MANITOBA PUBLIC UTILITIES BOARD

RE:

MANITOBA HYDRO'S
APPLICATION FOR APPROVAL OF
ENERGY INTENSIVE INDUSTRIAL RATES

Before Board Panel:

Graham Lane	- Board Chairman
Robert Mayer	- Board Member
Susan Proven	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
December 17th, 2008

Pages 1061 to 1301

APPEARANCES

Bob Peters	)Board Counsel
Patti Ramage	)Manitoba Hydro
Janet Mayor	)
Byron Williams	)Coalition
John Landry	)MIPUG
Michael Anderson (np)	)MKO
Bill Gange	)RCM/TREE
Beth Tait-Milne	)

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--- Upon commencing at 9:04 a.m.

THE CHAIRPERSON: Okay. Good morning, everyone. We are running just a tiny bit late, not so bad. For the Coalition, Mr. Williams...?

MIPUG PANEL RESUMED:

ANDREW MCLAREN, Resumed

PATRICK BOWMAN, Resumed

PETER OSTERGAARD, Resumed

CONTINUED CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Yes, good morning, Mr. Chairman, members of the Board. And hopefully no one was taking careful notes last night when I said that I would take about forty-eight (48) minutes. I thought up a few extra -- few extra questions, so I apologize for that.

And good morning to the -- the MIPUG panel. A happy IKEA morning, I guess it -- Mr. Bowman, I know you're feeling neglected, so I'll get to you in just a second.

But Mr. Ostergaard, in terms of your evidence -- and again, for the panel's benefit, I will be referring both to the evidence of Mr. Ostergaard and Mr.

Bowman and Mr. McLaren.

But perhaps if you could turn to page 10 of your evidence for just one second, sir. And, Mr. Ostergaard, at the -- at the top of page 10, you're -- you're making reference, lines 1 through 6, to BC Electric Tariff Supplement Number 6.

Is that right, sir?

MR. PETER OSTERGAARD: Yes, that's correct.

MR. BYRON WILLIAMS: And we'll come to it again in a few moments, but I just want to set a bit of context for some subsequent discussion.

My understand, it was approved in 1991, and it was a result of significant negotiations among the BCUC staff, BC Hydro, and the main customer groups.

Would that be fair, sir?

MR. PETER OSTERGAARD: That's my understanding, yes.

MR. BYRON WILLIAMS: Okay. And -- and again, I don't want to go too far back in time, but in terms of main customer groups, were you referring not just to industrials but to other customers groups, such as residential, sir?

MR. PETER OSTERGAARD: If I'm looking at the order of the BCUC that approved what became Tariff

Supplement Number 6, the preambles refer to the industrial users as participating in the negotiations. And it's my understanding that representatives of consumers groups as well signed off on the negotiated settlement.

I am not clear from the preamble as to whether they actively participated in the negotiations.

MR. BYRON WILLIAMS: Okay, fair enough. And again, just to -- going back to your -- your evidence, the balance that Tariff Number 6 sought to strike was the balance between allowing new industrial customers to share in -- in BC Hydro's low-cost power while protecting existing ratepayers from unduly subsidizing new industrial customers.

Is that fair, sir?

MR. PETER OSTERGAARD: Yes, that's fair.

MR. BYRON WILLIAMS: And we'll come back to that in -- in a few minutes.

Mr. Bowman -- and I do apologize for neglecting you yesterday. I -- I thought a lot last night about -- and -- and this morning -- about what -- your evidence yesterday. And I'm -- I'm going to try and quickly, at a high level, just get to a couple points that you made.

Would I be right in -- in concluding, Mr.

Bowman, from your evidence yesterday that your sense of this Hearing is that given the nature of the application before us, this is really not a hearing about -- primarily focussed on efficiency matters.

Would that be fair?

MR. PATRICK BOWMAN: That's correct

MR. BYRON WILLIAMS: And whether or not one accepts the legitimacy of -- of the concern, in essence, what you are saying is that the central issue, the primary issue in this Hearing, is -- is the question of large growth and its impacts upon the -- the revenue situation of Manitoba Hydro.

Would that be fair, sir?

MR. PATRICK BOWMAN: Yes. Actually, good morning and thank you, Mr. -- Mr. Chairman, members of the panel.

Yes, that's correct. There -- there are effectively two (2) different sets of -- of objectives and things that rates may be trying to achieve, one being to set off to establish rates that encourage efficiency, and the other being to achieve the type of objectives Hydro has -- has set out that are -- are -- in some cases, they're definitely fundamentally different. In some cases, they're even at odds.

MR. BYRON WILLIAMS: And -- and we'll

leave -- and just focussing though in -- in terms of your -- your point was yesterday that this is really not focussed on efficiency; this is focussed on other issues, including the -- the revenue position of Manitoba Hydro with regard to -- to large new load.

Fair enough?

MR. PATRICK BOWMAN: Yes, other -- other issues. The revenue position of Manitoba Hydro is one that we discussed. The impacts on the overall system planning is another. It's -- it's different than the revenue impact. The revenue impact is discussed more as a short-term type of item. The impacts on system planning is -- is a much long-term type of item.

MR. BYRON WILLIAMS: Thank you, Mr. Bowman, and that's a very helpful clarification. I should have been more precise in my question.

And without accepting the -- the premise that -- that there's an issue of -- of whether or not costs are being unfairly imposed upon others, you'll accept that one of the -- the questions that we're asking is in the event that the -- the Board concludes that -- concludes that unfair costs are being imposed in other -- upon others by large new growth, how, if at all, in the -- the rate setting process do we -- do we address that?

Would that be fair?

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

MR. BYRON WILLIAMS: And again -- and -- and I'm not asking you to accept the premise that there is some unfairness or -- or something that requires resolution.

But if -- if the Board, in its ultimate wisdom, decides that -- that there -- that there is an issue that needs to be resolved through rate regulation or extension policy, the question then becomes: Does a line need to be drawn, or a -- a couple lines need to be drawn, and if so, how do we do that in a manner that's not unduly discriminatory?

Would that be fair?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: Well, no. In -- in my submission, that -- that doesn't fairly describe the situation we're dealing with.

In essence, the application Hydro's put forward is to deal with their summary of the problem, as you stated it, that they see growth in one class causing impacts on another class. And therefore, we want to find a way to -- to discriminate at the outset of -- against -

- against the class.

So I think -- and perhaps I heard the question wrong, but I think the issue is the -- the application, at the outset, is based on being -- on -- on discriminating in just -- in a -- in a common parlance, I believe the phrase was used.

MR. BYRON WILLIAMS: And Mr. Bowman, I think I understood you yesterday as well. So what I was posing is not kind of Hydro's application, but assuming the Board, in its -- its wisdom, decides that there's an issue that needs to be resolved through rate regulation, or -- or extension policy, or otherwise, the question for the Board -- not Hydro -- then becomes: How do you -- how do you draw that line without unduly discriminating.

Would that be fair?

MR. PATRICK BOWMAN: I -- I guess the first question, you know, in -- in the event there is an issue, is the issue that's being put forward so grave that one wants to move to a method that is going to be based on discriminating against one set of customers in order to benefit another?

And that -- I think that's -- that's a sort of first test. As a matter of fact, I've heard others summarize it as: Is the -- is the cure posited worse than the disease that's asserted? That -- that

type of language.

MR. BYRON WILLIAMS: And I accept that.

So once, let's assume, the Board crosses that -- that hurdle as well, to this extent, Mr. Bowman -- it desi -- decides that there's a disease necessary to be cured -- then the line -- then the question becomes: Can it do so in a manner that's not unduly discriminatory?

MR. PATRICK BOWMAN: Well, there would be -- the area of deciding discriminatory rates and how discriminatory is -- is beyond the limits is not, in -- in my experience and in looking through a number of other cases and examples, is not well travelled. And so I think there is some aspect of breaking new ground.

But in general, in a regulatory environment, the -- there would be two (2) aspects that need to be dealt with.

One is principles related to what are effectively prohibitions on being unduly discriminatory, which is the comment you made, in -- unduly discriminatory in the way one treats one class of customers versus another.

And another that's a sort of different type of thought process that is effectively, similarly prohibitions against being personally discriminatory.

And in that regard, two (2) uses of power that are -- effect, for all -- for intents and purposes, the same characteristic and impose the same costs on the power system, but being charged different rates depending on who the customer is.

And though they're -- they're somewhat distinct over time in sort of the -- the regulatory theory, but you have to go back sort of a long way before people were debating these type of things. They're -- they're not type of matters that come up very often in regulatory discussions these days, from what I can tell.

MR. BYRON WILLIAMS: And thank you for that. That's very helpful, Mr. Bowman.

Am -- am I correct again, reflect upon your -- your direct yesterday. You discussed approaches, whether of provincial governments in British -- in Quebec or regulators in British Columbia.

And as I understood your evidence, you suggested that those two (2) -- two (2) different approaches were addressed, to a certain degree at least, at -- at a similar issue, but that, in your view, they had managed to do so in a -- in a manner that was not unduly discriminatory?

MR. PATRICK BOWMAN: Well, both were similar in that they were trying to wrestle with the idea

of how do you deal with large users. I would say that's about where the similarities stop.

Quebec's approach is to say that when users become large enough -- and I'm summarizing here; this isn't a quote or anything -- that when users become large enough, they become a significant public policy issue, that it is appropriate to have the matters related to electricity supply dealt with in conjunction with other socioeconomic benefits and impacts and the like.

And as a result, they're a matter that is dealt with by government. So it takes them out of the technical, pro -- professional environment of a utility board that is dealing with electricity rates and takes them to government that is dealing with the sum total of all of the impacts on the province.

BC goes a different direction, when you think about how to deal with very large customers. And remember, these are just two (2) examples. But BC goes a different way when -- when looking at that.

In -- in BC's case, to my knowledge, there is no limit on the obligation to serve. There's no threshold beyond which one absolutely goes to the government. But as Mr. Ostergaard set out yesterday, the government in BC hasn't been shy to use the tools available to it when there are overriding public policy

concerns.

So, you know, perhaps, although it's not written the same way as Quebec, one would run into the same situation if there were new -- a new major load. But within the regulatory regime there, there is a way to deal with large new customers.

Mr. Ostergaard has set out some of the detail in regards to the 1991 order that approved Tariff Supplement Number 6. Tariff Supplement Number 6, as I set out yesterday, is oriented towards -- I'll call it system impacts, capital -- capital investment shocks that would occur to the system because a large new customer comes on, including through to the generation system and making sure that those shocks don't -- don't hit others, in terms of having to pay for new transmission lines or new combustion turbines or any other aspects related to putting in place a system that can reliably deliver the energy.

It doesn't, though, extend to the ongoing energy charges or the cost of actually producing that energy.

MR. BYRON WILLIAMS: Mr. Bowman, that was a very helpful and appropriately lengthy answer, so I want to break it into a couple of your responses.

In terms of the -- the similarity between

both Quebec and BC, you noted was that they're both -- were both wrestling with the issue of large users, correct?

With -- without elaborating, that was one of your points?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And in terms of Quebec, you -- you spoke of a determination that if the impact on the system is enough, then it was appropriate for a -- a certain type of intervention.

You know -- and I'll get -- give you a chance to elaborate in a second, but I had your point there?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And in terms of significant enough, just to -- to get a bit more refinement on -- on where it might be significant enough, one element would be if it had a -- from a principle approach, a -- an impact on system planning.

That -- that's your -- that's one way that a -- these large users may have a -- an impact, right, is just on system planning, in certain cases?

MR. PATRICK BOWMAN: Well, I can't say I know what went into the decision in Quebec. They did used to have a 175 megawatt cutoff that goes back a long

ways. In the early 2000s, they did an extensive energy policy review that led to the energy policy which lowered the cutoff to 50 megawatts.

But it -- whether 50 megawatts was a -- a number derived in relation to system planning, I -- I haven't reviewed that -- that two (2) year process, whatever it went through, to determine whether that was a key consideration.

MR. BYRON WILLIAMS: Okay. And let me back away from Quebec just for a -- a second, because where I want to take you, Mr. Bowman, for just a couple moments, is at a principle basis, when should we care?

And you'll agree with me, one -- one occasion whe -- when we should care is when there's going to be a significant system impact. I think you -- the words you might have used was "capital investment shock."

Is that fair, sir?

MR. PATRICK BOWMAN: Yeah. An example would be in BC, although the Tariff Supplement Number 6 has never been applied at the greater than 150 MVA level, it was -- there was a customer who came in asking for service at -- who was 650 megawatts, an aluminum smelter, Alberni Aluminum. And the -- the system impacts were large for a 650 megawatt load, as you can appreciate.

And -- and the costs that were included

that they had to -- would have had to pay, had they come on the system, included three (3) combustion turbines -- three (3) large combustion turbines in order to make the system work with that extra load on it.

MR. BYRON WILLIAMS: And another time when -- when the -- the -- again, from a bigger picture, one might argue -- you may not accept this, but one might argue that -- that it's appropriate to intervene in the case of large users if -- if there's a concern that there will be a -- a major revenue impact to the corporation as a whole or to other users.

Would -- whether or not you accept that theoretically, that -- that's one (1) reason why you -- one might want to intervene as well?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: Well, you're dealing with a regulated jurisdiction that starts from thinking about the rates charged to domestic ratepayers. If you're bringing on a large new load, you will have a revenue impact, because they will be paying a significant amount of revenue.

In that context, you have to think about things like export revenues, which is the -- discussion

we have here, as being the second priority. And so whether the second priority should drive the first, I'm not convinced that that is a -- a compelling consideration.

MR. BYRON WILLIAMS: And I'll probably come back to that point a bit later. In terms of British Columbia, it's your view ultimately, that that resolution achieved by Tariff Number 6, should not be construed as being unduly -- or let me try it again, should not be construed as discriminatory, as I understand your evidence, because it resulted in like customers being treated in a like fashion.

Is that right, sir?

MR. PATRICK BOWMAN: Correct. It applied the same set of principles to each customer, as best we're all able to understand. You know, it's -- it's a long tariff supplement, and it has a lot of detail in it, but the -- at the outset it's applying the same set of principles to all customers.

MR. BYRON WILLIAMS: And the -- the key delineating point, in terms of when to -- to apply the -- the differential treatment is -- is when customers are bringing what may amount to a capital investment shock in terms of system planning.

Is -- is that -- is that the kind of the

way the line is drawn in British Columbia, as you understand it?

MR. PATRICK BOWMAN: Well, there's an -- in essence two (2) cutoffs:

The first is you don't deal with Tariff Supplement 6 unless you're dealing with a customer served off of the transmission system. It -- it's only for large customers to begin with. It's not the same tariff supplement used for a residential service drop, but it's still applying the same principles.

The second delineation is in one (1) of the definitions in Tariff Supplement 6, that says when you get above the second threshold, which is the 150 MVA threshold, you effectively have to think about more than wires, in regards to serving the customers. And that -- that's why generation gets brought in.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: So in your view it's -- that differential treatment in that manner is appropriate, because they've passed two (2) thresholds, a certain amount of size, and second, they -- they've reached a scale where they're affecting more than just wires.

Is that fair?

MR. PATRICK BOWMAN: Yes. It's that they've passed a threshold where you can reasonably link things like investment in transmission to a new load coming on. You know, I -- I may build a new house and that may finally overload the transmission line into my neighbourhood, and as a result some -- will have to upgrade it, but you can reasonably link that transmission line to -- to my house.

On the other hand, if a pipeline or a steel mill or something was to expand and double the load of a community, and you'll have to upgrade the transmission, you can reasonably link that transmission to the load. So it's the same set of principles.

MR. BYRON WILLIAMS: Okay, thank you. I'll come back to you in just a few minutes, Mr. -- Mr. Bowman. But, Mr. Ostergaard, asking you to put on your BCUC hat for a second, based on my conversations with our mutual friends, Mr. Gathercole and Mr. Quayle, my understanding is that for a number of issues before it, the BCUC has employed an alternative dispute resolution process.

Is that your understanding as well, sir?

MR. PETER OSTERGAARD: Yes, alternative dispute resolution processes or negotiated settlement

processes, as they're often referred to in British Columbia, are used fairly frequently as an alternative to -- to a hearing situation.

MR. BYRON WILLIAMS: And this is important for my clients where they're going in this hearing, and I don't want to unduly delay things, but at a very high level, and if you want to take notes on -- I'm going to give you kind of one (1) of those broader questions, sir, and you can just work with me for a bit.

Can you tell me a little bit about how the ADR process in -- or negotiated settlement process in -- in -- at the BCUC works.

And what I'm looking for is the theory behind it, when you might use it, and just a quick synopsis of how it might work, and kind of the time lines that it -- it tends to work on, sir.

MR. PETER OSTERGAARD: I believe a complete description of a negotiated settlement process is available from the BCUC. They have a guide to the negotiated settlement process, which would be available on their website, www.bcuc.com.

In terms of how it works and the theory behind it, is that -- the theory behind it is that it provides an option to come up with a mutually satisfactory solution, whereby most, or perhaps all,

parties with an interest in an application literally sign-off on a settlement agreement that they have been party to as a negotiator.

With respect to when you use it, that's a question that's often decided at a pre-hearing conference level amongst the applicant, the BCUC, and its staff, and key stakeholders who have a -- have view -- who may have views on the application.

If a decision is made to send an application to a negotiated settlement or alternate -- a dispute resolution process, a BCUC staff member is often assigned the task of facilitating the negotiations.

There's usually three (3) outcomes:

One (1) outcome is all parties reach agreement, in which case the application and recommended -- recommended solution goes to the commission panel for review.

A second option is the opposite. A negotiated settlement cannot be achieved and the application goes to a conventional adversarial hearing process.

A third possible outcome is that agreement is meached -- reached on most, but not necessarily all aspects of the application. In which case, an option is to send the unresolved issues to a hearing process before

a commission panel for resolution. In other words, the application has been scoped and a few outstanding issues are dealt with by the -- the panel and decisions are made by -- by the panel.

That's essentially how it works. There's also an opportunity for non-participants in a negotiated settlement to review on a confidential basis the proposed settlement and provide comments.

MR. BYRON WILLIAMS: And perhaps it's impossible to generalize, but can you give me any sense of the timelines on which one normally operates?

MR. PETER OSTERGAARD: In my experience, negotiated settlement processes between the time the application is received and a decision is made by the commission panel, the time -- the time expired takes less, in general, for a negotiated settlement process than an application that is sent to the full hearing process with the Information Request, Information Response, public hearing, final argument, decision stages.

I believe the BCUC annual reports, available at the same website, provide some statistics on the turnaround times for applications that go in either direction.

MR. BYRON WILLIAMS: In your experience

in British Colu -- Columbia, have you ever heard of a regulator adjourning a hearing and -- and recommending to parties that they -- they consider an ADR or a negotiated settlement, sir?

MR. PETER OSTERGAARD: None that I can recall. Most decisions to take an application to a negotiated settlement process have taken place before the hearing starts.

MR. BYRON WILLIAMS: And if -- if you don't wiss -- wish to answer this question, Mr. Ostergaard, or your -- your counsel doesn't, you can -- you can respectfully decline.

But when you kind of step back and look at the issues in this hearing, sir, as an outsider, do you see any elements of kind of the debate in this current hearing that might seem to you open to or susceptible to a negotiated settlement or ADR process?

MR. PETER OSTERGAARD: I would expect that both the issues of existing industrial customers and how to treat new industrial customers could be conceivably managed through a negotiated settlement process.

Perhaps I can qualify my previous answer. The question was "in my experience", and I really couldn't think of any. However, I do have a copy of the

BCUC Order in front of me that did approve Tariff Supplement Number 6. And it appears from the several preamble clauses that that particular hearing was adjourned on a couple of occasions to attempt to allow BC Hydro and the industrial users to come to some negotiation.

That was a process that began on December 9th, 1989, with an Application to deal with what became Tariff Supplement Number 6. And it wasn't until January 21st, 1991, that a decision was made from the Commission on that particular application, mostly because, from what I can gather from the preambles, more time was needed upon which to complete negotiations and discussions.

MR. BYRON WILLIAMS: Could you just repeat the times for me, sir?

MR. PETER OSTERGAARD: The Application was made by BC Hydro for Commission approval for standard form terms and conditions, on December 5, 1989.

Preamble B: These terms and conditions had been the subject of negotiations between BC Hydro and the industrial users for a number of years. I'm paraphrasing here.

On April 19th, 1990, the Commission considered the Application, and determined that all unresolved issues should be the subject of a public

hearing.

On June 8th, at the request of BC Hydro, the Commission delayed the commence -- commencements of the hearing to allow more time upon which to complete negotiations.

On September 14th, 1990, a pre-hearing conference revealed that BC Hydro and the industrial users were progressing satisfactorily, and a further delay in the proceedings was warranted.

On September 14th, 1990, the Commission further delayed the start of the proceedings to November 19th, 1990, to allow for continued meaningful discussions on the contracts.

On November 19th, 1990, the public hearing commenced. And after two (2) subsequent adjournments in order to allow for continued meaningful negotiations, the final da -- hearing date into the proceeding occurred on December 17th, 1990.

And the Commission approved the Application, and issued its order on the 21st day of January, 1991.

MR. BYRON WILLIAMS: Thank you. Mr. Bowman, without inviting you to tee-off on Manitoba Hydro, would it be fair to say that your preparation for this hearing would have been aided by a more timely

filing of an in-depth analysis of the value of on-peak versus off-peak energy sales into the MISO market?

MR. PATRICK BOWMAN: Having been here for six (6) days now of hearing, I would say the hearing process may have been more efficient had it been there.

With our re -- review of the issue, and -- and as I summarize when I went through Appendix B1 yesterday, immediately after lunch, it -- it seems to us that -- that the question of -- of the -- the T-lines and many of the issues on the -- the ability to move power from on-peak to off-peak and the like, aren't -- are not, at the end of the day, central to the decisions that need to be made in this case. They're -- they're central to assessing Hydro's assertion of the problem, and the event there are constraints that are different then Hydro asserts they are, then I think it serves to -- in the same way we set out in our Appendix, raise concerns as to whether Hydro's summary of the problem is correct.

But I don't think whether there are -- on-peak and off-peak energy have massive differentials or small differentials, or whether T-lines are the constraint or generation is the constraint. Either of those somehow leads you to the type of solution proposed.

MR. BYRON WILLIAMS: And again, without inviting you to tee-off too much on Hydro, would your

preparation for this Hearing have been aided by greater information, in terms of the historical application of the Service Extension Policy or some additional consideration of how the Service Extension Policy might be used to address issues of impacts on system planning?

