people don't see the price signals. That's a simple relationship that they were noting.

MS. PATTI RAMAGE: Finally, would you also be prepared to accept then, perhaps, subject to check, that the Yukon government has stated that rather than subsidize energy it intends to bring forward new energy efficiency programs.

MR. PATRICK BOWMAN: Well, that and infrastructure. When it was phased out was the same time as the government put its dollars in a contribution to the new transmission line, which will help get one (1) diesel community off of diesel and hooked up to the hydro-grid and also hook up the mine, which will allow the mine to go off diesel and allow what was otherwise surplus Hydro from the Whitehorse Hydro system to be used by the mine and help keep rates down to everyone else.

So the -- the move was from paying dollars to people's bills every month to putting their dollars into helping infrastructure move forward.

MS. PATTI RAMAGE: Now dealing with the Diesel Contingency Fund, which is I think a fund closer to what the discussion was about regarding Newfoundland Power, can you confirm that the sole purpose of that fund is to reimburse the Utility for costs associated with diesel generation when there's insufficient water for hydraulic generation to meet demand?

MR. PATRICK BOWMAN: And vice versa. The -- the fund is so that the Utility's rates can be set on a normal basis, and the fund will serve to stabilize the costs for when Hydro is over-performing or under-performing, and as a result diesel has to be burned and -- or diesel would other -- that would otherwise be burned is saved. That's why it's got the name Diesel Contingency Fund.

MS. PATTI RAMAGE: Is the intention that like the Newfoundland Fund, that the fund corrects over time, that the hydraulic conditions will -- will assist, that the fund is -- will be up and down?

Is that correct?

MR. PATRICK BOWMAN: With respect to

Yukon's Diesel Contingency Fund, it's similar to what we talk about in Newfoundland, which is that the fund can have both positive and negative balances. It's different than things we're talking about here. My inclination is Manitoba wouldn't want to consider negative balances, but that, yes, they can go both directions, positive and negative, the same as in Newfoundland.

I'm sorry, I may have not had addressed the other component of your question which is balancing over time. That's correct, the fund is designed to balance over time. There has never been a rider related to the diesel contingency fund to -- to due to either high water and forecasts of high water or low water and forecasts of low water to -- to adjust rates.

MS. PATTI RAMAGE: You'd also agree though, that the negative financial impacts of low water in Manitoba are not symmetrical with positive financial impacts of high water?

MR. PATRICK BOWMAN: That's my understanding and that's one (1) of the reasons why I would say that if someone wanted to move forward with the reserve here, they wouldn't design it as one of these self-balancing plus/minus type of accounts because of exactly the reasons you note.

It was a kind of thing that could be bal

-- could be designed solely with a positive balance and solely to be made available for the times it's needed.

MS. PATTI RAMAGE: Lastly, just if I can go back to the Yukon Fund that we talked about, how much hydraulic capacity is generated in the Yukon?

MR. PATRICK BOWMAN: Basically, a 100 percent of the system if that's what you mean. It's -- it's almost all hydro except for a few very small diesel communities, and most of the communities in Yukon are hooked up to the grid.

MS. PATTI RAMAGE: Would you agree, subject to check, that there is 75 megawatts of hydraulic capacity?

MR. PATRICK BOWMAN: I'm sorry. You're talking quantity, not relative proportion. In terms of quantity, seventy five (75) sounds pretty close.

MS. PATTI RAMAGE: Would you agree there -- the diesel capacity's 39 megawatts?

MR. PATRICK BOWMAN: If it's a number you got off a website or something, it sounds pretty close. They're -- they're in the process of bringing back an old 5 megawatt unit out at Faro (phonetic) and, it seems to me, it may be in addition to that. But -- but that's the range.

MS. PATTI RAMAGE: And on that same

website -- because I'll just give you my number rather than having you go check -- it indicated the balance of that fund in 2006 was eight hundred and twenty-one thousand dollars ($821,00).

Does that sound about right?

MR. PATRICK BOWMAN: I think that's correct. It was at zero for awhile. The Board had directed it be drawn down, but I think that there was a insurance settlement that related to an -- retroactive adjustment to the fund that brought it up towards a million dollars. So that sounds -- that sounds quite close.

MS. PATTI RAMAGE: I'm moving to another area. I don't know -- I think it will take ten (10), not five (5) minutes.

THE CHAIRPERSON: Okay. And then you have another area after this next area?

MS. PATTI RAMAGE: Yes.

THE CHAIRPERSON: Mr. Peters, some advice. We can start tomorrow morning at 8:30 if we're at risk of not completing tomorrow.

MR. BOB PETERS: I'm looking to see if Mr. Harper's in the room but I do know that he's here and I also know that Mr. Dunsky will be here for tomorrow morning.

THE CHAIRPERSON: Well, why don't we be careful and start at 8:30?

MR. BOB PETERS: I would -- I would recommend that approach and -- or else make it up throughout the course of the day, but 8:30 would be better.

THE CHAIRPERSON: Okay, 8:30 it is. Thank you, everyone.

(WITNESSES RETIRE)

--- Upon adjourning at 4:08 p.m.

Certified correct,

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Cheryl Lavigne