MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
2004 GENERAL RATE APPLICATION

Before Board Panel:
Graham Lane - Board Chairman
Len Evans - Board Member
Robert Mayer - Board Member

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--- Upon commencing at 9:05 a.m.

THE CHAIRPERSON: Good morning, everyone, if we could get underway.

If my memory serves me right, this morning we will be listening to Mr. Harper, CAC/MSOS' witness. I'll call on Mr. Williams.

MR. BYRON WILLIAMS: Good morning, Mr. Chair, I would ask that Mr. Harper be sworn. And I could also -- when Mr. Singh is done that, I could also indicate that to assist the Panel, we've provided, once again, a book of references, but also -- and Mr. Singh we'll ask to distribute that to the Panel.

But also rough notes of Mr. Harper's direct examination. And hopefully that will assist the Panel and witnesses cross-examining -- or lawyer's cross-examining in terms of following along his train of thoughts. With your permission I'd like to distribute that to the Panel.

And I'll ask my junior -- my new junior. I've fired both Mr. Osler and Mr. Feldschmid. I've got cheaper labour, because we're always searching for cost efficiencies here, and that's Mr. Cruden, he's got a copy of the -- the rough notes for the direct of Mr. Harper.

And I wouldn't suggest that be an exhibit, Mr. Chairman, just as -- because it's -- Mr. Harper's actual words will be the exhibit -- or the -- you know, the evidence. But this is just to assist the Panel and others in the room.

THE CHAIRPERSON: Thank you. That'll prove very helpful. Mr. Singh, would you swear Mr. Harper.

WILLIAM HARPER, Sworn:

MR. BYRON WILLIAMS: Thank you, Mr. Cruden. We're ready to proceed, Mr. Chairman.

THE CHAIRPERSON: Please.

EXAMINATION-IN-CHIEF BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Harper, you have appeared before this Panel and also the CAC on Manitoba Hydro related matters, but I wonder if you could briefly outline your qualifications, as they pertain to the issues in this Proceeding please.

MR. WILLIAM HARPER: Yes, and good morning, Panel and participants.

In terms of my background, I've spent close to twenty-five (25) years working in the electricity industry sector, primarily with Ontario Hydro, and then with its -- one (1) of its successors, Ontario Hydro Networks -- Hydro Networks Company, which was involved with, with the wire side of the business. And then finally, as a consultant with Ecoanalysis Consulting Services.

During my first six (6) years with Ontario Hydro, I worked primarily in the cost of service area, doing cost of service studies. I then moved to the rates department, where for the first three (3) years I was involved with rate design, primarily associated with implementing time of use rates at that point in time.

I eventually was appointed manager of the department, and for six (6) years was responsible not only for the rate design in the company, but also for the regulating what were then roughly three hundred (300) municipal electric utilities in the Province.

This regulatory responsibility involved not only maintaining a policy framework for how we were going to actually approach the regulation of those utilities, but also re -- reviewing and recommending for approval or disapproval, specific applications they would make for rates, capital expenditures, sale of assets, and other financial matters.

During my last five (5) years with Ontario Hydro I moved more to the regulatory area where I was responsible for co-ordinating the Company's participation in various regulatory proceedings such as the one you have here, and also hearings before the select committee of the legislature.

While with Hydro, I've testified a number of times before the Ontario Energy Board on rate and regulatory matters and before the Ont -- Ontario Environmental Assessment Board during its review of Ontario Hydro's demand supply plan in the early 1990's.

During this time, I also served on the executive for the CEA's Board and research committee which, in fact, was where I met -- met Mr. Wiens for the first time.

Since leaving Hydro and joining the ECS in 2000, I've assisted and advised clients participating in the regulatory proceedings, dealing with electricity matters in Quebec, Ontario, Manitoba and BC.

In this regard I have appeared as an expert witness before both the Regie de L'energie in Quebec and the Public Utilities Board here in Manitoba.

I also, along with Dr. Higgin (phonetic) from ECS as Mr. Mayer will recall, participated in and gave evidence during the recent review of the -- by the Manitoba Clean Environment Commission into the need for an alternatives to review of the Wuskwatim projects that have been proposed by Manitoba Hydro and NCM.

Issues dealt with in our evidence there included the methodology to be used in performing of economic analysis, a -- the -- the actual economic analysis they done an evaluation of the risks associated with the project, and also the evaluation of the financial implications of the project on Manitoba Hydro and its ratepayers.

MR. BYRON WILLIAMS: Mr. Harper, I'm going to stop you there, and Mr. Chairman, subject to the comments of other parties in the room, I'd asked that Mr. Harper be qualified as an expert witness in the area of utility regulation, utility financial requirements, cost of service and rate design.

THE CHAIRPERSON: Ms. Ramage, do you have any comments on that?

MS. PATTI RAMAGE: Actually, Ms. Fernandez is in charge this morning.

THE CHAIRPERSON: Ms. Fernandez...?

MS. ODETTE FERNANDEZ: No, we don't.

MR. BYRON WILLIAMS: We accept Mr. Harper as an expert witness.

MR. BYRON WILLIAMS: I always wait with bated breath for comments. Notwithstanding the stellar quality of the witnesses we bring before you.

CONTINUED BY MR. BYRON WILLIAMS:

Mr. Harper, I wonder if you can confirm that the evidence filed with the Board on May 28th, 2004 titled, 'Review of Manitoba Hydro's proposed rate changes' was prepared by you?

MR. WILLIAM HARPER: Yes, it was.

MR. BYRON WILLIAMS: And can you confirm that the interrogatory responses filed on June 7th in response to questions from the PUB staff, Manitoba Hydro and MIPUG regarding the -- that evidence were prepared by you as well?

MR. WILLIAM HARPER: Yes, I can.

MR. BYRON WILLIAMS: Mr. Harper, before we get into your direct today, are there any changes or corrections you would like to make to either the evidence or interrogatory responses at this time?

MR. WILLIAM HARPER: Only about what are some obvious typographical errors; there are two (2) changed I'd like to make in the evidence itself.

MR. BYRON WILLIAMS: I wonder just, Mr. Harper, I just wondered, if you -- if people want to go to his evidence of -- of May 28th. You don't have to, but if you're looking you can do that as well.

MR. WILLIAM HARPER: If you turn to page 21 of the evidence there's a table. In the table there are some footnotes and the footnotes make reference to the number of customers in total for Winnipeg Hydro and Manitoba Hydro for the year 2003/2004 and the numbers should read five thousand and four (5,004), six hundred and seventy-five (675) as opposed to five hundred and forty (540), six hundred and seventy-five (675).

It was just an error in the footnotes. It has no -- no impact at all on the calculations done in the table. Secondly, if you turn to Page 57, on Line 23 it should read:

"To merge its two (2) rate blocks"

as opposed to:

"its two (2) customer classes."

MR. BYRON WILLIAMS: Thank you, Mr. Harper, and apart from those corrections, the evidence and responses are accurate, to the best of your knowledge and belief, sir?

MR. WILLIAM HARPER: Yes, they are.

MR. BYRON WILLIAMS: Mr. Harper, I wonder if you could briefly outline for the panel what was the purpose of the evidence as filed with the Board in this proceeding?

MR. WILLIAM HARPER: Yes, Ecoanalysis Consultant Services, and specifically myself was asked by CAC/MSOS to review Manitoba Hydro's proposals that is the application it has before the Board with respect to the proposed rate increases for 2004/2005 and 2005/2006 both at the overall level and for the individual customer classes.

And as well, to look at the proposed rate design changes and offer my views and recommendations for consideration by the PUB.

MR. BYRON WILLIAMS: In terms of the proposed revenue requirements and rate increases for the years 20024/05 and 2005/06, what did you look at in your review?

MR. WILLIAM HARPER: I looked at essentially four (4) issues. First, given the material change in the financial outlook since the status update which was the last time we'd had an opportunity to look at Manitoba Hydro's finances.

I looked at Manitoba Hydro's current forecast for its electric operations that was MH-03-01 and contrasted it with the forecast that had been submitted by Manitoba Hydro at the start of the status update proceeding, that was MH-01-01 in order to better understand the reasons for the change in the outlook.

Next, I looked at Manitoba Hydro's spending projections for both OM&A, that's operations, maintenance and administration expense, and capital as these are the two (2) primary cost areas over which Manitoba Hydro has some control and the two (2) areas where the PUB made specific findings in Order 7/03 following the Status Update.

Third, I looked at the financial targets Manitoba Hydro was currently using, and particularly the debt equity ratio and finally I looked at the overall rate increase proposed by Manitoba Hydro as well as it's associated implementation plan.

MR. BYRON WILLIAMS: Mr. Harper, before we get into the specifics, perhaps you can answer why this matters; isn't it obvious that Hydro has just gone through a fairly major drought and requires a rate increase to replenish its reserves?

MR. WILLIAM HARPER: I think that -- I think that's obvious and that's well -- well documented in that there's been a major drought. I think what we're dealing with here is more generally the regulation of Manitoba Hydro to start off with and there's whole textbooks written about why and how monopolies should be regulated.

But in simple terms, I think it boils down to the fact that in competitive markets, it's the market itself and the existence of choice that holds companies accountable and forces them to ensure they are providing full value for the dollars they charge.

In the case of Manitoba Hydro where there is no competitive retail market for electricity, it is processes such as this one before the PUB right now that help ensure that Manitoba Hydro is delivering maximum value for the dollars it spends.

Clearly, in order to deliver that value to customers and maintain a degree of rate stability in the event of risks, such as drought, Manitoba Hydro must be financially sound.

However, I see the role of PUB, particularly in times like this when Manitoba Hydro is recovering financially from the impact of a drought is to allow for rate increases as necessary to permit that financial recovery but -- but, at the same time, it isn't just a matter of giving the company more money.

It's a matter of also ensuring that the company is efficiently managing its business and being as effective as possible with the dollars it already has and the additional dollars it will be given.

Is also a matter of balancing the time it will take for the financial recovery against a level of rate increases customers will have to face.

MR. BYRON WILLIAMS: Mr. Harper, in terms of the four (4) revenue requirement issues you've considered, I'll ask you to summarize your findings on the first issue; that is the change in financial update from the Status Update?

MR. WILLIAM HARPER: Yes. Well, when I look at their financial position -- really focussed on two (2) different time frames. The first one was a comparison of the forecast for 2003; that's year end 2003 which would have been the 2002/2003 fiscal year; that's filed at the Status Update with the actual results which we had at the time of the filing for March 31st, 2003.

And the second one was to compare the forecast for 2005/2006, which is effectively the end of the -- the end of the test year period we're currently dealing with as filed at the Status Update, with the current forecast for 2005/2006 as shown in Manitoba Hydro's current integrated financial forecast.

For -- for ease of everybody I've really -- I've really -- to take an extract from my evidence and in Tab 1 of that Book of References Mr. Williams has circulated -- set out with Tables 3 and Tables 4 from my evidence which basically indicate the summary of the differences as of 2003 and then the summary of the differences as of 2006.

MR. BYRON WILLIAMS: That's Tab 1 of your Book of References?

MR. WILLIAM HARPER: Right. With respect to the changes as of March 31st, 2003 you can see that retained earnings are some $263 million dollars less than originally forecast. Debt is up by about 459 million and the debt ratio has increased by roughly 4 percentage points.

Now, I should point out these results are done on a consolidated basis as opposed to just for the electric operations but the results should be pretty comparable since the electric operations are quite a bit larger than the gas side of the business.

MR. BYRON WILLIAMS: Mr. Harper, if I can just stop you there. When I'm looking for the changes you were citing, those would be in the extreme right-hand column of Table 3?

MR. WILLIAM HARPER: That's correct. What the table does is it lays -- first of all lays out the actual results as shown in the annual report. The next column sets out the -- what was in the financial forecast at the time of the Status Update and the third column is effectively the change.

And similarly down on the fourth table you've got the current forecast versus the forecast from two (2) years ago and what -- what the change was. And I can get to the second table in a minute because maybe I -- just before I leave Table 3 I should point out that obviously there was something -- something starting to happen at the end of 2003, even before the major drought hit.

Now, I know there was a bit of a drought problem starting to arise during the 2002/2003 but I don't think that accounts for all the changes that happened there.

When we get to the 2006 year end period, we -- we see the results have deteriorated quite a bit more in the sense of retained earnings are now about $828 million dollars lower. You can see that in the far left hand column. The debt levels are a little over a billion dollars higher, and the overall debt equity ratio has dropped by about twelve (12) percentage points.

MR. BYRON WILLIAMS: Thank you, Mr. Harper. And what did your review suggest was underlying this change in the financial outlook?

MR. WILLIAM HARPER: I think it’s fair to say that the change in retained earnings is primarily due to the lower hydraulic production than originally forecast, which in turn I think as Manitoba Hydro has -- has pointed out during the course of these Proceedings, leads to lower export revenues, higher fuel and import costs, and in the end results in lower net income, and hence the lower contribution to -- to overall retained earnings.

The impact of the lower hydraulic production mitigated to some degree by their factors, accounts for roughly 75 percent of the reduction in retained earnings, and the balance of the reduction is attributable to the special payment Manitoba Hydro made to the Province in 2002/2003, just slightly more than $200 million dollars.

And that -- you can see the 25 percent of the 200 million roughly contrasted with the 800 million in Table 4.

The increase in debt levels over what was originally forecast, arises due first to the need for Manitoba Hydro to finance both the special payment to the Province, and the portion of capital spending from the original plan that was going to be originally financed through net income, but because of lower net income, it now has to be financed through borrowing instead of net income.

That almost leaves you on the par -- then as well as that, the current financial forecast includes higher capital spending than originally planned. And that higher capital spending requires more -- more debt. That capital spending is targeted for new generation transmission, as well as other facilities.

And then finally, there was a need to finance the acquisition of Winnipeg Hydro, which also increased the need for debt.

Overall, it would appear that roughly half of the change in Manitoba's financial outlook for that 2005/2006 period is due to the drought, and the balance is due to these other factors.

The easiest way to see this is to look at Table 5 from my evidence, which I've included in Tab 2 of -- of the references here, which effectively compares the -- the original forecast is found in -- in the Status Update, which is the MH-01-01 in terms of retained earnings and debt equity ratio. We can focus on the 2006 period, because the 2012 is the same.

If you look at this table you can see what the retained earnings, and what the debt ratio were forecast to be.

Then we have what Manitoba Hydro is currently forecasting, which are the numbers from the previous table, which shows the debt ratio going up by about twelve (12) -- the twelve (12) percentage points reflected earlier.

And then from one (1) of the interrogatories posed by MIPUG, in which they asked for the financial outlook based on a no drought scenario, you can see what the results for retained earnings and debt equity ratio there; it's somewhere roughly in the middle of the two (2).

Now, these are -- I -- I wouldn't want to say it's exactly 50 percent, but I think it gives you a sense that there's other things going on there, besides just -- just -- obviously just the drought, in terms of the deterioration of the financial position.

And then a similar situation arises if you look at the 2012 figures as well.

MR. BYRON WILLIAMS: And what is your -- the significance of the -- your conclusion that -- that there's other things going on than the drought, sir?

MR. WILLIAM HARPER: During this Proceeding there's been considerable discussion about the need for rate increases to replenish the reserves and to restore the debt equity ratio as a result of the recent drought.

Indeed, during the Status Update, it was recognized that maintaining adequate reserves, does not avoid the potential need for rate increases following the drought, but rather allows for more gradual increases to be instituted if -- if reserves are considered to be too low.

However, when it comes to capital programs and OEMA expense, the expectation is and I think Manitoba Hydro's overall objective, is that it will manage such expenses, in order to ensure that the need for rate increases is minimized and kept to no more than inflation.

Indeed, as noted in the status update, this has been a longstanding policy of Manitoba Hydro's.

Furthermore, Mr. Mayer will recall that during the Wuskwatim review, one (1) of the financial tests the project was put to, was the determination as to whether or not spending at Wuskwatim would lead to rate increases in the short term, and before those longer term benefits started to emerge later on in the process. And within that thing, I think the answer came out that we -- we were okay.

Therefore, given that roughly -- given that not all the deterioration in the financial position can be attributed to drought, I believe it is particularly incumbent upon Manitoba Hydro to make sure it is doing all that it can to offset the need for rate increases that are an excess of inflation, and for the PUB to assure itself that Manitoba Hydro is doing so.

This is really the same point I made in response to the first question Mr. Williams asked me about one (1) of the roles of the PUB, was to ensure that Manitoba

Hydro is not only financially sound, but financially effective, ie. the PUB should satisfy itself that Manitoba Hydro is making effective and efficient use of every dollar collected through rates.

MR. BYRON WILLIAMS: Mr. Harper, thanks for that. Before we leave this general area, I'd like to get your read on comments that Mr. Warden made about debt being good.

MR. WILLIAM HARPER: Yes, I believe Mr. Warden made comments to this effect both in his direct in responding to questioning from yourself. The point he was making is one I would generally agree with, is that Manitoba Hydro finances facility additions and growth primarily through debt.

And -- I'm sorry -- and to -- to the extent the associated assets create customer value in terms of, say, increased reliability, reserving existing revenues or add net revenues through increased export sales, the debt can -- can be considered good.

In contrast, debt that is triggered as a result of losses, while it may be necessary at times, is not really adding value and is something that should be avoided if all possible.

The only caveat I might add is the caution that -- is the caution that's required sometimes even with good debt. A case in point can be made where the benefits of incurring a debt do a -- accrue immediately.

I think an example of that was the Wuskwatim project that -- that we looked at. But rather at some future point in time, and incurring the debt places upwards pressure on customer rates. Then questions of inter-generational equity arise and decisions have to be made whether it is fair and reasonable to ask current customers to pay for the benefit of future customers.

The answer may well be yes, but I believe it’s a question that needs to be consciously asked and answered. I think in the case of Wuskwatim the question was asked and we -- and we determined the answer was no, there wasn’t going to -- there wasn’t going to be pressure. But we did go to that process of asking the question and answering it.

MR. BYRON WILLIAMS: Mr. Harper, I’d like to turn you to the second issue you address in terms of the revenue requirement relating to OM&A and I’d like you, first of all, to explain the approach you used in analyzing this issue.

MR. WILLIAM HARPER: Yes. There are a number of approaches one can use to determine the reasonableness of OM&A expense that a utility has put -- put into its revenue requirement and filed as part of an application.

One and perhaps the most detailed approach is to undertake a line by line review of the utilities OM&A budget, looking at each of the utilities specific program activities in terms of what's it there for, how the cost changed over time, and what the proposed cost levels are.

The objective of that exercise would be to confirm that each program and its proposed level of funding is appropriate.

It should be noted that such a process comes easier with time, since after a couple of regulatory reviews, the focus can be primarily on changes. However, it can prove to be a very time consuming process for a utility that is just coming under regulation or if a utility that has been away from regulation for a long period of time, since everybody's got a lot of catch up to do.

Another way is to look at either OM&A costs or a number of employees and see how they've changed from either historical levels or past forecasts

Look -- looking at number of employees is sometimes useful because, in -- in utilities like Manitoba Hydro, labour and employee related costs tend to represent a substantial amount of the budget.

I think in Manitoba Hydro's case, it's over 70 percent and therefore if you can look at changes in employees and understand those, you've probably got a pretty good handle on why costs are changing overall.

And to be quite honest with you, often people have to be there to spend the dollars. So, sometimes if you've got more people there, they're spending more dollars on other things as well.

The -- this approach can then be used to identify areas of material change and one can satisfy oneself as to the explanations that are provided as to whether the increases are reasonable.

Finally, one can use more of a top down approach and use benchmarks such as OM&A per customer to try and satisfy oneself that the overall level of spending on OM&A that's been requested is reasonable.

MR. BYRON WILLIAMS: And what approach or approaches did you use in analyzing Hydro's expenditures in this case?

MR. WILLIAM HARPER: For the purposes of assessing the reasonableness of the projected OM&A costs that Manitoba Hydro put before us, I looked first at the differences between the OM&A costs that have been projected for the 2000/2006 period in the Status Update. That was what we had in the financial forecast they prepared, MH-01-01, and contrasted that with the actual results to date and with the current projections and the financial forecast they have now.

Secondly, I looked at the productivity gains Manitoba Hydro indicating it was -- it was achieving and the extent to which they were impacting on the bottom line.

Third, I looked at the overall, year over year changes in the number of Manitoba Hydro's full time employee equivalents and lastly, I looked at the reasonableness of Manitoba Hydro's cost per customer target as submitted in the 2003/2004 corporate strategic plan and Manitoba Hydros forecasted OM&A per customer based on its current financial projections, and compared that to -- to the financial results and targets as discussed in the Status Update.

MR. BYRON WILLIAMS: Before we get to your conclusions, Mr. Harper, why does this matter? When we talk about revenues and expenses of the magnitude of Manitoba Hydro, what's five (5) or 10 million dollars between friends?

MR. WILLIAM HARPER: I think there's really two (2) -- two (2) parts to this answer, and the first is that $5 million dollars in -- excuse me, $10 million dollars in additional spending, translates roughly into a 1 percent rate increase for customers. So, it's not -- it's not a small amount we're talking about.

And second, and just as important; if the role of the PUB is to ensure that Manitoba Hydro is effectively managing its business and consumer dollars, then in principle, the mismanagement or inability to explain $5 million dollars, is as important as the inability to explain $50 million dollars or a 100 million.

MR. BYRON WILLIAMS: Mr. Warden, during both his direct testimony and in response to questioning from myself, expressed concern that certain Intervenors were over emphasizing the cost per customer measure. I'm wondering if you could comment on -- on why, and the degree to which you focused on this benchmark?

MR. WILLIAM HARPER: First, and as I just explained, I looked at more than just O&A cost per customer. The other assessments also assisted me in arriving at the conclusions presented in the evidence.

However, in terms of you using a per customer measure to establish the reasonableness of the projected Manitoba Hydro's OM&A cost, I chose it because there appeared to be a general consensus that it was a useful and appropriate measure. The PUB has made reference to it in -- in past decisions, an example of that is provided at Tab 3 of the Book of References.

Manitoba Hydro uses it both as a corporate performance measure, and in terms of monitoring its actual performance, and as you noted with Mr. Warden on day four (4) of this Hearing, Hydro had some pretty -- pretty flattering words to say about it, during the -- during the last proceeding, during the Status Update.

MR. BYRON WILLIAMS: Mr. Harper, you also indicated a couple questions, or a couple responses ago, that

OM&A can also be assessed through a line by line program by program review of projected costs. Why didn't you use this approach in this Hearing?

MR. WILLIAM HARPER: Really three (3) reasons. The first is it's much more labour intensive and time consuming approach. As an analogy, I would liken it to trying to determine the number of trees in the forest, by actually putting on your hiking boots and going out and counting every single tree that's in the forest.

Second, the initial information provided by Manitoba Hydro in its filing, was not sufficient to take such an approach, and it was debatable in my mind, as to whether the required information could be obtained through the IR process.

And finally, given the apparent consensus around the usefulness of the cost per customer measure, I believe this measure, plus the other considerations I outlined, would be sufficient to determine the reasonableness of Manitoba Hydro's projected O&A costs.

To complete the analogy I just made, I would -- I would consider cost -- using the cost per customer way of testing OM&A, as equivalent to determining the number of trees in the forest by going out and establishing how many acres does the forest cover, and then maybe on a sample basis saying, how many trees are there per acre, multiplying the two (2) and trying to determine the number of trees in -- in total, that way.

MR. BYRON WILLIAMS: Thank you for your tree analogy, Mr. Harper. The forest. I could see some ears perk up at that.

Could you please outline your findings and conclusions regarding Manitoba Hydro's projected OM&A expenses, in terms of their cost of operations?

MR. WILLIAM HARPER: Yes, and I really have to answer this in two (2) parts. First, as presented in my evidence, and second is based on certain changes in the definition of OM&A and the other factors that have come to light during the cross-examination and testimony here, since my evidence was prepared.

First in terms of my evidence, there were three (3) key findings. First, I know that after one (1) adjusts for the purchase of Winnipeg Hydro, the OM&A cost for the years ending 2004/2006, are higher than those projected for the same period during the Status Update. And that while a part of this increase can be attributed to other things such as pension costs, the projection also seems to include higher program costs overall.

MR. BYRON WILLIAMS: Mr. Harper, if I can just stop you there on that point, were you referring to the OM&A costs or the OM&A costs forecast for the years ending in 2004 through 2006?

MR. WILLIAM HARPER: I was referring to the OM&A costs in each of the -- forecasted for each of the years 2004 through 2006, and how they compared with -- with the Status Update.

One (1) of the important things you have to do in making that comparison obviously, is -- is remove Winnipeg Hydro, because that obviously is one (1) reason why the OM&A costs forecast are now higher. But the point was that even after you remove Winnipeg Hydro, you remove some of the obvious other things like the pen -- the increased costs of pension benefits, the forecast costs were still higher than what was in the Status Update.

MR. BYRON WILLIAMS: Okay, go on.

MR. WILLIAM HARPER: Second, I observed that while Manitoba Hydro had indicated that productivity savings over and above the synergy savings associated with Winnipeg Hydro had been incorporated into their forecast, these -- these savings do not appear to have been resulted to a large extent in an overall lower bottom line in terms of costs, but rather in the words, I think Mr. Peter used, have been usurped or eaten up by program changes or costs elsewhere.

And finally I noted that due -- due to a number of changes between 2002 and -- and the filing of the application, the six hundred dollar ($600) per customer O&A

target referenced in the 2002 corporate strategic plan and discussed during the Status Update was not comparable to the six hundred dollar ($600) per customer target referenced in the 2003 corporate strategic plan filed as part -- part of this application and it's -- or comparable to the similar values that were projected for costs per customer through the years '04, '05 and '06.

MR. BYRON WILLIAMS: In terms of this last point about the -- I'm not sure if my fingers aren't strong enough or not -- in terms of your last point about the lack of comparability, in your view, what would be a comparable value?

MR. WILLIAM HARPER: As I've explained already, since the Status Update there have been a number of changes that will impact on the determination of the cost per customer target. The acquisition of Winnipeg Hydro with it's existing lower costs per customer and the PUB's decisions regarding the treatment of the synergy savings from the acquisition of Centra Gas will both tend to reduce the O&M costs for customer targets for the year 2003.

On the other hand, inflation and increased benefit costs will both serve to increase the target value. Tab 4 of the reference materials depicts Table -- Table 12 from my evidence where I tried to work through the impacts of these various issues and derive a comparable value for

2003/2004 and the value I effectively came up with was five hundred and eighty-one dollars ($581) per customer.

And that's effectively by done by starting if -- I start at the top of the page if you want to turn to 2000 -- you want to turn to Tab 4 -- the top part of the table is an attempt to combine the costs of Manitoba Hydro which, based on its six hundred dollar ($600) target with the costs and the number of customers for Winnipeg Hydro to come up with a combined utility cost of the two which was the five hundred and fifty-five dollars ($555) per customer for 2002/2003.

Then, as I said, there were a number of adjustments one has to go through if one wants to move that up to 2003/2004. And that include -- includes both inflation which Manitoba Hydro has indicated is about 2.2 percent; the impacts of some additional pension benefit costs.

But then, as I said, there was also the offset of the change in the allocation of costs for the gas operations. The results of all those is -- is to come up with a target of about five hundred and eighty-one ($581) per customer for 2003/2004 which I view would be comparable to -- to what was in Manitoba Hydro's CSP for 2003/2004.

MR. BYRON WILLIAMS: Mr. Harper, does that 581 million take in -- or five hundred and eighty-one (581) per customer take into account any allowances for future productivity savings?

MR. WILLIAM HARPER: No, no, no. It doesn't. The two things it doesn't do is it doesn't take into account any assumptions about productivity improvement, it just applies inflation but no productivity allowance. And also, it doesn't include any of the allowance for synergy savings for -- for Winnipeg Hydro which -- which Manitoba Hydro, as indicated, they plan to be able to achieve each of the years of the forecast.

If I include the synergy savings for Winnipeg Hydro into the calculation, the five hundred and eighty-one dollars ($581) comes down to about five hundred and seventy-eight dollars ($578) per -- per customer and that would be the comparable number with the Winnipeg Hydro synergy savings.

And really it was this analysis that was the basis of my conclusion which is found on page 22 of my evidence that Manitoba Hydro should be encouraged to adopt a more aggressive target for operating and maintenance costs per customer than the six hundred dollars ($600) that was in the corporate CSP at that time.

MR. BYRON WILLIAMS: What were your overall conclusions in your written evidence with respect to Manitoba Hydro's projected OM&A levels?

MR. WILLIAM HARPER: Excuse me for just a minute. My overall conclusions, based on this revised target, that the OM&A costs for both 2004/2005 and the year 2005/2006 could be roughly $10 million dollars lower if Manitoba Hydro were to achieve cost targets consistent with those submitted in 2002 and were deemed to be attainable at that point in time.

Tab 5 of the reference materials basically go -- goes through the derivation of the values for each year and incorporates the Winnipeg Hydro's synergies identified by Manitoba Hydro.

And really, if you want to turn to Tab 5 what I've done is started with the initial cost per customer target which is row 1 there which was the five eighty-one (581) for 2003/2004 and basically escalated that up by inflation each -- each year.