MR. PATRICK BOWMAN: On -- on the matter of the System Extension Policy -- without getting into any details regarding either individual customers or questions of jurisdiction that I -- I recognize there are debates over -- in effect, when we look at the options that are available within the regulatory construct, without having to jump to doing something unduly discriminatory, solutions that are linked to the way one treats new loads in respect of system extensions obviously are relevant.

BC Hydro's Tariff Supplement 6 is effectively a System Extension Policy type of mechanism approved by the BCUC.

So if one major suite of options -- and in fact, the only major suite of options that has, as far as we can tell, a serious precedent among utility boards, revolves around the topic of system extension policies, I would say the record in this proceeding is -- is a -- is a little thin to be able to understand how that could work in Manitoba.

MR. BYRON WILLIAMS: I'm going to -- we're not going to come right to this reference yet, but for -- just to move things along, Mr. Bowman, it -- and for the Board members as well, if you want to flip to page 29 of your evidence filed November 17th, 2008, please.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: Do you have that, sir?

MR. PATRICK BOWMAN: Pardon me. Yes, I have it.

MR. BYRON WILLIAMS: And again, I'm not drawing your attention to any reference on this page as of yet.

You -- you heard my -- while I was ignoring you yesterday, I was -- I was talking a little bit with Mr. Ostergaard about what in British Columbia is considered to be their competitive advantage in terms of hydroelectricity as compared to other jurisdictions, sir?

MR. PATRICK BOWMAN: I -- I heard the discussion.

MR. BYRON WILLIAMS: And although we -- we may have been using the phrase for different purposes,

we spoke of a BC advantage.

Do you recall that, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: When you review the -- or based upon your knowledge of the hydroelectric policy in Manitoba, let's say up until this decade, would you -- do you see some similarities, in the sense that we may also have -- conceive of it as a -- it's historically been conceived of as a Manitoba advantage, sir?

Do you need more precision?

MR. PATRICK BOWMAN: If you can put the question again, maybe.

MR. BYRON WILLIAMS: Let me put it this way. If you look at the historic approach to hydroelectricity in Manitoba, would you agree with me that at the industrial level, the focus in Manitoba has been upon using its bountiful hydroelectric resources as a tool to maintain and promote economic development?

Would that be fair?

MR. PATRICK BOWMAN: Well, you've got two (2) concepts mixed in there. So if you'll allow me, I'll try to touch on both. One is in regards to economic development, and one is in regards to the phrase you used, "Manitoba advantage."

Mr. Ostergaard reviewed yesterday how the

concept of BC advantage is a suite of things, including their ability to go skiing at Whistler, that we don't always share.

MR. ROBERT MAYER: Hopefully, not yesterday.

MR. PATRICK BOWMAN: Yeah. Manitoba advantage has been a concept, though, used in terms of thinking about attracting industrials here, again, for a suite of -- of characteristics of Manitoba that were -- were combined -- made the province attractive, one of which was electricity rates.

There -- there were a number of others, and -- and as I recall, there were even agencies set up to try to do this type of thing.

The distinction on the -- on the industrial side between Manitoba and BC is, to the best of my knowledge, Manitoba hasn't had an industrial development approach similar to some of those Mr. Ostergaard reviewed in BC when they brought on Revelstoke and had surplus power that they were effectively dumping to market and had below cost rates available to industrials to try to develop.

I -- I don't recall situations, and certainly not since this -- you know, Manitoba Hydro was regulated, where there were some form of -- of below-cost

rates offered to industrial as part of developing the province. The rates have always been at -- effectively at cost or -- or above cost, as mentioned by a Cost of Service Study.

That's somewhat different than the topic of economic development, as you discussed yesterday, which, in BC, they look to BC Hydro as an agent of economic development to the province, in part because of its construction activities, and -- and bringing on pla -- aligning new plants, and that -- that type of thing.

And -- and I think there's a different set of considerations in Manitoba that go to the economic development benefits that Manitoba Hydro has brought similarly during the Limestone construction or the like.

They're -- they're a little bit distinct. And in that regard, Manitoba's a little bit different than BC. So I don't know if that answers your question, but...

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: You probably answered it better than I asked it, Mr. Bowman, so I'll take -- I'll thank you for that.

I want to focus you on -- on the language that you -- you used in page 29 of your evidence at lines

31 to 34.

And first of all, Mr. Bowman, you state, do you not, that MIPUG has traditionally been supportive of Hydro's pursuit of serving exports through advancing generation as a second priority to domestic service, but Hydro's current application serves to warp this premise and to alter in a significant way Hydro's obligation to serve, through actively discouraging or penalizing certain domestic industrial load growth based on a presumed priority for exports.

You state that, sir?

MR. PATRICK BOWMAN: That -- that's what's said there, yes.

MR. BYRON WILLIAMS: And you use language such as "warp this premise."

Is that right, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: I wonder if you can help me just understand.

In terms of the premise, just elaborate a little bit on the premise that you're referring to, sir.

MR. PATRICK BOWMAN: Well, the premise, as it was reviewed in the 1990 capital hearing -- which MIPUG participated in before this Board, and -- and ultimately led to the group supporting Hydro's capital

plan at the time, which included a number of developments, in -- including, at that time, Wuskwatim -- or I'm sorry, Conawapa; and -- and it has continued, it's effectively the same that was discussed in the Wuskwatim hearing -- is that in Manitoba, unlike what you see occurring in BC, the intent has been to use domestic resources -- our -- our local hydro, primarily -- to supply all of Manitoba's needs.

When the hydro can't supply Manitoba's needs, we bring on the next plant, and that allows us to sort of keep up with the load growth.

The second tier to that premise is once you draw the graph of what it takes in terms of which plants come on, can we take the opportunity to take one of those plants and advance its in-service state, so that for some number of years, it is -- it may not actually be serving domestic loads; it may be primarily serving exports or entirely serving exports.

And that initial period gives us the opportunity to build the plant sooner; build it in today's dollars, rather than the future dollars that would have otherwise been needed; and use the exports to, in colloquial terms, help pay down the mortgage before it's needed for domestic service.

That has been the way that Hydro talked

about their system planning in 1990, and it's the way they've talked about it in -- in 2000 and -- and 2002/2003, when the Wuskwatim discussions were going on.

It all stems though from that logical sequence, that we -- we have a domestic load, we -- we serve the domestic load at regulated rates that gives everyone equal access to kilowatt hours, we build plants in order to help keep up with that domestic load, we do exports as -- as possible when we have above-average water, and in cases -- in some cases, we advance plants in order to do additional exports from the plants before they're needed for domestic service.

The -- the warping, as I use the word here, or I think I may have used the phrase earlier today of "turning on its head," is taking the justification that arises at sort of bullet 4 or 5 there, to revise how you do the -- the higher priorities of -- of one (1) or two (2).

It's a little like the -- another part in this evidence we review the -- the -- summarize the order in council, as Hydro has -- has put it to the NEB in regards to its approval to export power and says that the Manitoba Government gives Manitoba Hydro the op -- the approval to export power that is surplus to Manitoba's needs. You -- in warping the premise, one can

effectively redefine the concept of surplus by creating a surplus, by effectively making the domestic loads bid against the exports for the power, which is a shorthand way of describing one (1) way that this rate has been looked at.

And in the event they're not willing to pay what the Americans are, we'll -- we'll sell it there.

MR. BYRON WILLIAMS: Just moving on with that thought, maybe perhaps you can turn to page 31 of your evidence for a second.

And I won't be much longer in this, Mr. Bowman, but I want to make sure that my clients understand what you're saying. Lines 4 to 7 or 8, you speak of the effect of implementing Hydro's proposal would be to sever -- and I'm going to shorthand here, okay, sir -- some of the load of approximately three (3) to as high as five (5) individual customers from the rest of Hydro's regulated system.

And is that correct, sir?

MR. PATRICK BOWMAN: It's a fair summary of that sentence.

MR. BYRON WILLIAMS: And rather than ask you to respond that -- to that right now, I'm going to just direct your attention to page 32 at the bottom, please, sir. Lines 38 to 43.

What you're saying here, starting at line 38, is that Manitoba Hydro's proposal -- excuse me, line 38 of page 32, if someone is struggling to find it:

> "Manitoba -- Manitoba Hydro's proposal in effect results in customers served under the proposed new rates, being indifferent or potentially materially effective by new system developments that are otherwise intended to benefit Manitobans."

Is that correct, sir?

MR. PATRICK BOWMAN: That's what it says there, yes.

MR. BYRON WILLIAMS: Am I correct in saying that you're essentially arguing, and I'm not saying my client's endorse this, but that the effects of this proposal will be to create a -- two (2) tiers of customers within Manitoba; those benefiting from higher export revenues in terms of receiving a system contribution from -- from net export revenues that help to pay down the mortgage; and those who -- who may see themselves as indifferent to, or perhaps even adversely affected by a -- a greater focus on exports.

Is that correct, sir?

MR. PATRICK BOWMAN: It's one (1) way of

summarizing what's said there. I think one of the concepts that's been talked about in this room, particularly in the Cost of Service Hearing, it was more the -- discussed as the concept of sort of vintaging, that what -- what it creates -- two (2) tiers of -- of load is -- is not a bad description; it's probably a description Hydro has used sometime -- that are served under different premise, that in essence reflects a vintaging of the supply that customers like myself who have a residential load would be served from the -- the pool of the heritage assets that exist.

A certain subset of loads though, would be served from only the -- the newest stuff being developed at -- linked to the -- the market rates; that -- you know, it -- it's the extension of the premise that was discussed, and I would say at least in effect to a cost of service, effectively rejected by this Board in -- in the Cost of Service Study, there's -- there was no basis for -- I know -- I've been in Manitoba since 1970s, but there's no basis to say that I have some entitlement to Long Spruce power while IKEA should get stuck with Wuskwatim. It just doesn't work that way.

MR. BYRON WILLIAMS: And just to -- just to finish on this point, and just to follow-up on a couple of questions that Mr. Landry, I believe, was

asking the Hydro panel.

Just, assuming for a moment that we -- we move towards what some might describe as a -- this two (2) tier system, presumably in -- in the event that we did, you would argue that -- that customers who have -- who are -- are seeing a significant portion of their load severed or disconnected from the rest of the regulatory system, presumably, you would argue, that they should be relieved of any corresponding obligation to contribute to corporate revenues at a time where they were insufficient to meet their em -- embedded cost obligations.

Is that the ultimate logic of this severing of the -- of a certain portion of load, sir?

MR. PATRICK BOWMAN: Well, you're -- you're asking questions that go to saying, If this proposal's accepted, and it's really going to be all -- something that's going to be in place for the long term. We're not just talking five (5) years here. This is a new rate. It'll be a permanent offering.

How does it work in the future, and what about these different type of events? What happens when we hit a drought? Will they have to pay more? What happens when -- when we bring on our new plant? What happens when, you know, something happens to the export markets?

And I -- I can't say -- I can't say I've thought through all of the implications. I'm not sure that anyone has, frankly, but the premise, if you just take the words as they're written, would be these customers are like export customers. Our export customers don't share in seeing higher rates because we had a drought. Our export customers pay what the -- what the contract says, or what the -- what the market will bear, and it doesn't mean the market changes just because Manitoba Hydro has a drought.

So I -- I guess the idea would be the next time we have a hearing that needs a higher rate increase because the reserves are down since we've had -- had a drought, somehow this customer will be a different set sitting on the -- the sidelines. I -- I don't know. It's -- but it's -- it's a fun -- it's a fundamental change to think about two (2) sets of customers that are -- have entirely different interests and -- and impacts arising from the system.

MR. BYRON WILLIAMS: Thank you, Mr. Bowman. Food for thought.

Mr. Chairman, I -- I have some more questions and I think I can get us to break but not beyond, so -- so we're -- we're behind schedule, but if you'll bear with me.

Mr. Bowman, again you -- you talked about this Application, in the context of efficiency, yesterday, and -- and without elaborating, you stated in words to the effect that this proposal -- or the rates are not really designed to achieve efficiency.

Does that sound familiar, sir?

MR. PATRICK BOWMAN: Well, I -- I think I said something to that effect.

MR. BYRON WILLIAMS: Okay. And later I think you -- you went farther and said not only are they not designed to achieve efficiency, they -- and again words to the effect of, it fails to achieve efficiency.

Would that be fair?

MR. PATRICK BOWMAN: I -- I think I may have said that today. I -- I probably used the phrase that it's -- the -- the fundamental premise of this rate is in a sense at odds with the type of thinking and rates that would be used to achieve efficiency.

MR. BYRON WILLIAMS: And I just want to make sure I have your point from yesterday. The point -- you -- you spoke of tweaking, and -- and I'll come to that in a -- in a second -- but the point you seem to be making is that given that this rate -- this Application is not really focussed on efficiency, and notwithstanding what may -- what may be and probably are very legitimate

eff -- efficiency objectives, in the context of this Application you would not recommend trying to tweak it -- this proposal -- a proposal that's not really designed for efficiency into one (1) -- in -- into trying to tweak it into trying to achieve some long term efficiency objectives.

Do I have your point, sir?

MR. PATRICK BOWMAN: Yes. We've had a fair bit of discussion about that with our team, and there's -- you've started off on a different path intended for an entirely different purpose. It -- it's a long list of items why this proposal is entirely different then the types of thinking people use when they're trying to design rates to encourage efficiency, and it's -- to try to shoehorn it in is -- is creating something that -- that doesn't really fit.

I entirely agree with your point though, that this is -- trying to design rates that -- that achieve efficient use of power is -- is a very important and high priority type of regulatory objective, but this isn't it.

MR. BYRON WILLIAMS: Perhaps if we could turn to page 10 of your evidence. And I'm going to be making a very brief reference to an excerpt from Board Order 117/'06. I think I distributed it around the room.

I don't know if the Board has copies. Mr. -- Mr. Chairman, I see your head nodding, so I'm assuming you do.

And I don't believe that that needs to be made an exhibit. I -- I just passed it out for -- so -- to assist parties. And there was some copies distributed on the desk, Mr...

MR. ROBERT MAYER: Mr. Williams, I think you can assume that we will assume that you can read.

CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Some people like to read around -- Mr. Vice Chair, read along, but I -- I appreciate the confidence that you've demonstrated.

Mr. Bowman, just on -- on page 10 you make some reference to Board Order 117/'06, and you -- you note that the matters related to this application were initially addressed in -- in the public hearing that lead up to that Board Order.

Is that right, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And you highlight three (3) points, without reading from that -- that Board Order, first of all the suggestion -- the directive from the Board to Hydro to consult broadly in the context of

that order. Is that right, sir?

That's one of the points you made?

MR. PATRICK BOWMAN: To consult broadly with government and industry, yes.

MR. BYRON WILLIAMS: Secondly, and -- direction from the Board to Hydro to develop this proposal, taking into account that existing industries came, remain, and expanded in Manitoba with certain assumptions as to energy and price -- energy, prices and supply, and therefore, distinction between new and existing industries as reasonable.

Is that right, sir?

MR. PATRICK BOWMAN: That's what the Board Order says, yes.

MR. BYRON WILLIAMS: And I won't go into the -- the third -- the third point at this time.

On that second point, Mr. Bowman, the distinction between new and existing industry, obviously the Board considered that a reasonable premise.

Do you?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: Well, Mr. Williams, Mr. Chair, this is a -- this is a very difficult point

that -- that goes to the core of some of the challenges we're -- we're dealing with today.

At a certain level, the thought that there are industries here today that came in under a certain regulatory regime and should not have the rules changed on them is -- is not only appealing as a thought; it -- it may even be more than that. I'm told that it -- that it may be part of -- of effectively, the compact under which they -- they came and developed.

The idea of making a distinction with new industries compared to existing is -- I -- I understand the intuitive appeal. And I think at a certain level it's a type of response that -- that people could do in order to try to ensure that -- that existing loads are treated fairly.

But it's -- it's effectively the starting point for addressing some of the significant challenge that we have before us today. I obviously have to make the comment that of course the members that we are dealing with are all existing industries. Some of them are expanding, but they're all existing industries.

There is very little voice in the room, if any, from who could be the new industries that no one knows about yet. And it's one of the reasons why negotiating something like this is -- may -- may be a

trick, in terms of making sure the appropriate potential future impacts are -- are represented.

But the concept that there will be a permanent distinction between the -- the old loads and the new loads brings you back, I think as one works through the issues, to the -- the very difficult challenge, the very difficult decisions, to say we're prepared to sever two (2) loads and two (2) groups of customers and say with respect to these some existing loads, they've somehow acquired rights to be serviced on a priority level from low-cost assets.

The example I gave earlier of my -- my house and Long Spruce, whereas some new loads, for a bunch of reasons that -- that people write down, we want to treat in -- in some new way and -- and consider them to not have any rights to those existing assets or to the -- the power from those existing assets, even though come 2012, my kilowatt hour drives the need for Wuskwatim just as much as anybody else's kilowatt hour.

It's a -- I guess my -- my basic point is the intuitive -- it's one of those types of points that intuitively appealing, but on -- on careful scrutiny, I think it lead down a pretty dangerous road.

MR. BYRON WILLIAMS: I just want to follow that point along for a second further, M. Bowman.

Now, the language that the Board used, you'll -- you'll agree with me, was "new industry" and "existing industry."

Is that fair?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And the language I just heard you give in the -- the latter part of your answer was "new load" and "old load."

Is that right?

You were referencing new load and old load?

MR. PATRICK BOWMAN: I may have used those terms.

MR. BYRON WILLIAMS: And just for definitional purposes, do you use the words "new industry" and "old industry" interchangeably with "new load" and "old load"?

MR. PATRICK BOWMAN: I -- I probably was. I think at the level of discussion, of course, Hydro's proposal doesn't even treat all new loads the same way, certain amounts are caught by growth allowances, and -- and you get into a lot of detail.

I was trying to focus it at a principles level that would say somehow we are trying to develop a thinking process that severs something we call old load

from new load, and that's -- or, you know, old industry from -- from new industry, perhaps. And that's the -- at the principle level, without getting into the detail of growth allowances or the like.

MR. BYRON WILLIAMS: And I just want to follow this one -- one step further, M. Bowman.

It's conceivable that old industry, existing industry, could be bringing new load to the system; in fact, it's likely?

MR. PATRICK BOWMAN: Well, putting on my economist hat, Mr. Williams, every customer brings new load to the system. The -- these lights bring new load to the system. Just because they were on an hour ago doesn't mean they have to be on the next hour. Every kilowatt hour is a new kilowatt hour. That -- that's the economist level.

Now that's, of course, different than the premise for investment and all of those other things we talked about, but all load is new load.

MR. BYRON WILLIAMS: And -- and just so I make sure I have your point, you draw no distinction then, for analytical purposes, between an existing industry that may have come here under, I believe your language is, some sort of regulatory compact, and which is planning to expand, versus a new industry bringing --

coming to -- to Manitoba cognisant of a change in -- in regulatory policy?

MR. PATRICK BOWMAN: No, I -- I think -- I don't think that's correct. I think we draw a very key distinction between the two (2). The -- there are different sets of issues thinking about existing industry than there are thinking about new industry.

And the -- had the proposal been to change the rules for all industry, we would have had an entirely different set of different considerations than if it was only the case for people expanding.

They're -- they're entirely different ways of thinking. They have different premise for investment. They have different histories. They have different legal protections. They have a number of other things that go to existing industry that may not be there for a new industry.

But the -- it doesn't mean that it gets you to having to treat them differently. You may end up at the conclusion that they're treated the same.

MR. BYRON WILLIAMS: Analytically, you could see the -- the potential for distinction between existing industry that -- that came here under a regulatory compact and new industry, no prior history to the -- to the province, coming here with the

understanding that a new set of rules had been -- been created?

MR. PATRICK BOWMAN: If one is strictly sticking to the "every kilowatt hour is a new kilowatt hour" box, it doesn't get you to a set of definitions that's -- some level is called existing and some level is called new. So in that box, there's -- analytically, if you want to use the term, there's no distinction. But there's a number of other boxes that people are trying to keep their minds on here.

MR. BYRON WILLIAMS: Which box are you in, Mr. Bowman? That's what I'm trying to get my head around.

MR. PATRICK BOWMAN: Well, Mr. Williams, I set out at the beginning, we're trying to keep our eye on a number of them. And I have rarely seen a hearing that has as many different facets that one had to try to pay attention to.

Yes, there's a system planning issue, which we deal with in Section 5 of our evidence, in which it's strictly about kilowatt hours, and every kilowatt hour is a new kilowatt hour.

But there's separately a -- a regulatory premise issue for how you deal with industrial loads that's in Section 6 of our evidence that does have

expectations, basis for investment, contracts, international law, and a number of other considerations that I don't go into, because I'm not an expert on.

But I understand colour, the ability to do certain things to existing customers that may not quite be the same for new customers.

MR. BYRON WILLIAMS: So if we get out of the -- the box captured in Part 5 of your evidence and -- and move to the box captured in Part 6 of your evidence, you can conceive working out of that box of a conceptual difference between existing industry and new industry?

MR. PATRICK BOWMAN: Yes, that's fair. Also, if we talk about considerations such as a Tariff Supplement Number 6 type of approach, it only applies to new loads. It's about making sure the system can reliably serve the loads. The system we have today can reliably serve the loads today. It only goes to incremental changes.

So there's a number of places where you need to pay attention to the difference between new and existing.

MR. BYRON WILLIAMS: Mr. Bowman, just drawing your attention to Board Order 117/'06, page 54, and the second paragraph thereof. I'll give you just a -- a second to look at that paragraph, sir.

MR. PATRICK BOWMAN: I'm sorry, which paragraph?

MR. BYRON WILLIAMS: Page 54, the -- the second paragraph before the colon.

(BRIEF PAUSE)

MR. PATRICK BOWMAN: I -- I've read it.

MR. BYRON WILLIAMS: Mr. Bowman, just when we look at the genesis of -- of this proceeding, would it be fair to say when the -- when the Board was -- at least would it -- would you agree that a reasonable interpretation of -- of what the Board was saying, in -- in terms of -- of this issue, was that it was focussed on the -- the potential risk of new large, energy-intensive firms on other customers as related to rates?

Would that be a fair statement of at least this early stage of the Board's -- Board's analysis, sir?

MR. PATRICK BOWMAN: Well, actually, I read the paragraph a little bit differently, and I think the paragraph reflects the context of the day.

We'd have to remember this hearing was not long after we had just been through the drought hearing, and the phraseology isn't the impact on rates; it's -- it -- well, it uses the words "rates," but the point is it -

- it imposes risks on Manitoba Hydro's other customers, mainly related to rates, it says.

But the point is that large new loads could impose risks on Manitoba Hydro's other customers, and I think that sentence alone merits some thought. I think looking at the Power Resource Plan that was handed out yesterday, there is a lot of information around that suggests some need to think about Hydro's risk and what activities and what loads and what developments are causing risks that could be potential impacts on rates.

That Power Resource Plan shows that, as a result of the export contracts that are being signed in -- - leading up to the years after 2020, Hydro's drought year scenario relies on imports for 15 percent of -- of annual supply -- annual committed supply. That's -- that's much higher than it has been in the past power resource supplies. It's tended to be around ten (10).

It's not the domestic loads that are causing that. It's the offsetting import guarantees built into the export contracts.

So if it's framed in a context of risks, which -- I can entirely understand where people's minds are at, having just been through a drought. Risk is an entirely different consideration, so...

MR. BYRON WILLIAMS: Thank you.

Mr. Ostergaard, I'm -- I was afraid you were feeling neglected, so you -- you've heard some of my discussion with Mr. Bowman. We -- we've talked about certainly distinct issues related to efficiency, and we've also talked about distinct issues related to impacts on system planning.

Do -- do you -- is that a fair summary, sir?

MR. PETER OSTERGAARD: Yes.

MR. BYRON WILLIAMS: And just -- and this will be quick, but just so that I have -- my -- the BC scenario well in mind, when I -- when I look -- in terms of large customers and the -- the BC approach to efficiency issues, much of that is captured in the -- the stepped rate approach.

Was that fair?

MR. PETER OSTERGAARD: Yes, for industrial customers, and more recently, residential customers.

MR. BYRON WILLIAMS: And again, we don't -- it -- it's on the record of this Hearing.

In terms of the stepped rates approach, without getting into the merits of their positions, would it be fair to say that in British Columbia there has been some concern expressed by residential consumers that the

actual application of the stepped rates -- rates approach has resulted in an under-recovery from -- from large customers?

Without getting into the merits of whether that's true or not, would that be fair?

MR. PETER OSTERGAARD: Yes. In general the -- the views of the two (2) main customer groups in British Columbia are as follows.

The -- in terms -- at least in terms of my understanding of -- of their views, the industrial customers feel that stepped rates are working. They are sending price signals to industry that has resulted in significant DSM savings that otherwise would not have occurred.

And for residential customers, there are concerns that consistent under-recovery within that industrial customer class is leading to -- or may lead to, in future, rate shifting depending on regulatory accounting treatment, i.e., does BC Hydro reduce its net income accordingly, or does it attempt to recover those -- those under-recovered amounts from other customer groups?

MR. BYRON WILLIAMS: Okay, and I thank you for that fair summary.

In -- in terms of the impact, or potential

-- or impact of large new industrial load on the other aspect of the -- the issue -- the -- the system planning issue, I believe as Mr. Bowman phrased it -- I'm correct in suggesting to you that a major element of the reg -- regulatory response has been Tariff Number 6.

Would that be fair, sir?

MR. PETER OSTERGAARD: That's correct. Tariff Number 6 attempts to recapture some of the incremental generation and transmission costs for vary large load additions to the system.

MR. BYRON WILLIAMS: And Mr. Ostergaard, in your direct evidence yesterday, I didn't catch the exact phrasing, but I believe you refer to whether it's some challenges or some criticism of -- of Tariff Number 6 in terms of -- and I wonder if you could elaborate on that at -- at a high level, sir.

MR. PETER OSTERGAARD: Perhaps I can use the example of new mining loads in Northwestern British Columbia.

There are three (3) or four (4), possibly more, mines that are, in their view, very, very feasible and, once prices stabilize, ready to be developed. It's a question of who goes first.

And Tariff Supplement Number 6 is silent with respect to how to treat aggregated new loads once

together they hit that 150 MVA threshold.

In this particular example, the -- the solution was one whereby the government effectively overrode the provisions of Tariff Supplement Number 6 and negotiated a arrangement with the first -- likely the first new mine, Nova Gold, whereby Nova Gold would contribute its avoided cost of $158 million to connect to the system, and BCTC, through its existing ratepayers, would pick up the rest of the cost of a much larger line to serve more than just the Nova Gold mine.

MR. BYRON WILLIAMS: So -- so the challenges in that context were a view that -- that because of the par -- particular, I don't know if the word is vagaries, V-A-G-A-R-I-E-S; I'm not even sure if I'm pronouncing it correctly -- of Tar -- Tariff Number 6, it was an impediment to -- to what might otherwise be seen as valuable industrial development?

MR. PETER OSTERGAARD: I think impediment is too strong a word. Until the parties that were involved in trying to develop a transmission infrastructure that all parties knew would ultimately be the better solution than two (2) or three (3) low cost, low kilovolt lines plugged into the larger transmission system, that in the knowledge that there would be an ultimate solution, where you would have a strong backbone

of a transmission system there that Tariff Supplement Number 6 would perhaps discourage, then you went to the larger solution of -- of a better planned solution, whereby a large line was built under a different formula.

MR. BYRON WILLIAMS: Mr. Ostergaard, in terms of Tariff Number 6, are -- are you aware of any criticism from perhaps a different perspective suggesting that it was -- the consequence of it was that it was resulting in undue or subsidies to -- to new large industrial load.

Are you aware of any criticism of it from that perspective?

MR. PETER OSTERGAARD: I am not. I can cite the BCUC's decision with respect to Tariff Supplement Number 6 back in 1991, and I'll just quote a couple of sentences, if that's okay.

Counsel for -- and this is a -- this is a quote from the reasons for decision from the BCUC. Counsel for BC Hydro stated that, quote:

> "An analysis of the document will reveal that it does not create significant new financial impacts when compared with the arrangements which are currently in place."

And later on, quote:

"BC Hydro does not anticipate that the documents will result in significant adverse impacts on BC Hydro's revenue requirements."

This provided some comfort to counsel for the Consumers Association of Canada, who remarked, quote:

"Given Mr. Mosley's (phonetic) comments with respect to the anticipated impacts on Hydro's revenue requirements of this particular agreement, I have no objection to it being approved."

Close quote. Mr. Mosley is -- was BC Hydro's lawyer.

MR. BYRON WILLIAMS: Thank you.

Mr. Bowman, I want to turn to just a couple more elements of -- of your evidence. First of all, if you could turn to page 34, specifically, lines 9 to 14.

MR. PATRICK BOWMAN: Mr. Williams, I have it. I -- I would just also add to Mr. Ostergaard's earlier comment.

The -- the record we have available on Tariff Supplement Number 6 suggests that the one known complaint that went to the BCUC was actually in the other direction. It was actually a potential industrial

customer concern that the provisions of Tariff Supplement 6 were too onerous, not -- not too generous. So for -- just for the record.

I have the page you asked for.

MR. BYRON WILLIAMS: Okay. And just -- I'm going to -- I'll get to that quote on page number 6 in a -- or page number 34 in a minute. And I'm going to ask you to just confirm your position without elaborating, if you would, on -- on two (2) points.

You've said elsewhere that the rate -- your -- your position is that this rate comprise -- compromises basic regulatory fairness principles, and there is no reasonable justification for its unprecedented and discriminatory approach. Fair enough?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And you've used language such as "unduly discriminatory."

Is that fair?

MR. PATRICK BOWMAN: We've been cautious about using the phrase.

MR. BYRON WILLIAMS: Page 33 you used it, sir.

MR. PATRICK BOWMAN: We -- we -- I said it was -- it was used cautiously, because of course, the -- the determination as to duly versus unduly is a legal

test that will be ultimately applied by this Board in its decision.

We said that in -- in all normal respects where one would be looking at a rate, this would probably qual -- this would qualify as unduly, in our opinion.

MR. BYRON WILLIAMS: Just going to your evidence on -- on page -- page 34, lines 9 to 14, you -- you -- and we've talked about this before. You've suggested that the normal regulatory approach to very large load increments is either to limit the obligation to serve large increments or ensure the incremental, one-time system upgrade costs required to serve these loads are paid for by the customers.

Is that fair, sir?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: It's fair. As I'm reading that sentence again, I think I may be inclined to edit it slightly, and I -- I apologize for this.

We -- we were mixing two (2) concepts and -- that are -- that are both important, and I -- I think where they got mixed it -- it may be a bit confusing.

One -- one of the concepts is that there may be a practical limit on the obligation to serve that

needs to be thought about if you're talking about very, very large loads. You know, if -- if a customer came to Yukon, where I work, wanting to build a 650 megawatt aluminum smelter, they just couldn't do it. The system's only got about a hundred megawatts in total. So there -- there may be a practical limit on obligation to serve.

But the case -- and a -- and where it says, "limit the obligations to serve large increments," we wrote, "e.g., 150 MVA in BC." The -- the example was an example of what one might think about as a -- a large load. It wasn't meant to say that BC limits the obligation to serve to that level. That -- and I apologize for that confusion.

MR. BYRON WILLIAMS: Fair enough. Thank you for that clarification.

Just focussing on lines 12 and 13, you talk about the normal regulatory approach being that incremental, one-time system upgrade cost required to serve these loads including potential generation or appear -- are paid for by the customer.

You have an amend -- or edited slightly that part of your answer --

MR. PATRICK BOWMAN: No, no.

MR. BYRON WILLIAMS: -- sir --

MR. PATRICK BOWMAN: No, that's not

edited.

MR. BYRON WILLIAMS: And at a theoretical level, InterGroup sees that this approach -- or you yourself -- excuse me -- see this approach as potentially being acceptable?

MR. PATRICK BOWMAN: Yes, as long as it's clear what we're talking about in the definitions. The idea -- when we say "one-time system upgrade costs" are what -- in a cost of service context we would talk about our capacity costs -- that it's transmission lines; it's generation install for capacity reasons, like -- like a -- if a -- you have a regional low-voltage stability issue or -- or concerns of reliability and you have to put in combustion turbines to back up the supply. Those type of costs, not generation, where you're talking about energy costs.

MR. BYRON WILLIAMS: That may -- may answer my -- Mr. Harper's question on this point, but I'll -- I'll ask it anyways.

When considering a capital contribution approach, would it be reasonable to consider the opportunity costs of exports as the marginal cost of generation?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: The simple answer is in respect of the capital contribution. No, but there's -- it doesn't necessarily stop at the simple answer for -- for one reason. When we look at Tariff Supplement Number 6, which is the sort of reference we're making here, if your -- Hydro has noted this, that there's actually a formula in the Tariff Supplement. And I think there's a copy of it in one of the Interrogatories. I don't recall which one.

It has a formula and it says it'll look at the revenues from the customer and look at the operating costs for the customer to -- operating costs for the assets you're talking about. And in -- once -- once it does a bunch of math, it determines whether you need to make a customer contribution.

For customers less than 150 MVA, we look to transmission -- or BC looks at transmission. They look at the transmission costs of the assets. Pardon me. And the look at the O&M costs of that transmission. And then they look at the customers' revenues, and they do a calculation. Sometimes BC Hydro will put in some money, sometimes they'll put in all the money, and sometimes the customer has to pay for it all, depending on how the balance of those revenues and those costs, including O&M costs of the transmission, balance out.

In the one case where Hydro did the calculation for a customer above 150 MVA, which was the Alberni Aluminum case that never was developed, Alberni Aluminum requested a quote from Hydro for the cost to connect. Hydro gave them a quote. I think it was $1.27 billion that they'd have to write a cheque for. And Alberni Aluminum filed the complaint with the BCUC and there was a small exchange and set of processes.

And at the end of it, the BCUC issued a letter -- decision on the complaint -- that effectively says, you know, the -- the load -- the -- the customer is still prospective. The loads aren't exactly developed. The -- the assets aren't exactly developed, but BC Hydro applied the principles correctly.

And -- and I say that in respect of Mr. Harper's question, because he -- he'll appreciate this distinction.

When they did the math for the customer over 150 MVA, they added up the total capital costs required to be installed, which was transmission assets plus combustion turbines, and it came to 1.27 billion.

And then they added up the total operating costs of that, and that included the present value of the fuel for the combustion turbines, which is what you would talk about as a -- as an opportunity cost or a -- an

incremental cost.

That came to 4.2 billion, and the customers' rates did not fully compensate for the 4.2 billion, the present value of the -- of running the turbines.

So as a result, the formula came out to zero, BC Hydro's contribution, and the customer had to pay the one point two seven (1.27). That's what they would have had to pay. They were never made to pay the four point two (4.2). They weren't being asked to pay the -- the cost of the fuel as part of their one time cost, only for the assets.

But you did consider the opportunity costs, or the O&M costs, or the oper -- the -- the phraseology Mr. Harper was -- was using, in determining whether that customer would pay all of the capital costs, or a portion of the capital costs, or something of that nature.

MR. BYRON WILLIAMS: If you're looking for reference to my next question, you can turn to page 3 of your evidence, lines 29 to 33. We're just about -- we'll -- we'll probably go a bit further, Mr. Chairman, but not too long.

M. Bowman, you might have revised this answer a little bit yesterday in your direct, but you --

you were -- in lines -- just one second.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: You were talking about the revised approach to setting marginal cost rates, and your preliminary -- or your -- your writ -- written evidence said it provides greater transparency. You -- you -- and without asking you to elaborate, you might have wanted to temper that adject -- adjective a little bit based upon -- upon your observations in this Hearing.

Fair enough?

MR. PATRICK BOWMAN: Well, I would say the approach proposed by Hydro in this Hearing is more transparent then the single number we got in the last hearing that we got no information behind.

It's still a long way from what you would call a transparent measure. It doesn't mean it's not possible to come up with something that's a more relevant transparent measure. There is some underlying data that's at least filed with regulators, like the NEB.

It's just what happens between that data and the way Hydro ultimately processes it to use it for this application and how many different steps and -- and

what those steps mean that has not achieved the level of transparency I -- I think is required.

MR. BYRON WILLIAMS: Would it be fair to say -- would -- you know, and -- and I understand your reservations about going down a -- a marginal cost route.

But would it be fair to say that when you analyse, from a principle basis, whether one particular application of -- of marginal costs is preferable, you consider at least three (3) criteria, namely transparency, can it be tested; secondly accurate, is it a reasonable approximation of -- of the -- the appropriate number; and third, is it a number -- is the number going to be stable or unstable, is it going to bounce all over the place?

Are those three (3) considerations, sir?

MR. PATRICK BOWMAN: There would be three (3) considerations. I think they're preceded by the consideration as the purpose to which you're using it for.

Mr. Ostergaard has talked about stepped rates in BC, which have a particular purpose that's designed to look to the long-term system plan, and to -- as a result, uses a marginal cost estimate, if you like, based on the prices IPPs are bidding for new power that they're going to be committed to under a contract. It

gives us a -- a long -- transparent, long-term price.

In Newfoundland, we've been involved in helping to design effectively a stepped rate there that has an entirely different purpose. It's designed to deal with burning oil at Holyrood generating station. And it, as a result, uses a short-term marginal cost, and it's designed to entirely consider the short term, because the purpose is to -- to look to the oil at marginal costs, so as -- or the oil as the marginal resources that customers would be affecting.

So your pur -- determining your purpose you're using it for is key. It would also -- you said transparency; that would be important. You said it -- accurate; it's hard to argue with accuracy. You said, stable; stable would be relevant in a number of contexts.

It's not necessarily relevant when used in other ways. For example, the -- like we say, the BC stepped rate is revenue neutral; it -- as a result, the total customer bills are stable. It doesn't mean that the second block and the first block each independently have to be stable. May -- maybe that would be a rate design consideration, but -- but it may not be, if you're trying to make sure you pass through the price signal.

So stability could be or may not be, depending on the use.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: In the context where marginal cost rates may be affecting long-term firm planning, presumably stability is important?

MR. PATRICK BOWMAN: Sir?

MR. BYRON WILLIAMS: In the context of a rate like the EIIR, stability would be an important consideration as well?

MR. PATRICK BOWMAN: In Hydros EIIR proposal, it -- it merits a mechanism to ensure that the customers have rate stability, yes.

MR. BYRON WILLIAMS: And -- and I think I understand your position in terms of using forecast values as well as the current Hydro proposal. And I'd just appreciate, for the benefit of my clients, your thought on -- on using another proxy. For example, historic information but longer term information. For example, the five (5) year SEP used on cost appli -- allocation.

And I wonder if you have any thoughts on -- on the benefits, pros/cons, of such a -- such approach in the context of this application?

MR. PATRICK BOWMAN: Well, I'm glad I gave the long answer before, because it saves me a bit

here. SEP is a measure of short-term type of -- of cost. It's not a long-term measure. Firm is intended to be the long-term measure. So depending on your purpose, SEP may serve the purposes, or it may not.

Forward looking is always better than backward looking, in the context of -- of an economist, but it doesn't mean it's -- it's easier. It may -- it may be harder. So backward looking SEP prices probably are a poor measure for what's intended to be a forward looking long-term firm type of -- of impact.

And I don't think going over a longer horizon necessarily solves the extent to which they're accurate. It may solve the extent to which they're stable, to some degree, but I don't think it solves to the extent to which they may be accurate of what you're trying measure.

MR. BYRON WILLIAMS: Mr. Chairman, with -- with the Board's deference I probably just have three (3) relatively small areas which I'd just like to finish up and then I'll -- I'll be out of your hair for the day, with your permission.

Mr. Bowman, you described the loss of the exemption criteria in your direct evidence yesterday as, bitter sweet.

Is that correct, sir?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: And I may not have got your point totally, but you seem to be saying that there was no provision to deal -- well, let me -- let me just go -- go to the point.

Within the context of an EIIR type of application, do you see some sort of role for exemption criteria, sir?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: It's -- it's very hard to answer, because the context of an EIIR application is -- is, in a sense, irreconcilable with a regulatory framework in -- in our view. So an exemption criteria regulat -- regulated mechanism combined with an EIIR regulated mechanism is -- is just further afield from what a rate regulator would -- would normally be dealing with.

If you're having a limit on obligation to serve, like Quebec -- and they have their discussions and in their mind there's economic benefits; it may not be an exemption criteria, but something that's focussed on that -- that may be an appropriate consideration. But neither fits in the regulatory environment.

MR. BYRON WILLIAMS: Mr. Ostergaard, just one (1) question that I -- I couldn't leave, for the benefit of my clients. You talked about, in the context of BC Hydro, the use of revenues from trading of -- and how they're used within the BC Hydro system, from exports, sir?

MR. PETER OSTERGAARD: Yes, that was part of my evidence.

MR. BYRON WILLIAMS: And as -- as I understand, the -- the thrusts of your point, there's a general pins -- principle that since domestic ratepayers pay for the system, to some degree, they should benefit from it, in -- including export revenues.

Is that fair, sir?

MR. PETER OSTERGAARD: Yes, that's fair.

MR. BYRON WILLIAMS: And you noted in the BC context, the policy has tended to keep rates between 5 to 6 percent lower than -- than they otherwise would be.

Is that fair, sir?

MR. PETER OSTERGAARD: Yeah, correct, based on -- on 1 percentage point, representing about $25 to $30 million of -- of revenue requirements. Powerex's net income ranges in the $160 to $180 million per year range, on average, which translates to a revenue reduction of that percent.

MR. BYRON WILLIAMS: And as I understand your evidence, to the extent that there's a dividend over 200 million, that dividend -- or excuse me, to the extent that there's annual revenues by Powerex, over 200 million, those revenues would be paid to the -- to the province by way of dividend.

Is that right, sir?

MR. PETER OSTERGAARD: Any Powerex net income exceeding $200 million in any given year would be paid to the government in addition to the dividend that BC Hydro would otherwise be paying the government, based on the net income.

MR. BYRON WILLIAMS: And there's an ongoing debate within British Columbia as whether that $200 million limit is an appropriate limit or whether it should be higher, given the -- the risk that ratepayers are -- are absorbing within the system.

MR. PETER OSTERGAARD: Yes, it's expected that the fifth unit at Revelstoke, and possibly the sixth unit at Revelstoke, and Mica additions, as well, will create greater export opportunities, which in turn would allow Powerex to increase net incomes from the averages that I indicated in my last answer. And customer groups are suggesting that since it is domestic ratepayers that are paying for those capacity expansions, they should be

entitled to higher export revenues that those capacity additions create.

MR. BYRON WILLIAMS: And the other thing that -- that I wasn't quite clear on, I think you lerds -- used language such as if there's a downturn or a downside, the province pays out of its dividends.

Do you recall saying something to that effect, sir?

MR. PETER OSTERGAARD: Yes, if, in a very, very bad year Powerex actually has a negative net income, for whatever reason, the ratepayer is protected. That -- that loss would -- would be to the account of the government, not BC Hydro's ratepayers.

MR. BYRON WILLIAMS: And -- and can you explain to me from a policy perspective what the basis for that thinking is, sir?

MR. PETER OSTERGAARD: From a policy perspective, it is that you are trying to protect ratepayers in very, very bad years from suffering the consequences of -- of market conditions that led to a loss in any given year, in exchange for the upside in very, very good years, that ratepayers should share the benefits with -- with the shareholder.

MR. BYRON WILLIAMS: Just a last question, and it can go to either Mr. Bowman or Mr.

Ostergaard.

When I looked at the BC stepped rates approach, would it be fair to say that the rate is overall aimed at encouraging energy efficiency, it is not aimed at addressing revenue losses due to lost export sales?

Would that be a fair statement?

MR. PATRICK BOWMAN: Yes.

MR. BYRON WILLIAMS: Mr. Chairman, I'll review my notes, but I think, subject to that review, that's the extent of our cross-examination. Thank you.

THE CHAIRPERSON: Very good. Thank you, Mr. Williams. Okay, we will be back just before 11:00. Thank you.

--- Upon recessing at 10:41 a.m.

--- Upon resuming at 11:00 a.m.

THE CHAIRPERSON: Mr. Williams...?

MR. BYRON WILLIAMS: Yes, Mr. Chairman, I have no further questions. I need to leave for a couple minutes but, tell -- tell My Friend, Mr. Gange, to con -- proceed please.

THE CHAIRPERSON: Thank you. Mr. Gange...?

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

CROSS-EXAMINATION BY MR. BILL GANGE:

MR. BILL GANGE: Mr. Bowman, and panel members, I don't intend to be very long. But I -- I -- Mr. Bowman, I thought that I understood your evidence yesterday on discrimination. But then I must admit that -- that some of the questions that Mr. Williams was putting to you this morning confused what I had understood that you were saying.