I've then set out the number of customers. Then in terms of -- at the overall agri-cost level, as we indicated, there were a couple of adjustments that you would have to make.

There's the Winnipeg Hydro's synergy savings which increase from $1.5 million in 03/04 up to $6 million by the time you get to 05/06 and there's also Manitoba Hydro, has indicated, as of -- as of 2004/2005 there is -- in the completion of some charges they were making for amortization of -- of deferred vacation costs. And when that charge comes out -- they basically -- the OM&A costs drop, and that basically reduces the OM&A about $2.6 million in each year.

So, that overall the adjustments total $5.2 million in ’04/’05 and $8.6 million in ’05/’06. When I translate that into a cust -- a per customer basis, that’s where I come up with the ten -- ten dollars ($10) per customer in ’05/’06 as being the reduction, and the roughly seventeen dollars ($17) per customer in ’05 -- excuse me, $10 million in ’04/’05 and roughly $17 million in ’05/’06, as being adjustments that you should make to my initial customer target. This leaves you with values of five hundred and eighty-two (582) for ’04/’05, and roughly five hundred and eighty-eight (588) for ’05/’06.

These values, if you look at them, are roughly twenty dollars ($20) per customer, less than Manitoba Hydro’s current projected costs per customer, and with roughly five hundred thousand dollars ($500,000) customer -- customers on its system, that translates into about $10 million each year.

MR. LEN EVANS: Excuse me, I wonder if I could interject with a --

MR. WILLIAM HARPER: Sure.

MR. LEN EVANS: -- question of clarification. When you refer to using inflation figures, are you using Canadian Consumer Price Index figures, or are you using Manitoba? There are slight differences from year to year?

MR. WILLIAM HARPER: No, that's fair. I'm using the ones Manitoba Hydro used, and subject to correction, I believe they're inflation figures for Manitoba. I see a nod, so I think I've got my answer right.

MR. LEN EVANS: Thank you.

MR. ROBERT MAYER: The other thing, Mr. Harper, I'm having a little trouble, some of these numbers seem to be in millions, and some of them appear to be in dollars.

MR. WILLIAM HARPER: Right, that -- that's correct, and it's because I was working off of a cost per customer -- the first line is in dollars per customer, that's -- that's my target.

I then have some adjustments that I have to make to that target, but the -- the adjustments -- the values I have are in millions, so I go through and total this up, translate them into a per customer value, and then basically my revised five eighty-seven point six (587.6) at the bottom is the six-o-four point five (604.5) minus the sixteen point nine (16.9).

Basically, I would have to take those millions and turn them into a per customer value, so I can then subtract them off my initial target.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Harper, just before we leave this table, the figure Manitoba Hydro’s -- I guess number 6 on -- in terms of -- at the bottom, Manitoba Hydro’s projected costs per customer; what was the source for that?

MR. WILLIAM HARPER: That was the source -- the source of that was an Interrogatory Response they mad -- made to a question by PUB staff in -- during the first round question 46.

MR. BYRON WILLIAMS: Okay.

THE CHAIRPERSON: Mr. Williams, I’ll just interject for a second, when we’re all done subject to check, we’ll look at submitting this whole thing as an exhibit, because even pulling the information together and putting it together represents new --

MR. BYRON WILLIAMS: And that’s fair, Mr. Chair. The -- there is I believe one (1) new table at least, which is in Tab 10. So, subject to any comments on that, we’re certainly happy to -- to do it, from our perspective.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Now, Mr. Harper, at the start of your response, you indicated that additional information had come to light since the Hearing started, which affected your analysis.

Could you please outline what the information was and how, if at all, it impacts on your conclusions?

MR. WILLIAM HARPER: Yes, I think there were effectively four (4) new pieces of information that have arisen since I prepared my evidence.

The first is that Manitoba Hydro has indicated its actual 2003/2004 OM&A spending; they -- they've indicated what it is and provided a variance analysis against the forecasts provided in the initial Application.

Second, Manitoba Hydro has indicated that its cost per customer target in its 2004 CSP, that's the one (1) for this year is five hundred and eighty-four dollars ($584) per customer.

Third, Manitoba Hydro has indicated that the actual OM&A value submitted as part of their Application for electricity -- were for electricity operations only; that's the actual values in the Application, the sorts of values you would find in, I believe it's Tab -- Tab 3 of Volume 1. But the forecast values, that's the ones that were in Tab 4 of the Application, basically include the OM&A associated with the subsidiaries and that OM&A for subsidiaries was also included in the IFF, and for the forecast years, that OM&A was roughly $11 million per year.

And finally, Manitoba Hydro's indicated that there's some inconsistencies in the way subsidiary revenue and expenses are reported in the IFF.

MR. BYRON WILLIAMS: Could you shine the white light of your analysis on -- on this new information; what's it's significance?

MR. WILLIAM HARPER: Like I said, there were four (4) pieces of information, the first one (1) was with respect to the 2003/2004 actuals. Manitoba Hydro has indicated that its actual OM&A costs are lower than originally forecast. And that one (1) of the main reasons for this was lower than forecast pension costs. That's at page 819 of the transcript.

And that roughly half of those pension savings, some $5.1 million will carry forward into future years. The significance at this point is that Hydro has confirmed that these ongoing pension savings were not built into their current forecast, and as a result it would be reasonable to reduce the project OM&A costs by a further $5 million in each of the test years, in order to account for this new pensions savings that -- that we now have.

MR. BYRON WILLIAMS: And that was in the discussion with Mr. Derksen in -- on transcript page 835; is that right?

MR. WILLIAM HARPER: That's correct. With --

MR. BYRON WILLIAMS: Proceed.

MR. WILLIAM HARPER: With respect -- with respect to the cost per customer target in the 2004 CSP, I note that the five hundred and eighty-four dollar ($584) per customer value is virtually -- is virtually the same as the five hundred and eighty-two dollar ($582) value I calculated earlier for the same time period if you look at my Tab 5 in my reference materials.

Which I take as a confirmation of the point I was making about the six hundred dollars ($600) per customer in the 2003 CSP being overstated.

With respect to the inclusion of the subsidiaries in the forecast OM&A, Manitoba Hydro indicates that the -- the value's in the order of $11 million which would account for the difference between my OM&A projections when I talk about roughly 10 million and Manitoba Hydro's OM&A projections.

However -- however, if this is the case, it gives rise to a number of inconsistencies in my mind with respect to the var -- various variance explanations Manitoba Hydro has put on the record to -- to date and I'd like to give a couple of examples of -- of those.

If we turn to Tab 6 in my evidence -- if we turn to Tab 6 in the reference materials which is really a response that Manitoba Hydro gave to a CAC/MSOS-I-18(c) -- question (c), in this Interrogatory, CAC/MSOS asked for an explanation of the difference between the actual OM&A values for 2002/2003 which were 263 million and the forecast value which was shown in the application for 2003/2004 of $303.6 million.

And you'll note that we -- we got in my mind what was a fair -- fairly satisfactory and detailed response in -- in terms of what were the components of that $40.6 million difference and some of it was inflation, obviously the -- the annualization of -- of Winnipeg Hydro, the pension benefit costs I talked about earlier and some new -- and some new -- new program costs.

However, Manitoba Hydro is now indicating that the $263 million, while that number excludes the OM&A for subsidiaries, the $303.6 million includes subsidiary -- includes OM&A for subsidiaries.

MR. BYRON WILLIAMS: If I could just stop there. So what you're saying is that the actuals for 2002/03 don't have any OM&A for subsidiaries but the forecasts do -- or that's Hydro's position.

MR. WILLIAM HARPER: That's correct. And that was something that I think Mr. Williams attempted to reconcile during his cross-examination of Manitoba Hydro which led to the filing of Exhibit 48.

Unfortunately, Exhibit 48 didn't compare the actuals to the forecast and subsequent offline discussions with Manitoba Hydro to clarify the point led to the filing of

Exhibit 64 but the response, in my mind, still doesn’t explain the -- the inconsistencies in terms of what’s the difference and what would be the change in this variance analysis given the fact that somehow subsidiaries have to fit in here as well.

Similarly, if we look at Exhibit 24, which I haven’t included here but which really was just Manitoba Hydro’s explanation of the difference -- the $20 million difference between its forecast value for 2003/2004 which had been roughly 303.6 million and the actual value which was $283 million which is a $20 million difference.

The initial variance explanation spoke to the ten (10) -- $10.9 million in pension costs that -- that we referenced earlier. It spoke to the roughly $6 million in specific cost savings Manitoba Hydro targeted to achieve as a result of their additional initiatives to lower costs because the drought and it also referred to some $3 million in further productivity savings.

And those three (3) numbers added up to the 20 million. However, we -- we had the same problem with this exhibit as well because the $303.6 million is meant to include subsidiary OM&A while the $283 million does -- does not. So -- so that effectively when we put an apples to apples comparison now the difference is only $10 million worth of pension costs.

And so the problem I have is what happened to the $6 million in specific cost savings because of the other programs that -- that were going on. And this is something that I believe we'll be seeking some further explanations from Manitoba Hydro next --next week when -- when the Hearing resumes.

MR. BYRON WILLIAMS: Thank you, Mr. Harper. Could you go on?

MR. WILLIAM HARPER: Finally, in our offline discussions with Manitoba Hydro, it was confirmed that if the subsidiary OM&A costs -- and maybe the easiest way to see this is to turn to Tab 7 of my -- of the book -- book of references that we have here. And this is really a copy of the financial forecast MH-03-01 for -- for electric operations, that was provided as part of this Application here.

And if we look at this, as I said, the discussions we had with Manitoba Hydro, we -- we really confirmed that one (1) indication that if we say, well, look at 2005 for example, it is that the $307 million under expenses under cost of operations, that now includes -- that now includes -- subsidiary cost.

And if that is the case, then the -- then basically the net revenue number up under -- excuse me, the revenue number up under -- under other for revenues, which is

$7 million, should really be -- should really be higher. Because if OM&A is included in the costs of operations, the other revenue can't be net revenue, it has to be gross revenue, including those to account for costs that are going to be subtracted later on.

Manitoba Hydro indicated in our discussions that the impact of this would probably be to increase these other revenue figures by about -- by about $5 million in each year throughout the projection period.

MR. BYRON WILLIAMS: Could I just stop you there, Mr. Harper, before we -- we go on. What you're saying is in this table presented here, the OM&A for subsidiaries is accounted for twice in -- in the process, and it should only be accounted for once, is that right?

MR. WILLIAM HARPER: Well we -- well we have to make sure it's -- it's only accounted for -- for once. One (1) way to account for it would be to have the other revenue line be net revenues from subsidiaries, so the O M & A is taken out there, and the OM&A figure for cost of operations does not include subsidiary OM&A, the OM&A is subtracted out and netted out in the other revenue line.

The other way to account for it, which I understand is the way Manitoba Hydro says their financial forecast is prepared, is to include the OM&A in the -- in the cost of operations in the three hundred and seven (307). But then in the other revenues line, report the total or the gross revenues from subsidiaries.

So, when you get to the bottom line, the -- you've got gross revenues, you work through, you subtract off the OM&A for subsidiaries under the cost of operations and the net income figure falls out as what -- what should be net income.

If you have net revenues in the one (1) line and cost of operations as well, you end up double counting the OM&A figure, and you end up having the OM&A in your projection twice.

MR. BYRON WILLIAMS: And the consequence of that direction on net income is to the net income reflected on -- on this table, is lower than it should be.

Is that what your conclusion is?

MR. WILLIAM HARPER: Yes, and I think as I said, the discussions we had with Manitoba Hydro suggested, their view was, and I think this was the discussions we had, they were on a pretty short term basis, so they're probably subject to check from their -- from their side as well, might well be in the order of $5 million is what we'd be looking at there.

MR. BYRON WILLIAMS: And do you accept that figure?

MR. WILLIAM HARPER: Well, I -- I went back after our conversation and looked at, in more detail, at how this table as put together, and -- and had some difficulties with it. Because if I look at Schedule 4.6 in the main Application, which gives you a fairly detailed breakdown of what's included in the other revenue line, that's the $7 million per year.

The other -- the other revenue represents sources such as joint use agreements and water heaters. It doesn't represent subsidiaries at all. And given that the gross revenues for subsidiaries is in the order of nineteen (19) to $15 million a year, that's shown in Tab 8 of the book of references. It would lead me -- it would lead me to conclude that if the cost of operations includes OM&A for subsidiaries, then I believe the $5 million is an under estimate, and it needs to be increased by at least the $11 million that were told is the cost of operations for -- for subsidiaries, if not more.

The significance of this is that if the other revenues are increased by say five (5) or $11 million as you just indicated, Mr. Williams, is this five (5) or $11 million less that needs to be collected from customers. Just like if export revenues goes up, there's less money that needs to be collected from customers, in order to yield the same projected net income at the bottom line.

Overall, when one combines the ongoing pension savings, which we indicated are about $5 million, and the correction to other revenues, which is probably at least $5 million, and may -- and may be even higher, this would suggest there's somewhere between ten (10) to $16 million, in my view, of an overall adjustment in the overall revenue requirement can be made.

MR. BYRON WILLIAMS: Directionally, that's -- an adjustment where, Mr. Harper?

MR. WILLIAM HARPER: That -- basically you could afford -- you could have ten (10) to $16 million less in consumer -- less in general consumer revenues overall, and have the same net income on the bottom line, because one (1), your OM&A costs are lower by $5 million, because the pension adjustment and your other revenues are higher somewhere between say five (5) and $11 million.

MR. BYRON WILLIAMS: Mr. Harper, I just wonder if you could help me put together, or attempt to put together what you concluded in -- in your original -- or your written evidence in terms of the potential 10 million in OM&A savings versus your conclusions based upon the developments in this Hearing, during the oral portion?

MR. WILLIAM HARPER: No, that's fair. And I know this is, sort of, a lot of information at once but in simple terms, I think the analysis suggested that -- my analysis suggested the OM&A they were forecasting was -- was too -- was too high in terms if -- if that was electric operations only.

And they basically -- I had -- had agreed and said yes on electric operations you're right, it should probably be about $10 million lower but we had this OM&A for subsidiaries to account for.

However, the problem we now have is there appears to be an inconsistency in terms of how the OM&A for subsidiaries has been treated in the overall financial forecast. And this would suggest that the other revenues should -- should be increased by at least $5 million.

So I think we're back to at least $10 million either way from my original evidence or -- or the way we look at things here.

MR. BYRON WILLIAMS: And that 10 million would be -- consist of the -- the productivity from the -- the pension -- ongoing pension savings of about 5.1 million as well as the OM&A -- or the subsidiary adjustment that you're suggesting?

MR. WILLIAM HARPER: Yes, except I don't think I quite characterized it as productivity savings for pensions; it's a lower forecast cost for pensions but -- but you're correct.

MR. BYRON WILLIAMS: Thanks for listening carefully to me. Turning to capital expenditures, could you please outline for the Board what you looked at and what were your conclusions?

MR. WILLIAM HARPER: As the Board will recall, the direction coming out of the Order 7/03 which respect to capital expenditures was that Hydro limit its capital expenditures not related to new generation and transmission where safety and reliability constraints allow and apply itself to reducing its long term debt.

Given this direction, I looked at the level of capital spending as projected at the time of the status update and compared it to Hydro's projection and found that the values were now significantly higher for the same projection period.

However, mindful of the Board's comments about new generation and transmission I looked at what the sources of the increase were. And while the bulk of the increase was due to new generation and major transmission capital spending, capital spending was also up in the areas of power supply, customer service and marketing and finance and admin, with there being new projects in all three (3) areas.

Furthermore, increases in spending in these areas were attributable to more than just safety and reliability and I think you can see this in Manitoba Hydro's responses to a couple of Interrogatories. There was a MIPUG-I-9(a) and CAC/MSOS-I-28(b) where they basically broke down and categorized the low spending by whether it was reliability, efficiency, what was the underlying purpose for it.

And a number of the new projects fall into areas other than the safety and reliability constraints areas referenced originally by the Board.

MR. BYRON WILLIAMS: Now, Mr. Harper, based upon this analysis; what were your conclusions?

MR. WILLIAM HARPER: Overall, my conclusions are similar to those I expressed earlier in my discussion about good debt and bad debt. And that is while the projects all -- I would -- I am sure having read -- do increase value. There is a need for Manitoba Hydro, in preparing and managing its capital spending, to be mindful, not only of the benefits of those individual projects, but also the company's short term financial situation and the implications that spending can have on customer rates, particularly when the benefits are only forecasted to arise in the long term.

MR. BYRON WILLIAMS: If my list keeping is right, next on your list was financial targets and in this area Hydro in its rebuttal evidence and Ms. Wray during her direct questioned the focus you placed on debt equity, when in their minds, interest coverage was the more critical target and measure in the short term.

And, again, they suggested that the debt equity ratio was only tangentially relevant to the request for rate increase; I wonder if you could please comment?

MR. WILLIAM HARPER: Yes. In this rebuttal evidence Manitoba Hydro states that,

> "One can only assume that Intervenors agree with Manitoba Hydro and the PUB that this target..."

That is their interest coverage target,

> "... is reasonable and that it is important for the utility to produce sufficient earnings and cash flow to meet its interest payment obligations."

First, I think we all know that silence is -- cannot necessarily be interpreted as consent or agreement on a particular issue.

I think it is fair to say that the current interest coverage target which speaks to a minimum coverage of one point one zero (1.10) is an improvement over the one point two zero (1.20) minimum put forward at the time of the status update and actually is probably more consistent with the position put forward by ECS at that time with respect to financial targets.

Second, given that Manitoba Hydro itself was not proposing to meet its short term interest coverage targets, we're seeing little merit in debating whether it should be one point one zero (1.10) or something lower.

The numbers in the financial forecast are already lower.

Having said this, I would agree with Hydro that it would only be under exceptional circumstances that a utility would want to plan for interest coverage of less than one point zero (1.0) and effectually borrow to finance ongoing operations.

Furthermore, given the level of their retained earnings forecast for year end March 31st, 2004 we would agree that under any of -- any of the approaches that one could possible come up for establishing target equity ratios for the company, further contributions to retained earnings are required.

The question is really, how much more?

MR. BYRON WILLIAMS: So why the focus in your written evidence on the debt equity ratio and the current financial target of 25 percent equity?

MR. WILLIAM HARPER: First I believe in his rate aptly characterized this proceeding as the start of a journey to restore the retained earnings and the financial soundness of the company.

One (1) of the things about journeys is that most people, when they embark upon them, like to know where they're going, even if they just happen to be a passenger in the back seat of the car.

It gives -- it gives the passengers a better sense of how long the journey's going to be and better accept how far they have to travel each day before they can stop for the night and have supper.

Passengers are likely to be even more interested in how far the journey will take them if they're expected to pay part -- part of the cost -- of the gas, as well as just ride in the back seat.

Turning the analogy to Ontario Hydro, while the definition is --

MR. BYRON WILLIAMS: Would you like to turn that analogy to Manitoba Hydro?

MR. WILLIAM HARPER: Sorry, Manitoba Hydro, I apologize. It's a function of sitting in a similar thing saying to -- saying Ontario Hydro for far too many years.

Turning the analogy to Manitoba Hydro, while the definition of the company's equity targets may not be critical to the determination of rate increases proposed for 2004/2005 or 2005/2006, clearly the sooner such targets are confirmed, then the sooner we'll know how far off it the desired end point we are, and how aggressively one needs to pursue that target.

Also since Manitoba Hydro argues that one (1) of the two (2) reasons for equity reserves is to help absorb the impact of adverse events without the need for sudden rate increases. And the PUB in its Order 703 directed the utility to quantify the specific reserve provisions required to cover the major risks and contingencies faced by Hydro, it seemed reasonable to pursue this issue and determine what Manitoba Hydro had done in response.

MR. BYRON WILLIAMS: And what are your conclusions or preliminary conclusions with respect to Manitoba Hydro's long term debt equity target?

MR. WILLIAM HARPER: Manitoba Hydro argues that it needs a 75:25 debt equity ratio in order to provide sufficient equity in its capital structure to allow it to manage from a rate perspective the adverse -- the impact of adverse events and to maintain it's -- it's financial self-supporting status.

In terms of the reserves required to manage adverse events, the level required is clearly related to the risks the company faces and not a simple percentage of the total asset base.

In my mind, this is particularly true over the coming years when Manitoba Hydro is considering pre-building one (1) or more fairly large and expensive hydro-generating stations for the purposes of export and significantly increasing its asset base according.

Indeed, I believe Manitoba Hydro has

acknowledged that there's not necessarily a direct link in its response to the Undertaking 40 that's Exhibit 30, where it states that additional equity was not considered to be required to help offset the 140 million dollars in debt arising from the purchase of Winnipeg Hydro.

This is further demonstrated by the fact that the best quantified estimates we currently have as to the impact of major drought suggests that it's not clear that reserves in excess of $2 billion, which is what the application of the 25 percent ratio would dictate by the end of the projection period, are actually needed.

MR. BYRON WILLIAMS: But in this hearing, Hydro's been tossing around the figure of $2 billion for the potential impact of a drought. Isn't that the figure we should be aiming for?

MR. WILLIAM HARPER: The $2 billion was provided without any supporting analysis to allow us to clearly understand how it was derived.

Furthermore, Manitoba Hydro has indicated in response to a recent transcript undertaking as Exhibit 41, that external consultants are currently in the process of developing modeling capability that will facilitate the quantification of the various major risks faced here during droughts.

Manitoba Hydro should be directed by the PUB to integrate this work once it’s completed, with the impacts of the other risks identified in its risk management study and provide, as it indicated in its original order, the specific reserve provisions required to cover major risks and contingencies faced by Hydro.

MR. BYRON WILLIAMS: Doesn’t Hydro also argue that it needs the 75:25 debt equity ratio in order to be financially self-supporting?

MR. WILLIAM HARPER: Yes. In terms of the reserves needed to demonstrate that the utility is financially self-supporting, Manitoba Hydro argues that it requires a debt ratio equivalent to that of other Crown Corporations, such as BC Hydro and Hydro Quebec, since it competes with these utilities for capital.

It indicates that the consequences of not maintaining an adequate debt equity ratio, is that it could be seen as leaning on the credit worthiness of the Province, which might ultimately damage that credit worthiness and lead to -- higher borrowing costs, both for Manitoba Hydro and the Province.

In my evidence, I noted that while the Crown Corporations -- that Crown Corporations -- that were referenced, both BC Hydro and Hydro Quebec, operate in very different markets and with different regulatory structures, which could actually lead to an increase in the utility’s risks.

I also note that the financial targets quoted by Manitoba Hydro for those utilities are not actually planning targets, but the minimum debt ratios required as a prerequisite for dividend payments to the relevant Governments.

Finally, I note that in the credit rating reports prepared on Manitoba Hydro, the discussion focuses on the performance and risks of the utility itself, as opposed to how it compares with other utilities.

MR. BYRON WILLIAMS: So, what does this lead you to conclude, Mr. Harper?

MR. WILLIAM HARPER: All this leads me to conclude that in terms of demonstrating it was self supporting, it’s more -- it’s far more important for Manitoba Hydro to demonstrate that it’s effectively managing its business, including its risks, and it’s far more important for it to do that, than it is for it to demonstrate that it’s for obtaining the same financial ratios as other Crown Corporations.

This conclusion has brought me back to the view that one (1), it’s important for Manitoba Hydro to complete the work that PUB directed it to undertake regarding reserve requirements, and that, B, the 25 percent equity may not be required in the long term.

MR. BYRON WILLIAMS: Thank you, Mr. Harper. I'd like you to turn to the overall proposed rate increases, and Hydro's implementation plan, and could you outline your understanding of -- of both of them please?

MR. WILLIAM HARPER: Yes, I -- I think -- I think it's useful to recognize that Manitoba Hydro's fiscal year runs from April 1st to March 31st, and that the revenue requirement forecast be prepared for the two (2) years in question, runs from April 1st, 2004 to March 31st, 2005, and then again from April 1st, 2005 to March 31st, 2006.

Manitoba Hydro has indicated that for the 2004/2005 year, it requires an increase in revenue of roughly twenty-seven (27) to $28 million, which translates into an average increase of 3 percent, if implemented on April 1st of this year.

However, we know that the rates did not go up April 1st of this year, and in fact, Manitoba Hydro is not proposing to implement any increase until after the PUB has issued its order, at which time they plan to increase their rates sufficiently, to recover the twenty-seven (27) to $28 million over the balance of the fiscal year.

Originally Manitoba Hydro expected that the implementation would occur August 1st, 2004, and that an average increase of roughly 4 percent would be needed at that point in time.

It now looks like -- September 1st may be a more realistic implementation date, in which case the overall increase would likely be in the order of 4.8 percent.

The April 1st, 2005 increase, which in conjunction with the 2004 increase, is designed to recover an additional $51 million in revenue over revenues at current rates, which would have been 2.5 percent if the 2004 rates had been adjusted April 1st of this year.

But in reality, it will be somewhat lower. And I think that's come out during some of the discussions between CCEP counsel and the Manitoba Hydro Panel.

The reason for this, is that the cumulative proposed increase through to April 1st, 2005, is in the order of 5.6 percent. That's 3 percent the first year, compounded with a further two and a half (2 +) percent the next year.

However, if the increase in September is 4.8 percent, then the increase required the following April require to achieve the five point six (5.6), will really be less than 1 percent, and probably in the order of zero point seven (0.7).

MR. BYRON WILLIAMS: Thanks, Mr. Harper. What's your view of this implementation plan?

MR. WILLIAM HARPER: I have several concerns with it. The first is the -- is the inherent retroactivity in the way it's being implemented.

Ideally, rates should be approved on a prospective or going forward basis, and customers should not be asked to pay -- pay through rates, costs related to earlier periods, unless through the use of some specific -- or the application of some specific deferral account. And this is a really much different way of managing costs and rates.

Utilities generally achieve this objective by filing their Applications in sufficient time to allow the regulator concerned to issue a decision prior to the implementation date.

Alternatively, if it looks like this objective cannot be achieved, utilities will apply for an interim approval of its proposed rate change, that will be subject to refund or -- refund or recovery, depending upon the actual rate changes approved by -- by the Board.

Finally, in those situations where decisions are issued late, and no interim increases -- interim rate increases have been provided for, implementation of the increase is frequently done through a rate rider, or some other mechanism that extends beyond the current fiscal year, thereby reducing the overall bill impact on customers.

MR. BYRON WILLIAMS: So that’s the retroactivity issue; do you have any other concerns with this proposed plan?

MR. WILLIAM HARPER: My -- my second concern is that the resulting bill impacts will be higher than what the general public is expecting based on Hydro's public communications and the press releases to date.

I think probably the easiest example of that is there was an article in the Winnipeg Free Press, I believe, at the beginning of this week talking about the water situation in Manitoba and how it was improving. It also talked about a 3 percent rate increase planned for Manitoba Hydro customers this year.

My final concern is with the pattern of rate increases. Given Manitoba Hydro's rate objectives with respect to gradualism and rate stability, it seems to me a more evan pattern of increases for September 1st, 2004 and April 1st 2005 could be developed that would yield the same cumulative net income than the 4.8 percent, 0.7 percent that could result from Manitoba Hydro's current proposal, assuming the requested level of revenue requirement for each year is approved by the PUB.

MR. BYRON WILLIAMS: And that's a big assumption; isn't it, Mr. Harper?

MR. WILLIAM HARPER: Yes. I guess, that's why we're all here.

MR. BYRON WILLIAMS: Just teasing. What would be your recommendations to the PUB with respect to

Hydro's proposed rate increases?

MR. WILLIAM HARPER: Yes, and I should perhaps qualify my response by saying these -- these are my recommendations, they are not necessarily the position of CAC/MSOS. They're -- first I would recommend --

MR. ROBERT MAYER: They're, sort of, stuck with your evidence, if I understand the rules of evidence correctly?

MR. WILLIAM HARPER: They asked me to review the proposal and give them my opinions on it and I am giving you my opinion on it.

THE CHAIRPERSON: We understand that we'd accepted you as an expert and Mr. Williams, in final argument, can differ from your --

MR. WILLIAM HARPER: That's fine. First, I would recommend that the overall revenue requirement to be recovered from domestic customers in each of the two (2) test years be reduced by at least $10 million -- by at least the $10 million that Manitoba Hydro has identified as being possible; that is the 5 million in ongoing pension savings combined with the $5 million more in other revenues.

This leaves Manitoba Hydro with the same level of net income in each year as currently projected and allows them to make their planned improvements to retained earnings.

This leaves the required increase in revenue from domestic customers of $18 million in 2004/2005 as opposed to the twenty-eight (28) in the original forecast. And $41 million in increased revenue in 2005/2006 as opposed to the $51 million shown in the financial forecast.

Working through the simple arithmetic of it, these increases in revenues could be generated by an overall increase of 3.2 percent effective September 1st followed by a 1.2 percent increase effective on April 1st, 2005.

However, reflecting back on the concerns I expressed about rate stability and gradualism, the same cumulative net income, ignoring what might be some minor interest effects between the two (2) years, would be generated by increases of 2.5 percent on September 1st, 2004 followed by a 2.3 percent increase on April 1st, 2005 and this is what I would recommend to the PUB as the approved increases, assuming a September 1st, 2004 implementation date.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Does that get around the retroactivity issue?

MR. WILLIAM HARPER: No, it doesn't. But the increases are more stable and overall not out of line with what were customers initial expectations and, therefore, I think, would -- would be acceptable on an overall customer basis.

Furthermore, if further discussion on this issue, which I've indicated is likely to take place next week, suggests that my sixteen (16) -- a $16 million is more correct than 10 million, then the opportunity exists for even lower increases.

At the same time, as well as these increases, I think the PUB should make it clear to Hydro that it expects the Corporation to do better in terms of ensuring productivity improvements reach the bottom line. And that it expects to see superior results in terms of net income and retained earnings over and above what would be generated based simply on the current IFF and the approved rate increases.

MR. BYRON WILLIAMS: Thank you, Mr. Harper. I'd like to turn to Hydro's proposed rate increases by customer class in its cost of service study and I wonder if you can outline your views as to the current status of Hydro's cost of service methodology?

MR. WILLIAM HARPER: I believe I characterized Manitoba Hydro's current cost of service methodology in my evidence as being in a state of flux or uncertainty.

The main reason for this is that while the cost of service study filed with the application was prepared in accordance with Board directives arising out of Order 7/03 and 154/03, which was subsequently issued. The PUB also directed Manitoba Hydro to do three (3) things; review the generation costs classification methodologies, review further the issue of the creation of an export class and study and present various options on the allocation of net export revenues.

Manitoba Hydro has filed the requested studies which were prepared by an external consultant, NERA, during the course of the current proceeding and indicated that they generally support NERA's recommendations.

However, the Application itself has not been updated nor changed to reflect the results of these studies, and indeed, both Manitoba Hydro and NERA have indicated that further work would need to be done before the recommendations could be implemented.

MR. BYRON WILLIAMS: And could you just remind us how Hydro has dealt with this uncertainty?

MR. WILLIAM HARPER: First, Hydro has continued to express its concerns about the way export revenues are treated in the current cost of service methodology, and suggested that in order to allow for this, the pre-export RCCs or Revenue Cost Cover Ratios, should also be considered in any determination as to the need for rate increases for specific customer classes; that would be above or below the all customer increase. And I think this is a reasonable approach.

Second, Hydro appears -- appears to be seeking specific direction from the participants in this Proceeding, not only from the PUB as to which of the NERA recommendations it should include in the next rate filing.

On this point I believe it is premature to ask for a definitive conclusion from either the Intervenors or the PUB, as to which recommendation should be considered in -- should be considered and incorporated and used to calculate RCCs in the future.

As I've noted, there are a number of areas where Manitoba Hydro has acknowledged that further work is required.

Furthermore, as we found out in the Status Update in Manitoba Hydro's 2002 proposals for classification of generation, the devil is often in the details. And I believe it's important for us to understand clearly how the proposals will be implemented, rather than being asked to buy a pig in a poke at this particular point in time.

MR. BYRON WILLIAMS: Do you have any views -- preliminary views on the merits of NERA's recommendations?

MR. WILLIAM HARPER: As I indicated in both my evidence and response to an IR from the PUB staff, there is merit to many of the NERA recommendations, and I believe

Manitoba Hydro should be encouraged to undertake the necessary work to determine how best to implement these recommendations and come back to the PUB with a complete proposal.

Furthermore, given the two (2) year -- given the two (2) year proposal we have before us now, which means there probably won't be another need for adjustment in overall -- all customer rates until April 1st, 2006, I think Manitoba Hydro has sufficient time to do this, and even has sufficient time to allow for the PUB to review this and provided direction back to Manitoba Hydro before its next formal and official rate filing.

MR. BYRON WILLIAMS: Before we leave the NERA Study, I'd like to follow up with you on two (2) related issues, being the allocation of export revenues and the creation of an export class. And as and others in this room will recall from two (2) years ago, you expressed concerns, both with the way export revenues were and are currently allocated, and also with the issue of an export class. And what are your views on these issues now?

MR. WILLIAM HARPER: Maybe I can take them one (1) -- one (1) at a time. With respect to the current allocation net export revenues, which is to allocate them to customer classes, based on their assigned responsibility for generation and transmission costs. In 2002 I expressed a view that while this treatment was likely appropriate in the early 1990s, when it was established, circumstances had changed, such that this treatment is inconsistent with the principles of cost causality, which underlie the Cost of Service Study.

In the past, export revenues made a small -- made up a small portion of overall costs, were generally unimpacted by domestic use, and since they were priced less than domestic rates, even if they impacted on domestic use, if domestic increase -- use increased, and reduced export sales, overall revenues went up, leading to lower rates.

Within this context, the allocation, based on customer use of the generation and transmission facilities was reasonable. Exporting power was to some extent a salvage operation and its treatment if the Cost of Service had minimal impact on the results.

However, as we've seen, export revenues have grown both in magnitude, in terms of the volume, and in terms of the price they command. Indeed, export prices now exceed domestic prices.

Furthermore, any kilowatt hours produced that are not sold domestically can generally, subject to high water constraints and inter-tie limits, be sold at a higher price on the export market, as opposed to selling them -- selling them at that lower price at domestic -- to domestic customers.

This leads to a situation where increases in domestic customer use actually lead to reductions in overall revenue, and tend to put upward pressure on rates.

MR. BYRON WILLIAMS: And how does -- and what -- what are the problems of this new reality?

MR. WILLIAM HARPER: This, in my mind, creates problems with the current approach, which if you follow through the principle of cost causality, if we allocate export revenues to customers based on their generation and transmission use, we're telling them that use gives rise to export revenues, when in reality it's the opposite that's true. Use of those facilities and increased use of those facilities gives rise to lower export revenues.

As a result, it was my view during the status update proceeding, and still is, that a more neutral allocation of export revenues is required.

MR. BYRON WILLIAMS: Mr. Harper, can't we address the concerns you've outlined, simply through rate design?

MR. WILLIAM HARPER: Yes. My response to that would be twofold; first that the circumstances have changed such that the allocation is no longer consistent with the principles of cost causality, then the method should be adjusted.

And second, one of the principle purposes of the Cost of Service Study is that the results are meant to be an input into the rate design process.

Rather than getting to the rate design process and saying we have to ignore cost of service results because they're flawed, we should seek to correct that cost of service methodology so it can continue to function as a useful input into the rate design process, as it was intended.

MR. BYRON WILLIAMS: Now, Mr. Harper, let's go back to the other issue I raised earlier which is the question of an export class that -- can you summarize your views?

MR. WILLIAM HARPER: During the Status Update, the concept of an export class was introduced and discussed from a different perspectives. At the time I expressed concerns about the introduction of an export class if the purpose was at all related to determining the appropriate price for exports, since exports are determined on the market and not used for cost -- and not based on cost of service.

I was also somewhat concerned about -- because some of the discussion during that proceeding seemed to suggest that the purpose would be to determine after the fact if exports were making money, i.e., if past export decisions had been made on an appropriate and a prudent basis and that revenues exceeded costs.

The reason for this is that such assessments involve a totally different type of analysis similar to what was done and the need for alternatives to a portion of the recent Wuskwatim review as opposed to a cost -- cost of service analysis.

With respect to the use and cost of service, they indicated some concerns about the principle of cost causality and whether it was reasonable to attribute the same degree of cost causality to -- to a kilowatt hour of export as it was to a kilowatt hour of domestic load.

One (1) point that was made during the status update and reiterated a number of times during the Wuskwatim review was that even firm exports don’t have the same priority to system facilities as domestic customers.

Finally, in response to a query from the former Chair, I indicated that while the creation of an export class might be a middle of the road solution from a cost of service allocation of export revenues perspective, I was concerned about public availability of the necessary information to implement the approach, primarily, due to the commercial confidentiality issues Hydro had raised earlier in that hearing about export data being available.

MR. BYRON WILLIAMS: And -- and what are your views now, sir?

MR. WILLIAM HARPER: Since then I think both the Board in its response to -- to the review and vary Decision and NERA have made it clear that the purpose of the export class would be solely for cost allocation purposes, and I think that really addresses the two (2) concerns I had there.

Next, while it was acknowledged during the Status Update that some of the costs Manitoba Hydro had incurred in the past were attributable to experts -- excuse me, exports, not experts -- exports. Since then, Manitoba Hydro has formally indicated that it plans to advance the construction of facilities such as Wuskwatim and perhaps later Gull and Canawappa strictly for the purpose of exports.

As I indicated two (2) years ago, this type of change lends more credence to the creation of an export class going forward.

MR. BYRON WILLIAMS: And that was at page 4228 of the transcript from the Status Update Hearing, sir?

MR. WILLIAM HARPER: That’s correct. With respect to date availability and other implementation issues, during the course of the Wuskwatim proceeding, Manitoba Hydro did provide considerable information on its export transactions, I think considerably more than it did during -- even during -- during the Status Update, which coupled with Manitoba Hydro's acceptance of the recommendation, these meet a hope that there may be a way out of my data concerns.

However, as I noted earlier, the devil is sometimes in the details, and while the introduction of an export class maybe reasonable, this is one area where I believe it will be important for us to see the details as to how it's going to be implemented.

As I said at this point, I agree with the creation of an export class for purposes of cost allocation has merit and I'm interested in seeing the details as to how it will be implemented.

Furthermore, if it is generally accepted that the results are not going to be used for purposes of pricing exports or testing the prudence of past export related decisions, the type of methodology proposed by NERA which is more practical than a specific costing approach could prove to be adequate.

MR. BYRON WILLIAMS: I would like to -- and thank you for that, first of all, Mr. Harper. I'd like you to turn to the topic of the uniform rates and the treatment of uniform rates in the cost allocation methodology and determination of RCCs.

And first of all, just to clarify and -- and cover your flank, you're not objecting to the fact that the Government implemented uniform rates, are you?

MR. WILLIAM HARPER: No, I'm not. In fact, the choice to implement --implement uniform rates is really none of my business. What I'm concerned about is the impact and how the implementation of that government policy decision is made going forward.

What I'm pointing out in my evidence are the implications how Manitoba Hydro has choose to treat the introduction of that uniform rates in its Cost of Service Study and that the implications appear to be inconsistent with the intent behind the Government legislation on the matter.

I then propose a couple of ways the cost of service treatment could be altered to align the treatment with the intent.

MR. BYRON WILLIAMS: And -- and I know you discussed -- I know you discussed this in the Status Update, Mr. Harper, and in your evidence but could you briefly outline how you see the issue and its -- and it's solution?

MR. WILLIAM HARPER: My understanding was that an implement -- understanding was that in implementing uniform rates the intent of the Government was not to have one (1) zone subsidize another, or rates go up for any customer as a result of the option of uniform rates, but rather the implementation of uniform rates would be paid for by export surpluses.

This understanding is based on comments made both by government representatives and Manitoba Hydro and copies of that can be found in Tabs 18 and 19 of the CAC book of references that they used during the cost of service cross-examination.

Now, virtually all the revenue associated with implementing uniform rates is attributable to the residential and, in particular, the zone 3 residential customers. We have also seen that revenue to cost ratios are the measure Hydro uses and the PUB uses and others consider when determining relative class rate increases.

And that the residential class is the only major class whose RCC is currently below the 95 percent zone of reasonableness. As a result, the over $13 million in residential revenue loss associated with the implementation of uniform rates will reduce the residential RCC and further exacerbate the -- the situation, as I’ve illustrated in Tab 9 of my book of references which is an excerpt from my evidence again, and basically contrasts what the revenue to cost coverage ratios would be under the current methodology and if you added -- and as opposed to if you added back in the revenues that were lost from uniform rates.

And as you can see if you go forward, by the time you get to 2005/2006 under the current methodology, we're still well below the zone of reasonableness whereas if you add those back in you're almost at the zone of reasonableness for residential customers.

MR. BYRON WILLIAMS: And were these your calculations, Mr. Harper?

MR. WILLIAM HARPER: The -- basically what I took was the -- was the -- was the revenue to cost coverage ratios provided by Manitoba Hydro in their responses and simply added back into the revenue side the revenue loss from -- from uniform rates. So -- so, in the end, yes, they were my calculations.

MR. BYRON WILLIAMS: And what would be your conclusions based upon this table in terms of the result of the introduction of uniform rates?

MR. WILLIAM HARPER: My conclusion is -- is that the introduction of uniform rates is and will have a direct impact on -- on determination of the size of the increase for residential customers required over and above the all consumer increase in order to return the RCC to the zone of reasonableness within an acceptable period of time and is thereby contributing to the need for overall rate increases to residential customers as -- as requested by Manitoba Hydro. In my evidence, I suggested a couple of ways of correcting this aberration.

In the information request posed to me by Manitoba Hydro they laid -- laid out a specific methodology that involved allocating a portion of export revenues specifically to offset the uniform rate impact and I believe this would be an acceptable way of addressing the issue.

MR. BYRON WILLIAMS: Do you recall what that response was? Which Interrogatory, sir? Just a trick question.

MR. WILLIAM HARPER: No, actually, I believe -- I believe Manitoba Hydro posed three (3) Interrogatories to me and that was Interrogatory Number 3, if I'm not mistaken.

MR. BYRON WILLIAMS: Mr. Harper, in your evidence you suggest that the required differential in rate increases between residential customers and the all customer average is likely to be less than 1 percent; could you please outline your views as to why this is the case and your recommendations for what the differential should be for 04'/05' and 05'/06'?

MR. WILLIAM HARPER: Yes, and again I should preface this with saying these -- these are my recommendations.

And I would start by saying that I approached the issue in generally the same manner as Manitoba Hydro did and that is by looking at the RCCs both before and after the allocation of export revenues and determining annual increases required to achieve a ZOR for the residential class in five (5) to seven (7) years which is the time period adopted by Manitoba Hydro.

If you turn to Tab 10, which is the last tab in my book of -- in my Book of References, you'll see -- you'll see a table there. Now, the first row of that table, except for the last two (2) columns, is -- is a straight extract out of the IR response that -- that I gave to Manitoba Hydro when -- when they asked me to work through a calculation of -- of adding back in the uniform -- of adding back in the uniform rates and they basically adjusting the export allocation accordingly.

And -- and you can see if you go along about seven (7) columns this is where -- this is where you add back in the revenues that's lost for the uniform rate adjustment and the column after that is whether there is a debit against them, the residential class, for their share of the cost -- their share of the overall export revenues that -- that are required to make -- to make that adjustment.

Now that yields, which is the same as my Interrogatory response, revenue to cost coverage ratio of 92.1 percent for the residential class. I then, on the far side, in the far two (2) columns basically calculated what would be the revenue to cost coverage ratios pre the allocation of exports.

And the first -- the first column, which is the 65.4 percent is just simply if you take the -- if you don’t account for export revenues and just divide the revenues by cost, you get 65.4 percent.

I then normalize that the same way Hydro has done some of the normalization in its processes, just to try and put it on a comparable basis with the ninety-two (92), and then come up with a 96.8 percent revenue to cost ratio for the residential class.

So, that was sort of the starting point. And so the two (2) pieces of information I was dealing with was that the revenue to cost coverage ratio based on Hydro’s current methodology if we adjust for uniform rates, is 92.1 percent. If we look at pre-export allocation, it would be 96.8 percent.

I then looked at what was the current revenues that we’re getting from the residential class, which is the second column of the Cost of Service Study, which is roughly $346.8 million, and I said, if I want to get the zone of reasonableness up to ninety (90) -- if I want to get the zone of reasonableness up to 95 percent, what customer revenue do I have to have. And that’s shown in row two (2) of the table there, which says:

"In order to get the revenue to cost

coverage ratio of ninety-two point one
(92.1) up to 95 percent--"

I would need a -- a revenue from residential customers of $362.5 million, or basically 4.54 percent more in revenues.

Now, rather than going all at once, I could achieve that over five (5) years, in which case I need -- I would need an increase of about 0.9 percent each year, more than the all customer average. Or if I stretched it out to seven (7) years, I would need an increase of about 0.64 percent each year, to -- to get there.

However, that analysis is based strictly on the uniform rates, adjustment to the current cost of service analysis.

If I also reflect on the fact that the pre -- pre-export RCCs are already within the zone of reasonableness, I come up with -- with an overall recommendation that I believe the residential rates should be -- should be increased at roughly 0.5 percent more than the overall customer average.

So, before when I was recommending 2.5 percent for -- for the all customer average as of September 1st, that would then be 3 percent for residential customers. And again, when I was recommending, I believe it was 2.3 percent the following year, it would be 2.8 percent for -- for residential customers.

Now -- now, I know the question's going to rise on the flip side. I -- I did -- did look at which customer classes seemed to be the most over, in terms of their revenue to cost coverage ratio, and concluded that the additional revenues coming in from that -- from that higher than average increase for residential customers should probably be allocated to -- to the general service small seg -- segments, to the general service small, both demand and non-demand and to some of the segments of the general service large, to help start bringing their revenue to cost coverage ratios more down towards the one point oh five (1.05).

MR. BYRON WILLIAMS: Thank you for those comments, Mr. Harper. Let's go back to NERA for a second. And what would be the impact of NERA as currently framed on your analysis and recommendations?

MR. WILLIAM HARPER: First, the NERA recommendations haven't been adopted by the PUB as the appropriate cost of service methodology for Manitoba Hydro -- Manitoba Hydro to use. However, their results, like the pre-export allocation, RCC results, are indicative of the uncertainty that exists regarding the impact for potential future changes in cost of service methodology.

I guess one could use the NERA results as opposed to the pre-export allocation RCCs to help inform decisions regarding rate increase differentials. However, for residential customers I don't -- I think this would lead to the same results.

I haven't done the analysis, but I suspect that based on the current 93.8 percent, RCC arising for residential from the NERA recommendations, that if you incorporated the uniform rate considerations that we're talking about, you would get to an RCC that was pretty close to ninety-five (95), if not in excess of 95 percent, similar to what we've seen with the pre-export allocation RCC.

And as a result, I don't believe my -- my rate increase recommendations would be that much different than -- than what I've presented to you here.

MR. BYRON WILLIAMS: Thank you, Mr. Harper. We've already answered what your conclusions are in terms of the rate increases for the residential class, so, I'd like you to move on to rate design, and provide your views regarding the appropriateness of the residential rate design changes proposed by Hydro.

MR. WILLIAM HARPER: Okay. In my evidence I reviewed -- I reviewed the proposed changes for rate design for residential customers, in the context that each of Manitoba Hydro's rate setting objectives, and over -- and overall concluded that -- that the proposal to increase the -- the revenue requirement solely from the tail-end rate and to merge the two (2) blocks, as Manitoba Hydro has proposed, is reasonable and consistent with those objectives.

MR. BYRON WILLIAMS: Before -- before leaving rates and moving to the subject of DSM, I wonder if you could provide your views on what constitutes rate shock?

MR. WILLIAM HARPER: I think in defining rate shock, it's important to distinguish between rate increases customers are aware of and know are coming, versus those that are unexpected. Something like going to the dentist, where I find my pain threshold is much higher when I'm warned in advance that it's going to hurt, versus when she happens to hit -- hit a nerve while she's cleaning my teeth.

In -- in the first case where customers are warned, I believe the response given by Mr. -- Mr. Lazar was reasonable. And just to remind you, he indicated that in the past 10 percent was used as a measure of what cons -- what was considered rate shock, but this might have to be reduced somewhat in light of today's lower inflation costs.

In the second case, rate and shock -- rate shock is a rate or bill increase, materially different from what customers would expect. Manitoba Hydro's case, where the increase is quoted, have been in the three (3) to 4 percent range, I believe one could argue that increases in excess of 6 percent could well be viewed as rate shock.

Finally, I'd be remiss if I didn't at least refer to the CAC/MSOS Response to one (1) of the Manitoba Hydro IRs, and note that while it’s easy to talk about percentages and about cases of beer, and how much it costs for some small consumers who are on fixed incomes, any increase can be a particular rate shock, particularly if it’s unexpected.

MR. BYRON WILLIAMS: Mr. Harper, last and certainly not least, but we did talk about a lot during the Wuskwatim proceeding, so perhaps a little less in this one (1). Could you please just provide your comments on DSM?

MR. WILLIAM HARPER: Yes, and I’ll be fairly brief. In my evidence I noted what appeared to be some inconsistencies regarding the timing at the completion of Manitoba Hydro’s curr -- new DSM plan, the consultation that was to take place with stakeholders, and the filing of the plan with the PUB.

In his direct evidence, Mr. Kuzcek clarified the timing of the events, as a result of my conclusion by note -- by my confusion, excuse me, by noting of the DSM plan and costs that would be included in this year’s resource plan and capital budget, would be preliminary estimates, that would serve as placeholders until the consultation with stakeholders had been completed, and the plan finalized for submission to the PUB.

My second point was that Manitoba Hydro’s new plan is likely to spark considerable interest from a number of parties, and despite the planned consultations, issues associated with the Corporation’s new PowerSmart plan, were likely to spill over into future PUB Hearings.

I observed in my evidence, that if this is seen to be a strong likelihood, there may be some merit in the PUB using the window created by the current two (2) year rate approval, to look at the new plan prior to the next formal rate proceeding.

Such an approach would both give Hydro early feedback from the PUB on its proposed plan, and hopefully help expedite the next rate proceeding.

MR. BYRON WILLIAMS: Mr. Harper, does this conclude your opening comments?

MR. WILLIAM HARPER: Yes, it does.

MR. BYRON WILLIAMS: Mr. Chairman, mindful of the comments you made earlier on, and noting that Tab 10 of the Book of References does provide some -- some new material for the Board, I’d ask that it be marked as an exhibit.

THE CHAIRPERSON: Yes. Have you kept track of what number we’re up to, Mr. Singh?

MR. BYRON WILLIAMS: I’ll leave it to your judgment, Mr. Chairman, I’m not sure I can provide much guidance on that.

THE CHAIRPERSON: We’ll assign the exhibit number when we come back from the break. We'll adjourn for fifteen (15) minutes, to give a chance to the various parties to contemplate Mr. Harper's extensive evidence. Thank you very much, Mr. Harper.

MR. WILLIAM HARPER: Thank you.

--- Upon recessing at 10:36 a.m.
--- Upon resuming at 11:00 a.m.

THE CHAIRPERSON: Ms. Ramage, is Ms. Fernandes about?

MS. PATTI RAMAGE: We can begin, she's going to be listening from the room.

THE CHAIRPERSON: Okay. To begin with, the book entitled, MSOS Book of References in Relation to Direct Evidence of William Harper, dated July the 8th, 2004, will be exhibit CAC/MSOS Number 12, subject to check by Hydro, in case there's some problem with some of the information.

--- EXHIBIT NO. CAC/MSOS NO. 12: MSOS Book of References in Relation to Direct Evidence of William Harper, dated July 8th, 2004.

THE CHAIRPERSON: So, now we will begin the cross-examination of Mr. Harper, and firstly, we'd call on Mr. Feldschmid. Mr. Feldschmid for CCEP?

MR. JURGEN FELDSCHMID: Yes, thank you, Mr. Chair. Good morning.

CROSS-EXAMINATION BY MR. JURGEN FELDSCHMID:

MR. JURGEN FELDSCHMID: Good morning, Mr. Harper.

MR. WILLIAM HARPER: Good morning.

MR. JURGEN FELDSCHMID: Just a couple of areas of questioning, I don't expect it will be terribly long, the first I'd like to direct you to is this issue of looking at the revenue to cost ratios prior to the allocation of export revenue.

And I put some questions to the expert witnesses of MIPUG regarding this issue, and they had a significant objection and concern, that looking at the RCCs prior to the add back of export, was not a legitimate indicator was that there would be the presence of all kinds of costs, particularly of generation and transmission, that ultimately go to supporting export. But none of the revenue credited back, and so therefore the RCC measure pre-export is not an appropriate measure from that perspective.

What is your response to that, sir?

MR. WILLIAM HARPER: I think I tried to

explain this in my direct, is that I think it’s a -- it’s a useful measure to use in conjunction with Manitoba Hydro’s cost of service results at this point in time. And I think it’s a useful measure to use to inform decisions you’re going to make, based on that cost of service.

And the reason I believe that is -- is that as I’ve said before, there’s a fair amount of uncertainty about how the cost of service methodology is going to evolve in the future.

There’s a number of issues that the Board has asked Manitoba Hydro to report back on. They have -- we haven’t resolved those yet. And I think the treatment of exports is probably one (1) of the biggest issues in that, in terms of how it could swing the results.

And so, if there’s some uncertainty there, one (1) of the things you may want to do is sort of look at the exports -- look at the RCCs prior to including the exports and see what -- what they are. Basically that -- that tells you, well, we’re not too sure how this animal is going to be handled, let’s look at the RCCs prior to that.

I’m not saying you should use those numbers to make your decisions, I think you should use Manitoba Hydro’s cost of service study, informed by -- by those numbers, and -- and make your decisions on rate adjustments for individual classes that way.

But I think at this point in time it is a useful measure to use, given the uncertainty we have in terms of what the future cost of service methodology is going to be.

MR. JURGEN FELDSCHMID: So you would say then, or agree with me then, that looking at the pre-export RCC is a useful check, or a double check of the results that are currently coming out of the costs because of these uncertainties with respect to the cost?

MR. WILLIAM HARPER: Exactly.

MR. JURGEN FELDSCHMID: And if you were, sir, to find a class of customers, and I'm thinking particularly of the general service small class, both demand and non-demand, who are at the very top of ZOR or perhaps above ZOR in the cost results. And in addition, had very high RCC ratios in relation to the other classes, prior to the inclusion of export.

Would you agree with me, sir, that that is a good reinforced indication that those classes in particular, are over contributing revenue in relation to their costs?

MR. WILLIAM HARPER: Yes, I think what you would do is you would say that using -- using the Manitoba Hydro Cost of Service Study, that would be the indication you would getting, doing this check. There still -- there still seems to be an issue there.

And so I think that that would be -- that would be an indication that if you're going to make non-uniform adjustments in the rates, that would be one (1) class you would try and target for a rate increase of less than average.

(BRIEF PAUSE)

MR. JURGEN FELDSCHMID: If I could just, maybe to tie this line of questioning up, sir, I don't know if your Counsel or you have the PUB's Counsel book of documents handy or the other alternative might be to look at -- what I'm really asking you to look at is Schedule A out of the -- out of the -- the PCOS 2004. It's at Tab 30 in Mr. Peters' book of documents.

And just to tie this up, I'm -- I'm drawing to your attention "RCC percent pre-export allocation in the summary"; do you see that, sir?

MR. WILLIAM HARPER: RCC allocation -- sorry, RCC allocation that's -- that's -- you're talking about the third column over there?

MR. JURGEN FELDSCHMID: That's correct.

MR. WILLIAM HARPER: Sorry, okay. Yeah.

MR. JURGEN FELDSCHMID: And I'm indicating to you that the revenue cost coverage percentage pre-export allocation for general service small non-demand is seventy-six point two (76.2) and general service small demand is seventy-four point eight (74.8); significantly higher than any of the other RCC pre-export allocations.

And would you agree with me, sir, that that is a double check indicating and reinforcing the conclusion that general service small non-demand and general service small demand are both over-contributing in terms of revenue in relation to their costs?

MR. WILLIAM HARPER: I would. The caveat I have to -- I have to qualify my response is, is that when I was doing my analysis I wasn't using Manitoba Hydro's cost of service study, I was using Manitoba Hydro's cost of service study adjusted for the proposed adjustment for uniform rates.

And so that -- like, I can talk about this at a conceptual level, but these weren't the numbers that I was using to -- to inform my decisions on relative class increases. Because I was looking at what were the pre-export revenue and post-export revenue allocation assuming you'd made an adjustment for -- for -- for uniform rates, which would give you slightly different numbers.

So if you want to talk about that issue at a conceptual level, we can. But in terms of whether these particular numbers translate into me changing my recommendations, I was using a -- I was using a different cost of service analysis results.

MR. JURGEN FELDSCHMID: I think, from the perspective of my clients, your recommendations as you've said in your direct already are something that they are happy about hearing because you're saying that their class is one of the classes that should have a lower than -- than -- than average increase because they are outside source.

So I don't think there's any issue between us on that. I guess I am looking, just from a conceptual point of view, looking at those pre-export RCC's and seeing that they are significantly higher than any other class, except for area and roadway lighting.

I'm just seeking confirmation from you that that is what we're talking about here; that that is a result that would tend to suggest that a conclusion is -- a conclusion that general service small is over-contributing is, if anything, more -- more well founded than otherwise might be?

MR. WILLIAM HARPER: Well, I -- I guess I would have -- I would have to say that if I look at the general service small non-demand and I go to the far right-hand column, I'd have a revenue to cost coverage ratio at current rates of 104.9 percent if I'm reading this correctly, if we're both on the same table.

And so --

MR. JURGEN FELDSCHMID: Yes.

MR. WILLIAM HARPER: -- that would say, to some extent, you know, if I'm just looking at Manitoba Hydro's straight cost of service study results they're -- you know, they're just within -- they're just within the boundary. They wouldn't be one of the first groups I would target for -- for a decrease.

You know, I think, you know, what you're saying is, is with the RCC's that you're getting pre-export you might target them for a bit -- a bit -- maybe a bit of a decrease but -- but -- but, you know, I think my primary consideration was, was I said, was like -- was like the current cost of service study adjusted for uniform rates, informed, to some extent, by -- by what the pre-export RCC's were showing.