And -- and as I understood it, when you were talking about the Quebec situation, and the British Columbia situation, you were saying those regimes, and -- and the -- the plans that they have in effect, with respect to industrial -- large industrial users, cannot be considered discriminatory because that legislation specifically mandates the -- the provisions that -- that apply.

Is that correct, sir?

MR. PATRICK BOWMAN: For Quebec, that's correct. BC is a -- a different situation, but for Quebec, that's correct.

MR. BILL GANGE: And -- and with respect to -- to Quebec for instance, were it not for the legislation, the fact that -- that the Quebec Hydro

Utility does not have to serve a customer at greater than 50 megawatts, would be discriminatory?

MR. PATRICK BOWMAN: Well, I don't want to end -- end up with the -- the wrong words here, so let me just make sure we can be clear.

I'm -- I'm not positive that in Quebec it is in fact enabled by legislation, but some -- it -- it is in policy documents, at least, if not in regulations, the limit -- obligations as -- the limit on the obligation to serve. But what -- what is there is the limit on 50 megawatts. Now, it used to be one seventy-five (175).

Had -- were it not there, there wouldn't be the limit on obligation to serve. They're one (1) and the same thing. The -- the Quebec government's policy decision is the limit on obligation to serve; that's how it's implemented.

MR. BILL GANGE: Yes, but -- but the -- the point is that if -- if Hydro Quebec said to a -- a customer that wanted to come in at 60 megawatts, No, we're not going to serve you, that customer would have a right to say, Well that -- you're discriminating against me, because you're serving people at less then this rate -- at less this -- this value.

Isn't that correct, sir?

MR. PATRICK BOWMAN: Well, the -- the question of saying, You're discriminating against me, I'm talking about the use of the word in the regulatory context. And so in Quebec, if a customer at 60 megawatts went to Hydro Quebec, and rather then them saying, as I would expect, Go see the government, they instead said, No we won't serve you, the customer would not be able to go before the Regie in Quebec, and argue they're being discriminated against because the customer is not -- service is not regulated by the Regie.

MR. BILL GANGE: Okay.

MR. PATRICK BOWMAN: So there wouldn't be a forum to make that argument in a -- in a regulatory context, because they're not -- they're not covered by the regulator.

MR. BILL GANGE: Yes, okay. But if -- if Hydro Quebec unilaterally, without -- without this government directive, went to the Regie -- to Quebec and said, From here on in our plan is only to serve customers at under 50 megawatts. So -- so now they are in the regulator scheme.

The large industrial users in that context would be able to say, in the regulatory scheme, This is discriminatory behaviour by -- by the Utility.

MR. PATRICK BOWMAN: Well, if -- just to

make sure I understand your question, I -- I take it what you're saying is if there weren't the government legislation or policy that's in place, that what's in place would be a normal regulatory framework for the Regie, which would say Hydro Quebec is not allowed to charge rates unless approved by the Regie. And -- but -- but there would be no limit, no discussion of 50 megawatts or anything of that sort.

And an individual customer came to Hydro Quebec and said, I would -- I want to be served, and Hydro Quebec said, No, or alternatively the customer went to the Regie, and before the Regie there was a -- effectively a -- you -- you're suggesting a -- a decision that they wouldn't set a rate for the customer. I -- I'm not sure how someone could do that.

The -- as -- as I would understand the regulatory regime, generally, without getting into specifics of Quebec, the regulator would have the responsibility to approve rates, not to disapprove service, if -- if you know what I mean. I don't -- I don't know that they have that ability.

The -- a regulated utility comes with the presumption that you get -- you start with something that's a natural monopoly and an essential service.

You give them a piece of legislation which

sets out controls on them so they can't act like monopolists but also give them protections so that some of their loads aren't picked off by others or whatever else. And -- and it's called a franchise or -- or a -- a protection that you -- within their service area, they'll be the only utility allowed to serve customers. And with that comes an obligation to serve all who would come and practically request service.

So the -- that's sort of a package, as the regulatory compact. So I don't -- I don't know how within that, either Hydro Quebec or the Regie could -- could wash their hands of a customer.

MR. BILL GANGE: Thank you. Mr. Ostergaard, as I understand it, in -- in your discussion, in terms of the testimony that you've provided to us, is a description of the process that has been set up in British Columbia, pursuant to a legislative mandate given -- given by the government and -- and direction given by the -- by the government to the BC Utility Commission?

Is that correct, sir?

MR. PETER OSTERGAARD: You're referring to a negotiated settlement process?

MR. BILL GANGE: Well, you mentioned that -- that -- that the BC Utility Commission takes direction from the -- from the British Columbia Government.

MR. PETER OSTERGAARD: Yes, under the Utilities Commission Act, the cabinet can issue directions to the BCUC, with respect to just about any matter affecting any utility, including BC Hydro.

MR. BILL GANGE: And -- and, in fact, you said that while you were the Commissioner -- or while you were the Chair of the BCUC, there was a -- a rate freeze that was in effect.

Is that correct, sir?

MR. PETER OSTERGAARD: For British Columbia Hydro, yes, there was a rate freeze through provincial legislation imposed in 1998.

MR. BILL GANGE: So -- so all of the regulator's powers -- normal powers, with respect to setting rates were -- were frozen by that legislation?

MR. PETER OSTERGAARD: For BC Hydro, yes.

MR. BILL GANGE: Yes. And -- and you're aware, sir, that -- that in Manitoba, there has been virtually no direction provided by the -- by the provincial government to Manitoba Hydro or to the Public Utilities Board, with respect to setting rates for hydro?

MR. PETER OSTERGAARD: Based on my limited understanding of the situation here, it's -- it's a logical conclusion in my own mind that the Manitoba PUB does not get the same level of direction than (sic) the

BC Utilities Commission.

MR. BILL GANGE: Yes.

MR. ROBERT MAYER: Ignoring, of course, the rate freeze which was imposed in Manitoba over a significant period of time.

(BRIEF PAUSE)

CONTINUED BY MR. BILL GANGE:

MR. BILL GANGE: Mr. Bowman, following up on -- on the Vice Chair's commentary 'cause I'm -- I'm not certain of the answer to this, Mr. Vice Chair, was that rate freeze imposed by the provincial government, that -- that the Vice Chair is referring to?

MR. PATRICK BOWMAN: The -- I -- I'm aware of two (2) items. I'll give you what I know on the subject and we'll see if it gets -- the more recent example of the government giving direction on a matter that was determined to be a significant public policy matter was the uniform rates legislation.

It was announced in a throne speech. It was the subject of an application by Manitoba Hydro to this Board to implement uniform rates. The Board started to set out a process, and then it was clarified by the legislature that they were going to implement it by

legislation. So the application was withdrawn and there was a -- legislation brought in.

As -- if you go way back, prior to the current regulatory regime that we're dealing with now, there was a long period of Manitoba Hydro rate freeze. And it -- it's far back in my memory banks the exact date, but it would have been before the Crown corporation's act was put in place. And -- and I recall that that was pursuant to some government action, but I don't know that -- the details, as whether it was legislation or -- or directives or how it worked.

MR. BILL GANGE: Currently, in any event, the -- the -- it's clear that -- that -- that the provincial government has taken a hands-off approach, with respect to the direction of -- of rates, and -- and setting of -- of rate design by Manitoba Hydro.

Is that correct, Mr. Bowman?

MR. PATRICK BOWMAN: Well, the only rate matter that I can recall them dealing with that was declared to be a significant public policy matter was the uniform rates legislation.

The previous rates-related discussions before that, I think, went to the mid to late '90s, when the Public Utilities Board Act was changed to, for example, allow forebearance on certain rates and -- and

that sort of thing.

But I -- I don't recall, or it doesn't come to the front of my mind at least, other -- other legislative changes or -- or items in -- in the meantime.

(BRIEF PAUSE)

MR. BILL GANGE: And -- and the current regime, as you've discussed, Mr. Ostergaard, in -- in British Columbia is that if a customer comes and wants to use over 150 megawatts, they are going to be required to pay upfront capital costs of -- of some -- pursuant to some calculations. Is that correct?

MR. PETER OSTERGAARD: That's correct. They would be paying generation costs and perhaps some reinforcements to the 500 kV transmission system, depending on the project.

MR. BILL GANGE: You also indicated that the -- that the -- that, as I understand it, pursuant -- is it pursuant to legislation that -- that the -- the rates have to be uniform throughout the classes?

MR. PETER OSTERGAARD: There is no explicit legislation in the Utilities Commission Act or the BC Hydro and Power Authority Act that does stipulate that, but that's a convention that has been adopted.

BC Hydro, for example, has different rate structures based on whether you're a part of the integrated system or whether you're a diesel generating -- generator customer.

MR. BILL GANGE: And what you did testify about was that -- that the -- that the rate structure is designed to be revenue neutral, with respect to the inclining rates for the classes themselves.

Is that correct, sir?

MR. PETER OSTERGAARD: With respect to industrial customers, the stepped rate system is meant to be nev -- revenue neutral at the level of the individual industrial customer, provided that industrial customer consumes 100 percent of their customer baseline load.

For the residential inclining block rate structure, which was very recently adopted, the -- the revenue neutrality applies at the rate class level.

MR. BILL GANGE: Right. And -- and again, is that -- is that pursuant to convention, or is that pursuant to some other mechanism?

MR. PETER OSTERGAARD: It would be pursuant to convention, whereby, as in other jurisdictions, rate design proceedings have occasionally suggested that the -- the banding between the ninety (90) to one hundred and ten (110) band be amended so that the

customers move towards point -- move towards one point zero (1.0), which has occasionally happened in -- in British Columbia.

There was a rate design proceeding earlier this year which was subsequently -- had its decision overturned by legislation as part of the Utilities Commission Amendment Act in the spring of 2008, where the government did not want to see resident -- did -- did not want to see the decision of the Commission implemented.

MR. BILL GANGE: I understand, from what you said, that the -- that the -- in terms of the inclined rate for the industrial class, the second tier is set on -- on market price, in terms of what can -- what power can be purchased for.

MR. PETER OSTERGAARD: The second tier is based on BC Hydro's most recent costs for electricity, based on their calls for proposals from independent power producers.

MR. BILL GANGE: Yes, and that would -- that -- that rate is what, seven point three (7.3) cents? Is that --

MR. PETER OSTERGAARD: Yes --

MR. BILL GANGE: Yes.

MR. PETER OSTERGAARD: -- seven point three six (7.36) cents, I believe, is the rate for the

current year. For last year it was five point four (5.4) cents per kilowatt hour, based on the 2003 average price in the ream (phonetic) call in 2003.

MR. BILL GANGE: So it's gone up quite substantially during that -- that time period?

MR. PETER OSTERGAARD: That's correct.

MR. BILL GANGE: Okay. And -- and the other thing that I understood that -- that you said was that using that, the -- the inclining rate has had quite a considerable impact in -- in terms of customer usage?

MR. PETER OSTERGAARD: Yes, the Information Request responses that were submitted contained both of the first two (2) annual reports by BC Hydro on the transmission service rate for the first two (2) years of operation.

And they go into considerable detail with respect to the DSM savings that have been achieved by the inclining block rate structures over the first two (2) years.

MR. BILL GANGE: So then in terms of -- in terms of -- if one of the -- the purposes of the inclined rate is to promote DSM measures, to promote conservation, this has been quite an effective tool, in -- in the experience of BC Hydro?

MR. PETER OSTERGAARD: I believe that's a

fair interim conclusion. The intent is to have an evaluation starting, likely, in early to mid-2009 as part of the process as contemplated initially, whereby the BCUC will hold a proceeding and prepare an evaluation report on the success, or otherwise, of the stepped rate structure for industrial customers and submit it to the government by the end of 2009.

MR. BILL GANGE: And I take it, from what you -- what you said in your testimony, that it's been such a success that at least one (1) of the consumer groups in British Columbia has taken issue with it to say that it's -- it has created a system imbalance, because the -- the first rate block is set at a lower rate than it ordinarily would be. And so there's a revenue shortfall coming from -- from the industrial group.

Is that correct, sir?

MR. PETER OSTERGAARD: I believe the concern of a consumer group is that because rates are set on a forward-going basis and customer baseline loads are set based on actual consumption in the past, there seems to be a pattern of under-collection for industrial customers as a class, as opposed to whatever the Tier 1 or Tier 2 rate is.

That -- that is not the -- that is not the issue in -- it's my understanding, with respect to what

the consumers groups are concerned about.

(BRIEF PAUSE)

MR. BILL GANGE: And -- and I also understand that -- that part of the process, in terms of the BC model, is that the other rate groups ought not to be suffering the cost of expansion.

And -- and to protect against that, there's that 150 megawatt limit over which a new customer is going to have to pay for the capital expansion.

Is that correct, sir?

MR. PETER OSTERGAARD: Generally, yes, if we're talking now about new industrial loads, none of which have occurred over that threshold since the tariff supplement was put in place in 1991.

MR. BILL GANGE: So it may well be that it's -- it's serving as a -- as a very effective deterrent to what might be labelled as an economic growth.

MR. PETER OSTERGAARD: I believe the -- the -- well, 150 MVA translates roughly, according to the engineers, to be about 150 megawatts.

The largest expansion since the tariff supplement was put in place, to my understanding, is the

recent Kinder Morgan pipeline compressor station reinforcements, which are described in my evidence, as I recall, in the 55 to 60 megawatt range, so less -- approximately a third of -- of that threshold is the largest expansion since '91.

MR. BILL GANGE: But -- but I -- am I right that the theoretical thought on this, though, is that if you -- if you make the customer pay for that expansion himself or itself over a 150 megawatts, then you're protecting the other rate classes from the cost of expansion?

MR. PETER OSTERGAARD: Certainly the capital cost, yes. I can -- I can cite a letter from BC Hydro to the BC Utilities Commission, which is dated December 13th, 2002. And this is in the context of the Alberni Aluminium complaint to the Commission about that very issue.

One of the questions from the Commission staff was:

> "Please explain BC Hydro's position with regards to its reliance on the 150 MVA limit for the supply of new loads."

And Hydro's answer is:

> "The 150 MVA limit appears in the definition section."

I'm attempting to paraphrase here. BC Hydro submits that this wording makes it clear that for loads in excess of 150 MVA, system reinforcement does not stop downstream of the 500 kV system, but instead carries all of the way upstream to the generator.

The clause is intended to affect the cost sharing such that the existing customers are, from a revenue requirement perspective, relatively indifferent as between whether or not a new customer has joined the system. That is, the new customer should not affect the BC Hydro's return on Rate Schedule 1821 rate base; so to try to keep the industrial class relatively whole and thereby not having effects that could spill over onto other rate classes.

(BRIEF PAUSE)

MR. BILL GANGE: And as I understood it, sir, your evidence has been that -- that BC has been wrestling with this issue of how to deal with large industrial users for -- is it twenty-five (25) years?

MR. PETER OSTERGAARD: I believe I put that year in my -- my direct evidence yesterday, based on the fact that it was the early 1980s when BC Hydro and its industrial customers attempted to first reconcile the

need for a facilities agreement to accommodate new loads and a system -- a standard system form agreement to -- to make uniform the -- the existing contracts at that time between BC Hydro and their industrial customers.

MR. BILL GANGE: And, Mr. Bowman, how long has it been that -- that Quebec Hydro has been dealing with this -- the issue of large industrial loads; setting that limit?

I -- I think that you said at first it was a hundred -- did you say it was a hundred and fifty (150), and -- and then it was reduced to -- to fifty (50)?

MR. PATRICK BOWMAN: The reduction to 50 megawatts was from a hundred and seventy-five (175). That occurred, as I recall, about two (2) -- well, it was -- there was a policy discussion that the government undertook on -- on broad energy policy that occurred over about two (2) years, as I recall, from 2004 to 2006. The 50 megawatt limit didn't actually get enshrined in the -- in the utility's terms and conditions until probably early 2008.

But prior to that, the 175 megawatt limit goes back as -- as far as we can find documents going -- is probably to the '80s.

MR. BILL GANGE: Is it fair to say that

of -- of these Crown corporations, therefore, that up until recently, Manitoba Hydro would be unique in that it was the only -- of the three (3), it was the only one that wasn't dealing with the problem of -- of large industrial growth?

MR. PATRICK BOWMAN: I don't know that I can say that for sure, only because you'll see BC's situation arose -- you know, was being dealt with in the -- in the early/mid-'80s. Hydro Quebec's probably dates from at least that period, if not before.

That was a period where Hydro -- Manitoba Hydro wasn't regulated in the same way by this Board. So if that was, you know, topics that were being discussed, it -- it wouldn't have been something that would have showed up before this Board.

Since that time, when you look at the type of limits that were in place, BC's and Quebec's, Manitoba Hydro's never added a load of that size in -- in, you know, twenty (20) years. As a matter of fact, I'm not sure -- I don't know how far you'd have to go back before a single 150 megawatt load would have been added to the system, if -- if ever in Manitoba. I'm -- I don't -- I don't know for sure.

It's been -- it's been a different situation of, you know, incremental changes or -- or

additions of a plant here or there. But these are triggered by -- by sort of major shifts in system, not -- not someone adding 10 megawatts in one (1) given year.

MR. BILL GANGE: You would agree with me, Mr. Bowman, though that Manitoba is in a significantly different situation than both British Columbia and Quebec, in that clearly the Quebec Government has taken an activist role in terms of assessing what new industrial growth should take place, and so has the British Columbia government?

Is that correct, sir?

MR. PATRICK BOWMAN: I -- I will speak for the Quebec one. To my knowledge, yes, the Quebec Government has very much taken an activist role in dealing with very large industrial loads. I could let Mr. Ostergaard speak to the extent to which the BC government has taken an activist role in dealing with large industrial loads.

MR. PETER OSTERGAARD: The BC government realize on Tariff Supplement 6, as negotiated and approved in 1991 -- unless there are other circumstances by which the government would like to come up with a different solution, and I cited the example of the northwest transmission line as -- as a particular example of that -- the government was not willing to change the

rules of Tariff Supplement Number 6, in response to the request of this particular aluminum smelter that prompted the complaint to the BC Utilities Commission.

But in general, the British Columbia Government relies on BC Hydro's system, the self-sufficiency policy to ensure that British Columbia has enough electricity at all times to meet load growth, whether it be industrial, commercial, residential of any sort.

MR. PATRICK BOWMAN: If -- if I just -- supplement the answer, because I think it may be helpful. These aren't the only two (2) examples in Canada at all. In Yukon there was the case of the Faro Mine which, was 40 percent of the load of the system. And the regulatory tribunal there dealt with the comings and goings of the Faro Mine within the -- the rules -- within -- within regulatory principles and rate setting.

But at times there was a key public policy aspect to that customer and -- and there were some directives from government, in respect of things like re-hooking up the mine when it still had outstanding bills; it came through an order in council.

And of course if anyone is watching the news, you'll see that in Newfoundland, industrial users of power is a -- is an issue d'jour, with respect to a

paper mill closing and having their -- their Hydro assets expropriated by the province.

So the idea that large industrial customers beyond a certain threshold attract the attention of government when necessary, is not -- is not all unique across Canada.

MR. BILL GANGE: But what is unique is that -- is the fact that in Manitoba the provincial government has left it to the PUB process to develop the -- the concept of how to deal with -- with large industrial growth.

Is that correct, Mr. Bowman?

MR. PATRICK BOWMAN: It -- it may be unique or it may not be. Only because I say that provincial governments have dealt with matters related to large industry where they've been determined to be significant matters of public policy.

It may be not unique in that Manitoba doesn't determine this to be a matter of significant public policy. I -- I can't comment on that. I don't see much on the record in respect to the -- the government's role here, so I -- I'm afraid I can't offer anymore.

(BRIEF PAUSE)

MR. BILL GANGE: Mr. Bowman, during your testimony yesterday, did -- did you say that industrial users no longer receive a subsidy from the export profits in their rates?

Is -- was that the effect of what you were saying?

MR. PATRICK BOWMAN: I was saying, as that term -- that -- the sub -- the definition of subsidy, as people use in this room, changes frequently.

Under one of the more typical definitions, to the extent it arises, it would be the extent to which, when you look at Hydro's costs, any individual customer class is paying their share of Hydro's costs.

We have seen cost of service studies where Hydro effectively takes all net export revenues and credits them back to all of the customer classes in -- in proportion, or in relation to the formula in place at the time, to determine whether customers are paying their costs.

But you can also do that calculation before you credit those net export revenues. In the Cost of Service Studies until recently, we -- those RCC ratios, revenue to cost coverage ratios, would have showed some customer classes higher and some customer classes lower than costs once they received an allocation

of the net export revenues.

What's changed is that if you go to that earlier revenue cost coverage type of measure, that looks at the extent to which each customer class is covering their system costs before crediting net export revenues, we now have a major class -- large industry -- above 100 percent RCC at -- at that measure -- so before any net export allocation.

Once the export revenues has been assigned a fair share of embedded costs, but before any net export -- net export rev -- revenue allocation, the industrials are more than covering their costs. My recollection is street lights may be as well.

But we're -- we're getting to the point where export revenues that are received in excess of the costs to -- to Manitoba Hydro to supply them on a -- on an average cost basis are -- are now only used for a very -- a smaller group of customers in order to keep their rates down.

MR. BILL GANGE: But -- I -- I take it that what you're saying is it -- it depends upon how you define "subsidy."

There -- there's no question but that -- that a portion of the net export profits are applied to the GSL customers?

MR. PATRICK BOWMAN: Well, we have plants -- Hydro incurs substantial costs, as we reviewed in the Cost of Service Study, to serve exports.

It receives revenues from those exports, but it incur -- incurs substantial costs. Some of those are incremental costs, like fuel it runs when it can make good money in export markets. Some of them are sunk capital costs. But they're still being used, those assets, to serve exports.

So as a result of that, we did a Cost of Service review and we determined a fair way to allocate the cost of the assets to each kilowatt hour that's using them.

Once you've done that, you have a cost to supply each type of load, and then you can determine whether some loads are paying above cost or some loads are paying below cost. It could be measured as a revenue cost coverage ratio.

If you were to do that, my recollection is you'd find exports or about 140 percent of costs, or something of that nature, street lights and industrials are about 100 percent of costs, and other customer classes are below cost.

And, so what we do is we take that 40 percent from exports and we assign it off to those --

that -- that subset of -- other subset of classes so they don't have to pay their 100 percent of -- of cost measured on the assets. They get -- the -- the net export allocation.