So that in -- in -- in -- in that case, if I go down to general service small demand which suggests I have, you know, 109.7 percent prior to, you know, based out of the cost of service study and pre-export RCC's are seventy-four point eight (74.8) which is well in excess of that average as well.

I would say that clearly sends a signal that this is a class, regardless of how things come out in the future, you're probably going to want to apply a relative rate decrease to and maybe this year is a good year to start doing that.

MR. JURGEN FELDSCHMID: Thank you. I'm wondering if I could then ask you to shift to your response to a Manitoba Hydro IR. It's MH-CAC/MSOS Number 2, and particularly the table that you put together entitled "Recalculation of 2003/04 RCCs incorporating uniform rate impacts".

MR. WILLIAM HARPER: Right, okay. That's the -- I've got it.

MR. JURGEN FELDSCHMID: You've got that, great. And first of all, you'll confirm for me that in that calculation with -- well, let's back up a little bit. You'll agree with me that the uniform rate legislation that was introduced, I think, in 2000 or around about that year applied to general service small non-demand and demand, in terms of eliminating the Zones 2 and 3, correct?

MR. WILLIAM HARPER: Yes, and I think you can see that by looking at Column 6 and see those customers to whom a uniform revenue -- rate --uniform rate revenue adjustment takes place and it's -- you know, as well as residential there's general service, non-demand general service, small demand, and medium. So all those customers were impacted as well and I think Mr. Wiens said that as well, during -- during discussions with either yourself or someone else.

MR. JURGEN FELDSCHMID: And when you make that adjustment for general service small non-demand, the same sort of adjustment that you argue should be made for residential, general service small non-demand now is in Column 9 of that table at 105.03 percent, clearly above the ZOR, correct?

MR. WILLIAM HARPER: That -- that's correct.

MR. JURGEN FELDSCHMID: And general service small demand also remains substantially above the ZOR or -- though, perhaps somewhat less in the current cost of service study at 108.66 percent, correct?

MR. WILLIAM HARPER: That's correct.

MR. JURGEN FELDSCHMID: Now, I also note that in Column 7 of your calculation there, you are adding or re-allocating export revenue which essentially is set against the adjustment on uniform rate, it sort of -- the uniform rate revenue adjustment.

Can you explain to the Board, please, why that is done and -- and what is the necessity of that?

MR. WILLIAM HARPER: What you're doing in Column 6 is adding back to each of the customer classes that were impacted by uniform rates the revenue loss that they -- they basically experienced as a result of the introduction of uniform rates and moving all customers down to effectively what was the zone -- what was the Zone 1 rates.

And that total amount of dollars totals $14.9 million. You can see at the bottom of Column 6. Well, if you add those revenues back in, you have to make an adjustment somewhere else in the process otherwise things don't all add back up at the course.

And the methodology that Manitoba Hydro had laid out to me and I think is reasonable, is that what you do is you take a portion -- you basically provide an offset by providing -- you offset that 14.9 million by basically reducing the export allocation to each customer class by -- by -- in proportion to how much they got and -- but take out 14.9 million dollars in total.

And that's what's happening in Column 7, is you're basically having the offset adjustment. So in the end, everything adds -- adds back up at the end and revenues equal costs.

Otherwise, I'm adding back in revenues but I got -- it's got to come from somewhere.

MR. JURGEN FELDSCHMID: Is there -- is that a -- in your view a necessary step? Is there any value in skipping that step and looking at the RCC results without re-allocating that -- that export revenue?

Or is that just methodologically flawed from your point of view?

MR. WILLIAM HARPER: No, I -- I -- I don't think -- I don't think there's a flaw in the methodology. I think if -- if -- if -- if you're a purist, you'd want to make everything balance.

I think you probably could, to some extent, look at the RCCs without adding this thing back in, and unless you were trying to get everybody to exactly 100 percent -- you know, you might be okay, because there is some room in the fact you're just trying to move everybody to within that ninety-five (95) to one oh five (105) range.

But -- but, you know, if -- if you want to be --be a purist and have everything add up at the end of the day, you know, as you started -- and maybe -- as you started to get towards unity, then you would have to do this sort of adjustment.

(BRIEF PAUSE)

MR. JURGEN FELDSCHMID: Those are all my questions. Thank you very much.

THE CHAIRPERSON: Ms. McCaffrey, with MIPUG, would you like to go next?

MS. TAMARA McCAFFREY: I'd be happy to, just one (1) moment.

(BRIEF PAUSE)

THE CHAIRPERSON: I’m the same as Mr. Williams, I’m just not hitting it hard enough.

Ms. McCaffrey...?

MS. TAMARA McCAFFREY: I’m fine here, thank you.

CROSS-EXAMINATION BY MS. TAMARA MCCAFFREY:

MS. TAMARA MCCAFFREY: Good morning, Mr. Harper, nice to see you again.

MR. WILLIAM HARPER: Good morning.

MS. TAMARA MCCAFFREY: Welcome.

THE CHAIRPERSON: Ms. McCaffrey, would you like to move up?

MS. TAMARA MCCAFFREY: I’m actually fine, Mr. Chairman. I can -- I can see him and I’m quite comfortable here.

MR. WILLIAM HARPER: I didn’t bring my glasses, so I may be the one (1) suffering at this, but that’s okay.

(BRIEF PAUSE)

CONTINUED BY MS. TAMARA MCCAFFREY:

MS. TAMARA MCCAFFREY: Mr. Harper, just a few areas to cover with you this morning. First of all you’ve spoken quite a bit in your evidence about the 75:25 debt equity ratio. And you've commented specifically on Hydro's position that there is a need for this particular debt equity ratio, and compared that to that of other Crown owned utilities, such as BC Hydro and Hydro Quebec.

You also note, sir, that there are very different market and regulatory structures, both in BC and in Quebec, that impact the risks somewhat differently of those utilities.

Can you just elaborate on that, sir?

MR. WILLIAM HARPER: Sure, and maybe the more appropriate one (1) to focus on would be Hydro Quebec, because they use the 75:25, whereas BC is using the 80:20 as their Debt Equity Ratio.

But I'll try and make this short, so -- but the -- the way the market is structured in Quebec is that the transmission and the distribution segments of Hydro Quebec are -- are regulated utilities. The -- the production unit of Hydro Quebec is not regulated.

Basically what happens is it sells its production, it sells production a hundred and sixty-five (165) terrawatt hours to the distribution business at a fixed price of two point seven nine (2.79) cents.

And that fixed price -- that's in the legislation, that's not a PUB decision, that's basically in

-- in the legislation that -- that the Quebec Government passed.

And so that if -- if waters are high, basically Hydro Quebec production and the hydro -- and the -- and excuse me, the Quebec Government share in the benefit.

If the drought comes it's Hydro Quebec production and the Quebec Government that suffer, the customers pay two point seven nine cents (2.79) cents regardless.

And so that's a quite a bit different fundamental structure than we have here, when in cases of a drought, customers are asked to help build -- build up the reserves as well as the -- as well, their customers have got a fixed price, two point seven nine (2.79) cents regardless.

So, I think there's a fundamental difference in terms of the risk to the company, in terms of the risk to the shareholder in terms of, you know, whether they're going to get their dividends or not.

MS. TAMARA McCAFFREY: And just to elaborate though on the regulatory framework in British -- British Columbia.

MR. WILLIAM HARPER: Well, I think the -- you know, that's emerging. The one (1) thing that struck me was because there was a new -- there was a new policy issued by the BC Government a while ago. And they went through a set of Hearings, basically where the PUB was providing recommendations in terms of how it would be implemented, and they're currently in the middle of a rate -- their first rate proceeding right now.

One (1) of the things that isn't in this rate proceeding, but is -- but the Government has signaled, is clearly they want to do with BC Hydro is they want to put them under a PBR regulatory framework, which -- which basically, in my mind, puts the company somewhat more at risk. There's certain performance targets, that's all the money you get, you aren't coming back and asking for a cost of service based approach every year.

So, that while there are opportunities for earnings, there is also more pressure on the company to manage its business under a PBR scheme, and I think that again is a slightly different regulatory framework than what we're dealing with here.

MR. ROBERT MAYER: Would you tell us, sir, what PBR means?

MR. WILLIAM HARPER: Okay, performance based regulation. Basically it's almost like saying, five hundred and eighty-one dollars ($581) a -- five hundred and eight-one dollars ($581) per customer, I'll increase that at 2 percent for inflation, knock off a percentage point for productivity, that's how much money you're going to get, regardless.

CONTINUED BY MS. TAMARA McCAFFREY:

MS. TAMARA McCAFFREY: Sir, would you agree with me that both of these jurisdictions, British Columbia and Quebec, have experienced fairly significant increases in export sales in recent years?

MR. WILLIAM HARPER: Yes, I think they -- they, like Manitoba Hydro, have been benefitting from the same sort of developments in the market south of the border. Like perhaps.

I'd perhaps comment, BC Hydro still hasn't been paid for all of their exports. But, you know -- but that's perhaps another market risk they experienced and maybe isn't of the same magnitude in Manitoba.

Here, I think there's still $200 million outstanding in bills to be paid from the California debacle, if I can put it that way.

MS. TAMARA MCCAFFREY: So, you've indicated, of course, both have benefitted from increased export revenues?

MR. WILLIAM HARPER: Yes.

MS. TAMARA MCCAFFREY: And both have experienced greater access, I take it, to markets in the US which has allowed them to sell more exports and accordingly --

MR. WILLIAM HARPER: I'm not quite as

familiar with the -- sort of, the extent to which they've had to expand through into broader markets. I think, you know, I think with BC Hydro it's basically the access to the California market and the big market there, whereas clearly Manitoba, I mean, it's connected to Minnesota. If you wanted bigger markets, you have to get further south than Minnesota probably to get into large population bases.

But, you know, Hydro Quebec's -- associated pretty close to New York to begin with so it probably doesn't have to extend its footprint much further in order to get, sort of, large markets.

It's mainly the prices of the markets they have been able to command that have been sort of -- have been beneficial to them.

MS. TAMARA MCCAFFREY: So, leaving expansion then in terms of access aside though, the point being is that both of these jurisdictions have also, similar to Manitoba Hydro, experienced some significant increased export sales?

MR. WILLIAM HARPER: Yes. And I think there was a -- there was a -- some material to that effect I think we included in the evidence we filed at the Status Update, if someone's interested in going back and looking at the tables. They could, I don't have them with me here.

But you could see from that, I think, we were looking at how exports had grown in all three (3) of those jurisdictions over the period of time up to 2002.

MS. TAMARA MCCAFFREY: I'm just going to move to another area briefly with respect to capital spending and I just want to make sure that your recommendations are clear.

As I understand it, sir, you note that one half (+) approximately of the deterioration in Manitoba Hydro's financial position since the 2002 Status Update is not attributable to the drought roughly; it's attributable to other factors?

MR. WILLIAM HARPER: Yes.

MS. TAMARA MCCAFFREY: Correct?

MR. WILLIAM HARPER: Yes, that's correct.

MS. TAMARA MCCAFFREY: And, aside from the government payment, the lion's share of the other factors relates to capital spending projects; is that right?

MR. WILLIAM HARPER: Yes, I think that's -- I -- I -- I think -- I'm just trying to recall. I -- I think that's correct, yes. Now, you know, I think you'd want -- you have to -- about how you qualify capital spending. I guess, whether you, sort of, deem acquisition of Winnipeg Hydro capital spending or not.

But it was dollars they had to spend, yes.

MS. TAMARA MCCAFFREY: Very -- that's a very good point. Sir, you also note though that capital spending didn't solely relate to generation and transmission, but you also noted there was considerable capital spending outside of that and outside even of safety and reliability.

And you noted that expenditures in those capital areas were also going up. I don't think there's any dispute about that?

MR. WILLIAM HARPER: No. That's correct.

MS. TAMARA MCCAFFREY: Now, sir, just to summarize your recommendations then, is -- can I fairly characterize it as, and your recommendation is not put in the strongest of terms so I want to make sure I don't overstate the case.

But would you agree with me, sir, that it's a good idea for Manitoba Hydro to also share the pain, as it were, with respect to the present financial circumstances that they're finding themselves in; that is, not solely look to recovery from ratepayers but also look to ways that they can respond in terms of their spending?

MR. WILLIAM HARPER: I think that's fair and I think that that's consistent with the comments I made about ensuring that their as effective and efficient with the dollars that they're given. Either the current ones or the -- or future ones or they're given through -- through this process here.

I guess, it's -- you know, a matter of paying -- paying's an awkward word, I think, you know, if people are asked to pay more on electric bills they're going to have to be more effective and efficient how in terms of they manage their budgets.

I think as a result, Manitoba Hydro should be managing its budget closely before it asks for those dollars.

MS. TAMARA MCCAFFREY: And in terms of the debt equity target that they currently have, the 75:25 target, sir, would you agree with me that having 25 percent equity may not be necessary or even appropriate in light of this pattern of ever increasing capital expenditures that we're seeing from Hydro?

MR. WILLIAM HARPER: Yes, I think what -- what -- what I was expressing in -- in -- in my -- in my evidence was the fact that when we looked at this in the past it was 25 percent of a number.

You know, we looked at it in the Status Update and we were looking at equity as 25 percent of, let's say, the total asset base. And that you -- you have a percentage but that also gives you a value of one point two (1.2), one point five (1.5), $1.6 billion.

As you spend -- you know, if you go from that to now, where you're finding you're spending considerably more dollars, that increases your asset base. And I'm just not too sure whether the simple arithmetic of taking that same 25 percent and applying it to a bigger number and saying, this is now the reserves I need, is the best way of coming up with -- with an estimate of what your reserves are.

I think one (1) way of doing that is the way the Board asked Manitoba Hydro to look at it, at the end of the Status Update Proceeding. And that is to try and quantify what are the -- not only what are your risks, but what are the risks that you’re specifically going to rely on reserves in order to help manage. And on that basis, try and establish what’s a reasonable level of -- of reserves for the Corporation.

MS. TAMARA McCAFFREY: Right, so then calculating reserves ought not to be a simple exercise in arithmetic, that is a simple percentage of the assets then, in light of this -- this program of -- of capital spending, it has -- more thought has to be given to the specific reserves and the quantity of reserves that ought to be in place to manage the specific risks expected to be faced by the Corporation, correct.

MR. WILLIAM HARPER: I think that’s fair, and I think maybe a good example of that is the Winnipeg Hydro acquisition. And in the sense that Manitoba Hydro, you know, other than -- it’s -- not a lot has changed, it’s the same amount of power Manitoba Hydro has to produce out of the -- out of the same facilities it had before. It now owns the Winnipeg Hydro Facilities, there’s maybe some synergies they can gain there.

I'm not -- not clear in my mind why just paying a $140 million for the current -- for Winnipeg Hydro, all of a sudden they need 25 percent of that more in reserves, and really the system hasn't really changed that much.

MS. TAMARA McCAFFREY: You also note, sir, that one (1) of the key things from the point of view of bond rating agencies that deal with Manitoba Hydro, in your view, would likely be that Manitoba Hydro is in fact managing their corporation effectively, and that includes an important factor that you cited, was managing its risks effectively, right?

MR. WILLIAM HARPER: I was saying -- yes.

MS. TAMARA McCAFFREY: And accordingly, this preparation of a study that attempts to quantify specific reserve provisions, not just the drought, which is of course seems to be the most serious risk, in terms of magnitude or probability.

But other risks as well, that are on Hydro's list, that you provide in your evidence, continues to be a relevant and important objective and directive from the Public Utility Board, that still is relevant today. Would you agree with that?

MR. WILLIAM HARPER: Yes, I would.

MS. TAMARA McCAFFREY: We've talked a little bit about British Columbia, we've talked a little bit about Hydro Quebec.

Now, sir, you're the expert, not I. But can you tell me, sir, whether either of those utilities credit export revenues allocate them in a way other than to the bulk power components, that is generation and transmission?

MR. WILLIAM HARPER: I don't think either of those utilities have actually had to -- had to consider the issue, and actually -- actually maybe I can spend -- I find -- and actually I think to some extent BC may be actually looking to this Board at the end of the day to see what its decisions are, you know, for regulatory precedent.

In the case of BC Hydro, you know, they haven't -- they haven't done a cost of service study since the early 1990s, that basically rates have been frozen, there has been no return to -- to the BCUC. They're just right now going through a revenue requirement hearing. There is no -- there is no cost allocation, rate design considerations in that Hearing at all, that will probably take place next year.

So, the question of how export revenues are treated in the cost allocation is something that they haven't even come. This is where -- because maybe when they come to it, they'll be looking for decisions, well how does -- how did Manitoba Hydro treat it, and what did PUB say and using that as their precedent going forward.

MS. TAMARA McCAFFREY: And of course, you're now venturing into the area of speculation of course, but the answer to my question then is no?

MR. WILLIAM HARPER: No. No, and I think the -- the same issue arises with Hydro Quebec, the structure there was very much set in terms of legislation. There was no sort of process whereby you know, cost of service analysis -- let's look at the way we should allocate costs. Even the way the costs are allocated between the classes.

I mean, the study that NERA used, talked about using load factor, but that was all basically prescribed in regulation. I mean, you know, it was set, there was no sort of debate on the issue as to, well, what was the best approach.

MS. TAMARA McCAFFREY: Sir, you -- you reviewed the NERA evidence of course. And I just want to clarify a couple of points from that. First of all, sir, you recognize that this is preliminary study at best. And in fact, in your evidence you even indicated it was premature at this point to have the Public Utility Board and or the parties and Intervenors deal with the study today, correct?

MR. WILLIAM HARPER: Well, correct in the sense of I got the impression, and maybe it was wrong, from some of Manitoba Hydro's responses to IR's that they were saying, you tell us which of these recommendations you want us to put in the study next time?

Almost like, which ones are good -- are good to go. And I don't think we're -- we're at that point. I think we're at the point whereby it's reasonable for -- for -- for the PUB to say, you know, we asked you to do some work, you -- you've, sort of, gone through Phase I, you seem to accept it, go away, figure out exactly how you would implement it and bring us back a concrete proposal that we can all work through and understand.

MS. TAMARA MCCAFFREY: And we're not there yet?

MR. WILLIAM HARPER: I -- I don't believe so. No, and I think, actually if you look at both Manitoba Hydro's responses to some of the IR's in the NERA report, there are issues such as the classification of generation costs where some of the details still have to be worked -- worked out.

MS. TAMARA MCCAFFREY: So, at this point, again, we're dealing with a -- a stage one (1), an early stage and there's -- no one can form a -- a final conclusion at this stage; that's why you're recommending that Hydro go back and do the further development and then we'll have debate on it at that time?

MR. WILLIAM HARPER: Exactly, yes.

MS. TAMARA MCCAFFREY: Now, sir, speaking of NERA, NERA reviewed, as I understand it, ten (10) other jurisdictions; is that right?

MR. WILLIAM HARPER: I -- I believe so. There was a summary table in their report and there -- there was a subsequent study. I must confess I -- I looked at the summary report. I didn't go through and read the detailed study. April, May were pretty busy months --

MS. TAMARA MCCAFFREY: Well, you've got my sympathies.

MR. WILLIAM HARPER: -- for me.

MS. TAMARA MCCAFFREY: They are certainly, sir, but just getting back to the NERA point, NERA didn't -- I'll give you a minute if you need one, Mr. Harper?

MR. WILLIAM HARPER: Well, I -- I was just making the study handy in case there was a particular page that you wanted to refer to.

MS. TAMARA MCCAFFREY: Okay. I'm not going to get too specific but I -- I take it then you agree with me, sir, that NERA did not identify any jurisdiction that allocates off-system or export sales revenues to anything other than the bulk power system that's used to produce those sales and by that, we know, that that's the generation and transmission component to the system?

MR. WILLIAM HARPER: I can't confirm that from memory but -- but I'll take it, subject to check, yes.

MS. TAMARA MCCAFFREY: Now, let's -- let's look at cost allocation a little bit. Of course, I don't want to be too long with you but there -- this is one area, of course, where your evidence and that of Mr. Osler and Mr. Bowman diverges so I -- I just want to put a couple of things to you on that, just so that we're clear here.

We're talking about cost causation and I -- I become more and more impressed the more these hearings that I do with the fact that cost causation and cost of service studies have a lot more art to them than science.

Would you agree with that; there's quite a bit of room for creativity and judgment in the various approaches one can take to cost of service?

MR. WILLIAM HARPER: Yes, I think there is room for judgment and there's need for creativity.

MS. TAMARA MCCAFFREY: Now, sir, just for my simple mind, and I have to just ask you this and I'm sorry if everyone heaves or groans because it's so basic but, just to confirm, as I understand it the components of Hydro's system that are used for the export revenues are the generation and the transmission components; am I correct in that?

MR. WILLIAM HARPER: That's correct.

MS. TAMARA MCCAFFREY: And, accordingly, when we look at cost responsibility, the components of Hydro's system that give rise to the export revenues, that is generation and transmission, are borne by the customers -- of the domestic customers in proportion to the amount that they use that system -- that component of the system or those components; am I correct in that, sir?

MR. WILLIAM HARPER: The costs of generation and transmission are allocated to customers based on their usage of generation and transmission; that's correct.

MS. TAMARA MCCAFFREY: Now, I take it then since the 1990's that hasn't changed; that is, since the time that export revenues began or in the late 80's and the exports -- any revenues that there were from exports were allocated according to generation and transmission on the basis that those components were the ones that gave rise to the export; I think you'd agree with that?

MR. WILLIAM HARPER: Well, maybe we can back up because I think your original question was, to me: How was generation and transmission allocated to customers? I was thinking of domestic customers when I responded to -- to your question.

MS. TAMARA MCCAFFREY: And that -- that was my question.

MR. WILLIAM HARPER: You know, and I -- I just wanted to make sure that we're, you know, I -- I think the -- and I guess maybe it's a bit of terminology, but I think the distinction I was trying to make -- I think there's a distinction to be made between use and cause. And probably the easiest example of that is in hydro zone interruptible class.

The interruptible class uses generation in order to -- but -- but it doesn't get allocated generation in the same way as domestic customers do because it's basically a different type -- type of service and -- and the contracts on which it's sold are -- are different. So that I don't think it's as easy as translating usage into and saying usage is equivalent to cost causality unless all the customers are equal.

And, you know, and I -- and so that, you know, and with domestic customers outside of interruptible and maybe if -- if there's rotating blackouts, hospitals probably get priority, cus -- you know, domestic customers are equal in terms of their treatment and how they're incorporated from a reliability perspective.

MS. TAMARA MCCAFFREY: Would you agree with me, sir, that a way back, let's -- let's go back to the early 80's or late 80's, in the early 90's, would you agree with me, sir, that the export revenues, to the extent that were any, were allocated in accordance with current principles, that is to the generation transmission components of the system? Because those were the components that gave rise to the expert sales; that was the thinking in the 90's?

MR. WILLIAM HARPER: Yes, they were either allocated or they were netted out.

MS. TAMARA MCCAFFREY: Netted out, you're talking about losses?

MR. WILLIAM HARPER: No, no. I mean they -- they were -- yeah, allocated. I -- I was thinking of the process but I think in the end it gave -- it gave rise to the same -- to the same result. It was sort of the -- the common cost that were used by all which is typically the generation and transmission, they were netted out against those.

MS. TAMARA MCCAFFREY: And, but, sir, the generation and transmission and -- that hasn't changed since the 90's. That is it was generation and transmission then that were the components of the system that -- that were used to -- to provide the export sales and its generation and transmission that are still the components to the system that are used to get export sales.

That fact hasn't changed and I don't want you to get into the distinction again between usage and costs. But those, you will agree with me was that basic fact. It's still those components of the system that give rise to those exports isn't it?

MR. WILLIAM HARPER: It's still those

components that are -- that are used to -- to make those exports, yes. And -- and maybe -- but I guess maybe where we differ is that the -- is the facts have changed and I think it's very much similar to if we go back far enough -- and actually if you look at -- when I first started work in this area, the NERA manual wasn't the 1992 red binder -- red floppy, it was a hard covered green dog-eared -- hard covered book produced somewhere -- Mr. Wiens can probably tell me how long ago, but quite a ways ago.

And if you read that book, how you classify costs, they talks strictly about fixed variable. The method that sort of Mr. Williams was talking to Mr. Wiens -- Mr. Wiens and other people about -- earlier about, you know, because that was the way it was.

Because the facts of the situation change, you at the new NERA manual that came out in 1992; there are a lot of other methods that are in there now for -- for classifying costs besides just fixed variable. Reference to the fact hydraulic had reservoirs and might be a bid energy was two (2) lines in the bottom of one paragraph.

Now, you got a whole methodology try -- trying to address that issue because circumstances have changed and I guess what -- I think -- well what I'm saying to some extent is that I think export circumstances have changed as well. And one doesn't necessarily end up departing from principles just because one uses a different method.

MS. TAMARA MCCAFFREY: Now. there you're using that -- that term 'departing from principles'. Now as I understand it one of the key principles is -- is cost causation and when I think of comments from this -- this particular Public Utility Board even in the Status Update Hearing and then -- and then orders that pre-date that.

One of the principles is that costs -- that one should track the components of the system that give rise to costs and the benefits that are derived from those -- from those systems should be allocated again accordingly.

And again, when I ask you whether anything has changed, not in terms of how much money we're making from exports but whether the generation and transmission are still the components in the 1990's and they're still the components today that give rise to those exports.

I asked you whether that had changed and -- and I think you'll agree with me that they're still the components that have changed. And that too, is I appreciate you have a different view of -- of and in --there's very bright minds in this room that can have this debate and I expect will perhaps again in the future.

But those are still the components that give rise to it, and those components -- and that's why on the basis of cost responsibility, the Public Utility Board has stated that at least as most recently is 2002, that that allocation of the export revenues, ought to continue to those components?

MR. WILLIAM HARPER: Yes, you know, I mean, I don't -- that the Public Utilities -- you know, I can say the Public Utilities Board has said that, even after hearing my -- my evidence, and evidence of others and evidence of MIPUG, you know -- we, you know. I -- I, you know, sort of sound men can differ.

MS. TAMARA McCAFFREY: That's right. And all I'm just saying is you're talking about departing from principles, but there's obviously a few different interpretations open to what those principles of cost responsibility mean, that -- that's my only point.

MR. WILLIAM HARPER: That's correct. Well, you know, otherwise if there wasn't, we could put the whole thing in a computer and push a button and we'd be out with the answer, sort of thing.

MS. TAMARA McCAFFREY: That wouldn't be nearly as much fun.

MR. WILLIAM HARPER: No, it wouldn't. No. Well, I don't know, some people might think it'd be a lot easier.

MS. TAMARA McCAFFREY: Now, you know, Mr. -- Mr. Harper, I was going to call you Mr. Turner, because one

(1) of the members of MIPUG of course is Bill Turner.

Mr. Harper, going back to the early ’90s, you probably are familiar with the fact that export revenues just weren’t -- they just weren’t generating the kind of dollars that we’re seeing today, that’s of course one (1) of the big changes that we’re talking about in today’s new reality; is that right?

MR. WILLIAM HARPER: I think it’s on -- on a per kilowatt hour basis, yes.

MS. TAMARA McCAFFREY: Okay.

MR. WILLIAM HARPER: So, now when we go back to the ’90s though, back when -- when the export revenues were actually -- or export power was being sold on the market for rates that were actually less than the domestic power, would you agree with me, sir, that the sub-classes or the classes that bear the greatest proportion for paying for the costs for the generation and transmission of the components of the system, were also bearing the greatest proportion of -- of those costs as well, at a time when there wasn’t big returns?

MR. WILLIAM HARPER: Well, I think you -- you could ask whether the -- whether the -- I’m sorry, I’m just trying to, sort of -- because when you were building those facilities, you know, and we may even get say Limestone for -- for example, there may have been considerations that, you know, my understanding is Lime -- Limestone was built because the power was needed for -- for Manitobans.

I'm, you know, but I guess the question is whether you build limestone or you built something else, part -- part of the benefit for building Limestone was there was extra capacity, you could export some of that.

And I'm sure in the considerations of that, the decision, they were looking at what were the revenues you could make off of exports, based on the -- based on the pricing that was in affect at that particular point in time.

And the fact that you could only perhaps sell the power for something less than -- less than domestic rates, but still that was -- that -- that was some revenue, better than no revenue, and they -- building limestone a lot better than perhaps building a thermal station to tip the balance and made -- made you go for Limestone. So, I don't know whether you know, within the consideration of that, the -- you know, the revenues that were generated were probably commensurate with what -- with what -- with sort of the expectations I would think at the time that the plant was built.

And so I'm not too sure if there is, you know, if it was they thought they were going to get six dollars ($6) a megawatt hours -- sixty dollars ($60) a megawatt hour, excuse me, and ended up only getting one and a half (1 +). I don't think that would have been the case.

MR. ROBERT MAYER: Mr. Harper, you're a better analyst than you are a historian.

MR. WILLIAM HARPER: Okay, well you know, what -- un -- unfortunately, and you know, I stand -- I stand to be corrected, you know, I haven't gone back through, but I went back through and read -- read the original decision on Conawapa, I didn't go back through and read -- and read back to the decisions on Limestone.

CONTINUED BY MS. TAMARA McCAFFREY:

MS. TAMARA McCAFFREY: That -- that's fine. I appreciate your -- your answer, sir. You did indicate in your evidence that the -- the present and the past cost of service allocation of net export revenues though to those two (2) components, the generation and transmission components, you did indicate that in the '90s, that may have been appropriate?

MR. WILLIAM HARPER: Yes.

MS. TAMARA McCAFFREY: I believe is the way you put it; is that right?

MR. WILLIAM HARPER: Yes, I think the other issue was it -- it was probably a small amount of dollars in that sense. I'll be quite honest with you, when you're dealing with Cost of Service Studies you tend to focus on the big dollars, and how you should be treating them more -- more than the small dollars.

You know, and so -- so that just -- just because those are the dollars that end up swinging things a -- a lot more in terms of how the results are going to turn out. And so that, you know, I think that to some extent that -- that back then the dollars were small, that that was viewed as being appropriately allocating it, yes.

MS. TAMARA MCCAFFREY: Would you agree, sir, that one way of getting a message to a customer that might impact their use or their conservation of power, is through rates or price signals?

MR. WILLIAM HARPER: Yes, it's probably one of the key -- key ways of doing it.

MS. TAMARA MCCAFFREY: And would you agree -- would you even go as far as to say that is, I guess the key way of doing it, is to make it impact the bottom line somehow?

MR. WILLIAM HARPER: Yes, I guess, you know -- you know without deference to Mr. -- Mr. Kuzak, obviously there are other types of programs one could introduce besides -- besides just rate programs to try and influence how people got to use power. But -- but, it's -- it's a critical piece of the puzzle, yes.

MS. TAMARA MCCAFFREY: And price signals are a rate design issue?

MR. WILLIAM HARPER: Yes.

(BRIEF PAUSE)

MS. TAMARA MCCAFFREY: I have no further questions. Thank you very much for your time.

THE CHAIRPERSON: Thank you Ms. McCaffrey. Mr. Anderson, MKO, how long were you expecting, if I may ask?

MR. MICHAEL ANDERSON: Not long, Mr. Chair. I think -- well depending on the responses of Mr. Harper, about half an hour.

THE CHAIRPERSON: Then why don't we do it now before we break for lunch?

MR. MICHAEL ANDERSON: Sure.

THE CHAIRPERSON: Do you want to proceed?

MR. MICHAEL ANDERSON: Thank you.

CROSS-EXAMINATION BY MR. MICHAEL ANDERSON:

MR. MICHAEL ANDERSON: Good morning, Mr. Harper.

MR. BILL HARPER: Good morning.

MR. MICHAEL ANDERSON: Mr. Williams, it's nice to see you here again. I just wanted to ask you a few questions about the evidence that you provided and just to provide a precise summary and other times, Mr. Chair, as you know the -- Mr. Harper might be appearing as a joint witness for MKO/CAC and MSOS.

And directionally, although I'm not indicating at this time that I'm endorsing -- MKO endorses Mr. Harper's evidence there is commonalities and similarities in their approaches to many of our issues, in respect to residential rates, in particular.

But, I do want to explore some of the matters that have been raised regarding Mr. Harper's evidence. And one of the things that when we would work with Mr. William's predecessor Mr. Peltz, we would euphemistically call it diving for dollars; to get to the end of the day to find out what, if any, savings may be available within the Corporation's books to rationale a direct request to the Board for a reduction in the proposed rate application and a quantum of the increase, particularly for residentials.

And so I just wanted to confirm, Mr. Harper, the information that you have that can assist us in diving for dollars and in the particular application, as I understand your evidence, Mr. Harper, you've indicated that you're -- you have a fair deal of comfort in recommending to the Board that there is $10 million in savings for both years -- both test case years that are presented, that can be removed from the revenue requirement; is that correct?

MR. WILLIAM HARPER: Yes, I wouldn't characterize it as $10 million in savings, because there's ten (10) -- $5 million in savings in terms of the reduction in pension costs, another $5 million in terms of additional, subsidiary revenue.

I don't call that a savings; it's more revenue which, you know, equally reduces the revenue requirement, just like lower cost does. But -- but, there's a $10 million net affect in each year, yes.

MR. MICHAEL ANDERSON: Thank you. I was going to ask you to characterize the savings and you've done that and I appreciate it.

In respect of the discussion that you've indicated may take place in the future with respect to the $16 million, just so that it's together here on the transcript, would you explain what those additional dollars would be, Mr. Harper, please?

MR. WILLIAM HARPER: Well, I think there's still a question in my mind, as to exactly how much subsidiary revenue has not been accounted for in the IFF. And -- and that I think is, you know, and I'm perhaps not exactly the appropriate one to answer this.

But, that is an area I believe, Mr. Williams would like to pursue with the Hydro Panel next -- next week when they appear again.

MR. MICHAEL ANDERSON: Not intending to disrupt Mr. Williams cross-examination, but, in terms of the subsidiary revenue that you don't believe appears or is reflected within the IFF, could you give an indication, sir, as an expert here, having opportunity to review the application, where those dollars might be found or how they might or should be expressed?

MR. WILLIAM HARPER: Well, I -- I think maybe we can do this in two (2) parts. One is, if -- if you refer to my Book of References that I used during my cross-examination and you turn to Tab 8 to begin with.

MR. MICHAEL ANDERSON: I have it, Mr. Harper, thank you.

MR. WILLIAM HARPER: Okay. You'll note that -- you know, at the bottom of that page, there's one (1) page there, it shows revenues from subsidiaries totally some -- well, it's $18.754 million in 2005 and $15.215 million in 2006.

So, those are revenues -- those are the total revenue from subsidiaries. Now, if you look at the expenses, the expenses are not far off that. So, the net revenues are -- are not that -- are not that large. But the revenues themselves are in the order of eighteen (18) to $15 million range.

If you go back one -- I think it's back one tab to Tab 7, there's really a question of, if I go to, say 2005 or 2006 and I look under revenues and I look under 'other' -- the 'other' line which starts at nine (9) and then runs at seven (7) through the two (2) test year periods, 2005, 2006, you have $7 million there.

Now, as I've said -- now the question is that if -- if -- if O&M costs for subsidiaries are under expenses then under the 'other' column here should be the revenues from -- from subsidiaries or some portion of the revenues from subsidiaries, at least that would cover those O&M expenses.

And so that -- so that -- that is one fact. The second fact is that the $7 million, we know, doesn't include anything for subsidiaries at all. It is other revenues from vary -- various agreements and water heater rentals and things like that.

So, that at a minimum, in my mind, there has to be -- there should be another $11 million in this line over and above the seven (7). There could be other questions in terms of where's the depreciation and interest for subsidiaries included in this projection.

If it's included under expense then the other revenues should go up accordingly. If it's netted out then the $11 million is probably a min -- a minimum.

MR. MICHAEL ANDERSON: Thank you, Mr. Harper.

And I -- I take it, without the need to answer that we've had an outline, briefly, of Mr. William's examination of the Panel when it resumes. But I thank you for that.

And just to confirm the impact of that, you've indicated that -- and as a number that we're all comfortable with, that each $10 million in reduced revenue requirement translates, for residential customers, into approximately 1 percent reduction in rate increase; is that correct?

MR. WILLIAM HARPER: I think that was based -- that was based in the first year, you think that they were asking for $28 million and a 3 percent rate increase; that's, sort of, roughly in the order of $10 million per -- per percent of rate increase. Yes.

MR. MICHAEL ANDERSON: So if the additional dollars that you are suggesting may be available subject to examination and the other offsets and net downs and so forth, that may translate into a sum of dollars that would entirely negate the requested rate increase in the first year; is that correct?

MR. WILLIAM HARPER: I don't think we'd ever get close to that, no. Because you need a full 28 million to get rid of that. We're talking about $28 million, twenty-seven (27), $28 million and what I'm talking about here does not get you up to that.

MR. MICHAEL ANDERSON: And -- and so just so that I'm clear on the dollars we have, the 10 million that you have comfort in and the additional that may be found based on your experience and advice and looking at it is in the magnitude of approximately what, subject of course to all the other qualifications that you've clearly outlined?

MR. WILLIAM HARPER: Well, you know, at my wildest dreams, it might be just a little over twenty (20).

MR. MICHAEL ANDERSON: That's very helpful. That's approximately 2 percent rate increase; is that correct, Mr. Harper.

MR. WILLIAM HARPER: I would think so, yes.

MR. MICHAEL ANDERSON: Thank you. I look forward to Mr. William's examination when it resumes. Thank you. That's extremely helpful, Mr. Harper. I really appreciate it. And it puts some of the other comments that you've made in your ex -- in your evidence into context.

Now, I'd like to just touch on the information that focuses and summarizes on Tab 10 of the documents that are in support of your direct evidence, Mr. Harper?

MR. WILLIAM HARPER: Yes, I have that.

MR. MICHAEL ANDERSON: And it's very clear and no need to go over it, that the essential theory is that if you credit back to the residential class those dollars that -- or lost -- you indicated lost revenue, I believe, is the term that you used; is that correct, Mr. Harper?

MR. WILLIAM HARPER: That's correct.
MR. MICHAEL ANDERSON: That it would move upward the revenue cost coverage for that class and then bring them within the zone of reasonableness; is that correct?
MR. WILLIAM HARPER: Well, just crediting back and making the adjustment for the uniform rates, does not bring them back to the zone of reasonableness. We're still looking, if you look at the third column from the right hand side, 92.1 percent as the revenue to cost coverage ratio, which is below the ninety-five (95).
MR. MICHAEL ANDERSON: Thank you. One (1) of the questions I had to ask, in terms of determining the uniform rate lost revenue, the rates that were used to generate that revenue amount were effective for when? The rates currently in affect, Mr. Harper?
MR. WILLIAM HARPER: I think that's a question that would have been better posed to -- to Manitoba Hydro. I basically used the results of it -- the numbers I'm using here are from an Interrogatory Response, where basically we asked them to indicate -- indicate what -- what was the impact of the revenue loss due -- due to uniform rates and so I understand there was rates times number of customers, times volumes.
Exactly what -- what were the rates is

something of a question you'd have to pose to Manitoba Hydro.

MR. MICHAEL ANDERSON: I accept that, and thank you.

Subject to, of course me reviewing that Interrogatory, in the event that the information -- this is just a directional comment -- in the event that these numbers are based on rates currently in effect, would the -- the principle that is indicated in terms of the calculations on Tab 10, be -- improve in fact, if it's recalculated at the proposed rates? Or at any rate greater than is currently in affect?

MR. WILLIAM HARPER: No, I don't think so, because I think what the idea of this Cost of Service Study is, is that what you were doing is you are looking at the revenue to cost coverage ratios based on current rates, and then trying to figure out from that, what adjustments you should make and incorporate in your proposals.

So, you wouldn't want to sort of pre -- prejudge what the answer was going to be by putting proposed rates in here and then trying to do the revenue to cost coverage ratios. It's based on current rates and you're using that information to then try and determine, how should I put together my rate proposal.

MR. MICHAEL ANDERSON: Thank you. That's exactly what I was hoping to -- to get. That the -- that the numbers that you presented are the numbers that we should be considering in respect to the proposal that you've made?

MR. WILLIAM HARPER: Yes, I believe so.

MR. MICHAEL ANDERSON: Thank you. Turning briefly to what I have as page -- there are several references through your evidence, but I'll just go to page 57 in your -- in your conclusions, Mr. Harper.

That was of course where you made the one (1) adjustment about customer classes and rate blocks --

MR. WILLIAM HARPER: Rate blocks, yes.

MR. MICHAEL ANDERSON: -- this morning. Yeah, thank you.

MR. WILLIAM HARPER: Yes.

MR. MICHAEL ANDERSON: That was one (1) of my questions, but you answered it --

MR. WILLIAM HARPER: Okay.

MR. MICHAEL ANDERSON: -- so thank you.

MR. WILLIAM HARPER: It was a test, you passed.

MR. MICHAEL ANDERSON: Thank you very much, I'm pleased to have succeeded. Also of course, I would just add that in the summary of your conclusions that --

MR. WILLIAM HARPER: Yes, the --

MR. MICHAEL ANDERSON: -- the same change --

MR. WILLIAM HARPER: -- the same change --

MR. MICHAEL ANDERSON: -- yes.

MR. WILLIAM HARPER: -- have to be made there, that’s correct.

MR. MICHAEL ANDERSON: One (1) of the -- in terms of using -- you were discussing with Ms. McCaffrey the use of rates to communicate to customers the cost of the electrical services that they are purchasing. In terms of the second year of Manitoba Hydro’s proposal, to blend the two (2) rate blocks into a single flat rate, what amounts to a flat rate. Do you believe that that communicates correctly to the customer, the cost of serving that?

MR. WILLIAM HARPER: I think it’s makes -- makes understanding the cost to serve them clear -- clearer. Virtually everybody may be outside, may be well beyond the 175 kilo -- kilowatt hour block, which was the first block.

But I think there is implicit in -- in a bill that a customer gets, that even if it’s the first hundred and seventy-five (175) that says, gee whiz, you know, I got charged a lot for the first little bit and then less for -- and then less for the balance, sort of sends a signal that says using more is better.

And you know -- and -- and that -- you know, or using -- or you know, using more is cheaper, if I can put it that way. And that’s probably not the signal that -- that we -- that we want to be sending.

I think a simp -- and so a simpler signal would be to have just -- just one (1) block, that has a price at -- at the rate that we -- we think, based on both cost of service studies and our efficiency considerations is appropriate.

MR. MICHAEL ANDERSON: So, as distinct or -- and different from a rate which is less on the tail block for kilowatt hours then the first block, a flat rate is better. Is that basically --

MR. WILLIAM HARPER: Yes, I think you know -- you know, I think if you're consid -- considering it one (1), you know, there's a number of considerations that go into sort of designing rates.

And I think the consideration I was talking about with Ms. McCaffrey, was in the context of -- of efficiency, and if what you're doing is trying to send them some signals as to -- as to relatively what's -- what's the cost to use it, you know, we're still -- that energy tail rate is still well below either the unit cost coming out of the cost of service or the -- or what we know is the marginal cost of electricity.

So, in both senses, having a -- having a due declining rate is sort of inconsistent with both of those -- with both of those -- with both of those benchmarks you would use in having a -- a -- a flat rate is better in my mind.

MR. MICHAEL ANDERSON: I understand that. In respect of being able to establish rates that correctly communicate costs, would designing a form of inverted rates that yields the -- same rate revenue be better at communicating the costs in an -- in an efficient manner to the customer?

MR. WILLIAM HARPER: I think I'm glad you added those last three (3) words, 'cause I think if we're at the point now whereby the marginal costs, which is what people use to basically, as a benchmark for -- for efficiency purposes. The current rates are less than marginal costs, you could argue that strictly from an efficiency perspective, having an inverted rate that had that end rate closer to what were the marginal costs of serving those customers would be better.

There are other considerations that go into rate -- rate making besides efficiency. And I think that's part of what Manitoba Hydro is trying to consider and work through in the study it's undertaking as doing by the end of this year.

MR. MICHAEL ANDERSON: And so the rate making objectives that this serves best, is simplicity? Is that correct?

MR. WILLIAM HARPER: Well, yes. I think that's another one (1) -- you could say that the -- the --

the flat rate is quite consistent with -- with the objective of simplicity.

I think one (1) of the problems or one (1) of the beauties of rate design objectives is there's some conflicts between them. And the problem is you have to make the trade-offs the -- sort of the -- the beauty of it is it makes it an interesting and challenging area to work in.

MR. MICHAEL ANDERSON: Thank you, Mr. Harper. One (1) of the areas that I wanted to explore were some of your comments on demand side management and the opportunities that exist there.

But I wanted to explore them a bit from the perspective of particularly northern and remote First Nations, just -- and again, to take advantage of having you here to ask you some questions about this.

In -- if I -- if I go to your evidence at Pages 58 and 59, and following.

MR. WILLIAM HARPER: I've got it.

MR. MICHAEL ANDERSON: Thank you. When you provided your -- did -- conducted your review and provided your advice to your clients, did you take into account that many of -- some of Mr. Williams' clients may live in northern and remote areas of Manitoba?

MR. WILLIAM HARPER: No, I didn't, and I -- I -- no, subject to confirmation from Manitoba Hydro I'm not too sure -- you know, when they were doing their DSM screening of their DSM programs. My understanding is, is that they were using something in the order of six point one five (6.15) cents as being the marginal cost that they were using to screen their -- screen their DSM programs.

And I guess if you were to look at those northern communities, you might be able to argue that -- you know, more marginal costs say from diesel production could be considerably higher than six point one five (6.15) cents a kilowatt hour. And that therefore, perhaps, you know a different suite of programs might -- might actually be -- be -- be appropriate in -- in those communities as opposed to the southern, more -- the southern area where -- where their grid -- connected.

What we're doing here, we're just looking at primarily what were the results that reported in the sort of -- I call it the opportunity study that Manitoba Hydro done in terms of what's the DSM potential, compare those with their plan. And there seems to be considerable room for -- for them to -- sort of them -- to -- to expand their plan and get more DSM savings.

Perhaps it was opportunity for even more in northern communities where the marginal costs are higher still.

MR. MICHAEL ANDERSON: I had intended to ask about that. I was just wondering, Mr. Williams, if you could -- I'll continue with a different line of examination, but if you could pull the rate schedules out that show the proposals for the absolute levels in the diesel communities.

I don't intend to get too much into the rate design. It's going to be purely DSM questions. There are -- there are the tariffs that are included in the document.

MR. BYRON WILLIAMS: I may have to get my back row assistants from Manitoba Hydro to assist us with that Mr. Anderson. So if you'll give us just a second.

MR. MICHAEL ANDERSON: That's fine. I'll move on to something else while you do that. I just did -- wanted a general question on the suite of programs that you mention and I'll address that in a moment, when you have an idea to see what the marginal costs will be.

But in respect of northern and remote communities, would you agree that there is a significant difference in their sources available to provide energy services, in respect, particularly of space heat, that on a grid, for example in the City of Winnipeg?

MR. WILLIAM HARPER: Yes, I mean -- clearly the most obvious difference is -- is the lack of availability of natural gas, as opposed to people who are on the grid.

I would think the other issue probably boils down to, that while -- while say propane may be available or heating oil may be available, it's probably -- it's probably at a much higher cost. Maybe it has to be flown in or shipped in by rail then would be available on the southern -- on the southern grid connected communities.

So, there's some sources that are not available, other sources that are available or probably available, but at a higher price than what people in the south might pay.

So if you're using, I think earlier we saw some comparisons, the space heating fuel oil versus propane versus electricity that Manitoba Hydro prepared. I think those are probably comparisons that were applicable to people that were in the south and grid connected.

I would think you wouldn't want to take that and say, that's what it's going to cost somebody with fuel oil to heat in a northern community when they have to actually fly the fuel oil into the community to use in their furnaces.

MR. MICHAEL ANDERSON: Okay.

MR. BRYON WILLIAMS: Just -- Mr. Anderson just -- and with my thanks to my -- I really like having a back row like this. But were you referring to the proposed April 1st, 2004 diesel rates?

MR. MICHAEL ANDERSON: Yes.

MR. BRYON WILLIAMS: So that would be with, for example, at the over two thousand (2000) kilowatt hours per residential being seventy-nine point (79.) --

MR. MICHAEL ANDERSON: That’s correct. And I --

MR. BRYON WILLIAMS: Okay --

MR. MICHAEL ANDERSON: -- just wanted to use that as a single example because I’m sure Mr. Harper will grasp the -- and I don’t intend to go into how the rate was developed or the approval of it by the Board, but just to provide it as an example.

MR. BRYON WILLIAMS: Just for the clarification of the Panel, I provided those to Mr. Harper. They may not be in the same, in fact, I’m quite sure they’re not the same as what appear in Appendix 9.2 of the evidence. So but just so --

MR. MICHAEL ANDERSON: They were re-filed as Manitoba Hydro Exhibit 16, Mr. Williams, if that’s of assistance also for the record. Sixteen (16) revised.

MR. BRYON WILLIAMS: Okay, we’ve got those.

MR. MICHAEL ANDERSON: And just to keep the record complete in terms of grid connected northern remote customers as other fuel sources, you would also agree that there are differences in the total energy services cost to those customers in respect of also heating with wood, for example, Mr. Harper?

MR. WILLIAM HARPER: I would think so, I mean I'm not too sure what you said -- I'm not sure whether you mean, sort of, heating with wood for somebody up there, versus heating with wood for somebody in southern Manitoba who is using wood to heat. It may actually be cheaper up there.

MR. MICHAEL ANDERSON: Just making the distinction that central service energy sources are not available to these customers, so they combine their energy services from multiple energy sources.

MR. WILLIAM HARPER: I would think that's probably a pretty reasonable thing for them to do, yes.

MR. MICHAEL ANDERSON: Would a -- in designing DSM programs for such customers, would -- should a utility approach those initiatives on an integrated energy services basis. Taking into account all available energy sources to supply the energy services to those customers, when they design the programs, as distinct from DSM programs targeted only at electricity, for example?

MR. WILLIAM HARPER: DSM program design is not my area of expertise. And so I think I'd have to qualify my -- clearly people like Mr. Kuzak do that for a living. I don't do that for a living.

Rather than integrate it, I think if you're looking at DSM programs, you would want to consider the fact that, if there is supplemental heating then the actually -- the way -- way electricity is used for heating in northern communities may be different than in the south, in terms of both when it's used and how it's used and even the cost it puts on the system.

You may have to take that into account when you design your programs. And therefore, you know, that could well mean that programs that are sort of -- work in the south may not be quite as appropriate in the north, and vice versa. I think that's about as far as I think I feel comfortable trying to get into program design, on DSM programs.

MR. MICHAEL ANDERSON: I understand, Mr. Harper. The one (1) area that I was looking to though, is that in designing DSM programs to look at all of the energy services of the -- required by the customer, as distinct from a single source that the utility may be actually selling to them to ensure that it integrates into their needs.

That's really where I'm going, is that -- would that be an appropriate thing to do for the utility?

MR. WILLIAM BARCLAY: Yes, I think you have to understand how the commodity you're focusing on electricity integrates with the balance of the customers needs because you're trying to sell the customer on -- on doing something. And the customer is going to look at it from an -- from an integrated basis. So, I think you have to understand that when you design your program.

MR. MICHAEL ANDERSON: Thank you, Mr. Harper. I'd be pleased to engage in all sorts of discussions with Mr. Harper, on a variety of things. I'm pleased to have him here, but I have one (1) area additional, Mr. Chair, that I'd just like to touch on in respect of financial targets that Mr. Harper's referred.

Ms. McCaffrey had discussed with you financial targets, and I'll -- I was interested in that exchange, and don't wish to go through that again.

Using a -- if you -- if you have available to you, the transcript for June 15th, at pages 351 to 352, that would be helpful, but I can read to you the comment made by Mr. Warden. And all I'm seeking is a -- a question. Mr. Warden said at pages 351 to 352, in respect of reserves, quote,

> "If it were not for drought, and if we could predict the future perfectly though, there's no reason for retained earnings."

End quote. I would take it from your -- your evidence, Mr. Harper, that you at least directionally agree -- that you agree with Mr. Warden in that assessment?

MR. WILLIAM HARPER: The -- yes, I think directionally, yes, I think you know, if you think -- if you think about it from the two (2) perspectives, that Manitoba Hydro said it needs, it needs you know, the basis for its debt equity ratio was one (1) is to sort of protect against adverse events. Well, if you could predict the future perfectly, there would be no adverse events.

So, that you could almost think we don't need reserves for that perspective.

The other -- the other perspective was from a self-financial -- was from a -- from a self-supporting perspective. And I guess part -- part of the issue around self-supporting is people are concerned about the extent to which you know, particularly sort of credit ratings are -- agencies are concerned to the extent to which, you know, are you going to be able -- are you going to be able to cover your interest payments.

I mean, that's when I get down to the bottom line, are you going to be able to cover your interest payments. And you know, and if you could predict the future perfectly, then you know, you'd be able to set your rates exactly, so you knew exactly what your costs were. And you'd be able to cover -- recover the exact amount of money to -- to sort of pay your interest payments.

So, on a very simplistic basis, I don't think -- you know, I think both of us probably agree it's not quite that simplistic, but directionally that's -- that it would be correct.

MR. MICHAEL ANDERSON: So, the purpose of the reserves, for example, as they may relate to other financial targets, such as the debt ratio, are to address the potential impact variability?

MR. WILLIAM HARPER: Yes, I think and that's because variability is of a concern to sort of customers, in terms of rate -- you know, rate shock having big, big rate increases to recover from adverse conditions, as opposed to manage them.

Variability is also of concern to people who loan money, because uncertainty is something that, you know, uncertainty is something that basically people want a risk premium if they're going to have to be exposed to uncertainty.

MR. MICHAEL ANDERSON: And you would agree that planning for uncertainty is -- or variability in particular, is a central aspect of the operations of a primarily hydro-electric utility?

MR. WILLIAM HARPER: Well, I think there are areas of uncertainty that are unique to a hydro-electric utility.

I mean, there are areas of uncertainty that are common between hydro-electric utilities and other utilities. But I mean the -- the hydro side of the business, and obviously the sort of water flows and variation of water flows introduces additional areas -- additional levels of uncertainty that aren't experienced by say a full -- the thermal system. It may have its own unique risks, but...

MR. MICHAEL ANDERSON: Thank you, Mr. Harper. I notice that you had referred to in your evidence to the interrogatory response, appearing in Volume IV of the documents at PUB-MH-I-18, in respect of the interest coverage target.

MR. WILLIAM HARPER: Can you tell me sort of the -- the reference in my document, just out of curiosity?

MR. MICHAEL ANDERSON: I'd have to look for that myself.

MR. WILLIAM HARPER: Okay, well maybe do, because --

MR. MICHAEL ANDERSON: I just want to go to the --

MR. WILLIAM HARPER: -- no. Okay, no, no, please do --

MR. MICHAEL ANDERSON: -- PUB Interrogatories?

MR. WILLIAM HARPER: -- because I don't -- I -- to be quite honest with you, I organize my materials by the reference in my document, as opposed to by the references sort of organized by one (1), two (2), three (3), on PUB, but if we can talk about it without me having to see it, I'll give it a shot.

MR. MICHAEL ANDERSON: Do you have the reference for the PUB?

MR. WILLIAM HARPER: No, I don't.

MR. MICHAEL ANDERSON: PUB/MH-1-18? It's on the interest coverage target.

MR. BYRON WILLIAMS: If you'll just give us a second, Mr. Anderson --

MR. MICHAEL ANDERSON: Sure, Mr. Williams.

MR. BYRON WILLIAMS: -- we'll find the reference in his evidence and then we'll find the reference in his --

MR. WILLIAM HARPER: That's PUB-1-18(a), I think you're talking about?

MR. MICHAEL ANDERSON: It is, Mr. Williams -- Mr. Harper. Thank you very much.

THE CHAIRPERSON: You know, Mr. Anderson, there would be no difficulty in adjourning now for lunch and starting again with you when we come back. It will give them a change to find it.

MR. WILLIAM HARPER: We can adjourn or I've got it. It's up to you, whichever way you'd like to proceed, Mr. Chairman.

MR. MICHAEL ANDERSON: I'm actually comfortable either way, Mr. Chair. Whichever works best for the Board and the -- and the participants.

THE CHAIRPERSON: Okay. You might as well follow up on it right now then. They have the reference.

MR. MICHAEL ANDERSON: All right. Thank you.

CONTINUED BY MR. MICHAEL ANDERSON:

MR. MICHAEL ANDERSON: Summarizing the response that are provided here, it indicated that Manitoba Hydro had altered one (1) of its financial targets in response to perceived changes in its set of variables that they experience as a business; is that correct, Mr. Harper?

MR. WILLIAM HARPER: That’s correct.

MR. MICHAEL ANDERSON: And to summarize the three (3) -- the three (3) primary variables that were involved here were above average flows, an upward trend in export prices and a decline in interest rates?

MR. WILLIAM HARPER: I’m having -- sorry, I think I’m having the same problem everybody has. I think what they were trying to do here was basically those were collectively being put together because they were a combination of events which all seemed to be favourable circumstances and -- leading to particularly favourable results.

But, yes, those were the three (3) that they mentioned here.

MR. MICHAEL ANDERSON: Thank you. And the upshot or the, I guess, the "so what" of this is that they varied as a fixed target in response to perceived changes in variables and the external operating environment; is that correct?

MR. WILLIAM HARPER: Well, and maybe if I can interpret my understanding of what Manitoba Hydro was doing here was that I think at the time of the -- the corporation perceived that if you were getting pretty close to what was your target debt equity ratio of say 75:25 or an adequate target debt equity ratio then there probably wasn't the same need to have a high interest coverage.

In fact, if you had a high interest coverage, it would probably tend to drive -- drive your debt ratio down even further, say, seventy-three (73), sixty-nine (69). And which so if you wanted to maintain -- once you got there, if you wanted to maintain that target debt equity ratio you would probably have to, sort of, slow down a little bit or basically low -- lower your interest times coverage ratio or provide a little bit more flexibility there.