And that, in the normal context of reading a -- a Cost of Service Study in a regulated jurisdiction is where someone may go to the term "subsidy," the -- the -- an ongoing ability to pay less then -- then the allocated cost to serve you.

But as I said, I don't -- I don't believe that's true anymore for street lights, and -- and as of -- as of this last rate change, it's not true for the industrial class either.

MR. BILL GANGE: Thank you, Mr. Chair, those are my questions. Thank you, panel.

THE CHAIRPERSON: Thank you, Mr. Gange.

Ms. Ramage for Manitoba Hydro...?

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

(BRIEF PAUSE)

CROSS-EXAMINATION BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Mr. Ostergaard, would you agree with the proposition that the reason for

pursuing reform and, by implication, the kinds of reform best adopted are a function of a jurisdiction's particular conditions?

MR. PETER OSTERGAARD: I guess the -- the way one views these issues is shaped by one's experiences.

MS. PATTIE RAMAGE: But that particular proposition, I've actually pulled it from your evidence, and it was a Dr., I think, Mark Jaccard you attributed it to.

Do you agree with tha -- that --

MR. PETER OSTERGAARD: I'm sorry. Could you repeat the question?

MS. PATTIE RAMAGE: -- that proposition? And the proposition was the reason for pursuing reform, and by implication, the kinds of reform best adopted are a function of a jurisdiction's particular conditions.

I -- I found that at page 30 of your evidence, at line 12.

(BRIEF PAUSE)

MR. PETER OSTERGAARD: Certainly, the -- the statement came from Dr. Jaccard's report as the advisor of the -- of the report under the Inquiry Act

that he was asked -- asked to prepare, and he titled it, "Reforming BC's Electricity Market: A Way Forward."

And in general, yes, I would agree with his -- his statement in that report, that the reasons for pursuing any reform are a function of a jurisdiction's particular conditions.

MS. PATTIE RAMAGE: Thank you. Now, I think I heard you say today the BC Government has directed BC will be electricity self-sufficient by 2016.

Is that correct?

MR. PETER OSTERGAARD: That's correct, BC will be electricity self-sufficient by 2016 under the 2007 energy policy.

MS. PATTIE RAMAGE: And is it your understanding that Manitoba is it -- no -- Manitoba is electricity self-sufficient today?

MR. PETER OSTERGAARD: I don't have a straight answer for the question. Perhaps Mr. Bowman can help me.

(BRIEF PAUSE)

MR. PATRICK BOWMAN: The -- just -- just to help out, the -- the definition, as it's used in BC for self-sufficiency, is that under the most critical

water conditions, there needs to be enough generation in -- within the province of BC to meet all committed loads.

And Mr. -- I see Mr. Ostergaard nodding --

MR. PETER OSTERGAARD: That's correct.

MR. PATRICK BOWMAN: -- so I'm assuming I've got it right. And -- and in respect of committed loads, my understanding would be BC doesn't have committed exports the way Manitoba does, so I presume it means domestic loads. But, again, Mr. Ostergaard can correct me.

Manitoba -- in other words, you would -- you would look to the system Power Resource Plan type of tables, take the total power resources, and take off the imports line -- because even committed imports wouldn't qualify under BC's type of system -- and compare that against the 2008 base load forecast.

And in respect of that, if I look through the -- the scenarios, it would -- it would be true today by, I'm -- I'm guessing, about 1 terawatt hour. Whether it's true all the way through the power resource planning forecast, I can't say.

It seems to me there may be a year or two (2) where it's -- where it may not be covered as you get further out, but it would -- under that type of definition, it would appear to be true today.

MS. PATTIE RAMAGE: Thank you. And in BC's case, it's BC Hydro who has indicated it plans to meet the self-sufficiency objective in part by purchasing more power from IPPs.

Is that correct?

MR. PETER OSTERGAARD: That's correct. Purchasing more power from IPPs, more aggressive demand-side management to flatten the growth curve by 50 percent by 2020, and investigate Site C as a possible new BC Hydro resource -- supply-side resource acquisition.

MS. PATTIE RAMAGE: I'm glad you mentioned Site C, only because you can maybe clarify something. I thought I read somewhere that there was direction from BC government, not -- for BC Hydro not to build its own new generation. But when we talk about Site C, that would be some BC Hydro generation, would it not?

Is there a -- any sort of a direction from the government for BC Hydro not to build its own?

MR. PETER OSTERGAARD: There's a statement in the 2002 Energy Plan say -- that says that BC will -- BC Hydro will acquire all new supply-side resources from independent power producers, with the exception of large new hydro projects, including Site C.

If Site C is to be pursued by BC Hydro,

the final decision will be made by Cabinet.

MR. ROBERT MAYER: Where is Site C, please?

MR. PETER OSTERGAARD: Site C is the third project on the Peace River. It's just southwest of Fort St. John, downstream from the W.A.C Bennett Dam, which is BC's largest, and the Peace Canyon project, which was built subsequent to the -- the Bennett Dam.

It would be the third and final project on the Peace. I -- I might add that there was a serious attempt to have Site C built in the 1980s. However, the report and recommendations from the BC Utilities Commission with respect to issuing an energy project certificate were submitted to government and accepted.

Those recommendations were that basically Site C was not needed for domestic purposes at the time.

MS. PATTIE RAMAGE: One of the objectives of BC's transmission service rate was to create a level playing field for IPPs to compete with BC Hydro for customers of Tier 2 load.

Is that correct?

MR. PETER OSTERGAARD: That's one of the policies in the 2002 Energy Plan, yes.

MS. PATTIE RAMAGE: And there are presently approximately forty-five (45) IPPs operating in

BC.

Is that about right -- sound right?

MR. PETER OSTERGAARD: That's about right. It's about 7,000 gigawatt hours a year in total, mostly from small hydro projects.

MS. PATTIE RAMAGE: And the Tier 2 rate in BC is set on BC's average long-term opportunity cost of new supply, specifically, the average price paid to new independent power producers under the most recent call for tender.

Is that correct?

MR. PETER OSTERGAARD: That's correct. The most recent call was the summer of 2006, deriving a price, as was mentioned a few minutes ago, in the range of seventy-three dollars ($73) per megawatt hour.

There is a current call, which may well set the price in future.

MS. PATTIE RAMAGE: Now, I noticed in your evidence that you used the term "new independent power producers." I'm just wondering if there was any significance in the term. That was at page 4. And if there's no significance, that's not a problem.

But it did say "new independent power producers," and I'm wondering if there was significance between a new independent power producer and -- and an

old and existing, or...?

MR. PETER OSTERGAARD: And the line on page 4, please, Ms. Ramage?

(BRIEF PAUSE)

MR. PETER OSTERGAARD: That can be a redundant --

MS. PATTIE RAMAGE: Twenty-five.

MR. PETER OSTERGAARD: Yes, thank you. Paid to independent power producers. I think the -- the context of the word "new" might be some companies develop projects under different calls. So if Company A had a project under the 2003 call and a new project under the 2006 call, then the 2006 call price would apply in calculating the average.

MS. PATTIE RAMAGE: Okay. And it's my understanding that BC Hydro presently has eighty-seven (87) active energy purchase agreements with IPPs.

Does that sound about right?

MR. PETER OSTERGAARD: Yes, there's several -- several IPPs that are under construction and have yet to deliver. The eighty-seven (87) number, I cannot comment whether it's the exact number or not, but

it sounds about right.

MS. PATTIE RAMAGE: Now, in the 2006 call for tenders you referred to, it's my understanding BC Hydro awarded thirty-eight (38) separate contracts.

Is -- would that be correct?

MR. PETER OSTERGAARD: My recollection of a number is in the high thirties, yes.

MS. PATTIE RAMAGE: And that would be a pure tender process, in terms of the terms of the contract were worked out ahead of time so that each IPP essentially wrote in -- would insert a figure in the -- in the blank for how much they would offer energy at.

Is that correct?

MR. PETER OSTERGAARD: It was a competitive call with respect to the exact rules. I cannot verify the -- the exact filling in the blanks concept here. I think the important difference between the 2006 call, which was a call for tenders, and the current 2008 call, which is more of an expressions of interest, is that the current 2008 call will allow BC Hydro some negotiation room. That did not occur with the 2006 call.

MS. PATTIE RAMAGE: That's -- we're -- we're working from the same page, which is good news.

Now, it's my understanding that the

average levelized price from these contracts are publically disclosed, but they're not tied back to the particular IPP that offered the price. Would that be correct?

Maybe I should clarify that the IPP's identity is not disclosed, just the average of the -- the thirty-eight (38) contract numbers?

MR. PETER OSTERGAARD: That's -- that's correct, yes. The BC Utilities Commission has a statutory requirement to approve each of these contracts. They are submitted individually in confidence to the BC Utilities Commission, and they remain in confidence.

MR. ROBERT MAYER: So the Utilities Commission always has the exact numbers, but it's -- it's kept under wraps.

So the public doesn't know, but the commission itself does?

MR. PETER OSTERGAARD: That's correct. The public does not know what Plutonic Power bid in for their Toba Montrose project. But the Commission had to know that number before it could approve the contract.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: In British Columbia, are industrial customers able to use a transmission

tariff to purchase energy directly from suppliers outside of BC?

(BRIEF PAUSE)

MR. PETER OSTERGAARD: Yes, under the Open Access Transmission Tariff they would be able to do that, but they don't.

MS. PATTI RAMAGE: And they're definitely able to purchase directly from IPPs -- provincial IPPs for their second tier load.

Is that correct?

MR. PETER OSTERGAARD: Yes, it is.

MS. PATTI RAMAGE: And again, they don't?

MR. PETER OSTERGAARD: None -- none to date have chosen to do so.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Mr. Ostergaard, BC Hydro is a net importer of energy; is that correct?

MR. PETER OSTERGAARD: Yes, in -- I believe it's in seven (7) of the last -- six (6) or seven (7) of the last eight (8) years, BC Hydro has imported between 3 and 13 percent of its domestic supply

requirements. Fiscal '08 was a bit of an exception, because it was a very high water year.

I should clarify that they are net importers because they have chosen to do so for economic reasons to avoid running the 900 megawatt Burrard Thermal Generation Plant.

(BRIEF PAUSE)

MS. PATTI RAMAGE: And Powerex, Powerex is a power trader that enters into short-term market transactions.

Is that correct?

MR. PETER OSTERGAARD: Powerex is a wholly owned subsidiary of BC Hydro. It's full name is the BC Power Exchange Corporation. And they focus on near to midterm trades of both electricity and also, to a lesser extent, natural gas.

MS. PATTI RAMAGE: Now, it's my understanding that it wouldn't be accurate to say Powerex handles a 100 percent of BC Hydro's exporting activities in that BC Hydro has two (2) long-term firm export commitments, one in Alaska and -- and the other in Washington.

Does that sound correct?

MR. PETER OSTERGAARD: Yes, BC Hydro supplies the very, very small settlement of Hyder, Alaska, which is across a bridge from Stewart, British Columbia, which is served by a 138 kV line from Meziadin Junction in Northwestern British Columbia.

So it makes much more sense to serve that very small community of Hyder through the BC Hydro integrated system than requiring utilities in Alaska to install a diesel generator.

There's also a commitment to supply Seattle City Light with long-term electricity as a result of what's called the Skagit Treaty. Seattle City Light is a municipally owned utility serving the city of Seattle.

One of its main generation sources is the Ross Dam on the Skagit River. The Skagit River rises in British Columbia, but flows into Washington state. The Ross Dam generates, as I mentioned, much of the electricity. In the 1970s and early 1980s Seattle City Light wanted to raise the level of the High Ross Dam, which would have flooded the reservoir back into British Columbia.

And to prevent that from happening, a treaty was -- an agreement was reached that was culminated in legislation in BC that allows BC Hydro to

sell electricity that would otherwise have been generated by the incremental generation at the High Ross Dam at a price approximating the generation cost of that High Ross Dam.

So we had a win-win situation, where we avoided flooding bottomland in British Columbia, and at the time, providing a new export market for what, at the time, was surplus electricity in British Columbia.

None of those volumes are particularly significant, particularly Hyder. If you've been to Hyder, Alaska, you can appreciate that it's not a metropolitan area.

MS. PATTI RAMAGE: It's hard not to make a Sarah Palin joke right now but...

MR. ROBERT MAYER: You could ask if you could see Russia from there.

(BRIEF PAUSE)

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: Would I be correct that, while the BCUC reviews the revenues and energies delivered under those export contracts, the actual terms and conditions haven't been reviewed publicly?

(BRIEF PAUSE)

MR. PETER OSTERGAARD: I'm sorry. For the IPPs or for the --

MS. PATTI RAMAGE: This is for the -- your two (2) -- your Alaska and Washington contracts.

MR. PETER OSTERGAARD: Oh.

MS. PATTI RAMAGE: Has the BCUC looked at the actual terms as opposed to the revenues and energies delivered?

MR. PETER OSTERGAARD: I can't answer that question with respect to the Hyder contract. With respect to the Skagit one, since it is in legislation, I would expect that the BCUC's involvement was minimal to nonexistent.

But I'm afraid I -- I can't -- I can't answer your question with full confidence, with a -- with a yes or a no.

MS. PATTI RAMAGE: Now Powerex's transactions, they're not regulated by the BCUC, correct?

MR. PETER OSTERGAARD: That's correct. Powerex is a non-regulated subsidiary.

MS. PATTI RAMAGE: So again, BCUC would see the energy transactions between BCUC -- or, sorry -- between BC Hydro and Powerex and revenues received by

virtue of those transactions and its jurisdiction over BC Hydro, but it wouldn't see Powerex's contracts with third parties or any specific pricing information, correct?

MR. PETER OSTERGAARD: That's correct.

MS. PATTI RAMAGE: Now I heard you say Powerex's net income is -- net income between zero and 200 million is essential -- is turned over to ratepayers as an offset to BC Hydro's revenue requirement?

MR. PETER OSTERGAARD: That's correct. Through the trade income deferral accounts, those revenues are evened out over time as one of the four (4) or five (5) deferral accounts that attempt to smooth rates for -- for ratepayers.

MS. PATTI RAMAGE: And just as a clarification, and -- you indicate at page 32 of your evidence, that the 200 million goes to the shareholder. But you also said BC Hydro -- any amount above 200 million goes to the shareholder, but BC Hydro's the -- it's a wholly owned sub of BC Hydro.

You meant any amount goes to the government or --

MR. PETER OSTERGAARD: I'm sorry, yes. The -- the -- any amount over 200 million would go to BC Hydro's shareholder, the government.

MS. PATTI RAMAGE: And I heard this

morning if Powerex loses money or -- that loss comes off payments to the province, and that would -- just to confirm, that would be dividends or power or water rentals?

MR. PETER OSTERGAARD: It would be dividends.

MS. PATTI RAMAGE: You've indicated in your evidence that Powerex's trade income has averaged in the range of $160 to $180 million, and this results in rates being reduced by approximately 5 to 6 percent, other than what they -- than what they would have been otherwise.

Is that correct?

MR. PETER OSTERGAARD: Yes.

MS. PATTI RAMAGE: And in a good year, such as '06/'07, when you were -- when water was plentiful and Powerex's net income was 259 million, 59 million would go to the prov -- to the province, and the offset to revenue requirement would be limited to 200 million, correct?

MR. PETER OSTERGAARD: That's correct. And the -- not necessarily because it was a good water year. It was a good trading year.

MS. PATTI RAMAGE: You've -- so you've caught me in my Manitoba Hydro mindset.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Now, assuming BC Hydro's costs are relatively consistent as between, for example, the '06/'07 year -- which was an over 200 million year -- and the typical year you'd described -- that's the hundred and sixty (160) -- the $100 million year -- the impact from Powerex's trade income is effectively capped as -- as being able to make rates approximately 6.5 percent lower than what they otherwise would have been -- at a -- 6.5 percent is what I calculate the $200 million amount to result in, in terms of benefits to rates.

Does that sound about right?

MR. PETER OSTERGAARD: Yes, based on one (1) percentage point being about $30 million of revenue requirements.

MS. PATTI RAMAGE: And on the other side of the coin, if we move from that two hundred dollar ($200) -- $200 million year and the next year is a bad trade year and there's no net income available for distribution to the ratepayers, or worse, a lot -- loss appears, the domestic rates won't increase by more than that same 6.5 percent, or they shouldn't?

MR. PETER OSTERGAARD: They shouldn't.

And because the revenues go into a trade income deferral account, the impact would likely be better than zero, depending on what's in that trade income deferral account and its amortization period, combined with the other deferral accounts that attempt to smooth rates.

MS. PATTI RAMAGE: So the existence of the $200 million cap policy -- I'm using "policy" in a loose term -- it essentially acts as a collar for ratepayers?

MR. PETER OSTERGAARD: Yes, the $200 million is actually defined in a special direction as well. It's more than a policy.

MS. PATTI RAMAGE: Moving on to the -- I'm calling it Service Extension Policy; I think it's TS-6 in your vernacular. A lot of questions I can check off my list -- have been asked so I'll.

But the one that I was wondering about is if you could advise the Board over what period of time that 150 MVAs would be calculated.

For example, if we had a customer who indicated it was expanding in 2008 at 100 MVAs, the next year, twenty-five (25), and the next year, twenty-five (25), is there a time limit that you would calculate their expansions?

MR. PETER OSTERGAARD: As I mentioned in

my evidence and once this morning, Tariff Supplement Number 6 is not a perfect document. And to my recollection, the existing Tariff Supplement Number 6 does not contemplate that scenario.

However, it's -- would seem apparent that if BC Hydro was in discussions with a new load of that size, it would become fairly apparent if they were gaming the -- the tariff in an attempt to avoid a higher contribution over time.

(BRIEF PAUSE)

MS. PATTI RAMAGE: So would I take that to say that a stage introduction of load would be considered under -- under TS-6?

MR. PETER OSTERGAARD: I would expect once a new load over a period of two (2) or three (3) years hit that 150 MVA threshold, then they would be billed for -- in the same way they would be billed if it was all done at once. It would likely end up before the BCUC.

MS. PATTI RAMAGE: And I think I read this in your -- in your evidence somewhere, but you could help me that TS-6 does have some room for interpretation? Is that right?

Is that the type of interpretation you'd be looking to?

MR. PETER OSTERGAARD: That sounds like a good example of the interpretation, based on my knowledge. The one -- the example I used earlier was when two (2) or three (3) or four (4) new mining loads would be coming on at roughly the same time, which in aggregate would be above that 150 mega -- megavolt ampere threshold, but not at the individual level.

MS. PATTI RAMAGE: Thank you, Mr. Ostergaard. Mr. Chair, it -- I'm looking at the time and it's about noon. I may have one (1) or two (2) questions once I've had an opportunity to speak to Mr. Wiens about what we heard this morning. But perhaps I could just come back on and advise the Board after -- I think we're hearing from presenters at 1:15 and then coming back up?

I think Mr. Peters could pretty much count on coming on very shortly after that time.

THE CHAIRPERSON: Mr. Peters, just for advice, we had scheduled the presenters for 1:15. It seemed to make some sense not to hold them up and let them come in now. What do you think?

We have got two (2) options. We could carry on with Ms. Ramage and then go over to you and then

go to re-direct and then bring the presenters on, or we could interrupt the flow and have the presenters.

MR. BOB PETERS: I'm sorry. I am -- I suggest that 1:15, we hear from the presenters and I might look to my colleague opposite to provide us with an indication as to who those will be. But I say 1:15 would be the appropriate time.

MR. ROBERT MAYER: Are we going to have some time limits on that?

MR. BOB PETERS: None intended, but -- well, I'll find out if their presentations are expected to be lengthy and let the Board know.

THE CHAIRPERSON: Okay, that is fine. We will see you back at 1:15.

Mr. Landry, do you know how many presenters there will be?

MR. JOHN LANDRY: I'm informed -- and I will check on this, but I believe there might be four (4).

THE CHAIRPERSON: Thank you.

--- Upon recessing at 12:00 p.m.

--- Upon resuming at 1:16 p.m.

THE CHAIRPERSON: Okay, welcome back

everyone. We did schedule to have presentations at 1:15, so 1:16 is not too bad.

Mr. Landry, would you introduce the presenters, please?

MR. JOHN LANDRY: Mr. Chair, what I would like to do is hand it over to Mr. Turner, who has appeared before here -- the Board, and he will introduce himself and his fellow presenters, if that's okay with the Chair.

THE CHAIRPERSON: That is fine. Welcome back, Mr. Turner.

PRESENTATION BY MR. BILL TURNER:

MR. BILL TURNER: Mr. Chairman and members of the Board, as you are aware, my name is Bill Turner. I am the plant manager at Canexus in Brandon. And since November of 2000, I have been chairman of the MIPUG association, or group of members.

The members that we have currently in the group are ourselves, Canexus, Vale Inco, Hudson Bay Mining and Smelting, ERCO Worldwide, Enbridge, Tolko Manitoba, Koch Fertilizers, Griffin Canada, Gerdau Ameristeel, and TCPL Keystone.

With me today I have some of our members here that will also be speaking. Kaare Svidal from

Enbridge, Wayne Schroeder from Vale Inco, Dave So -- Dave Forsyth and I believe Mike Sarafolean from Gerdau will doing the speaking today.

We do have some written presentations that we will give out at the end of the -- at the end of the conversations. Two (2) of our members will be supplying that, so hopefully we can submit that at a later date.

I would like to thank you for the opportunity to make this presentation today. We would be happy to answer questions from the Board after the presentations.

MIPUG is an association of major industrial companies operating in Manitoba, and the -- and has participated as an Intervenor in each of the Board's reviews of Hydro rates since 1988, as well as the Board's review of Hydro's major capital projects in 1990.

The purposes of the association is to work together on issues of common concern related to electricity supply and rates.

MIPUG members together account for over 25 percent of Hydro's domestic sales. In total, MIPUG members employ over forty-five hundred (4,500) people, have a replacement value in their -- of their assets in Manitoba of over $2 billion, and sell over 90 percent of the products we produce outside of the Province of

Manitoba.

MIPUG members' concerns are reflective of the size of their capital investments in the province, the long-term perspective essential for such investments, and the major stake that these investments typically have in continued large-scale purchases for Manitoba Hydro.

In past presentations before the PUB we have explained that the cost of power is very important to the operations and growth of member companies. MIPUG members compete in a global marketplace.

And low, cost-based electrical rates in Manitoba allow industry to remain competitive in this province by offsetting some of the geographic, climatic, and other disadvantages faced by industry in the province, including higher taxes and the US exchange rate.