So -- so -- you know, so that you could not, sort of, end up -- because with a one point two (1.2) you'd probably end up having too much net income which would go to retained earnings which would drive your debt equity ratio down even further. When really that wasn't necessary if you felt 75:25 was adequate.

So I think this was just trying to give -- give them the flexibility to -- to manage both sorts of circumstances.

MR. MICHAEL ANDERSON: And of the three (3) variables that I had earlier mentioned, and I thank you for your characterization of it because that is really what I was seeking. I had identified that the three (3) primary variables were above average flows, upward trend in export prices and decline in interest rates, for a primarily hydro electric utility that has an extensive capital program these are three (3) substantial variables for them?

MR. WILLIAM HARPER: I'm not too sure how these variables relate specifically to the -- to, sort of, whether or not you have a high capital program.

There may be some relationship with -- with interest rates. But even there, they're talking about particularly short term debt and I'm not too sure to what extent utilities actually focus primarily on short term debt when they're building long -- long term facilities.

But, you know, out of the three (3) I don't think there would be anything unique in terms of water flows or export prices, vis-a-vis capital program or not. There may be some implications for interest rates.

But again, on the capital side, those interest costs end up being capitalized and so they don't end up coming down to -- affecting the bottom line and then the net income of the business.

They do, however, as we've noted, end up impacting on the interest times coverage of the business.

MR. MICHAEL ANDERSON: All right, Mr. Harper. Moving on to another way of expressing and providing for variation, which is really the theme, if you could go to your Tab 7 which is page 32 from the electricity forecast MH-03-01, the IFF.

MR. WILLIAM HARPER: Yes, that's correct.

MR. MICHAEL ANDERSON: Thank you. And -- excuse me, Mr. Harper, and then linking that back to your discussion on factors affecting retained earnings over pages 6, 7, and 8 of your evidence as just a general reference in -- in the request of mine.

(BRIEF PAUSE)

MR. WILLIAM HARPER: Okay, we've got all that.

MR. MICHAEL ANDERSON: Thank you. And I have some transcript reference but I'll just ask you a general question because I'm aware that you've following the proceedings.

Could you confirm that you're aware that the manner in which -- I'll just backup one (1) step. Your -- you confirmed that the -- when looking at the columns on the IFF for 2000, year ending 2004, '05 and '06, that the year ending 2004 was assembled or put together based on what they -- Manitoba Hydro understood to be current hydraulic conditions, water flow conditions?

And that the year ending 2005 was based on median hydraulic conditions? And all the years from 2000 -- year ending 2006 and following on weighted average hydraulic conditions?

Do you accept and understand that that's how this was assembled in respect of energy production from hydraulic sources?

MR. WILLIAM HARPER: I'm -- actually I'm trying to recall in my own mind whether the -- whether the 2004 was actuals or whether 2004 was the median conditions and then it was sort of average water flows from there forward. I can't recall in my own mind whether on this table the first -- the first year shown was actual water conditions where that was how they finished out just, you know, the year before which isn't shown here. So --

MR. MICHAEL ANDERSON: Then the reference would be -- the term that I used was intentional -- the term used by Mr. Cormie was "current" and it appears at June 15, pages 371 to 372.

MR. WILLIAM HARPER: Well --

MR. MICHAEL ANDERSON: If you'll accept that, sir. We can check them and then we'll carry on, thanks.

MR. WILLIAM HARPER: Yeah, I'll accept that -- that's fine.

MR. MICHAEL ANDERSON: And in respect of the years ending 2006 and beyond in the IFF being established by weighted average are -- it's your understanding that that's done by examining the product of a sequence of eighty-six (86) water flow year -- the conditions in eighty-six (86) years in respect of water flows?

MR. WILLIAM HARPER: Yes, that's my understanding. They've got records of a roughly eighty-six (86) years and there isn't really a weighting, they just do -- what would be results on each of those eighty-six (86) and averaged them out.

MR. MICHAEL ANDERSON: And similarly to refine that a bit into a sort of a smaller manageable number in an exchange between -- on -- on June 15th between Mr. Peters and Manitoba Hydro at transcript pages 270 and 271, Mr. Cormie narrowed that range to indicate that nine (9) years out of ten (10) the -- the system would be able to supply the export market with hydraulic resources.

And that in one (1) year out of ten (10) they would be required to import, would you take from -- where I'm going with that is would you agree that that brief summary indicates that over a -- a ten (10) cycle, the good years and the not so good years would -- would even out on a relative basis?

MR. WILLIAM HARPER: I -- I take that as meaning as when he looks at his eighty-six (86) -- when he looks at the eighty-six (86) years of experience that -- that he does have, probably maybe out of eight (8) of those years would have given him the results that he wouldn't be -- that type of situation that you had and therefore one (1) in ten (10).

And that's how he came up with the one (1) -- with the one (1) year in ten (10) figure. I would assume it's to be based on looking at those eighty-six (86) years and seeing based on those sort of water flows, how -- how frequently would they have a problem in terms of not being able to export and perhaps maybe water flows are so low they actually have to import.

Which seems to me if I recall correctly is I think it's consistent with the type of information that was provided during the Status Update as well.

MR. MICHAEL ANDERSON: As general terms, in terms of the numbers of years presented here we have an eleven (11) statement of projected operations, one (1) of which was a year ending and which were forecast to be actual and the remainder are forecast by the Corporation under the conditions they've described.

Is that correct?

MR. WILLIAM HARPER: That -- that's correct.

MR. MICHAEL ANDERSON: So in terms of addressing or depicting variability, this eleven (11) year record of forecast should take into account, based on their approach, the good years and the not so good years. And in effect, what we have is a presentation of numbers that have the effect of smoothing out the highs and lows and, in effect, levelizing the results of all of this analysis.

Is that correct?

MR. WILLIAM HARPER: Yes, I think so. I think what -- what they've done -- I mean, obviously the water flows can be highly variable on the system as we've seen. It's part of the good years which were the years prior to the last couple and in the last couple of years, it's turned around.

And that -- you know, what they've done is they've averaged it out and presented it in an average forecast here which is probably all you -- all you can do otherwise you'd have to say, well, am I going to assume 2007 is a really bad year or a really good year?

I mean, no -- no -- this would be worse than forecasting the weather, probably, in terms of trying to...

MR. MICHAEL ANDERSON: I promise I won't go down that particular road. But the bottom line really is --

THE CHAIRPERSON: Mr. -- Mr. Anderson, if I may. I don't -- cert -- we certainly don't want to rush you as you're preparing for your closing argument and taking advantage of Mr. Harper's presence, but if it wouldn't be too inconvenient, I think we would adjourn now, and --

MR. MICHAEL ANDERSON: I -- I'm at your pleasure.

THE CHAIRPERSON: You all right with that?

MR. MICHAEL ANDERSON: Have been for some time, yeah. Thank you for letting me continue and I'm happy to break now.

THE CHAIRPERSON: I think we got quite a bit in which is helpful, and then we'll come back at two o'clock.

MR. MICHAEL ANDERSON: And I'll wrap it up with a couple after that. Thanks.

--- Upon recessing at 12:28 p.m.
--- Upon resuming at 2:02 p.m.

THE CHAIRPERSON: Mr. Anderson, whenever you're ready you can recommence.

MR. MICHAEL ANDERSON: Commence and conclude, Mr. Chair, thank you very much. I hope I didn't delay everyone's lunch by my --

MR. ROBERT MAYER: You did, but that's all right.

MR. MICHAEL ANDERSON: Well, I'm thankful that you're forgiving of my interest in chatting with Mr. Harper about these issues.

CONTINUED BY MR. MICHAEL ANDERSON:

MR. MICHAEL ANDERSON: Where I was going in our last discussion about the -- the IFFs and just to recap slightly.

The IFF implicitly incorporates variability, correct?

MR. WILLIAM HARPER: That's correct, yes.

MR. MICHAEL ANDERSON: And that based on the information available to Manitoba Hydro, it also expresses both good years and poor years, but in a levelized expression?

MR. WILLIAM HARPER: That's correct.

MR. MICHAEL ANDERSON: And the reality is, is that as each year unfolds, circumstances inherent or in existence during that -- those particular years, will vary the results forecast to actual, correct?

MR. WILLIAM HARPER: That's correct.

MR. MICHAEL ANDERSON: So, in -- in essence then, any financial targets that may be established as fixed targets, will either be over or under achieved during this course of time, similar to the variance in the forecast to actual, is that correct?

MR. WILLIAM HARPER: Yes, you know, I guess it depends, if you're talking about the debt equity ratio target, and we're as far -- you know, if you're talking the 75:25 where we are right now, it's hard to think of how the individual results in a particular year are going to allow us in any one (1) year to get over seventy (70) -- to get over 25 percent debt in the next couple of years.

But I think if you're talking about things like an interest times coverage target, you know, which is more focused on individuals years, you'll be over or under on actuals in any one (1) year, depending upon how -- you know, one (1) key thing will be how -- how the water flows go for that year.

MR. MICHAEL ANDERSON: All right, and in any case then, I thank you for that qualification and the precision. The matter is, is that the planners producing the IFF will -- one (1) thing of which they are certain is that over time the -- the actual results will vary from forecast, throughout that -- throughout that period, and will not reflect this forecast -- projected as weighted average information.

MR. WILLIAM HARPER: No, it might be the other way around is over time on average, you might expect things to come out the way things forecast over all, in any one (1) particular year you'd be over or under. But over time, on average, this would be the way things would come out.

MR. MICHAEL ANDERSON: Thank you. And the essence being, in terms of my interest, that the planners implicitly accept variability, as they go forward through the series of years in the IFF. Accept it as being a reality of their business operations?

MR. WILLIAM HARPER: Yes.

MR. MICHAEL ANDERSON: In that -- and one (1) of the items that would be the most variable, and have the greatest affect on Manitoba Hydro's operation, would be the variability of water flows?

MR. WILLIAM HARPER: That would be correct.

MR. MICHAEL ANDERSON: Would it be conceptually appropriate, to establish financial targets that also reflect variability, or at least become comfortable with financial targets being addressed variably from year to year, consistent with the variability of the -- the basic inherent variability of the operation itself?

MR. WILLIAM HARPER: I'm not too sure if I quite follow the -- the question. I -- I --

So, I know I can -- I think you know, one (1) of the things we've talked about quite a bit here is in terms of the reserve levels that are needed for the company to some extent, seen as being a function of the risks, one (1) of the key risks being the variability around water. I don't know if -- if that's what you're thinking.

I guess the other issue is, is that we talked recently at the beginning about the interest times coverage, and I think the increased flexibility there was really to try and recognize the -- the variability that could occur from year to year.

MR. MICHAEL ANDERSON: If I have your evidence correctly, and I'll try to use your summary.

(BRIEF PAUSE)

MR. MICHAEL ANDERSON: Page 61, just for a convenience reference, it's the second to last bullet on that page. And reading from your evidence,

> "At this point it would appear that a long term i.e. 2012 debt equity ratio of 75:25 may not --"

and I assume,

> "-- be needed in order to provide a cushion in the event of adverse conditions."

MR. WILLIAM HARPER: Yes.

MR. MICHAEL ANDERSON: Do I take from that that you're suggesting that the Corporation be more comfortable with the variability of its operations and not strive to achieve fixed targets given the variability inherent in their operations?

MR. WILLIAM HARPER: I think not quite -- I think what I was suggesting is that the Company should get a better handle on what were the implications of the variability in its -- in its operations. And what that means in terms to the level of reserve -- reserves that are required, as opposed to using a simple percentage.

MR. MICHAEL ANDERSON: All right. And instead of using, what amounts to a fixed, simple percentage, and again for broadly conceptual reasons -- purposes, would it be appropriate to consider what amounts to a zone of reasonableness for some of these financial targets, given the inherent variability of hydro-electric operations?

(BRIEF PAUSE)

MR. WILLIAM HARPER: I'm trying to relate the -- I think particularly if you were coming up -- if you were looking at what's -- if you were approaching it from the issue of say, what's the level of reserves that's actually required and doing some analysis on that, you're going to be dealing with uncertainties around the variabilities.

And so you could well see that you could have a -- if you were looking at it from a, you know, what do I require to address different uncertainties, you could very well see having a -- you know -- defining reserves in terms of a zone -- zone of reasonableness to address some of that uncertainty.

MR. MICHAEL ANDERSON: Thank you Mr. Harper.

(BRIEF PAUSE)

MR. MICHAEL ANDERSON: In respect of the simple increase in EFT's that you had discussed in your document, you were attempting to explain the importance of us acknowledging the synergy affects of Winnipeg Hydro's integration into Manitoba Hydro.

I'm wondering, you'd indicated that the -- the significance of personnel costs in terms of wages, salaries, benefits, et cetera, is significant in a corporation like Manitoba Hydro.

Have you been able to identify from the information filed, what the cost of this simple increase in EFT's is, net of the synergy benefits? It's on page 17 of your evidence, bottom of the page, lines 8 through 13? You identify a simple increase --

MR. WILLIAM HARPER: No, I’ve not. I did not do -- I did not go through that sort of calculation. You know, at its very simplest level, you’d -- I think it’s very simplest level whether it would be reasonable to relate total wages, salaries and benefits to number of EFT’s on a percentage basis, I don’t know, that would be a very simplistic way.

Because obviously there’s a wide range of types of employees in the company, each of which attract different levels of wages and benefits.

MR. MICHAEL ANDERSON: And then from your experience with other utilities in Canada, is there anything about looking at the overall corporate picture of Manitoba Hydro’s presented in the application. Do these simple increases in EFT’s net of the synergy benefits for the integration of Winnipeg Hydro suggest that any additional investigation or consideration should be made, as to the reasonableness of these personnel increases?

MR. WILLIAM HARPER: I think there were some areas that -- I think -- and I noted in my evidence, those areas where I couldn’t quite find within the context of the evidence explanations for them.

And I think -- think Mr. Williams pursued a few of those during his cross-examination there were a couple of other -- others that he didn't -- and I think there's probably ones more towards the bottom of the list on page 18, that's probably maybe why he didn't get to them.

So, you know, there may be areas that sort of, in future, might be worthwhile pursuing. I think it's a matter, if you can understand why those -- why those are changing, you'd at least have an understanding of why the costs in the company are changing.

MR. MICHAEL ANDERSON: Are you comfortable that the information in the Application allows us to understand the rationale behind these simple increases in EFTs as you've calculated, in terms of their rationale?

MR. WILLIAM HARPER: I think -- I think more information might -- might have been useful. You know, what one (1) of the things -- one (1) of the awkward things about EFTs versus OM&As, EFTs also include people that are working on capital projects that don't show up in OM&As, so there's a little bit of a disjoint there,. Sometimes you may see an increase in EFTs, and it's got to do with working on capital investments that show up in OM&A.

And so, you know, perhaps the next time we should be maybe a little bit more focussed on asking our questions around changes in EFTs.

(BRIEF PAUSE)

MR. MICHAEL ANDERSON: Thank you, Mr. Harper, those are my questions.
MR. WILLIAM HARPER: Thank you.
MR. MICHAEL ANDERSON: I appreciate you being available. Thank you, Mr. Chair, for -- for this time today, I appreciate it.
THE CHAIRPERSON: Thank you, Mr. Anderson. Ms. Fernandes...?
MS. ODETTE FERNANDEZ: Just one (1) minute please.

(BRIEF PAUSE)

THE CHAIRPERSON: While we're having this break, Mr. Peters, maybe you could remind everyone what the schedule is, assuming we finish with Mr. Harper's evidence today?
MR. BOB PETERS: Yes, thank you. One (1) week from today, or July the 15th, will be the date that in the morning, there's been a request that Manitoba Hydro's Revenue Requirement Panel come back and address some questions that have arisen as a result of the exhibits and undertakings that have been filed.
That is scheduled for the morning. And we've put aside some time in that afternoon to hear from Messrs.

Osler and Bowman, from Inter-Group, on behalf of MIPUG, to finish their cross-examination, which I will do in the afternoon.

That will be followed on Friday, the 16th, by closing arguments, starting here at 9:00 in the morning, and proceeding in the order indicated in the outline of procedures.

THE CHAIRPERSON: Thank you, Mr. Peters. Ms. Fernandes, are you ready now?

MS. ODETTE FERNANDEZ: Yes, thank you, Mr. Chairman.

CROSS-EXAMINATION BY MS. ODETTE FERNANDEZ:

MS. ODETTE FERNANDEZ: Mr. Harper, I'm first going to refer you to page 32 of your pre-filed evidence.

MR. WILLIAM HARPER: Yes, I've got that.

MS. ODETTE FERNANDEZ: And you've got -- you have included there Table 17, which indicates that a debt equity ratio of 75:25 in 2014, would necessitate required reserve levels of over $2 billion.

And the paragraph under -- under that, you conclude that even after allowing for additional reserves over and above those required to cover the impact of a drought, a debt equity ratio of 75:25 may not be required in the short term, and in the longer term is likely to provide more cushion than is required.

Am I correct in saying that you base this conclusion on the drought impacts outline on page 31 of your pre-filed testimony?

MR. WILLIAM HARPER: Yes, that was correct, primarily on the -- the 1.2 billion, quoted there.

I guess the other thing that sort of struck me is when I got to the end of that projection period -- oh never mind, no that's correct.

MS. ODETTE FERNANDEZ: Thank you. And the information located on page 31 was provided by Manitoba Hydro, and I see the note there was that MIPUG-MH-I-5(C), and that indicates that the impact of a two (2) year drought costing 715.6 million, if it occurred in 2006 and seven (7), would rise to 1.15 billion, if it occurred in 2013 and fourteen (14), is that correct?

MR. WILLIAM HARPER: Yes, that's my recollection. The impact of the drought increased as you went forward.

MS. ODETTE FERNANDEZ: And based on those numbers, would you agree, subject to check, that the costs of the two (2) year drought, occurring in 2013 and fourteen (14), is therefore 61 percent greater than a drought of the same magnitude occurring in 2006/07.

MR. WILLIAM HARPER: You know, the -- yes, I would have to check on seven one five (715) and eleven fifty-one (1151).

MS. ODETTE FERNANDEZ: Okay. And that same information in the case that a five (5) year drought starting in 2006 would be 1.15 billion? And that was evidence, I believe, in Manitoba Hydro's response to PUB/MH-I-63(a)?

MR. WILLIAM HARPER: That -- that's correct.

MS. ODETTE FERNANDEZ: Would it be reasonable then to conclude that a five (5) year drought beginning in 2013 could also be expected to cost approximately 61 percent more than a drought of the same magnitude beginning in 2006?

MR. WILLIAM HARPER: Yeah, on -- on a simple basis one might conclude that. I -- I'm not too sure we've had a lot of caveats even in these numbers in terms of what was included and -- and how you should be applying them. So I'm not too sure. I think as you move forward in time, it's fair to say the number would increase whether or not it would increase that -- that much or not but probably in proportion.

I guess that's probably why it's probably important to go out and look and see what actually is the impacts of a drought. At a future point in time where you think you're going to be getting back to that debt equity ratio and determine what that number is, I don't think using a simple analysis like this is sufficient to decide that's a basis for using a $2 billion number for drought.

MS. ODETTE FERNANDEZ: But like just regarding the numbers that are there if the 2006/07 numbers in the first paragraph there for the two (2) year drought goes up by approximately 61 percent, then it's not too far of a reach to say based on the numbers here, that the five (5) year drought would be approximately another 61 percent?

MR. WILLIAM HARPER: I don't know. I might -- I think maybe putting a precision on it when you say 61 percent, it -- it may -- may well be -- it would be higher; prob -- probably something in that order.

Like I said, I think -- I think it would be much more instructive if we actually did the analysis which is I think the type of thing Manitoba Hydro's got the external people doing to determine what the number actually is.

And I guess that's -- that's why I said in the evidence, it's not -- it's not clear to me that the number actually is $2 billion. I think it's something that we have to -- have to actually do the work on and demonstrate. I don't think these types of simple comparisons are -- are probably how -- how we should be planning what we're going to be asking customers for in order to -- to restore retained earnings.

MS. ODETTE FERNANDEZ: But if you -- if you accept, approximately, it's a similar magnitude to for example, 60 percent, then in 2013 we would be very near the $2 billion mark, wouldn't we?

MR. WILLIAM HARPER: Yes, we would if -- if the math worked out that way, that's roughly where you would be.

MS. ODETTE FERNANDEZ: Now, could you please confirm that the rate increase in this current Application coupled with rate increases projected for the balance of IFF-03-1, do not result in a 75:25 debt equity ratio by 2011/12?

MR. WILLIAM HARPER: Yes, that's correct. And I think -- I think you can see that pretty readily from the IFF materials that we -- that we included in -- in our -- in our Tab 7. There's a debt equity ratio at the bottom of that that shows that at -- at the end of the period 2014 you have a debt equity ratio of 82:18.

MS. ODETTE FERNANDEZ: Mr. Harper, are you aware of the current debt equity ratios of BC Hydro and Hydro Quebec?

MR. WILLIAM HARPER: Not precisely, no.

MS. ODETTE FERNANDEZ: Would it surprise you to know that for BC Hydro, the debt equity ratio is 72:28 and for Hydro Quebec it's 70:30?

MR. WILLIAM HARPER: No. No. If -- if, you know, if you look up and see what they -- see what they are, I'll -- I'll accept those numbers.

MS. ODETTE FERNANDEZ: And you are aware of the rate increases implemented in those jurisdictions?

MR. WILLIAM HARPER: Well I guess in -- in one (1) case, it's a requested increase that's still got to go through the final gyrations and actually when I leave here I have to back and work on final argument for somebody for the BC Hydro case.

So, and the other ones -- the one (1) in Hydro Quebec it has -- has been implemented on -- on a two (2) part basis. But I think they -- they were both higher increases overall than what was being sought here.

MS. ODETTE FERNANDEZ: Do you know what the -- for BC Hydro, do you know what the interim ex parte percentage increase was?

MR. WILLIAM HARPER: I'm sorry I can't recall. I've been steeped in Manitoba Hydro numbers for so long here, it's -- I -- I think it's actually in -- I think it's actually if I'm not mistaken, it was actually in the footnote to the press release that Manitoba Hydro had posted on its website.

MS. ODETTE FERNANDEZ: So, you'd agree, subject to check, that it was 7.23 percent on an interim ex parte basis --

MR. WILLIAM HARPER: Yes, exactly.

MS. ODETTE FERNANDEZ: -- and then BC Hydro is now asking for an additional 1.67 percent?

MR. WILLIAM HARPER: That sounds about right, yes.

MS. ODETTE FERNANDEZ: And Hydro Quebec was 3 percent as of January 1st, 2004 and one point four one (1.41) as of April 1st, 2004?

MR. WILLIAM HARPER: Yes.

MS. ODETTE FERNANDEZ: Now, Mr. Harper, you seemed to agree with Ms. McCaffrey's, I guess, in MIPUG's cross-examination, that Manitoba Hydro -- Hydro should be sharing the pain in recovery from the drought?

MR. WILLIAM HARPER: I think you'll recall I struggled a bit with the word "pain" but I -- I -- I think the issue was that we have to make sure that Manitoba Hydro itself was doing as much to contribute to the bottom line as customers.

MS. ODETTE FERNANDEZ: However, it seems to me that you're speaking in generalities in terms of looking at the forest rather than at the trees; could you be more specific in what capital projects Manitoba Hydro shouldn't undertake or what main -- maintenance Manitoba Hydro should defer?

MR. WILLIAM HARPER: Like I said, I didn't look at the budget on overall line by line basis. And I think what we did was look at the -- was look -- look at it on an agri-base and, at the end of the day, if you look at my recommendations in terms of what the lower rate increase arises out of two (2) -- two (2) specific things that don't require, really, I mean, any adjustment in OM&A costs specifically in order to implement those because you're looking at the reduction in pension costs and the increase in other -- other revenues.

You know, so that so implement the types of rate increases I was recommending to -- to this Board would be -- involve roughly the same amount of OM&A that Manitoba Hydro's currently asking for. I guess, then I guess my point was to the Board is they -- they should be making sure Manitoba Hydro is quite clear that there's an expectation they'll be working as hard as they can to bring in more than 18 million, if you accept that as being -- being the number or 28 million is you expect -- accept the higher number.

MS. ODETTE FERNANDEZ: With average cost increases equal to inflation over the last five (5) years; do you have any evidence that there is actually room to reduce spending?

MR. BYRON WILLIAMS: Could you establish the foundation for that claim?

MS. ODETTE FERNANDEZ: Just one (1) minute.

MR. BYRON WILLIAMS: Because if you're going from Manitoba Hydro's calculations that they gave in direct, I'm sure Mr. Harper would be more than happy to share his comments with you in terms of the -- the merits of those calculations.

(BRIEF PAUSE)

CONTINUED BY MS. ODETTE FERNANDEZ:

MS. ODETTE FERNANDEZ: I believe that's at Manitoba Hydro Undertaking Number 39. And I actually don't have the exhibit number on me.

MR. WILLIAM HARPER: It's Exhibit 50.

MS. ODETTE FERNANDEZ: Okay. The five (5) year average in the CPI?

MR. WILLIAM HARPER: Right. I guess that's where and if I turn to page 2 you're looking at the percentage increase in costs, two point six (2.6), two point four (2.4), two point nine (2.9), zero point five (0.5) and two point four (2.4) coming out with an average of 2.1 percent across the -- across the row?

MS. ODETTE FERNANDEZ: Yes.

MR. WILLIAM HARPER: I guess, what -- and I haven't done the disentanglement of the math but what I noted was interested in doing that was that in the years prior to the Winnipeg Hydro acquisition that actually included Winnipeg Hydro's costs as well as Manitoba Hydro's costs.

So, to some extent if, I'll be quite honest with you, if Winnipeg Hydro was doing better than average that got reflected in this. If Winnipeg Hydro was doing worse than average that got reflected in this as well as opposed to just being all Manitoba Hydro -- Hydro costs.

So, that I think one would want to, sort of -- if one was going to do this from Manitoba Hydro's perspective, one would probably, instead of putting -- and probably trying to consistently do it with Winnipeg Hydro in. You'd probably want to do it consistently with Winnipeg Hydro out, if that was what you were trying to understand what Manitoba Hydro's performance over the last five (5) years was.

MS. ODETTE FERNANDEZ: I'm now going to turn you to page 10 of your direct evidence and you suggest that,

> "Inter-generational inequities may arise due to debt being incurred for the benefit of future customers."

I believe that's in the middle paragraph.

MR. WILLIAM HARPER: Yes. Thank you. This -- this I find a lot easier to than having to recall what I said in the morning, it's a lot easier.

MS. ODETTE FERNANDEZ: Are you aware that all costs associated with debt, incurred for the benefit of future customers, are capitalized, and that current ratepayers bear none of those costs?

MR. WILLIAM HARPER: Current ratepayers pay none -- pay none of the costs directly, to the extent that whether they're capitalized or not, it ends up impacting on one (1) Manitoba Hydro's debt ratio, and two (2), Manitoba Hydro's Interest coverage ratio. Because if you look at the calculation of the interest coverage ratio, that includes both interest expense and interest capitalized.

So, to the extent that either of those two (2) ratios would start to create concerns from -- from people about the financial performance of Manitoba Hydro, capital expenditures do have an impact. And I think I indicated earlier, this was an issue that was specifically looked at in the context of the Wuskwatim project, when -- when we were dealing with that as well.

MS. ODETTE FERNANDEZ: With regards to your cost per customer comments provided this morning, you suggested that the cost per customer as an appropriate measure to test the OM&A targets of Manitoba Hydro, is that correct?

MR. WILLIAM HARPER: Yes, I -- I think if we're trying to get benchmarks, I -- I thought we all had a general consensus that it was -- it was better than cost per kilowatt hour or better than cost per employee. It -- it was -- it was a good and reasonable meas -- measure to use. It was a measure that Manitoba Hydro used in its corporate strategic plan for setting targets. It's -- it's a measure that other people use as well.

MS. ODETTE FERNANDEZ: And -- and you noted that this morning with Mr. Warden's apparent agreement at the Status Update Hearing, with regards to the use of the measure?

MR. WILLIAM HARPER: Yes, I did, and that -- that was really the basis on which I went forward, and we sort of decided that that would be a useful point to try and look at the OM&A from a -- from a reasonableness perspective.

MS. ODETTE FERNANDEZ: Now, at page 14 of your direct, you use your TREE analogy. What sort of precision would you expect from this process?

Am I correct to say five (5), 10 percent?

MR. WILLIAM HARPER: Yeah, I guess you know, I guess you're going to -- you're going to realize at the end of the day that -- that you're probably going to be somewhat -- it's -- it's not a precise -- it's not a precise measure. I don't think that in what we're dealing with here, 10 percent or probably even 5 percent's pretty large, in the number given that we're dealing with even inflation increases that are half of that right now.

Because, to some extent, these -- these measures are steeped in -- in actual results as well. I mean, as you're looking at the whole company from an actual basis, and try -- trying to move -- and trying to move it forward.

So, maybe -- maybe the TREE analogy, in terms of measuring just -- just part of the increase wasn't correct. It wasn't -- it wasn't exactly as precise.