Fair rates that reflect hydro costs and diligent attention to ensuring these costs are as low as possible while maintaining a financially healthy utility are an essential part of ensuring that Manitoba companies can conia -- can continue to survive and grow.

This is critical in maintaining and enhancing the long-term investments, jobs, and other benefits that come from having these operations in Manitoba. In past interventions, MIPUG members, as major

power users, have consistently been concerned with the need to have stability and predictability with regard to domestic rates for the long term, as well as the short term.

In MIPUG's view, this goal can be accomplished through strong regulatory oversight and approval of all rates charged by Manitoba Hydro.

Energy-Intensive Industrial Rate proposals: This is not the first Energy-Intensive Rate proposal the Board has received. As everyone's aware, MIPUG, as a group, expressed concern with aspects of what Hydro was proposing at the last GRA.

That proposal was withdrawn by Hydro to give themselves time to reflect on the information provided through the GRA process, have further discussions with large industrial customers, and consider further revisions to the proposal.

Through this August and in early September, Hydro met individually with large industrial customers to test its new proposal and to discuss individual customer concerns.

This proposal was also discussed with MIPUG and other Intervenors at a separate meeting held by Hydro on September the 11th, 2008. In many ways, the current proposal is better than most MIPUG members -- or

for most MIPUG members than the last version.

One key improvement is the removal of economic exemptions, which presented industry with a great deal of uncertainty. This current proposal provides industry with some short-term certainty necessary for most members' five (5) year planning horizons.

It also recognizes, although on -- only on a one (1) time basis, a key characteristic of individual power users, which is that load changes tend to occur in large chunks, rather than measured increments.

The current proposal presents challenges for the MIPUG group and the impacts of the proposal, very substantially, depending on the particular customer characteristics. As a result, each member will have unique, company-specific perspectives.

As an association, there is concern that this proposal is asking the Board to compromise on measures designed to protect all customers.

The proposal could also discourage growth within Manitoba. While not all companies will be affected, for those that will, the potential adverse impacts of this rate will be felt by employees and their families, the predominantly rural and Northern communities where industrial users are located, and where

new industry tends to locate, and by the province as a whole. At this time, we are aware that the proposal could be much worse for industry.

Now I'm going to turn it over to Kaare Svidal from Enbridge.

PRESENTATION BY MR. KAARE SVIDAL:

MR. KAARE SVIDAL: Thank you, Bill. My name is Kaare Svidal. I work for Enbridge Pipelines as a manager of the Energy Management Group. My group procures both electric energy and electric infrastructure for Enbridge's pump stations and terminals in Canada and the United States.

Enbridge Pipelines operates a liquids pipeline system that carries crude oil and refined products from Western Canada to refineries and consumers in both Canada and the US.

Enbridge has been a customer of Manitoba Hydro for approximately forty-three (43) years, since it began purchasing electricity from Manitoba Hydro in 1965.

In my last presentation to the Board, I highlighted the contributions Enbridge makes to the provincial economy; these included economical and reliable fuel deliveries to Manitoba, transportation of Manitoba crude oil to market, and also being a long-term,

stable base load customer for forty-three (43) years.

Today I would like to express our concerns about the new energy intensive rate, from the perspective of a large industrial customer that buys power in over twenty-five (25) different jurisdictions across North America.

Although Enbridge views, already filed, as an improvement over the rate presented at the last hearing, we are still concerned about the rate structure, incremental power price signal or lack of price signal, the fairness of the rate, and the precedent it may be setting. I would like to briefly describe our concerns with the new filing in each of these areas.

First of all, the rate filed by Manitoba Hydro lacks any time-of-use, seasonal, or real time price signals. The marginal cost portion of the rate will be based on the average price of extra-provincial sales during the previous two (2) fiscal years.

The marginal cost is to be charged sometime during the year after a customer has consumed their baseline energy amount. This averaging calculation will severely mute the price signal to which Manitoba industrial customers could possibly respond.

Customers will never see prices above or below the average number of forty-seven dollars and

ninety cents ($47.90) per megawatt hour in a proposed rate. When the prices are above this average number, customers could choose to reduce incremental consumption, and when prices are below, they could choose to increase consumption. This is true on both an hourly basis and a monthly or seasonal basis.

For example, under certain conditions, the pipeline can be price-responsive, both to hourly time-of-use prices and high monthly incremental energy prices. If the pipeline has extra capacity for a month, then we can and have responded to high on-peak prices by shifting oil pumping, and therefore consumption to low priced off-peak hours.

In months where the overall or around-the-clock price is high, we also have the option of using a drag reducing agent to reduce our consumption. Both load shifting and reducing load through drag reduction have moving economic thresholds based on the cost of power, the commodity type in the line and the throughput rate.

Efficient price signals encourage optimization and efficiency between the customers and the utilities' operations. In other jurisdictions where we buy power, we've structured power purchase agreements to capture efficiency between our system and the utilities' and then share the benefits. This resulting optimization

reduces costs for all.

Another concern is the marginal energy rate is not a true market price but rather Manitoba Hydro's view of what the market was. Customers will be unable to hedge any incremental consumption exposed to the Manitoba Hydro calculated price, because it is not based on a visible market, but rather a Manitoba Hydro retroactive calculation.

Enbridge and other customers will be forced to ride a wave of short-term marginal costs forever without any contract options. In other jurisdictions, where we are exposed to the market price, we can and have entered into long-term forward energy contracts to optimize our position. We have used our competitive advantage, as a long-term A-rated customer, to negotiate and lock in long-term contracts with terms and conditions, which reflect our business needs and risk profile.

Customers will be unable to use their competitive advantage to address price exposure contractually, because the incremental energy rate proposed by Manitoba Hydro is their hindsight view of price.

This contact optionality is also supported by the terms of the Manitoba Hydro export permit, EPP-

268, issued by the National Energy Board, which states:

> "Manitoba Hydro shall not export energy without first giving an opportunity to purchase electricity on terms and conditions, as favourable as the terms and conditions which apply for the proposed exports."

The NEB licence stipulates that Canadian customers should be given a chance to buy the energy on a prospective basis and not on a short-term retroactive basis. It is only fair that Manitoba industrial customers exposed to the market have the same opportunities to hedge their power cost exposure as the export customers do.

Lastly, Enbridge has an overriding concern with the discriminatory nature of this rate and the precedent it may be setting. The proposed energy intensive rate arbitrarily exposes some customers to incremental or market pricing based on three (3) years of historical consumption.

We have been a customer for forty-three (43) years and have not suddenly moved to Manitoba to take advantage of low-cost embedded -- low embedded costs of hydro-electricity. Enbridge has long-term assets in the ground which have been under-utilized in the past.

Furthermore, economy of a scale also dictate the most efficient pipeline expansion is at existing stations and along existing right-of-ways. We are truly a captive customer of the Manitoba Hydro monopoly.

So in summary, Enbridge disagrees with a concept of the rate proposed by Manitoba Hydro, and has difficulty reconciling this rate with Manitoba Hydro's obligation to serve as the utility monopoly provider. Many of the twenty-five (25) jurisdictions Enbridge operates are faced with high incremental generation costs, compared to the existing rates.

To my knowledge not a single service provider has proposed a rate of this nature. The calculation of the baseline ignores the extent to which existing assets are under-utilized, as is arbitrarily based on a three (3) years previous consumption.

The proposed method for calculating the pricing above the baseline, mutes the price signal, has no contract options, and creates inefficiency. This energy intensive rate essentially flows through the high incremental prices of a deregulated environment without any of the resulting marketing efficiencies.

Thank you for your attention. I would be pleased to answer any questions.

(BRIEF PAUSE)

MR. KAARE SVIDAL: If there are no questions, I will pass it over to Wayne Schroeder of Inco.

Wayne...?

MR. ROBERT MAYER: I think we sort of assumed we'd let you all get it done and if we had questions we'd be doing that then.

MR. KAARE SVIDAL: Fine.

MR. ROBERT MAYER: But while Mr. Schroeder is here, would you mind telling everybody who you were employed by, because I don't know whether you got to go to Brazil when CVRD rebranded itself, but nobody around this room seems to get it right.

PRESENTATION BY MR. WAYNE SCHROEDER:

MR. WAYNE SCHROEDER: Okay. My name is Wayne Schroeder, I'm the Chief Power Engineer. I'm employed in Thompson, Manitoba for the corporation currently know as Vale Inco.

So that's a Canadian subsidiary of the worldwide company called Vale. We were purchased a few short years ago. And given that Inco has a long history, the rebranding leaves us as Vale Inco. It's a worldwide

nickle operation and proud to be here in Manitoba.

I appreciate the opportunity to come and address everyone. Vale and -- and myself are -- are pleased to be able to participate in an open transparent rate setting process, and we value the opportunity to speak at this forum.

I'm not going to have a technical rate analysis. I'm just going to tell you what's so for our company's perspective, within the context of the rate proposal.

So we'll start with economic contribution and conditions. Vale Inco Limited currently employees approximately one thousand six hundred and thirty (1,630) employees at its Manitoba operations based in Thompson.

The Manitoba operations consists of two (2) operating mines, Thompson Mine and Birchtree Mine, where nickle ore is mined at depths greater than 3,000 feet underground. Once mined, the nickle ore is transported to service where it is processed at the operations milling, smelting, and refining facilities, with the end result being the manufacturing of a 99.9 percent pure electrolytic nickle product.

In addition to direct employment, the -- Vale Inco has made a substantial contribution to the Manitoba economy through it's advancement of capital

projects over the past year. In 2008 Vale Inco invested 214 million in capital upgrades to its surface plant operations. These improvements include the announcement of $116 million dollar modernization of the Thompson Nickel Refinery, that will result in the installation of new robotic technology that will substantially improve working conditions at the plant and maintain high standards of product quality.

Nickle production is an economic activity that greatly benefits the Manitoba economy. The total value of nickle produced in Manitoba, by Vale Inco in 2006 and 2007, to put it in perspective, was greater than the total combined value of wheat and canola produced in the province during those same two (2) years. That's just a context setting of how big nickle is in the market.

The unprecedented global economic crisis has greatly affected our operation's ability to operate competitively and efficiently, at least in the short-term. Nickle prices on world markets have plummeted on the belief that for nickle products will remain stagnant, as access to credit is curtailed across all world credit markets.

Vale Inco has responded to these conditions by implementing several immediate aggressive

measures to secure the long term viability of the company, including the implementation of a hiring freeze, launching a voluntary retirement program for eligible staff employees, and scaling back high cost, low-margin production.

To date, we're fortunate that these production decisions have not deeply impacted Manitoba operations. However, our operations and our company as a whole continues to study whether other measures are necessary to adapt our production profile to market conditions.

These economic conditions are a reminder that the nickel business is very much a cyclical business and one that relies on our continued ability to operate safely and sustainability and remain cash positive in all price cycles.

Stability, in our major input costs, including the price of hydroelectric power, is fundamental to our success in growing and sustaining our business.

As a contribution to Manitoba's economic prerogatives, I want to focus the presentation today on the evolving partnership that we've developed with Manitoba Hydro as we work together to develop a closer working relationship that mutually supports our firm's

respective business objectives.

I am please that Vale Inco's Manitoba operations has the great distinction of being Manitoba Hydro's largest power smart customer, as verified through audited power smart savings -- their audit, not ours.

We have achieved cumulative energy saving of 78 gigawatt hours between '99 and 2008, which represent approximately 7 1/2 percent of our annual load. These energy savings have contributed to Manitoba Hydro's ability to market and sell that energy to other North American markets; so it's a win-win situation.

We have taken many steps over the years to incorporate the Power Smart Program into our planning around the implementation of capital projects and general maintenance and upgrades to our mines, plants, and routine improvements around our plant site.

For example, in 2007 Vale Inco implemented a Parking Plug Controller Program to manage the flow of energy to the many parking plugs located around the Manitoba operations plant site. This resulted in saving in excess of 30 percent over uncontrolled plugs.

In 2007 we also undertook a seven hundred and fifty thousand dollar ($750,000) refinery insulation project, where we installed RHT40 Roxul board insulation over 7,300 square feet of our refinery wall and R20

insulation over 12,660 square feet covering our refinery roof.

The total energy savings was 377,000 kilowatt hours for the refinery portion of that project. So these are -- these are huge savings that we're working on.

Manitoba Hydro has also a major contribution in our ongoing projects. For example, in 2008 the installation of an electrostatic precipitator is an $82 million environmental improvement that will result in a 90 percent reduction in atmospheric dust from 1972 levels and a 70 percent reduction in workplace dust.

For this project, we were able to source a high-efficiency dryer that reduced the energy requirement for the project through the Power Smart Program. This is a great example of how Manitoba Hydro power has been a major contribution towards our ability to implement leading technology to assist in reducing our environmental footprint and work towards achieving a more efficient operation.

We would also like the Board to consider the contribution that the supply of reliable, cost-based hydroelectric power makes to the development of Northern Manitoba through the continuation of our mining-related activities.

Vale Inco is proud to be working cooperatively with our neighbouring First Nation communities to work towards increasing First Nation representeta -- representation in our workforce from its current estimated level of 15 percent.

We have recently partnered with Nisichawayasihk Cree Nation -- my apologies if the pronunciation is poor, okay -- at Nelson House to establish pre-employment placements in conjunction with University College of the North's pre-electrical -- or pre-employment program taught at Atoskiwin Training and Employment Centre.

Four (4) of the six (6) students that received work placements at Vale Inco are now employed permanently as full-time employees in our economy.

We've also established a Senior Years Apprenticeship Option Program at Thompsons R.D. Parker Collegiate that allows students to earn accreditation towards their Level 1 apprenticeship certification and credit towards their high school graduation by participating in work placements at Vale Inco.

The creation of this program is one (1) of the reasons that the province of Manitoba's apprenticeship branch nominated Vale Inco as employer of the year for the 2008 apprenticeship awards of

distinction. We are leading partners, along with Manitoba Hydro, in the Northern Manitoba Sector Council, an agency dedicated to promoting training partnerships to ensure the northern people are trained for northern jobs.

We're currently working through the council to establish introduction to trades training courses in northern Manitoba communities, to give young people sufficient industrial experience to qualify as candidates for employment at Vale Inco in future.

We hope that the above points clearly distinguish that the cost based Manitoba Hydro electric power is being used to make a significant contribution to Manitoba's overall economy, but also towards the imple -- implementation of new projects initiated with a name to make our operations leaders in safety and sustainability. And the sustainability of our operations in Thompson will continue to return benefits in the form of direct employment to the next generation of northern youth.

We understand that the latest Energy Intensive Industrial Rate proposal filed by Manitoba Hydro draws attention to the fact that unrestricted access to electrical load by some users may threaten the rate structures that have resulted in among the lowest posted Hydro electric rates in North America.

Vale Inco concurs that if that is

considered a -- a threat, then measures may be required to prevent unrestricted access. And what that would be would be the determin -- determination of the Board. Do you see this as a credible threat? If so, it should be up to the Board to determine if this meets that threshold.

Vale Inco supports the concept of providing access to additional cost-based power supply, based on incremental growth. With respect to the growth targets that are being provided with the current major energy load rate proposal, we are hopeful that the targets will not affect our future -- future growth prospects.

Given that we've been major recipients of credits through the Power Smart Program, we believe that the regulator framework for hydroelectric power in Manitoba must recognize work that firms have undertaken to proactively manage their energy load. We also support rate structures that are simple to understand, and ad -- and administer.

As a result, we prefer Manitoba -- we prefer the current major energy load proposal as an alterno -- as an alternative to instruments such as inverted rates and time-of-use rates, which, in our process, would give us a -- a bigger hurdle to try and

work our process within those rate structures.

We thank the Board for their consideration of our position, and welcome the opportunity to provide an update on our business. Thank you.

THE CHAIRPERSON: Thank you.

PRESENTATION BY MR. MIKE SARAFOLEAN:

MR. MIKE SARAFOLEAN: Good afternoon. My name is Mike Sarafolean. I also work for a -- a Brazilian company, Gerdau Ameristeel. Our headquarters are also in Sao -- in Brazil -- Sao Paulo, Brazil. And we are pleased to be here today and make comments on Manitoba Hydro's filing with the Board in compliance with the Board's Order, 116/'08.

I am Gerdau's Regional Energy Manager, and I have been handling energy issues for almost twenty (20) years. I handle energy for thirteen (13) steel mills in North America. I am -- we have a steel mill in St. Paul, Minnesota.

I'm currently the chairman of the Minnesota Chamber of Commerce Energy Committee. We're Xcel Energy's second largest customer in the -- in the -- in Minnesota. And we appreciate the value of Manitoba Hydro's product and reliability on this side of the boarder, and on the other side of the boarder. We're

very pleased with -- with the relationship.

Gerdau Steel Mill in Selkirk is one (1) of the largest manufactures in the province. We are one of the largest shippers in the region, averaging over one hundred and forty (140) truckloads per week.

Over the years, Gerdau has also attracted several large what we call downstream manufacturers to the province, creating even more manufacturing jobs.

Monteferro America, in Birds Hill and Steinbach, Terra Cotta Industries in Selkirk, Black Cat Blades in Selkirk, Bradley Steel Processors in Winnipeg, are just some of the businesses that have located to be near our steel mill, to take our product, and -- and add value to it, and ship it, in many cases, all the around the world.

In addition to Gerdau's five hundred and seventy (570) employees at Selkirk, Gerdau also employs fifty (50) full-time equivalents in project work through local contractors. There are also many Winnipeg industries that support Gerdau, thereby creating many collateral jobs. Since 1995 the company has invested $125 million in -- in Manitoba.

Gerdau is the largest recycler in the province, processing scrap metal collected from -- throughout the region. We are extremely efficient at

what we do, and we do it in an environmentally-responsible manner. Making steel from scrap metal greatly reduces the amount of energy and emissions needed to meet a ton of new demand from an integrated producer making steel from iron ore. Over 70 percent of the energy and over 60 percent of the emissions needed to create a new ton of steel from ore is already embedded in the scrap metal itself.

We, as -- as Mr. Turner explained, we're a member of -- of MIPUG, and we're a member of many groups through -- similar-type user groups in the -- in the -- in the North American and the US. And there's always differen -- differing opinions within the groups about this or about that.

And we have a few issues that present differing viewpoint, perhaps, than some of the comments filed by Patrick Bowman and Mr. Ostergaard.

Gerdau does support the positions taken by Manitoba Hydro that will encourage reasonable industrial growth allowances that preserve a determinable level of heritage rates as company grow and create jobs in Manitoba.

Steel is an energy- and capital-intensive business. As with any investment decision, Gerdau's management must consider the long-term costs of doing

business. With regard to steel manufacturing, electric -- electricity costs are second only to our scrap steel costs and are important cont -- contributor to a competitive cost structure. Low, stable, reliable electricity is essential to Gerdau's operations in Manitoba.

While energy costs are favourable, there are other cost ailments that are not as favourable. Lower priced electricity helps offset other manufacturing costs. Among all our mills in North America, the -- the location here is the second-highest cost to produce steel. And low-cost energy is already factored into that number. So we're very, very concerned about seeing energy rates change and then, as -- as one of the other presenters said, change unpredictably.

Parties to the rate discussion have advanced several rate concepts that I'd like to discuss.

Energy-Intensive Rates, Gerdau also supports a consideration that there may be such a thing as uneconomic load growth. Some types of loads may provide less enomic -- economic benefits to the province than others. Some create more -- many more jobs. Jobs create solid economic activity for the province.

The New York Power Authority has recognized this through their hydro earmark for megawatts

for jobs, where they have over 400 megawatts just dedicated to companies that -- that retain and grow jobs.

After all, we recognize -- as we as ratepayers don't want to build new assets that chase loads that don't provide for meaningful job creation, Gerdau too benefits from the export sale revenue and throughout the cost-based initiatives in generation and transmission -- the thoughtful cost-based generation -- investments.

At the same time, Gerdau also benefits, as the province does, much more from an expanded job base that creates much more economic activity to the province than just exported power.

The resultant increase in generation could lead to the BC situation described in Mr. Ostergaard, where costly new generation would be needed to sustain loads that were marginally contributed to the BC economy, because they were energy versus job-intensive.

Gerdau has thorough -- thoroughly analysed, and we can work within Manitoba Hydro's rate proposals, which allow for sufficient load growth, to fully utilize the installed production capacity at our Selkirk facility. We can still grow the plant and -- but that would take more energy; yet, at the same time, we think the proposal would allow us to do that

economically.

Inverted rates, they may make sense for residential rates, yet they do not allow for load growth and manufacturing processes. There's a fundamental difference as we look at some of these energy-efficient opportunities and the things we speak of to recognize we're dealing with -- with industrial processes where, just by the nature of the -- of the process, it can't be DSM'd away.

Inverted rates essentially cap or penalize additional production, rather than encourage full utilization of our -- our installed capacity. This provides a disincentive for investment and expansion by raising the cost of new production.

Time-of-use pricing, Gerdau does not support time-of-use pricing. Prices that reflect the opportunity of costs of export market -- market sales are not appropriate to the retention or creation of jobs in Manitoba.

Steel operations run seven by twenty-four (7x24), with little ability to shift to off-peak hours, minimizing the value of time-of-use rates. We're already operating off-peak hours.

In addition, regions where Gerdau currently operates under the most complex form of time-

of-use rates, real-time pricing, our operations run less efficiently due to the impact of starting and stopping what should be continuous processes.

If adopted, time-of-use rates need to be revenue neutral for the customer that run currently seven by twenty-four (7x24). Otherwise, time-of-use would increase costs for job providers. Increased costs cannot be tolerated by global manufacturers.

I'm not sure how the other party at the table with Brazilian owner operates, yet I can tell you that our Brazilian owners track every mill that they own around the world -- and some forty (40) of them -- and know precisely the cost of operation and where products should come from.

Recent race -- rate increases have been substantial. Manitoba energy rates have increased substantially over the last few years. I believe that from 1995 to 2004, the energy rate was pretty well locked in. Since 2004, the rate has gone up by over 20 percent.

Manitoba Hydro began this rate case with a 2.9 percent increase request. The MPUB allowed a 5 percent increase earlier this year and proposes another 4 percent next April.

In light of the economic downturn, Gerdau recommends that the MPUB eliminate, or -- or at a

minimum, reduce the planned increase for April. During these difficult economic times, costs have to be reduced, not increased, as it cannot be passed along to customers.