I was trying to give the example there, and the fact that the level of detail one would have to go into, if one was trying to do this on a line by line basis.

MS. ODETTE FERNANDEZ: So, if you take even a 5 percent factor, that would translate into approximately 15 million of operating costs?

MR. WILLIAM HARPER: Yeah, and like I said, I think even 5 percent may -- may be too wide a range to be using.

MS. ODETTE FERNANDEZ: So, when you note in Mr. Warden's flattering words about the cost per customer measure, you would agree with his cautionary note, and here I refer to Tab 19 of CAC -- CAC's June 21st book of documents at page 365.

(BRIEF PAUSE)

Oh, I just wanted to point out that Mr. Warden does say, "While it’s a good measure, we do it with some caution."

And you do note that he made that statement?

MR. WILLIAM HARPER: Yes. I -- I think it’s kind of interesting that at the end of the day I did my analysis, Manitoba Hydro’s come back and do their analysis, and we seem to be within a few dollars of each other now, which -- which is a lot less than fifteen (15).

MS. ODETTE FERNANDEZ: If I could just have one (1) moment.

(BRIEF PAUSE)

THE CHAIRPERSON: Mr. Harper, in the -- in the little bit of a break here, when you’re referring to the OM&A expenses, relative to employees, and looking at that target, are you talking into account the capitalization of expenses before you arrive at the net?

MR. WILLIAM HARPER: Well, that’s why I was saying perhaps OM&A costs per -- per employee aren’t -- aren’t as good a measure. I mean, I -- I mean there were different ratios you can look at, and I think one (1) of the things that’s been noted in Manitoba Hydro’s evidence is that from one (1) year to another the amount that’s been capitalized versus the expense var -- varies.

And so that, you know, if you were looking at OM&A per employee you may find in some years there's a lot more people working on capital projects so, you know, the number could -- could be going up and down.

THE CHAIRPERSON: So, it would depend, in part, if you were in an expansion mode or an operational mode?

MR. WILLIAM HARPER: That -- that's correct.

MR. ROBERT MAYER: Mr. Harper, again in the interregnum here, you've indicated on pages 25 and 26 that your -- you see no evidence that $2 billion reserves are required to cover the -- the costs of risks.

And I have in mind the evidence we heard at the Status Update Hearing and I can't -- I thought I can attribute it to you but Mr. Williams says it might have been your partner at that time, however, the evidence that I recall was that you thought the 1.2 billion that was held in reserves at the time were more than adequate to cover a five (5) year drought; do you recall that testimony?

MR. WILLIAM HARPER: That would have been Mr. Todd who was -- because -- because I know when we were dealing with that at the Status Update, he -- he was looking at the financial targets and I was looking at the operating expenses; that's not to say Mr. -- Mr. Todd's -- you know, right -- right or wrong.

But it was his -- but it was his evidence at the time. And I think he -- he -- he was looking at that and I think the reason he was coming at that was, in part, because, if you take the total drought as being -- impact as being, let's say, $2 billion, that's if you go through the entire five (5) years and do absolutely nothing.

Well, if you're into a drought for a year or two and things are going along, the odds are Manitoba Hydro's going to be back before this Board asking to start to restore its retained earnings before the drought is over.

And so, therefore, the overall impact at the time of the drought is going to be less than 2 billion because they're going -- going to come to you before the drought ended and start to ask to restore their -- their earnings.

And I think that that was part of the logic that Mr. Todd used in coming up with the lower reserve number.

MR. ROBERT MAYER: Well, I -- I looked at what we -- or looked at the evidence we have to date and we had a drought that was a year and a bit long and Hydro lost between four hundred (400) and $435 million. If I multiplied that by five (5) it would get really close to 2 billion.

If you think 2 billion is too high a number, what would you recommend?

MR. WILLIAM HARPER: Well, I guess -- you can obviously -- I -- I don't have a number to -- to recommend. I thought the PUB last time asked Manitoba Hydro to go away and do an analysis of specifically what it would take in terms of reserves to address the -- the risks they fixed -- they faced and that -- that was really all I was following up on was the fact that there -- there's a risk management study that hasn't quantified things.

And I think we should look at it from that perspective and get it quantified.

MR. ROBERT MAYER: Unfortunately, in the meantime, we had a little real life experience with droughts and rather than studying it, would the Board not be -- would it not be more prudent for the Board to accept the figure that comes out of a multiplication of what they actually lost in one (1) year rather than take the chance and awaiting the possibility that we could be back into a drought next year?

MR. WILLIAM HARPER: Well, I guess, given the fact that none of the rate increases that have been put before this Board by Manitoba Hydro or myself or the MIPUG recommendations bring us anywhere near the retained earnings of $2.2 billion or even $1.5 billion by the end of 2006.

I think we've acknowledged that this is a journey we're starting on. It's going to be more than a two (2) year journey to restore the retained earnings. And so therefore, I -- I -- don't think -- I tried to indicate in my direct, I don't think -- I don't think we need the answer today in order to make the types of decisions you have to make in order to -- what would are reasonable rate increases for -- for -- for the next two (2) years?

I think we'd have to make those decisions soon so we get a sense of how fast we'd have to move towards ever -- whatever we decide that ultimate target is though.

MR. ROBERT MAYER: Thank you very much, sir.

THE CHAIRPERSON: Ms. Fernandez, are you ready to begin again?

MS. ODETTE FERNANDEZ: Yes, I have just a couple more areas here.

CONTINUED BY MS. ODETTE FERNANDEZ:

MS. ODETTE FERNANDEZ: Mr. Harper, I had some difficulty following your discussion with Mr. Anderson and I just wanted to clarify your testimony in that regard.

MR. WILLIAM HARPER: That might be useful. Okay, that's fine.

MS. ODETTE FERNANDEZ: Now, am I correct in saying that you indicated that you have no specific knowledge to form an opinion that marginal costs in southern grid communities are different than marginal costs in northern off-grid communities?

MR. WILLIAM HARPER: No, I don't think I said that at all. I think -- I think there's not -- sort of -- I said -- I said, I'm not too sure precisely what the marginal costs in the northern communities are but I'm sure they are higher than -- than what the marginal costs are in -- in the southern communities.

And if I didn't say that the first time, I apologize, I must have misspoken myself. But I -- I'm aware of the fact, I've dealt enough with -- with rural communities in -- in Ontario and provided assistance to other people to know that the cost of diesel generation in northern communities is higher than six (6) cents a kilowatt hour.

MS. ODETTE FERNANDEZ: Can you sort of indicate to us what your specific knowledge you do have in marginal costs with respect to good communities?

MR. WILLIAM HARPER: Well in terms of -- I -- I've looked at -- and I'm sorry.

MS. ODETTE FERNANDEZ: With off-grade communities.

MR. WILLIAM HARPER: With off -- with off-grade communities. You know, to be quite frank, I was retained and provided assistance to CAC/MSOS in their recent -- in their recent participation in the diesel remote Hearing. That -- that took place before this Board and while I didn't appear as a witness I was -- worked through the materials and aware of the types of costs that were presented.

I've also looked at the costs. I also have clients in Ontario -- actually it's INAC who is involved in working with remote -- remote communities there and looking at the costs in the remote communities.

And so I'm aware of sort of what types of costs are faced by remote communities. And in Ontario as well and I think the similar sorts of circumstances in terms of transport of fuel exist in both.

MR. ROBERT MAYER: Some of us think INAC should be a little more involved here.

CONTINUED BY MS. ODETTE FERNANDEZ:

MS. ODETTE FERNANDEZ: And can I confirm that you -- you don't have specific knowledge with respect to Manitoba off-grid --

MR. WILLIAM HARPER: Well -- well I understand the seventy-nine (79) cents that's shown in that rate schedule is -- is suppose to represent what's -- what's the -- what's the incremental marginal costs of -- of providing electricity in -- in those northern communities.

MS. ODETTE FERNANDEZ: But other than that, no specific knowledge?

MR. WILLIAM HARPER: No, you know, I'm just relying on sort of the material that -- that Manitoba Hydro prepared of the Status Update, but that seemed -- that didn't seem at all out of line with what -- what I've seen elsewhere.

MS. ODETTE FERNANDEZ: And am -- am I correct in saying that you indicated that GSM program design is not your field of expertise?

MR. WILLIAM HARPER: That's correct.

MS. ODETTE FERNANDEZ: And I believe you offered the advice that it would be useful to know the customers end uses, all the different fuels he uses and to generalize the more you know about the customer the more effectively you can design a DSM program?

MR. WILLIAM HARPER: I think that was more just at a conceptual level. It seemed to make intuitive sense to -- to me that if you are trying to design a program that customers are going to pick up and participate in and is actually going to impact on elec -- electricity the way you want it to.

The one (1) -- more, you know, about how the customer uses is, the more you're going to get the right results and the more you sort of design that so it matches with the customer's needs, the better off you're going to be. Like I said, it's not my area but I sat on the Panel for over a month before an environmental hearing listening to a lot of people talk about demand supply planning. Specifically in the context of DSM programs.

MS. ODETTE FERNANDEZ: And finally in this area, you did not offer a comment on who would fund GSM with respect to any of the fields or end uses, correct?

MR. WILLIAM HARPER: No. I was never asked that question that I could recall.

MS. ODETTE FERNANDEZ: Finally, I would like to turn you to Tab 10 of your book of -- of references in relation to your direct evidence.

MR. WILLIAM HARPER: I've got that.

MS. ODETTE FERNANDEZ: Now in the middle of the page at I guess number 2, the target class revenue for 95 percent RCC; that sets out the residential revenue required to achieve a post export revenue allocation RCC of 95 percent, correct.

MR. WILLIAM HARPER: Yes. That's to move the ninety-two point two (92.2) up to ninety-five (95). Excuse me, ninety-two point one (92.1), I apologize.

MS. ODETTE FERNANDEZ: And number 3, the required residential revenue increase and the annual increases required to achieve 95 percent in five (5) years and seven (7) years, that's over and above the average general rate increase?

MR. WILLIAM HARPER: Yes. That's correct and that sort of is why I was saying that if you look at the recommendations I had out of this analysis I came up with half a percent additional increase for residential. So, if the average was two point five (2.5), the increase for residential would be three (3).

MS. ODETTE FERNANDEZ: Now if Manitoba Hydro wanted to get the residential class up to unity or an RCC of a 100 percent and I had Mr. Wiens do the calculations for me, but he advises me that the annual increases required to achieve a 100 percent in five (5) years would be 2.36 percent above the average and then in seven (7) years it would be 1.68 percent above the average, subject to check; can you confirm that?

MR. WILLIAM HARPER: Well, you know, I'll accept Mr. Wiens' math, that's fine.

MS. ODETTE FERNANDEZ: Thank you, Mr. Harper. Mr. Chairman that -- that concludes Manitoba Hydro's cross-examination.

THE CHAIRPERSON: Thank you, Ms. Fernandez. Now we will be proceeding to Mr. Peters and then we'll be followed again by Mr. Williams if he wants to follow up on some of the questions that have been asked of this witness. Mr. Peters...?

MR. BOB PETERS: Yes, thank you.

CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: Good afternoon, Mr. Harper. As an expert, you're aware that your opinions and answers to this Board may not be those adopted by the Intervenor who retained you?

MR. WILLIAM HARPER: I'm aware of that, yes.

MR. BOB PETERS: All right. And to that extent, you can push Mr. Williams away if you'd like, and we'll chat without him around.

But would you agree with me, sir, that in the course of what you reviewed on behalf of CAC/MSOS, you are led to the conclusion that Manitoba Hydro should be granted a rate increase with respect to the financial position they now find themselves in.

MR. WILLIAM HARPER: Yes.

MR. BOB PETERS: And the question that really comes down to is how much of a rate increase should they get and from whom should they get it?

MR. WILLIAM HARPER: Yes, I think that's fair in terms of what's the overall average rate increase, and then how -- and then to what extent does that vary across the different customer classes.

MR. BOB PETERS: All right, so while you agree Manitoba Hydro is in need of a rate increase, there may be reasons in terms of why you want to have this Board use caution, in determining how much of a rate increase should be granted, correct?

MR. WILLIAM HARPER: That’s correct.

MR. BOB PETERS: Should the rate payers of Manitoba be subject to rate increases as a result of the lower water flows that Manitoba Hydro has experienced in the last couple of years?

MR. WILLIAM HARPER: I think, yes, I think the understanding, you know, sort of the -- sort of the construct we’re dealing with here is that you have reserves that sort of help buffer the impact of low water, they don’t eliminate the impact of low water entirely. You basically are going to have to then build those reserves back -- back up again.

I think that if the company is being managed efficiently and effectively all along, then to some extent unless -- unless the fairy godmother is going to come down and give you money for reserves, the only other place is actually having rate increases to customers.

Unless you’re fortuitous enough to be able to generate the money through export markets, for -- for some reason and the forecasts don’t -- don’t provide for that right now.

MR. BOB PETERS: Well, in terms of the special payment to the Province of Manitoba, is that something that you feel justifies a rate increase to residential consumers?

MR. WILLIAM HARPER: That's a tricky one to be quite honest with you, because I think after the fact, like I said, at the end of the day, there -- and actually it's kind of interesting.

Because I went back and I reviewed the -- I reviewed the transcript when it was -- when it was from -- from the status update, and I think when the Manitoba Hydro Panel was up.

And it was -- Ms. Rea, she may have had foresight actually, because she was talk -- we were talk -- they were talking, because she was being asked about whether the special payment would result in the rate increase.

And I think at the time she said no, and then she qualified it again and said perhaps, unless there's a drought.

And she -- she may have been -- she may have had more forethought at the time we thought about. So that, you know, in -- in that regard, at the time, the understanding was -- was the company was in pretty good shape, and -- and it wouldn't -- and it wouldn't have much of an impact.

Unfortunately, as I say, where we sit right now, the special payment is something that's happened, it's -- it's -- excuse the expression, water under the bridge, and you know --

MR. ROBERT MAYER: Not enough.

MR. WILLIAM HARPER: Not enough. That's maybe part of the problem. And we have to recover accordingly.

I -- I think what I said in my evidence was is that -- is that I think the fact that there's a -- there's a special payment, means that -- means that at least from Manitoba Hydro's perspective, they have to be diligent as possible, in terms of making sure they're making effective use of the money and living up to that -- sort of the understanding of that special payment.

At least from their perspective, as much as they can, to make sure that any rate increase is -- is minimized to the extent that special payment is making a part of the contribution to the need for it.

But at the end of the day, when it works out, the customers may well have to make part of that contribution as well, yes.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: And, Mr. Harper, what about Manitoba Hydro's acquisition of Winnipeg Hydro, if that has a final consequence that is determined to be negative in some fashion, is that -- is that an additional expense that should be passed on to the consumers of Manitoba Hydro?

MR. WILLIAM HARPER: Well, the problem I am struggling with in answering these questions each time, is the fact that I'm not too sure who else there is to pass it onto at the end of the day.

Once -- once the decision has been made, like I said, unless there's a fairy godmother somewhere, unfortunately the -- the customers are the ones who end up paying for it.

And I guess to that extent, you could -- you could say, you know -- you know, after the fact if you said if they shouldn't have done it, well it's been done, you can't unravel the deal right -- you can't unravel the deal right now and go back.

I think would it have been better perhaps if maybe there had been some sort of broader more public review of whether it made sense at that point of time, that may have been the case.

But the deal is done now, and -- and this is why I'm having a bit of problem with your questions, because at the end of the day I'm not too sure who else there is to -- to -- to make a contribution to retained earnings other than customers or asking Manitoba Hydro to, sort of, be as effective as they can.

But at some point in time, Manitoba Hydro's going to say that, you know, we -- we've done all we can. You know, customers are going to have to do their part as well.

MR. BOB PETERS: Well, while we're on the topic, briefly of Winnipeg Hydro, all of the customers of Winnipeg Hydro are now Manitoba Hydro's customers as you understand it?

MR. WILLIAM HARPER: That's correct. That's my understanding.

MR. BOB PETERS: And you understand that all of Hydro's assets, functions and personnel have been or are being incorporated into Manitoba Hydro?

MR. WILLIAM HARPER: Yes.

MR. BOB PETERS: And from that perspective, do you feel that the goodwill that's associated with that transaction should be charged against the retained earnings at this time rather than carry it and, forever determine if it's impaired?

MR. WILLIAM HARPER: Well, I think you're asking me for something that's -- that's basically an accounting convention in terms of how it should be treated. And I'm not an -- I'm not an accountant.

I think, so that's a question I think somebody else should answer other than myself.

MR. BOB PETERS: In answer to some questions from My Friends, you indicated that Manitoba Hydro should continue to be, I think you keep using the words "efficient";

is that correct?

MR. WILLIAM HARPER: Yes, sir.

MR. BOB PETERS: And you're saying that because you feel that Manitoba Hydro should -- should have their feet kept to the fire so that they can find internal savings that can be, in turn, passed on or -- to consumers or, at the end of the day, enlarge the retained earnings account?

MR. WILLIAM HARPER: Yes.

MR. BOB PETERS: From your analysis of the materials provided; are you of the view that Manitoba Hydro has done all it can to offset the need for rate increases?

MR. WILLIAM HARPER: Well, I guess I'm struggling with that because, at the time that I did -- did my evidence there seemed to be quite a gap between myself and Manitoba Hydro in terms of what was a reasonable cost per customer and that was the basis for my -- for my evidence.

We were talking about five hundred and eighty-four dollars ($584) worth of something and that was in excess of six hundred (600). I think with the explanation we have now our -- our OM&A costs are roughly in -- in the same ballpark on a cost per customer basis.

I still have some concern that we have a number of productivity initiatives going on that all don't seem to work there way somehow to a bottom line from a variance analysis perspective in terms of demonstrating that they've been worked through and they seem to be consumed by costs and programs elsewhere.

So, I think, at the end -- at the end of the day we seem to be using productivity savings to, sort of, fund other programs. We can question -- I'm not too sure, I can't comment on, you know, we haven't seen enough in terms of what those other programs are.

But some of those productivity savings aren't working their way very much to the bottom line. And that's the area where -- where I felt that there could be probably more diligent and attention paid to.

MR. BOB PETERS: When we talk about OM&A targets per -- per customer, Mr. Harper, are you able to offer the Board an apples to apples type comparison with other utilities such as BC Hydro or Quebec Hydro.

MR. WILLIAM HARPER: I think I did some of that last year -- excuse me, two (2) years ago in 2002. There was some material I prepared and filed as part of the evidence in the Status Update that, sort of, compared the OM&A costs for BC Hydro, Quebec Hydro and Manitoba Hydro.

And then in response to an IR from -- from Manitoba Hydro, sort of, also analysis done including both Manitoba Hydro and Winnipeg Hydro in -- into the overall results.

I think when it is just Manitoba Hydro I wouldn’t -- I wouldn’t want to speak, let’s put it this way, I know Manitoba Hydro wasn’t at the low end of the list but they may have been somewhere in -- in the middle of the range, around there.

I -- I -- subject to check, I can’t -- can’t recall exactly what the exhibit was. If it’s something that -- that was useful I can provide a particular reference to the Board.

MR. BOB PETERS: If you wouldn’t mind checking on that and providing it to your counsel so we could have that information; that would be fine.

MR. BYRON WILLIAMS: That would be, Mr. Peters, we’re undertaking to provide the reference from the Status Update Hearing is -- in terms of the comparison of an apples to apples OM&A across Canada.

MR. WILLIAM HARPER: And like I said --

MR. BOB PETERS: Thank you.

MR. WILLIAM HARPER: -- there -- I think the primary one would be -- and we -- if we can find the particular reference number for you was a response to an Interrogatory that Manitoba Hydro had to CAC/MSOS.

--- UNDERTAKING NO. 71: Mr. Harper to provide to Mr. Peters the reference from the

Status Update Hearing in terms of the comparison of an apples to apples OM&A across Canada.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Did I gather from your discussion previously that the OM&A costs per customer for Winnipeg Hydro was considerably lower than it is for Manitoba Hydro?

MR. WILLIAM HARPER: Yes, and I think that that's generally accepted that they have a much -- much more dense, you know, service territory. So typically, I mean, you've got fewer kilometres of wire per customer. People don't have to travel as far to do individual service on wires.

All that density tends to contribute to what would naturally be a lower cost than say for Manitoba Hydro which is involved in serving, as well as urban areas, a lot of the rural part of the province.

The same sort of thing has been -- has been -- was noted in Ontario actually when you have the difference between Ontario Hydro which served all the rural parts of the province relative to the municipal utilities that just served the urban areas in terms of what -- what -- what -- what the costs were when you were comparing the two.

MR. BOB PETERS: Getting back to the OM&A and the costs here in Manitoba, with Mr. Anderson, I was with you when you explained that, in your view, there could be as much as a $10 million a year savings as a result of two (2) components; one (1) was the 5 million of reduced pension costs and the other was the 5 million of subsidiary revenue that wasn't recorded in the way that you think it should be?

MR. WILLIAM HARPER: Right. You know, I think the 5 million was -- was -- like I said, subject to confirmation was the number that Manitoba Hydro provided us offline.

MR. BOB PETERS: All right. And so, that's where the sum of those two (2) separate items came up with your $10 million number; correct?

MR. WILLIAM HARPER: That's correct.

MR. BOB PETERS: And you also said, I think, at the end of your discussion with Mr. Anderson that, and I'll paraphrase, in your wildest dreams it -- maybe it goes up to $20 million; did you say something to that effect?

MR. WILLIAM HARPER: Yes, and that was predicated on the fact that if you look at that -- if you look at the -- I think it's --

MR. BOB PETERS: Tab 8?

MR. WILLIAM HARPER: -- Tab 8 and you, let's say, for 2006 the total revenue from those subsidiaries is about $15 million dollars and if, for some reason, none of that revenue has been accounted for at all, then that fifteen (15) plus -- plus the five (5) would give you twenty (20).

You know, I may have been extravagant in my use of all the streams but I think that's how I got the number.

MR. BOB PETERS: Well, those may have been my words, but I thank you for explaining where that extra --

MR. WILLIAM HARPER: No, they were mine.

MR. BOB PETERS: All right.

MR. ROBERT MAYER: When I did -- looked at your -- if I recall your original evidence in chief -- sorry, the evidence in chief you gave today, I thought the range was 10 million to 16 million?

MR. WILLIAM HARPER: Yes, because I think I felt -- I felt reasonably comfortable that because we had -- because Manitoba Hydro had commented on where the OM&A was and that was $11 million that -- that -- it was in the cost of operations. And so I was talking sixteen (16).

But I think there are other costs to -- to those subsidiaries which would be depreciation costs and interest costs which I suspect makes up the balance of the expenses that are shown in Tab 8.

I don't know how those -- those -- those are -- those are treated in the forecast at all. If they too are actually embedded in the depreciation and interest costs shown on the cost of operations line, then the offset in revenue should be up above it.

They've been netted out and OM&A is the only thing we're talking about, then it's $11 million. But if everything's in there it could be up as high as fifteen (15) to eighteen (18).

MR. ROBERT MAYER: The -- what is the number that you are convinced, not to a moral certainty but as close as you can get, is a number that the Board would be safe in removing from the -- our revenue requirement?

MR. WILLIAM HARPER: I think it would be the sixteen (16).

MR. ROBERT MAYER: Thank you, sir.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: And you're going to hold Mr. Williams up to find the other 4 million are you?

MR. WILLIAM HARPER: Well, he's going to hold me up, I guess over the -- between now and final argument somewhere.

MR. BOB PETERS: All right. In terms of translating that down to OM&A per customer; does that mean that your target is five hundred and seventy-eight dollars ($578) per customer or is it five eighty-one (581)?

MR. WILLIAM HARPER: I'm sorry, the difference between the five seventy-eight (578) and the five eighty-one (581) was simply trying to adjust -- no, I'm sorry, if I go back, the numbers you quoted were the five eighty-one (581) and the five seventy-eight (578)?

MR. BOB PETERS: Those were the numbers I used, yes.

MR. WILLIAM HARPER: Right. I think the only difference I had there was in my original calculation I hadn't made any allowance for synergy savings for Winnipeg -- for Winnipeg Hydro.

And when you work those in the five eighty-one (581) came down slightly to five seventy-eight (578). Not -- none of those per customer target numbers address any of these issues here because they weren't really OM&A issues, they were specific adjustments like pensions and things like that.

MR. BOB PETERS: All right. So you didn't tie the two (2) of them together, you just offered that as an additional revenue requirement item?

MR. WILLIAM HARPER: That's correct.

MR. BOB PETERS: Mr. Harper, there's been some discussion about Manitoba Hydro's capitalization policy and you've probably read some of that on the transcript; have you?

MR. WILLIAM HARPER: I must admit those were parts of the transcripts I probably skipped over pretty quickly because capitalization policy wasn't something that I focussed on when -- when -- when I was preparing my evidence.

MR. BOB PETERS: Would it be fair then to say that you haven't formed an opinion as to Manitoba Hydro's current capitalization policy?

MR. WILLIAM HARPER: That's correct and I think there was no IR from previous staff that was asking me something in that area and I in fact -- I think I indicated it wasn't -- it wasn't an area that I focussed on all my evidence.

MR. BOB PETERS: When we talk about financial targets, I take from your evidence today, sir, that rather than percentages you think it's more appropriate for the Board to use a -- a fixed number in my words?

MR. WILLIAM HARPER: Yes. Yes. I think you can -- now if at the end of the day the analysis of the reserves required comes up to the fixed number but not -- but only that comes up with some definable relationships with -- with the company that maybe you can translate that into something other than the fixed number.

But I think you really have to start with an understanding of what -- of what you require those reserves for which is really an understanding of the costs of the underlying risks.

MR. BOB PETERS: And to find out the costs of those underlying risks, you saying the Board should encourage Manitoba Hydro to get their risk study done and -- and let the Board know where -- where they see and quantify the risks?

MR. WILLIAM HARPER: That's correct. Actually when I read that risk study I -- I got -- and read it through carefully, I got the impression that the risk study that they'd done there, this is almost really part of a -- use of the word again, but a journey that they too were embarking on in terms of understanding the risks and that this was a stage and it was going -- there was more work still to be done.

They'd gone through a process of identifying the risks, creating the risk map, they were then going to be going on and doing more work in terms of quantification after that which I think ties in with some of the exhibits we've seen where they're talking about all the modelling capabilities to understand it.

So, you know, at the end of the day I would say they're probably still doing the work. I think what we'll want to do is to see something at the end of the day that pulls it all together and tells us to what extent they're relying on reserves to address those risks and what that level of reserves would be overall.

MR. BOB PETERS: And at this point in time you don’t have a recommendation to the Board as to what that level of -- of risk abatement or a retained earnings account should be?

MR. WILLIAM HARPER: No. If -- if I had a sound recommendation I’d -- I’d, you know -- obviously there’s a lot of work that’s having to go and to come up with that number, if I could come up with one (1), I’d probably be trying to sell them the number as opposed to --

MR. BOB PETERS: All right, at this point in time if I understood your comments, I’m not sure if it was to one of the Board Members but, whether it’s 1.1 billion, whether it’s 1.6 billion, whether it’s 2.2 billion, your view is we’re a long ways from getting to any of those targets at this point in time.

So that’s not -- that shouldn’t be the driver for this rate case?

MR. WILLIAM HARPER: Well I -- I think in -- I think in terms, you know, you’re correct because at the end of the -- I doubt if whatever rate increases the Board approves, at the end of the two (2) years they’re going to be at what they view right -- currently view right now as being a reasonable level of retained earnings for the -- for the company overall.

And so that what we're doing now is trying to determine what's a -- what's a reasonable level of increase to ask customers to pay in contrast with how fast we have to build those retained earnings.

I think Manitoba Hydro's come to us with a proposal that they say, this we feel -- if I characterize it is sort of, we feel comfortable with making this level of net income contribution towards retained earnings but we feel that it's as low as we can go. I think that's the way -- way it's been characterized.

And so I -- I think from their perspective with some caution, they feel comfortable with this level of net income being contributed. Clearly the Board can make the decision that they feel it should go faster, that's up to them to do. You can make that contribution either through rates or you can make it through reduced costs.

MR. BOB PETERS: Thank you, Mr. Harper. But let's -- let's assume then as -- let's have you as the expert assume that the loss that they've sustained is now in excess of $400 million we've heard.

We've heard that the retained earnings going forward are about one-third of the $2 billion suggested by the revenue requirement panel and that the projections for profits on their IFF's going through to the end of the forecast period are in the forty (40) to $50 million a year range, do you recall all of those numbers?

MR. WILLIAM HARPER: Yes. I think that's in the -- I think those are basically summarizing some of the numbers out of the -- out of the IFF which is effectively Tab 7 of my -- of my materials where you're looking at a net income of forty (40) -- thirty (30) -- yes. Towards the end of the period it starts to build up, but during the -- during the thirty/forty (30/40) range through to the year 2010.

MR. BOB PETERS: Why don't all those factors that I've given you suggest that the rate increase should be greater than what's being sought presently by the Corporation?

MR. WILLIAM HARPER: I guess there's two (2) things in -- in my mind. One is that -- one is that there's a balance to be struck here between what's -- you know, at the end of the day it's the customers that face the risk either way.