Summarization, in summary, the regu -- regulations should achieve firm, low cost, stable power rates that are necessary to maintain investment and produce jobs in the -- in the province. Rate stability is one of Gerdau's key investment inputs when making long-term investment decisions.

Rate designs that increase costs for new -- or for incremental or new manufacturing loads in the province will, unfortunately, provide a clear signal to -- to Gerdau and other manufacturers to invest outside the profit -- province when economically practical to do so.

The time-of-use rates will not improve, but degrade our efficiency and add to our cost if they are not revenue neutral to our operations. Low electricity must be viewed as a means to achieve and retain economic growth in the province.

Thank you very much.

THE CHAIRPERSON: Thank you very much. Thank you very much, gentlemen. For myself, you have said a number of things that require some thought and pondering on.

I cannot think of any immediate questions.

I imagine each one of your companies have been affected by the recent downturn in commodity prices and world sales.

Do you have anything?

MR. ROBERT MAYER: I find it -- I find it interesting. I -- I note that of the three (3) of you who mentioned time-of-use rates, the two (2) operations that run twenty-four (24) hours a day could make no use of them.

Enbridge indicates that it could make -- it could benefit from the use of time-of-use rates. I'd be interested in knowing how you would feel if the Board, at some point in time, ordered a time-of-use rate option that would be available, as I am told it is available in British Columbia.

And, of course, I don't know what -- what -- sorry.

MR. JOHN LANDRY: Mr. Mayer, if I may. I apologize, as you know, for interrupting, but Mr. Turner still did have a -- a presentation --

MR. ROBERT MAYER: Oh, sorry.

MR. JOHN LANDRY: -- in relation to Canexus, so -- yeah, we'll hear from Canexus. You were probably wondering why you didn't hear about time-of-use from Canexus. Well -- so...

THE CHAIRPERSON: Mr. Turner...?

PRESENTATION BY MR. BILL TURNER:

MR. BILL TURNER: Mr. Mayer, I'll let you know how we could use time-use rates.

Canexus uses an electrolytic process to produce sodium chlorate -- we all -- I think we're aware of that from past presentations -- which is used to bleach wood pulp.

The process requires considerable electro -- electrical energy. And in fact, approximately 60 percent of our manufacturing cost is the cost of electricity; approximately, in our case, $48 million a year.

Reliable, cost-effective electrical energy is one of the most critical factors in our industry. Canexus exports all of its products outside Manitoba, and approximately 95 percent of it goes to the United States.

The North American market for our product is extremely com -- competitive. Canexus operates one (1) plant in each of BC, Alberta, Manitoba, Quebec, and, yes, even Brazil.

In the last six (6) years, Canexus has shut down two (2) of our operating facilities, not only due to the high power pricing, but insta -- or unstable

power rates in those jurisdictions, leaving numerous families either without employment or requiring moves to other jurisdictions.

In times when the industry is not operating at 100 percent capacity, the plants with the lowest cost of production run full load, and the plants with the highest cost of production are cut back.

Our Brandon plant competes with our external com -- competitors and with other Canexus sodium chlorate plants. The competitiveness of any sodium chlorate producer can be assessed easily with only three (3) key considerations: power price stability and availability, salt price and availability and transportation to markets.

And as I mentioned, approximately 95 percent of our product goes into what I'll call the south central eastern US.

Of the three (3) factors, power is the most important because of the large amounts of power required for electrolysis. Electricity is a feed stock, just like natural gas is to the fertilizer industry. Given the importance of electricity to our production process, efficiency is an important consideration.

Canexus is one (1) of Manitoba Hydro's largest DSM participants, offering about 160 megawatts a

load that can be curtailed by Manitoba Hydro on very short notice. This program was developed over a number of years by working closely with Hydro as a participant in the Curtailable Rates Monitoring Committee.

Through solid communications this committee addressed the issues and concerns of both parties quickly and amicably and the program is now one of the most successful conservation programs Hydro operates, providing benefits to both Canexus and all of the other customers on -- on the Hydro system.

Canexus appreciates working with Manitoba Hydro cooperatively in this manner. Canexus has been producing sodium chlorate in Brandon since 1968. The plant started at an annual rate of 12,000 tonnes. In 2008, with its ability to manufacture in excess of 295,000 tonnes per year, the Brandon plant is now the largest sodium chlorate plant in the world. This achievement is due to several upgrades and incremental expansion since 1968, as well as a recent major Phase 7 -- - what we call a major Phase 7 expansion.

In undertaking the major expansion since 2000, Canexus relied upon commitments made by the Manitoba Government that rates in Manitoba for large industrial power users would continue to remain fair, stable, and power costs would remain as low as possible.

In particular, Canexus was assured by Minister Salenger in 2000 that quote/unquote:

> "Beyond rate increase -- issues [pardon me] this government is also committed to providing a business environment that encourages the establishment and expansion of hydro intensive industries in Manitoba. Canexus was also assured that with regard to the issues of fairness among competitors, Canexus would not be disadvantaged. And should the policy change in the next five (5) years, CXY [at the time, which is now Canexus] will be treated as favourable as any other customer in the same business."

Since 2000 Canexus has undergone three (3) major expansions, that is with the total cost of a little over $200 million dollars. The 2004 expansion project was undertaken after the Canexus plant in Louisiana was shut down. That it was a major commitment of capital, dollars and time.

The cost of that expansion was approximately $55 million dollars, which increased the Brandon capacity by 70,000 tonnes per year. In a place

the size of Brandon you can imagine the significant economic impact of that expansion.

The expansion decision made by Canexus Board in 2004 involved a phased expansion approach. Pursuant to this corporate decision, the plant has undergone a series of phased expansion since then and has recently completed the Phase 7 expansion.

As determined by market share and power pricing, the plant could further expand due to initially installing the front-end capacity expansion, and at that time we forego -- foregone the -- the back-end expansion and decided to spend the additional capital to improve, expand -- or the existing plant efficiencies in order to capture future power smart credits.

Any expansion of operations is a major commitment of resources, including people, time and money. To justify such commitments there has to be some level of certainty as to costs, both now and in the future. Manitoba -- Manitoba's history of very stable and cost-effective power rates has been a key factor in convincing our Board of Directors, both in 2004 and in early years, to invest and expand in Manitoba.

Most of the most recent expansions, including the Board of Directors decision in 2004 were awarded to the Brandon facility, based on this assessment

and due in part to the high cost of electrical energy in the US. This led to the relocation of the Louisiana plant in Brandon in 2004.

However, at the time that -- that expansion decision, there was no suggestion from Manitoba Hydro or otherwise, that the rules would change. Canexus only heard of the cancellation of the Service Extension Policy and the possibility of a new additional charges or rates, well after the initial capital commitments were already made.

Low prices do not on their own draw industry to a jurisdiction. Low prices can become very high, very quickly, if there is instability in the principles and systems used to set rates. We have seen this in spades in Alberta over the past several years.

After Alberta changed how it sets rates, one (1) of our lowest costs plants quickly become one (1) of the highest cost operations within our company.

Rates do matter but confidence in the long-term regulation of pricing systems is also critical to any business. When that confidence is eroded, it affects all industrial customers, not just those that use electricity as a feedstock.

Canexus requires capacity increases due to changing markets and increase in market share and the

possibility of -- of further rationalization of our old -- older facilities. However, increasing uncertainty, with regard to the continued stability of hydro pricing over the past several years has caused us to seriously reevaluate our options in order to justify further expansion of the Brandon facility.

For each of its major expansions since 2000, Canexus has worked with and sought advice and assistance from Manitoba Hydro to insure that the most cost -- the most efficient lighting in motor-driven pumps are installed that would allow the plant to operate at peak efficiency. With Hydro's assistance, the following efficiency measures have been implemented:

Cooling tower fans: Canexus currently operates four (4) large cooling tower systems. Hydro services have been of assistance in the design and utilization of variable speed drives on our cooling towers to lower our energy load during cooler weather. While the two (2) newest cooling towers had variable speed drives included in the design stage, the -- the original units have also been converted to a -- more efficient variable speed units.

Compressed air scoping: Canexus operates four (4) air compressors that convey product from the processing plant to a railcar loading facility.

Initially, some units were continually running unloaded with waste -- which wasted energy. With the assistance of Manitoba Hydro, we reprogrammed the loading of three (3) of these units. Since that time, two (2) units have been taken off-line and are only utilized in an emergency or as increased demand warrants additional air capacity.

Current density changes: This is the most recent one that we've done. To increase efficiency, we modified the cells in the plant relocated from Louisiana. While this added considerable cost and risk to the Canexus recent expansion project, it allowed Canexus to produce an additional 23,000 tonnes of product using its current capacity, in effect, increasing the GDP for Manitoba without any additional energy requirements.

As a result of all these efficiency initiatives, our total plant electrical efficiency has indeed improved. While all these changes fall within the Power Smart initiative, we firmly believe that, as an industry, we are responsible to pay our own way and have -- we have never requested financial support from Hydro for any of the above initiatives.

Well after the decision was made in 2004 by our Board to undertake the phased expansion that we're in the process of completing, uncertainty regarding the stability of future electrical rates in Manitoba required

that we dramatically alter the design and staging of our most recent Phase 7 expansion. This uncertainty started in 2005, after we found out that Hydro's unilateral suspension -- the Service Extension Policy and -- continued with the development of Hydro's Energy Intensive Industrial Rate proposal included in the 2008 GRA.

I must be talking longer than everybody else.

While Canexus had already committed to its expansion prior to hearing about the proposed Energy Intensive Industry Rate in the Spring of 2007, upon hearing about the new rate, we reevaluated our initial design, in order to improve process efficiency and make it a more viable project.

We commissioned our design team to see if the design of expansion could be enhanced to allow the plant to operate at a higher electrical efficiency. And at a cost of 3.75 million, we changed the accepted design and rebuilt one (1) plant to the new design. This decision to alter the design was not without risk. Had it failed, we would have been in a very costly alternative at that point in time.

The most recent Phase 7 expansion succeeded in increasing plant capacity by approximately 9

percent with no increase in electrical consumption. However, at a cost of approximately 50 million it only provided half the production output, compared to previous expansions with the same capital costs.

Changes in design to increase efficiency allowed for approximately 23,000 tonnes per year of increased production at the plant. However, additional capital expenditures will be required to achieve the plant's stability necessa -- necessary to realize the balance of the additional 10,000 tonnes per year of production. The additional capacity of the modified design to achieve the full 33,000 tonne expansion decision made in 2004 was expected to be derived from the Power Smart initiatives.

Throughout this design process, I have kept Manitoba Hydro appraised of our plans, and sat down with their representatives to review the design and changes in design. In April of 2007 when the design changed to allow the plant to operate at higher efficiency was explained to Manitoba Hydro representatives, they indicated to me that the modification would be a true Power Smart initiative that -- and that I should get Hydro involved in the expansion to have it confirmed as such.

Hydro representatives were fully aware

that it would take time to complete the proposed expansion and that efficiency measures would be completed to -- and started prior to December 31st, 2007, but not complete until approximately late 2008.

At this time, Manitoba Hydro also led me to believe that as a Power Smart initiative, it would be included in the baseline set under Hydro's Energy Intensive Rate proposal. Again, I told Hydro that we, as an industry, will pay our own way as we have an internal obligation to save energy as well.

Believing that Hydro was on board with Canexus claiming all the Power Smart credits for these efficiency improvements, Canexus' assessment was that if it achieved all of the Power Small credits discussed with Hydro during the design planning over the 2007 project, we would have been able to produce the full 33,000 tonnes from the capital expansion at heritage rates.

At no time was I made aware that Hydro specifically did not intend for Canexus to receive the full benefit of these Power Smart measures. I went into the G -- 2008 GRA believing that the Canexus baseline would include all of the Power Smart credits achieved, due to the efficiency measures specifically undertaken in the Phase 7 expansion.

During that hearing, I became concerned

that because expansion would not be complete until late 2008, after the December 31st, 2007, date included in the original rate proposal, the Power Smart measures included in expansion may not be included in the Canexus baseline. I contacted rep -- representatives at Hydro and I was assured that I would be able to claim all of the credits for the Phase 7 efficiency improvements once they were confirmed by Hydro.

The December 31st, 2007, cut-off date provision has been removed from the most recent proposal. However, the 1,500 gigawatt cap accomplishes exactly the same thing. Canexus cannot achieve the full Power Smart credits owing from its most recent expansion, and part of the Phase 7 expansion would be then at marginal based rates.

The current Energy Intensive Industry Rate proposal makes it very clear that Canexus is being singled out for discriminatory treatment. Hydro has noted that the 1,500 gigs cap was specifically established to be at a level slightly above the largest energy consuming customer, and everyone knows that elephant is actually Canexus.

Hydro has noted that the 1,500 gigawatt cap is intended to constrain unlimited growth in embedded rates, while recognizing the investments and

contributions existing companies have made to the community and to the province. While Hydro argues this is intended to balance the recognition of preexisting loads established under previous rate structures, with a need to limit inequities between smaller and larger companies under the new rate structure, from Canesus -- from Canexus' perspective, the current approach creates inequities through specifically targeting and penalizing growth in -- in one (1) company.

While most other customers will, over the next five (5) years, be forwarded the opportunity to grow at embedded cost rates, any further Canexus growth will be subject to marginal cost rates. Manitoba Hydro has stated on record that the 1,500 gig cap was also designed to ensure that part of Canexus recent expansion would be exposed to marginal rates, and would not be sheltered by the Power Smart initiatives undertaken with regard to that expansion.

Not only is Canexus not allowed to grow incrementally at embedded cost rates, as every other existing company in the province is able to grow over the next five (5) years, unlike every other company exposed to the rate, Canexus cannot fully use all of the current Power Smart credits.

This approach is not only fundamentally

unfair, it does not reflect the assurances I have been given by Manitoba Hydro representatives. Since we worked with Manitoba Hydro to create these Power Smart initiatives, it is troubling and very disappointing that efficiency measures implemented by us in good faith and undertaken at additional cost and risk to Canexus and with the understanding that these would be considered true Power Smart initiatives, they're not being recognized as such in this proposal.

The use of the cap to exclude the Canexus Power Smart credits is, in our view, not only discriminatory, it flies in the face of what Canexus has relied upon in proceeding with its most recently inst -- investments, in the context of its good faith discussions with Manitoba Hydro.

In our opinion, there should never be a cap that effectively discriminates against one (1) customer in Manitoba, by not allowing them to grow any further at heritage rates in the same way that other customers, subject to this new rate, are allowed to grow.

However, aside from the cap discrimination for future growth, the initial baseline establishing power to be charged at heritage rates, must be set using the same rules for everyone to reflect where we are

today, which means if Power Smart initiatives are completed, the equivalent of the Power Smart energy should be added to the baseline that would otherwise apply it based all considerations set out in the Hydro proposal. There should be the standard philosophy applied to all customers, not just Canexus.

Canexus is one (1) company that could benefit from load shifting or time-of-use rates, so, yes, there is another one (1), Mr. Mayer. It is a -- disappointing to me that the present proposal does not include any time-of-use component, and the Manitoba Hydro has not appeared to have seriously looked at this type of rate solution, prior to advancing this proposal to the PUB.

What is very frustrating is that if there were a way to work cooperatively with Hydro to address our load needs, rather than the way things have gone over the last little while, we think that there are real opportunities to do things that could benefit both Canexus and Hydro, such as making substantial use of the optic power and load shifting. Further, we also believe that there may be possible ways for both of us to benefit from the substantial hydrogen that is currently vented at our plant.

Circumstances are a lot different than

they were when we worked together with Hydro to develop the Curtailable Rate Program, which was a positive benefit to both us and Hydro.

Just a comment on the hydrogen issue: We have worked with Manitoba Hydro and the government fairly in-depth over the last four (4) years. It's kind of died off a bit now, but internally within Canexus we have two (2) situations that we're looking at to utilize the -- the venting hydrogen that we have currently.

Canexus may not be the biggest company in Manitoba, but we have a quality committed workforce, that due to our most recent expansion, has grown to seventy-three (73) people. These are skilled workers with well paying jobs who play vital roles in the Brandon community.

Since locating in Brandon, both Canexus and its employees have been actively involved in community life and have maintained close ties to the Brandon community. Canexus has been instrumental in assisting to raise funds in the community, making the following major donations to the following community projects in advance.

And this is just a few of them: The Brandon Emergency Support Team, Canadian Red Cross, The Riverbank Discovery Centre, Safer Communities, United Way

Employee Matching, Brandon Area Community Foundation, Brandon Westman Dreams For Kids, to name a few.

We view our blace -- place in the Brandon community with pride, helping support our families, pay taxes, and provide further opportunities for trained people to find employment in the Westman area.

To finish my comments specifically regarding Canexus, and invite the Board to look carefully at the Canexus story in Brandon, a story of ongoing investment, development, and involvement leadership, resulting in the world's largest producer here in the heart of the continent. For most of Canexus history in Manitoba, when Hydro's export prices were lower than our rates, our growth in hydro purchases actually helped increase Hydro's revenues and lowered rates to all other customers.

I guess our rate proposal today is based on the changes in the late 1990s, when Hydro's export prices took off. Today, Hydro makes more money from exports than from sales to Canexus. However, if this rate proposal had been introduced back when Hydro's export prices took off, Canexus' major expansion since 2000 would never have occurred.

The point to -- is to assess the value added gained for Manitoba since 2000 from our

investments, construction, and all related economic activities.

With all -- with -- was this all a mistake for Manitoba? Where all -- were we all simply too slow getting the rate -- the rate right? Or is this the mistake occurring today with the push to -- to target above average growth as being not in the public interest.

In closing, the industrial customers in Manitoba have been well-served by the Utility in the past. Hydro is a good company to deal with and we would not want our comments to be read as criticism of the professional and competent staff that Hydro employs. Although we have been blessed in the past with a good partner in Hydro, we are concerned with what appears to be a shift over time in Manitoba Hydro's priorities, away from its domestic customers to its export sales.

For industries that invest significant capital and resources in Manitoba, with the most important factor, with respect to hydro rates, is a stable and predictable price environment.

We believe that Manitoba ratepayers have been well-served by having Manitoba Hydro rates regulated by the Public Utilities Board. Industrial customers, in particular, have seen the havoc that arises when other jurisdictions in Canada and the United States have veered

off into unregulated market-driven or privatized environments, where market forces are put ahead of principle cost allocation and rate stability.

Going beyond concerns about the fairness is its -- as its core of this new rate proposal, we are seeing here a proposal to use Hydro rates to target too much growth. Any such proposal makes us nervous as to what's going on. There's no compelling evidence that Manitoba Hydro has -- or Manitoba has anything material to gain from taking on this new and risky approach to rate setting, simply to get Hydro a little bit more revenue.

And there is a simple evidence of the multitude of ways that this approach can stop highly desirable growth, as well impose unfair rates on people who must expand here, notwithstanding this rate. I ask the Board to consider the presentations made by MIPUG in light of the competitive challenges faced by Canexus and other energy intensive industries in Manitoba, and to help us retain our competitive position in Manitoba and in North America.

The future growth of large industry in Manitoba depends on reliable firm power at fair and reasonable rates; rates that reflect cost of service principles and demonstrate commitment to innovative --

innovative rate options benefit both industry, Manitoba Hydro and the Province of Manitoba.

Two (2) other comments I'd like to make: In the current economic condition that we're in right now, even Canexus Brandon has suffered. Starting December the 1st, we have cut -- actually our rates by 25 percent. We're hoping that as of January, we'll be able to increase load again, but there was a meeting that I've missed today now, that I've just got an email on a little bit earlier, is that we have now as a company lost an additional group of sales, due to mills shutting down. So it makes it tough, even on a low-cost plant like Brandon.

One (1) other point that I'd like to make then is that with the economic conditions like they are today, I echo Mike in saying that we have to be very cautious of Hydro rate increases next Spring when we're all going to be, I think, suffering from the economic downturn that we -- that we have currently.

One (1) other comment I'd like to make. I understand that there was some confusion on my math in a letter that was part of the MIPUG Exhibit 4, Tab 2, evidence. And I guess I'll simply say that that's how dynamic the rules have changed, or the governing guidelines on -- on where the two (2) tier rate or

industrial rate proposal is going. I had -- I've been keeping tabs of it because my counterparts in Calgary want to know exactly what's happening, and the numbers that I had in there were based on our twelve (12) month average ending December of 2007, because that was one (1) date that I did hear.

The original proposal was for the best twelve (12) month over three (3) year period. I had that in a graph and when I switched over the two (2), I did make an error.

So the correct numbers are 1,457 gigs for the best twelve (12) months' average, and the Power Smart credits are one twenty-three (123), adding up to one point five eight (1.58).

So just a clarification. My math wasn't very good.

Thank you. We're open to questions now.

THE CHAIRPERSON: Thank you, Mr. Turner, and the rest of you gentlemen. We appreciate you coming down and making the presentation.

Because of time restraints, we really do not have a lot of time to get into questions, but you have left us a lot of things to ponder.

I am glad you touched on the matter of the recession, I guess you would call it, and your prior

discussions with Hydro and things of matter and your working relationships with them.

All of your points will be taken into account. We will think long and hard about them. Thank you very much.

MR. BILL TURNER: Thank you.

(BRIEF PAUSE)

THE CHAIRPERSON: I think we will switch on now, Mr. Ramage. If you come back on before -- we have a short break after you are completed.

If you gentlemen would not mind switching seats...?

(BRIEF PAUSE)

MR. JOHN LANDRY: Mr. Chairman --

THE CHAIRPERSON: Yes, Mr. Landry...?

MR. JOHN LANDRY: -- while everybody is getting back to their seats, et cetera, there were, as Mr. Turner said, some speaking notes to a couple of the presentations. I'll make sure that they're hand-delivered around the room for the purposes of all the parties and the Board.

THE CHAIRPERSON: Yes, we will add them into the record.

MR. JOHN LANDRY: Thank you.

THE CHAIRPERSON: Okay, Ms. Ramage...?

MIPUG PANEL RESUMED:

ANDREW MCLAREN, Resumed

PATRICK BOWMAN, Resumed

PETER OSTERGAARD, Resumed

CONTINUED CROSS-EXAMINATION BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: This will be very brief. I just had a few questions for Mr. Bowman.

Mr. Bowman, I just wanted to confirm, you've been employed by InterGroup Consultants for approximately eight (8) years and that Intergroup has been providing consulting services with respect to Manitoba Hydro's rates to MIPUG for that eight (8) year period and -- and long before your time with them.

Is that correct?

MR. PATRICK BOWMAN: Thank you. Good afternoon, Mr. Chair, members of the panel.