If the retained earnings haven't been built up fast enough and another adverse event happens, it's customers that are going to have to pay -- pay the higher rates quicker, in order to address it, or -- or the -- or they pay it through the -- through the -- so they either pay it through the restoration or the retained earnings, or if the event happens, they pay for it at that particular point in time.

So, it’s a trade off between some extent what -- what you feel customers should be -- should be contributing and the -- and the proposals we’re looking at here already have rates in excess of inflation.

I guess the other issue was is that I assume, to be quite honest with you, to some extent then typically when companies are coming forward asking for rate increases, they are too looking at their own financial requirements, and quite mindful of their own financial requirements.

And so I took the -- the fact that Manitoba Hydro felt -- felt comfortable with forty (40) and $31 million in net income for each of those two (2) years as -- as being a signal that that was -- that that was something that they felt that they could live with.

MR. BOB PETERS: And I guess you’re assuming your counsel who also was on for the case before this Board, with MPI, might -- won’t be coming back in asking for greater rate increases than those sought by the Corporation? That was a question, although somewhat facetious.

MR. WILLIAM HARPER: I’m not familiar at all with the MPI situation.

MR. BOB PETERS: All right, that’s a good out. Mr. Harper --

MR. WILLIAM HARPER: And clearly, again those comments I'll never be asked to be familiar with the MPI situation.

MR. BOB PETERS: Mr. Harper, in your evidence to this Board that was pre-filed in -- in May or June, you had commented that the credit rating of Manitoba Hydro hasn't adversely been affected by their -- by their financial situation, was that the upshot of one of your points?

MR. WILLIAM HARPER: Yes, and I -- I think -- I think you know, and I think Manitoba Hydro basically corrected me in one of their IRs by reminding me that it's the Province that actually has -- has the credit rating.

I guess you could perhaps more better characterize it as the -- as the drought that Manitoba Hydro faced, basically hasn't -- hasn't impacted on what's considered to be the overall worthiness of the Province.

But as I understand it, I think Manitoba Hydro's debt is roughly maybe 40 percent of -- of the total debt of the combination of the two (2). So, clearly Manitoba Hydro plays -- plays a pretty significant role in -- in the overall consideration.

But the drought faced by Manitoba Hydro wasn't sufficient for -- for the credit rating agencies to make really negative comments on Manitoba Hydro, which would then reflect on the Province.

MR. BOB PETERS: Thank you for that

clarification.

In terms of what we've called in some ways the retroactivity request by Manitoba Hydro, you're opposed to Manitoba Hydro being granted rate relief to reflect the foregone revenue from April 1st to say August the 1st of 2004, if that's going to be recovered in the same fiscal year?

MR. WILLIAM HARPER: Yes, I -- yes, and I think and that's the -- that's the key, key point is that if recovering this -- if recovering this money over a shorter period of time, we're now looking at a September implementation, is it gets shorter and shorter, the impact on customers becomes higher and higher.

I think that one (1), it would be nice if we could have avoided the situation, but now that we're faced with it, I think there should be a better way of implementing it.

Perhaps that arises to smoothing the two (2) rates a little bit more over the two (2) years, as I -- as I talked about with -- with my proposal.

MR. BOB PETERS: In your proposal, you're also suggesting to the Board that if the $10 million number that -- that you've highlighted in your evidence today is -- turns out to be correct, the overall 3 percent rate increase could be reduced to say, overall 2 percent rate increase?

MR. WILLIAM HARPER: Well, I -- I think because I -- I was making a -- I was making a couple of -- well, I was making a couple of comments there. One was if you just took the -- you just did the straight arithmetic, you know, and said, I've got $18 million in increased revenue I'm going to collect in the first year and 41 million in the second year and did the straight percentages you'd come up with 3.2 percent followed by -- 1.2 percent.

I think in the interests of having something a little bit more smoother, you could -- you could smooth it out and use two point five (2.5) the first time and then two point three (2.3) the following -- the following April.

I just wanted to go through that because there are a lot -- a lot of numbers, we've, sort of -- to put together there.

MR. BOB PETERS: Did your numbers, Mr. Harper, assume that there would be no retroactivity or that they would have a catch up portion of the rate?

MR. WILLIAM HARPER: No, my numbers assume that there would be a catch up portion. Like I said, the premises of that was that -- you know, was that Manitoba Hydro originally said it needed $28 million in increase the first year and fifty-one (51) the second year.

All I did was take my $10 million off of each year so basically reduced it down by -- by the -- by the cost reductions that I felt were appropriate and then basically designed a pattern of rates that was somewhat more smoother so they get the money but it -- it isn't all paid up front and the customers see a smoother pattern of increases.

I - I think, you know -- you know, the -- the math is, you know, fairly simple to do. I think, you know, for that stub period September 1 on the -- the revenue at current rates is about $561 million.

So if you need to get another 18 million you just divide 18 million by five hundred and sixty-one (561) and that tells you what's the level of rate increase you require and that's 3.2 percent.

MR. BOB PETERS: Thank you for that, sir. In terms of your cost of service review and the -- the class rate impacts, why is it that you are telling the Board that different classes should receive different rate increases as a result of this Application?

MR. WILLIAM HARPER: It's -- it's basically based on the cost of service results that come out of the cost of service study Manitoba Hydro produced for 2004. Basically then adjusted by the uniform rate adjustment that I -- I proposed was required using the methodology Manitoba Hydro had -- had recommended to me.

And when you go -- and when you go through that you come up with -- you identify that the residential class is still below the 95 percent ZOR; they're at ninety-two point one (92.1) and there are still a number of customer classes that are above the 105 percent ZOR, those being the -- basically the general service small, both non-demand and demand, the large greater than one hundred (100), the large thirty (30) to one hundred (100) classes and the -- no, those three (3).

The other two (2), the general service medium and the smallest version of the large are both within the ZOR still. So if you've got customer classes that are above and below, consistent with the view that you should be trying to move people to within the ZOR over a reasonable period of time, I felt it was reasonable to implement differential rate increases.

Often it's easier to implement differential rate increases when you're going for a rate increase at the same point in time.

MR. BOB PETERS: The other option would be to do a revenue neutral rate re-balancing is what you're perhaps alluding to?

MR. WILLIAM HARPER: I'm sorry, could you explain what you mean by "revenue neutral rate re-balancing"?

MR. BOB PETERS: Well, when the -- when the Corporation comes in asking for additional revenues, it's often easier at that time to get different percentages from different customer classes to work the customer classes closer to the zone of reasonableness or unity?

MR. WILLIAM HARPER: That's correct. Yeah.

MR. BOB PETERS: The other option of the Corporation would be is to come in each and every year, whether they -- on a revenue neutral basis and simply say, we want to take some of the costs away, or the revenue away from one (1) class and get the revenue from a different class and re-balance?

MR. WILLIAM HARPER: That's right. You -- you find you may have a hard time having the company come in and just say we want to re-balance without people wanting to say, we'd like to look at the costs before we re-balance; which I think is part -- is part of the reason why companies often don't come in just for asking -- just asking for re-balancing.

MR. BOB PETERS: Mr. Harper, if -- if there's discussion about an export class and if there's discussion about perhaps using methodology that is being put forward by the NERA study, those are items that you say should be addressed, not in this Application, but at a later point in time; correct?

MR. WILLIAM HARPER: I think -- yes, I think there's parts of the methodology that -- that still have to be fully developed, from my understanding.

MR. BOB PETERS: And if there still are parts of the methodology to be developed, sir, why would a differential rate increase in this Application be appropriate, when the methodology may result in significant changes going forward?

MR. WILLIAM HARPER: No, that's fair and that's why I said as well, as looking at the revenue to cost ratios coming out of the cost of service study that Manitoba Hydro has done. And what they've suggested as well is you should probably look at the pre-export revenue RCCs as well, because that -- that gives you some sense of the type of uncertainty that exists in -- in the treatment of export revenues.

And if at looking at both of those numbers, a customer class is still outside the zone of reasonableness for your revenue cost ratios, that's probably a reasonable indication that perhaps regardless of how this eventually pans out, you're going to have to see rate increases higher than average, because the results are going to mean they're still outside the zone of reasonableness.

And that's really what I did in coming up with my differential recommendations, was look both at the cost of service study, and at the pre-export RCCs, to identify which classes I felt should be adjusted, and how much they should be adjusted by.

MR. BOB PETERS: In the materials, and it may be in Tab 30, 31 or 32, of the book of documents I had, and you don't need to fish for it, unless your Counsel wants you to see it. NERA had also run the RCCs, can you recall that?

Sorry -- I'm sorry, based on the NERA methodologies being recommended, Manitoba Hydro ran the RCCs as well?

MR. WILLIAM HARPER: Yes, I believe that was response to an interrogatory from TREE/RCM.

MR. BOB PETERS: Right. And are you saying that those RCCs at this point in time, are -- are not reliable?

MR. WILLIAM HARPER: Well, I think they -- they too, are -- as I said in my direct, are -- would be indicative of the type of change one (1) might see, if -- if you change the methodology.

And so again, rather than using pre-export RCCs, you could also use say the recommendations from -- the results for the NERA study in this TREE-IR response. And if -- and if looking at those results, and looking at Manitoba Hydro's current results, a class was still below the -- outside and below the zone of reasonableness, that might signal to you that an increase in the modest one (1) was reasonable.

Remember here, we're not talking about moving a customer all the -- class all the way to unity on this -- on this particular proposal, we're talking about moving along, so -- so that as long as you feel comfortable, that you're directionally correct, in terms of which way you're going, it's probably reasonable to start that journey.

MR. BOB PETERS: All right, I thank you for that -- for that answer.

When you said earlier to me that the methodology recommended by Manitoba Hydro for dealing with the uniform rates, that's summed up at Tab 10 of your book is it?

MR. WILLIAM HARPER: Well, I think it's probably better summed up in the -- in the response to the interrogatory that I -- that I responded to from them, which I think was -- was MH-CAC/MSOS-2, where in the outline of the question they outlined the methodology they wanted me to follow, and then basically I applied that methodology to their cost of service and came up with -- with the results.

MR. BOB PETERS: Do you support that methodology?

MR. WILLIAM HARPER: Yes, as I said in my direct, I think there -- there are a number of ways that one could do this. This is a very, very reasonable way of doing it.

MR. BOB PETERS: Can you just explain one (1) item on that chart in Tab 10 of your book of references that was circulated today, sir, marked as CAC/MSOS Exhibit 12. And that is the export reallocation column, where you reallocate $5.155 million of export revenue?

MR. WILLIAM HARPER: Actually it's probably easier to make the explanation if we turn to my response to the Manitoba Hydro IR, that's MH-CAC/MSOS-2, because there you see the whole picture of how it's happening to all classes, and you see how it nets out at the bottom.

MR. BOB PETERS: What you're telling the Board is that you have to do an allocation readjustment, if you're going to credit back the uniform rate revenue, that would have otherwise been foregone?

MR. WILLIAM HARPER: That's correct. If you look at column -- if you have that response to the interrogatory from Manitoba Hydro, if you look at Column 6, in effect there was a $14.9 million revenue shortfall, because of the introduction of uniform rates.

That column basically just allocates that lost revenue back to the individual classes for which it arose, which means, you're adding $14 million in revenue. What Manitoba Hydro said is what you could do is -- basically what you're doing here is almost taking -- taking $14.9 million of export revenues, and specifically allocating to those classes in that portion to offset the uniform rate impact affect.

The effectively means you have $14.9 million less in export revenues to allocate on the basis they currently do it which is customer's use of GNT and that adjustment is made in Column 7.

MR. BOB PETERS: Thank you for that, sir. While we're on the cost of service methodology, there was some discussion, I believe it was the TREE witness, Mr. Lazar, who had a suggestion and if I can paraphrase it correctly, to take the costs of the cheapest generating stations and allocate those costs to the domestic customers and use the costs from the more expensive generating stations for those who are not domestic.

Do you recall reading anything about that?

MR. WILLIAM HARPER: Yes, I recall. I believe I was here when he actually made the suggestion.

MR. BOB PETERS: Is there merit to -- to vintage pricing in that fashion where domestic consumers would get in their cost of service, the -- the cheaper generating stations?

MR. WILLIAM HARPER: No. I -- I can't say I see any particular merit from a cost of service perspective as to why you would do that.

MR. BOB PETERS: Your answer was qualified in the sense that you're saying from a cost of service methodology it doesn't make sense, but from a policy perspective it may?

MR. WILLIAM HARPER: Well, you know, if from -- I guess at the end of the day I'm not even too sure from a policy perspective it makes sense. Because if you did all that, I guess I'm not too sure if at the end of the day you might end up -- that's basically assigns more cost to exports.

I assume you would probably still have an export credit. I'm not too sure what the rationale is for wanting to sort of use that particular approach to tip the balance one (1) way or the other.

I found it kind of interesting because I think -- I think we acknowledge that there were a number of places I think Mr. Lazar acknowledged there were a number of places in the cost of service study where averaging goes on and that's generally accepted. And I couldn't quite understand sort of what -- what the basis was for de-averaging in this particular case.

MR. BOB PETERS: I take it from that answer you don't support that concept?

MR. WILLIAM HARPER: No, no I don't. If there's some more logic or rationale as to why those costs should be attributed to exports, I would like to hear it. But I can't see it immediately off the top of my head.

MR. BOB PETERS: Just leaving the cost of service and before I do, the -- the discussion that's been held around the NERA report, I think from both yourself and from MIPUG and perhaps from Manitoba Hydro, the upshot that you're understanding is that it's still at a preliminary stage before any of those recommendations become ingrained in the cost of service in Manitoba?

MR. WILLIAM HARPER: Yes, I think that's fair.

MR. BOB PETERS: And you're saying that this Board should take the opportunity of the next two (2) year between potential general rate applications by Manitoba Hydro to bet a better understanding of which of the NERA recommendations fit in Manitoba and fix the cost of service model before the next general rate application?

MR. WILLIAM HARPER: You know, we seem -- we have a unique opportunity here. We have a two (2) year rate Application which means there's one (1) year where maybe half a year given where we are now on a by in terms of having to go -- go through a rate application proposal rather than having to dump all of that consideration into the next GRA which would tend to lengthen -- 1) lengthen in the GRA.

And 2) you know, Manitoba Hydro, you know there will be more debates about the methodology there and exactly how it works as soon as we have an opportunity to have some of that debate in advance and provide more clear direction to Manitoba Hydro when they actually come forward in the next GRA.

MR. BOB PETERS: And without putting too fine of a point on it, you make the same recommendation to this Board in terms of how to deal with the PowerSmart Plan of the corporation going forward.

MR. WILLIAM HARPER: Yes, and you know, I think again one can wonder what -- what you know, sort of perhaps there's a little bit less of a disconnect between PowerSmart and rates than there is between sort of cost allocation methodologies and rates. But you'll find there are -- there are a lot of people we've seen interested in DSM programs.

And if they're interested in sort of having their voice heard about how those DSM programs should be implemented in Manitoba -- In Manitoba for Manitoba Hydro. Unfortunately there's not many places to have that voice heard other than at the PUB here.

MR. BOB PETERS: You're aware, Mr. Harper of the rising cost of natural gas?

MR. WILLIAM HARPER: Yes, I am. I think that was something that we heard a considerable amount about during the Wuskwatim process as well.

MR. BOB PETERS: And from your knowledge of that, sir, there's a point in -- at which it becomes almost financially indifferent, I'll say, as to whether you use electric space heat or natural gas space heat?

MR. WILLIAM HARPER: Well, from a fuelling cost perspective, I think there'd still be an issue if I was going to convert my home from -- from one (1) -- from one (1) to the other.

MR. BOB PETERS: At this point in time you're saying gas still might be somewhat cheaper?

MR. WILLIAM HARPER: I -- I guess what I'm saying is you can look at the -- you can look simply at the -- at the fuelling costs of the two (2).

But -- but if I have a house that's primarily let's say baseboard heated, with no ducting and ventilation, with no ducting in it, and I want to install gas heating, then there's a considerable expense, not only for the furnace, but in terms of the ducting and all the other work that we do to -- to retrofit my house.

So, I -- I think you can make the easy fuel comparisons, there's some caveats you have to add to that.

MR. BOB PETERS: The consumer choice will be influenced by a number of factors, one (1) of which is the payback period for them?

MR. WILLIAM HARPER: That's correct.

MR. BOB PETERS: And when you're talking about DSM and DSM programs, do I interpret you to be suggesting that the DSM potential can be at least twice as much as what you're seeing Manitoba Hydro consider it to be at this point in time?

MR. WILLIAM HARPER: Well, I think that's something that we were seeing out of the difference between what was their -- the targets for their current plan, and the most likely -- and the most likely DSM that they thought they could get out of the new DSM potential plan. When you got out -- when you got out a bit, the -- the numbers were looking pretty close to twice as much.

So, it was just a matter of comparing Manitoba Hydro's numbers, and actually I believe there's an IR response, where we asked Manitoba Hydro to do that, and the comparison is based largely on that response.

THE CHAIRPERSON: Mr. Peters, will you be much longer, we could have a short break.

MR. BOB PETERS: I think I'll be five (5) more minutes, but we will -- we may still want to break.

THE CHAIRPERSON: We'll just have a five (5) minute break.

MR. BOB PETERS: Thank you.

--- Upon recessing at 3:25 p.m.
--- Upon resuming at 3:33 p.m.

THE CHAIRPERSON: Mr. Peters, are you ready to begin again?
MR. BOB PETERS: Yes, thank you.

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Mr. Harper, before the break we left off discussing DSM, and while still on that topic, do you feel that the rate impact measure test and the total resource cost test are appropriate for Manitoba Hydro?
MR. WILLIAM HARPER: Yes, I think we can make a distinction between them. When Manitoba Hydro applies the rate impact test it applies it -- it doesn't apply it on an individual program basis, it applies it on an overall basis, collectively with all the programs, and I think that's an appropriate way to look at it.
And clearly, if you're trying to screen individual programs, in terms of whether they're economic or not, you're using the resource cost -- using the resource cost test as -- is the test you'd want to be using.
MR. BOB PETERS: Mr. Harper, are you familiar with Manitoba Hydro's policy towards non-utility generators?
MR. WILLIAM HARPER: Yes, I've -- I've read the policy -- actually I read the policy as part of the participation in the -- in the Wuskwatim process.
MR. BOB PETERS: Can you briefly summarize it

for the Board as best you recall?

MR. WILLIAM HARPER: Oh, I’m trying to think. I -- I think -- I think for -- I think if -- if -- if you are -- if you are -- NUGs -- you’re talking about somebody and actually have to make a distinction here.

If NUGs is somebody you’re talking about who -- who is a self-generator, basically, and is using some of the power themselves and then basically the issue would arise is -- can -- can they -- do they have enough power basically to have the meter run backwards, if you want to put it that way, to sell to the system or are they just reducing their own use.

My understanding is, as long as they are just reducing their own use then -- then basically the benefit the customer gets is basically he gets a lower bill because he’s using -- less electricity.

What I’m saying then is, if he’s a -- if he’s a large NUG and he gets to the point where he’s actually able to make a contract and commit to sell -- to sell to the system then -- then he would be paid at -- at a price that is basically established by looking at -- first looking at what’s the avoided cost or the export price -- opportunity price.

But then there would be some adjustments based on what sort of is the -- I guess, you could say the time profile of that power, the firmness of the power, what -- what system shaping has to take place in order to make it exportable as an exportable product.

But, they start off with the export price. So as long as he's just reducing his own use, the price he -- the benefit's basically based on the rates. If he's got to the point where he can actually sell some to Manitoba Hydro then the price is based more on avoided cost.

MR. BOB PETERS: And do you know if the -- the price at which the -- the non-utility generator sells to Manitoba Hydro is dependent on whether or not they are in the business of providing electricity or whether they are able to sell it as a result of surplus from their own self-generation?

MR. WILLIAM HARPER: I'm -- that's why I was hesitating when I started off. And sorry about that, I can't recall, to be quite honest with you, on -- on -- on the fine -- on the fine point of the policy.

I think there was also some distinction in the policy as to whether you were a big customer or -- or a small customer.

MR. BOB PETERS: All right, and you may not be familiar with it and maybe that's what you're telling me, but have you any -- any advice to this Board or opinion to this Board as to the -- whether the policy is -- the NUG policy is appropriate for Manitoba Hydro?

MR. WILLIAM HARPER: Well, I think this was an issue that we, sort of, asked them questions about during the Wustwatim process in -- in -- in terms of if you can get load reductions by having people use less by generating; isn't that the same as basically people conserving and doesn't -- doesn't it have the same value to the -- value to the system. And really there is a bit of a dichotomy here in -- in the policy as to how the two (2) are treated.

And -- and I think that's something that's -- that's worthwhile for Manitoba Hydro to -- to go back and think about. I think if there was a reduction you'd basically have to also make sure, I mean, that -- that it's a reduction because of generation or something you can monitor and measure.

But I think there is an issue here in terms of how the load reductions are treated versus how the sales system are treated and there might be an opportunity to generate, sort of, more -- more non-utility generation in the province for load replacement if they were to consider offering incentives that were perhaps more reflective of what's the avoided cost on the system.

MR. BOB PETERS: From your perspective, is there any reason to differentiate in the price paid by Manitoba Hydro to the non-utility generator, whether it's in the business of generating electricity of whether it’s simply surplus to their own needs?

MR. WILLIAM HARPER: I think there’s probably, at a conceptual level, no difference as long as you’ve got -- as long as the -- basically the power that’s coming out is -- is the same in terms of it -- it -- it’s firmness and the guarantee that it’s going to be there.

And, I think those are the issues that you would have to struggle with from -- from -- from a contractual basis.

MR. BOB PETERS: Thank you. And just in closing and perhaps from My Friend, Mr. Markus Buchart, who has joined us in the hearing room, Mr. Harper, you have spoken favourably when you discussed with Counsel today Manitoba Hydro’s proposal to recover the residential rate increases through the tail block increases; correct?

MR. WILLIAM HARPER: Yes, that was correct.

MR. BOB PETERS: Does that suggest, sir, that you are in support of progressive movement towards an inverted rate block for the residential class?

MR. WILLIAM HARPER: Well, I think my support for the -- the move that we had was the fact that it was consistent with both the cost of service results and -- and the -- and, sort of, the -- the marginal costs.

I guess, when we start to move more into inverted rates, there -- there -- I support if from an efficiency perspective, I think, as long as -- as long as it can be balanced, and what the impacts are likely to be, can be managed, perhaps that involves some sort of gradual introduction of -- of the rate structure.

But I think as we move into an inverted rate structure, I think there are other issues over and above that, you have to consider over and above just the simple introduction of the flat rate that we have now.

But in -- in principle, I support it, I think there are a number of implementation issues that have to be managed though.

MR. BOB PETERS: So you'd like to see Manitoba Hydro's policy, before you give your final opinion?

MR. WILLIAM HARPER: Yeah, I think the devil's in the details, as I said.

MR. BOB PETERS: All right, with that, Mr. Harper, I want to thank you. Mr. Chairman, Board Members, those conclude my questions of Mr. Harper, thank you.

THE CHAIRPERSON: There seems to be a lot of enthusiasm for the conclusion of Mr. Peters' questions.

Mr. Williams, do you wish to take up any other points with Mr. Harper?

MR. BYRON WILLIAMS: Just one (1) very, hopefully brief question.

RE-DIRECT EXAMINATION BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: In terms of the -- you had a brief discussion, Mr. Harper, with Mr. Peters, in terms of the evidence of Mr. Lazar, and kind of the proposal to vintage the allocation of -- of the costs relating to older generating station, versus new, or at least that was my understanding of the discussion.

In your view, would -- would such a proposal reflect the actual costs of providing exports?

MR. WILLIAM HARPER: No, I -- no, it wouldn't, and I guess that was the basis for -- for my response to Mr. Peters. I don't see where just -- I don't see where there's any logic in just saying, well, those high cost resources are all export, and the low cost resources are all -- are all for domestic customers.

I think if we're getting into the area where I had some trepidations with creating an export class to begin with, if it was involved with trying to track down specifically what the specific facilities were, because I think that's a bit of a nightmare.

I'm not even too sure if taking a simple -- simple assumption that we'll put all the high cost over here and low cost over there, is really a reasonable way of saying, that's how the system evolved from a cost perspective.

I mean, the -- the -- yeah, I think that's the...

MR. BYRON WILLIAMS: I have no further questions.

THE CHAIRPERSON: Thank you, Mr. Williams. Thank you again, Mr. Harper.

MR. WILLIAM HARPER: Thank you.

THE CHAIRPERSON: We appreciate your testimony today, thank you very much.

(WITNESS STANDS DOWN)

THE CHAIRPERSON: Ms. Fernandes, do you want to introduce these remaining exhibits?

MS. ODETTE FERNANDEZ: Yes, thank you, Mr. Chairman.

The first one (1) is Manitoba Hydro Undertaking Number 51, and that's the filing of an updated domestic load forecast for fiscal years 2005 and '06, taking into account the impact of gas costs and I believe we are now at Exhibit 65.

THE CHAIRPERSON: Sixty-five (65) it is.

--- EXHIBIT NO. MH-65: Response to Manitoba Hydro Undertaking Number 51.

MS. ODETTE FERNANDEZ: The second one (1) is Manitoba Hydro Undertaking Number 52, and that's the refiling of bill comparisons that reflect the rates that appear in Hydro's Exhibit Number 16 for diesel residential and diesel general service for 2004 and '05.

THE CHAIRPERSON: Sixty-six (66).

MR. ROBERT MAYER: Before you put that one (1) in, which ex parte order are you referring to there? I don't recall this Board making an ex parte order with respect to diesel, I recall making an interim order, but not ex parte.

MS. ODETTE FERNANDEZ: That's correct, it should be interim order.

--- EXHIBIT NO. MH-66: Response to Manitoba Hydro Undertaking Number 52.

THE CHAIRPERSON: Please proceed, Ms. Fernandes.

MS. ODETTE FERNANDEZ: Thank you. The next one (1) is Manitoba Hydro Undertaking Number 53, and that's the filing of leaflets that were provided to the diesel communities, regarding the change in rates after a consumption beyond 2,000 kilowatt hours. That's Exhibit 67.

THE CHAIRPERSON: Sixty-seven (67).

--- EXHIBIT NO. MH-67: Response to Manitoba Hydro Undertaking Number 53.

MR. ROBERT MAYER: Just clarification on that. I hate to do this. You’ve got Brochet here, and Lac Brochet here, did we do anything for Tadoule Lake and Shamattawa?

I note that the Brochet and Lac Brochet are both in the same language, which I’m assuming is...

MR. MICHAEL ANDERSON: It’s Dene, Mr. Mayer.

MR. ROBERT MAYER: That’s what I thought. That only gets about half of Brochet doesn’t it?

MR. MICHAEL ANDERSON: That’s correct.

(BRIEF PAUSE)

MS. ODETTE FERNANDEZ: Yeah, they’re just examples of the leaflets that were provided to the communities.

THE CHAIRPERSON: Okay, thank you. Sixty-seven (67).

MS. ODETTE FERNANDEZ: The next one (1) is Manitoba Hydro Undertaking Number 54, and that’s filing of the number of residential and general service diesel customers that have the practice of using in excess of 2,000 kilowatt hours in the last year. I believe that’s Exhibit

68.

THE CHAIRPERSON: Sixty-eight (68).

--- EXHIBIT NO. MH-68: Response to Manitoba Hydro Undertaking Number 54.

MS. ODETTE FERNANDEZ: Manitoba Hydro Undertaking Number 55, is providing the baseline count of the DSM effort on an estimated EFT basis, that's Exhibit 69.

THE CHAIRPERSON: Sixty-nine (69).

--- EXHIBIT NO. MH-69: Response to Manitoba Hydro Undertaking Number 55.

MS. ODETTE FERNANDEZ: The next one is Manitoba Hydro Undertaking Number 56 and that's regarding the payments to the City of Winnipeg for 2002/03, 03/04 and the projected for 04/05 and 05/06 regarding the potential DSM savings; that's Exhibit 70.

THE CHAIRPERSON: Seventy (70).

--- EXHIBIT NO. MH-70: Response to Manitoba Hydro Undertaking Number 56.

MS. ODETTE FERNANDEZ: Manitoba Hydro

Undertaking Number 58 was the average monthly electricity use assuming the four (4) characteristics listed there for a standard a thousand (1,000) square foot home; that would be Exhibit Number 71.

THE CHAIRPERSON: I'm glad I sold my swimming pool. Thank you. Seventy-one (71).

--- EXHIBIT NO. MH-71: Response to Manitoba Hydro Undertaking Number 58.

MS. ODETTE FERNANDEZ: And, finally, we have Manitoba Hydro Undertaking Number 59 which indicates the required class increase if the revenue loss associated with an August 1st, 2004 or September 1st, 2004 implementation date were recovered over the next nineteen (19) to twenty (20) months as opposed to the next seven (7) or eight (8) months and that's Exhibit 72.

--- EXHIBIT NO. MH-72: Response to Manitoba Hydro Undertaking Number 59.

THE CHAIRPERSON: Thank you very much. And thanks again to everyone and we'll see you next Thursday at nine o'clock. Thank you.

--- Upon adjourning at 3:46 p.m.

Certified Correct,

Carol Wilkinson, Ms.