I've been with InterGroup for approximately ten (10) years, and InterGroup has worked with MIPUG as a client probably just having past the

twenty (20) year mark, if I'm not mistaken.

MS. PATTI RAMAGE: Would it be fair to say that your interest in Manitoba Hydro doesn't end with rate hearings?

You monitor the utility's activities on behalf of your client, and on an ongoing basis?

MR. PATRICK BOWMAN: In -- in respect to certain aspects. I don't -- I'm not personally able to keep on -- on top of as many different aspects of the utility as -- as one might try.

But it -- it's certainly relevant to the work that we do up in places like Yukon or Newfoundland or -- or Northwest Territories, other places, to keep apprised of at least rate matters in different jurisdictions.

But you -- you -- we can't be on top of everything.

MS. PATTI RAMAGE: Would it be fair to say that you were aware of Manitoba Hydro's Service Extension Policy, or what it was prior to its suspension in 2005?

MR. PATRICK BOWMAN: I don't believe I had ever seen anything that would be as black and white as either a -- a policy document or -- or a policy itself.

I would have generally been aware that -- that any utility would have a set of policies related to connecting new customers. But I -- I can't recall it every having been filed in a -- in a previous proceeding.

MS. PATTIE RAMAGE: You were aware prior to the commencements of -- of this proceeding what that Service Extension Policy was and the fact that it had been suspended.

Is that correct?

MR. PATRICK BOWMAN: I was -- I was aware in approximately 2005, when we heard from certain members who had received letters saying that the service extension policy had been suspended.

I -- I recall MIPUG sending -- as -- I recall MIPUG sending something to Manitoba Hydro saying they look forward to Hydro bringing that before the PUB for approval. But I don't recall anything after that, up until perhaps the Cost of Service hearing.

MS. PATTIE RAMAGE: Mr. Bowman, could you -- I didn't quite catch that part.

Hydro was bringing something for approval to the PUB?

MR. PATRICK BOWMAN: My -- my recollection is a number of members received a letter indicating Hydro had suspended the Service Extension

Policy. I -- I recall having been made aware of two (2) companies.

I recall there being an exchange between -- I'm going -- as I recall it -- this goes back a couple of years -- between the Chair of MIPUG and Manitoba Hydro in which the Chair of -- of MIPUG, as I recall it, was -- was indicating they expected Manitoba Hydro would bring such a change before the Public Utilities Board. But I don't believe it ever was mentioned in a Public Utilities Board proceeding until perhaps the 2006 Cost of Service hearing.

It seems to me it may have been an item in the Free Press the first day of the hearing, or something of that nature.

MS. PATTIE RAMAGE: Would it be fair to say that the information provided by Mr. Wiens in the direct exam -- in his direct examination, it didn't provide you any new information on the Service Extensions Policy or contain any surprises for you?

MR. PATRICK BOWMAN: I haven't had a chance to go over it in detail. I think in respect of what the System Extension Policies were, there were no surprises in terms of what the policy had been in resp -- in fact, the clients that I deal with, I wasn't aware of the residential policies.

But there was certainly some new information in respect of -- that there were intended to be exemptions to the suspension granted by Hydro's executive. There was some new information about how many customers may have paid under the rate.

There's still not a lot of detail in regards to who paid or -- or, you know, how much, or when, or any of those sort of things. So there was some new detail in the response. But in general, the fact that it was three (3) years revenue had been said in previous hearings.

MS. PATTIE RAMAGE: And Mr. Bowman, you attended the September 11th meetings regarding the Energy- Intensive Rate.

Is that correct?

MR. PATRICK BOWMAN: Yes.

MS. PATTIE RAMAGE: You attended on behalf of MIPUG, but some of its members were also present, I think. Gerdau and Vale Inco, in particular, is what I recall?

MR. PATRICK BOWMAN: I bel -- I believe Vale Inco was there. As a matter of fact, I sat next to Mr. Schroeder, so I -- I specifically recall that. I believe Hudson Bay -- or HudBay had a person representing them, and I believe Gerdau may have been -- Gerdau was on

the phone.

Those are the only ones I recall, but there -- there may have been others.

MS. PATTIE RAMAGE: And time-of-use rates were discussed at that meeting, is that correct -- the concept, at least, not in any great detail? I'm not suggesting that.

But the concept was discussed?

MR. PATRICK BOWMAN: Frankly, I -- I don't -- I don't actually recall that. I have had a quick flip through the transcript, but it wasn't something I was looking for. So I actually -- I'm afraid I don't recall; it's -- it's entirely possible.

MS. PATTIE RAMAGE: Okay, I just ask you to accept that, subject to check, and I can direct you to page 42 of that transcript.

MR. PATRICK BOWMAN: As I -- I'll accept it, subject to check. I -- I don't recall it being a central item, but it may have gotten a mention.

MS. PATTIE RAMAGE: And I think, again, subject to check, Hydro had indicated it had not developed a proposal at that time, and also, subject to check, that several of your MIPUG members were -- had -- had expressed some serious concerns about Hydro developing a proposal.

Would that be correct?

MR. PATRICK BOWMAN: There is -- if it were mentioned, I would expect it was -- would have been the same thing that we -- we've seen in other responses, which is that Hydro hadn't developed a proposal by that time.

There is a -- suffice to say, a keen interest among the members on -- on all sides of the time-of-use topic. Some have opportunities to benefit, some see no opportunities to benefit, some see a potential that it could be a -- a threat, and -- and however it would be expected to proceed I'm sure all would -- would like the opportunity to have some -- some input before anything would -- would get too far along. But I don't think there's any surprise in any of that.

MS. PATTI RAMAGE: And think you've also, in the past, commented, I believe in the Review and Vary that it would take twelve (12) to eighteen (18) months to develop a time-of-use proposal. And I would suggest that given the varied positions your clients are taking, that you would agree that it -- it's necessary to take that kind of time to develop that proposal.

Is that right?

MR. PATRICK BOWMAN: Every time I've been involved in or been aware of developing any -- even

optional type of material revision to an industrial rate type of program, whether that's curtailable rates in Manitoba or the stepped rates that we -- that were brought in -- or brought forward in Newfoundland, or what we've heard of the processes in BC, it -- it takes time. There's a -- there's a -- unique issues to the jurisdiction. There's -- there's learning curve. There's implementation details. Sometimes there are -- things that work in one (1) place absolutely don't work in another, and -- and there's a lot of need to work out the objectives.

As I said before, Newfoundland's objectives for a stepped rate were entirely different than BC's and -- and it may be that Manitoba has no -- no credible objectives that would -- would require one to go through that -- that work. But it's -- it's -- it takes time.

MS. PATTI RAMAGE: And I would suggest it would have surprised you if Manitoba Hydro had included a time-of-use rate proposal in this filing?

MR. PATRICK BOWMAN: I guess it -- I don't know about surprise. It -- had a time-use rate proposal been filed, I think it would have caused great concern among some people who have not -- would not have had a chance to -- to digest it. At the same time, I

know that the Board was -- was keenly interested and -- and there's aspects of things that we've been talking about over the last six (6) days that are -- that are effectively time-of-use issues.

So it's -- perhaps in a sense it would have been both too early and too late in -- at this time.

MS. PATTI RAMAGE: Mr. Bowman, something you said, I think -- I think it was this morning, and that was that GSL greater than 100 kV is now covering all costs even without allocation of export revenue.

Do you recall that?

MR. PATRICK BOWMAN: In the cost of service context, yes, I -- absolutely, I said that.

MS. PATTI RAMAGE: And I just want to confirm that this assertion is true, as you said, in the cost of service conste -- context, and that's one that assigns the embedded cost of five point one five (5.15) cents per kilowatt hour to exports as compared to three point one six (3.16) cents per kilowatt hours for GSL greater than 100 kVs.

Is that -- and there I'm looking at the PUB's book of documents, Tab 16 on the first page.

MR. PATRICK BOWMAN: That's right. We went over, in the Cost of Service Hearing that there are a number of aspects to export sales that are -- are much

higher than average cost to serve.

For example, exports served by imports, the sharp pencil, as I recall Mr. Cormie's term, that put times when you can buy power at very high costs and sell it for slightly higher. And -- and those -- those imports, for example, or the fuel to run those plants, aren't part of the average cost of operating the system. They're very much an export targeted cost.

And -- and so that -- that's why the number comes up higher, but those are the numbers that are in that tab.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Thank you, Mr. Bowman and Mr. Ostergaard and Mr. McLaren, that's all the questions I have today.

THE CHAIRPERSON: Thank you, Ms. Ramage. We'll take a few minutes, say ten (10) minutes or so, break and we'll be back with Mr. Peters.

--- Upon recessing at 2:33 p.m.
--- Upon resuming at 2:49 p.m.

THE CHAIRPERSON: Okay, folks. Mr.

Peters...?

CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: Yes, thank you, Mr. Chairman. Good afternoon to the panel of witnesses, Mr. McLaren, Mr. Bowman and Mr. Ostergaard. I have some questions on behalf of the Board, and I'll go for the next hour and see how I do and see where we are at that point in time. I know My Friend opposite may have some re-examination, brief re-examination, he may wish to speak to.

So let me proceed.

And, Mr. Ostergaard, I want to start with you, although your panel colleagues are certainly welcome to provide any additional information that they believe will be useful to the Board.

Mr. Ostergaard, the gap between embedded costs and marginal costs and those -- however you calculate those marginal costs for bulk power, that's not unique to Manitoba, BC, or Quebec, is it?

MR. PETER OSTERGAARD: For any cost-based system it is not unique.

MR. BOB PETERS: Are there any Canadian jurisdictions of which you are aware where marginal cost is now lower than embedded cost of bulk power?

MR. PETER OSTERGAARD: Not that I'm aware, but I am not a -- an avid student of the subject or -- or its application across the country.

MR. BOB PETERS: And I'm not sure I quite followed the questioning from Ms. Ramage at the beginning of her questions to you, but would you agree that a made-in-Manitoba solution is what need be developed here, as opposed to simply importing a solution from another jurisdiction?

MR. PETER OSTERGAARD: I'm not here to suggest that a BC system based on Tariff Supplement Number 6 or -- or -- or the stepped rate tariffs be adopted holus bolus. All that I'm suggesting is that it might be helpful to the Board and the province to -- to address the issues; many of which British Columbia has experienced, and I guess we've learned some lessons from it that might be useful to you -- for you to consider.

MR. BOB PETERS: So the growing pains from other jurisdictions may be of assistance to this Board as they go through this process?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: And you don't dispute that the gap that we talk about, and that's the gap between the embedded costs and the marginal costs of bulk power supply, that that gap can lead to financial

implications for the Utility?

MR. PETER OSTERGAARD: It can lead to financial implications, yes.

MR. BOB PETERS: And those financial implications are what I believe Mr. Bowman says are the focus of the energy intensive industry rate here in Manitoba.

And you'd agree with that?

MR. PETER OSTERGAARD: There are many ways to the implementa -- or the implications, rather, of the gap can be addressed and certainly the energy intensive industrial rate is one (1) way to do it.

MR. BOB PETERS: In British Columbia would I be correct to say that the financial implications were not the focus of the BC solutions in dealing with the gap between embedded costs and marginal costs of bulk power supply?

MR. PETER OSTERGAARD: I think the financial implications were -- were part of the -- the -- or -- or one (1) of the factors that went in to the stepped rate structures, in other words, to try to dampen load growth. And also, with respect to Tariff Supplement Number 6, the financial implications of allowing, as a hypothetic example -- a hypothetical example, a -- a large new aluminum smelter into the province without

having that smelter contribute to some of the costs of service of it.

So clearly the financial implications were -- were a factor, not necessarily the only one.

MR. BOB PETERS: All right. And -- and it's a good qualification that you make. But the financial consideration that was foremost in British Columbia was the new large general service customer coming in with a -- with a load of 150 megawatts or more. That was the financial concern, that they would cause additional cost to the generation system that would have to be borne by all customers.

MR. PETER OSTERGAARD: That's correct.

MR. BOB PETERS: And -- and the way that was dealt with, and I'll have some questions for you, was the Tariff Supplement 6 that you've put in your evidence and you've also spoken to the other lawyers about.

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: In British Columbia, the domestic load growth was such that all classes were contributing to that growth, were they not?

MR. PETER OSTERGAARD: Yes, over time, all customer -- all major customer classes in British Columbia have been growing, albeit at different rates.

MR. BOB PETERS: And all of those

classes, as they grew then, were driving costs related to new energy supplies?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: And there some disproportionate growth, is what you were suggesting, at -- at various points in time.

MR. PETER OSTERGAARD: Yes, I -- I'm not, again, an expert in tracking year-to-year changes, but in my -- in my report, I did include load growth information for the industrial classes, which does show a dampening of load growth attributable, arguably, to economic conditions, but attributable also to the stepped rate structure in the industrial class.

MR. BOB PETERS: Is it just the residential customers and the industrial customers who have stepped rates in British Columbia, or is there stepped rates for the commercial customers now as well?

MR. PETER OSTERGAARD: There are no stepped rates for commercial customers at this time. In response to an Information Request, I did give a call to -- I shouldn't say I gave -- I gave a call to, someone else called the -- a staffer at the BCUC, and that staffer did indicate that -- at the -- one (1) of the proceedings this year, I guess it was the residential inclining block rate proceeding, BC Hydro did indicate

that it was considering some form of stepped rate structure for commercial classes at some point in the future.

MR. BOB PETERS: But not -- not -- it's not there yet?

MR. PETER OSTERGAARD: Correct.

MR. BOB PETERS: And there's no application, that you're aware of, pending on that?

MR. PETER OSTERGAARD: There is no application that I'm aware of.

MR. BOB PETERS: And so the focus from these second tier rate structures in British Columbia, they're focussed on energy efficiency for -- for the customer classes to which they apply.

Would you agree with that?

MR. PETER OSTERGAARD: Yes, they're attempting to dampen demand in that particular customer class.

MR. BOB PETERS: And as they dampen demand, that would require less energy from domestic resources to meet that demand, and that's -- that's one (1) of the benefits of it.

MR. PETER OSTERGAARD: That's right. In the energy plan, BC Hydro was tasked with the -- the goal of -- of using DSM as a way to achieve half of the growth

between now and 2020.

MR. BOB PETERS: But instead of exporting that savings, what's going to happen to that savings in British Columbia? It's just going to be used for new load growth; is that the intention?

MR. PETER OSTERGAARD: Yes, to reduce demand otherwise -- that would otherwise have occurred, and therefore, require less purchases from independent power producers, or perhaps, delay Site C.

MR. BOB PETERS: And from your evidence, it appears that the residential customers, as of October 1st of 2008, faced a two (2) tier rate as well.

MR. PETER OSTERGAARD: That's correct, we have a two (2) tier rate structure for -- for residential customers, effective October 1st.

MR. BOB PETERS: And their first block of energy is at about five point nine eight (5.9) cents a kilowatt hour.

MR. PETER OSTERGAARD: That's correct.

MR. BOB PETERS: And then the second block will be at seven point two one (7.21) cents an hour --

MR. PETER OSTERGAARD: That's correct.

MR. BOB PETERS: -- a kilowatt hour?

MR. PETER OSTERGAARD: And that the --

the cutoff point is thirteen hundred and fifty (1,350) kilowatt hours over a two (2) month billing period.

MR. BOB PETERS: Right, and I -- my notes, it was six hundred and seventy-five (675) kilowatt hours a month. It sounds like you only send out bills every two (2) months in BC.

MR. PETER OSTERGAARD: Every two (2) months.

MR. BOB PETERS: Yeah.

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: But on a mon -- but I see --

MR. PETER OSTERGAARD: That -- that can be significant in the -- in the shoulder seasons, of course --

MR. BOB PETERS: I see that. As I'm asking the question, I could see where the two (2) month could allow that second block to be accessed to a higher level that it otherwise would be on a monthly basis.

But six hundred and seventy-five (675) kilowatt hours a month, was that done as an average, or why was it done in two (2) months, other than the billing structure?

MR. PETER OSTERGAARD: I'm not familiar with the ra -- residential inclining block application,

but in general, it translates -- thirteen fifty (1,350) times six (6) is roughly 9,000 kilowatt hours a year, which is slightly below the average residential consumption in British Columbia.

MR. BOB PETERS: Was the residential rate designed to be revenue neutral to the class?

MR. PETER OSTERGAARD: Revenue neutral to the class, yes --

MR. BOB PETERS: Not --

MR. PETER OSTERGAARD: -- not to the individual customers.

MR. BOB PETERS: No, of course not. So they -- they would be larger bills for the all-electric or electric heat customers in British Columbia, which are a significant portion of that load.

MR. PETER OSTERGAARD: There will be larger bills to electric heating customers in general. In British Columbia, quite often electric heat is supplemented by other sources, so there will likely be some form of demand response. For example, people will turn on their natural gas fireplaces more often.

And of course, that will dampen demand for electricity.

MR. BOB PETERS: Am I also correct that in British Columbia there's not a uniform rate for all

residential customers across the province?

Some of the distribution rates, for example, vary by location?

MR. PETER OSTERGAARD: If you're a BC Hydro customer, your rate is the same across the province, unless you're in what is called Zone 2, which is the non-integrated grid areas serviced by BC Hydro diesels.

The city of New Westminster has its own rate structure, although it is served entirely by BC Hydro as a -- as a wholesale customer.

In service territories served by Fortis BC, formerly Aquila, formerly West Kootenay Power, there are different rates as well, even though BC Hydro is a main supplier of Fortis BC's electricity.

MR. BOB PETERS: Are the rates the same on the island as compared to the mainland -- the lower mainland?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: All right.

In British Columbia, was there ever --

MR. PETER OSTERGAARD: Sorry, for electricity, not for gas.

MR. BOB PETERS: Yes, I meant for electricity, sir, so thank you for that answer.

Can you tell this Board, sir, that in British Columbia, was there ever a conscious effort to discourage load growth by electric customers other than the new Tier 2 rates?

MR. PETER OSTERGAARD: The Power Smart Program has been in effect, I'd say, for at least eighteen (18) years. It started around 1990. It was quite active in the early 1990s. But as the surplus continued to exist, it died out a little bit in the late '90s.

It was -- was resurrected again in the 2002/2003 period, as it became more widely known that we were becoming net importers and as BC Hydro's board changed to have a more of a focus on Power Smart and energy efficiency under the chairmanship of Larry Bell.

MR. BOB PETERS: So other than the Power Smart initiatives, there was no rate initiatives to discourage load growth prior to the two (2) tier system?

MR. PETER OSTERGAARD: Using rates to -- to send price signals in BC has gone from having a declining block rate until about nineteen (19) -- until some time in the late '80s. So what had been a declining block rate -- in other words, you paid less for your last kilowatt hour of electricity -- to a flat rate from approximately 1990 through until October, 2008. And of

course, now we have an inclining block rate to discourage consumption on the margin.

But certainly, until the mid- to late 1980s, there was a strong desire on the part of BC Hydro, through its rate structure, to encourage residential consumption.

MR. BOB PETERS: When you were regulating BC Hydro, Mr. Ostergaard, what was the rationale for dividends being paid by BC Hydro through to the Government of British Columbia?

MR. PETER OSTERGAARD: I believe dividends started in 1990, which was well before my time at the BC Utilities Commission. The rationale for dividends to be paid by BC Hydro to the British Columbia government was that BC Hydro was in a sufficiently sound financial position by the late 1980s. And for a government looking for new sources of revenue, BC Hydro was a logical candidate.

MR. BOB PETERS: When you say sufficiently financially sound, what does that translate to, in terms of a debt/equity ratio?

MR. PETER OSTERGAARD: The debt/equity ratio in the late '80s, very roughly, was probably around seventy/ thirty (70:30), in that range. The interest coverage ratio goal was one point three to one (1.3:1) at

the time, although the govern -- the government, through a special direction, gave BC Hydro more time to achieve that.

MR. BOB PETERS: Can you explain to this Board briefly how that dividend was quantified by the BC government?

Did you know in advance how much was going to be required on an annual basis for the dividend to the shareholder?

MR. PETER OSTERGAARD: I believe it was 85 percent of the distributable surplus, which is generally net income. So roughly speaking, $200 to $350 million a year was the -- was the general anticipation of dividend payments to the province.

MR. BOB PETERS: Was there a factor built into the revenue requirement to ensure that rates collected enough money to pay that dividend?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: And so when you built in a factor in the revenue requirement, was it a sum certain on which the base -- the rates were based?

MR. PETER OSTERGAARD: No, it would have been the pre-tax rate of return on equity paid by the most comparable investor-owned utility which was Terasen Gas, today's Terasen Gas. Back then it was BC Gas.

So there's a -- a return on equity percentage that was grossed up to -- to account for the fact that BC Hydro does not pay income taxes, contrary to private sector, investor-owned utilities.

MR. BOB PETERS: Does that mean that you used a rate-base rate of return methodology for the -- for BC Hydro?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: And what would that pretax rate of return equated to, percentage-wise, if you could ballpark that for this Board?

MR. PETER OSTERGAARD: Of course, at that time interest rates were considerably higher than today's. I believe it was in the range of 14 to 15 percent, 14 to 16 percent annually.

MR. BOB PETERS: And more recently, do you know what -- what it's set at?

MR. PETER OSTERGAARD: The BC Utilities Commission uses a -- a system whereby they take the long Canada bonds and add a -- a risk premium. So for the BC Hydro, one would probably be in the range of 8 to 10 percent, in that -- in that vicinity.

That's a little bit of a ballpark figure. I could probably find the information and -- and provide it subsequent to the closure of the --

THE CHAIRPERSON: Actually, I could probably help. It came over the CIRES newsletter the other day. I think it was something in the order of eight point five (8.5).

MR. PETER OSTERGAARD: That makes sense.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Maybe I'm asking the wrong people the questions. Thank you, Mr. Chairman.

Mr. Ostergaard, do I take it that the dividends are not a contentious issue in the regulation of BC Hydro?

MR. PETER OSTERGAARD: As you might expect, there was -- they were contentious when they were first introduced. But today it's generally accepted that BC Hydro needs to operate efficiently, and its shareholder's entitled to a fair return on its invested capital.

MR. BOB PETERS: And I think I've heard you tell my colleagues that BC Hydro depends on net annual imports currently, because they're not running a very large thermal plant in the Burrard area.

And therefore, they -- BC Hydro has to import somewhere between 3 and 12 percent of its annual energy requirements for domestic load?

MR. PETER OSTERGAARD: That's correct. Except for that one year, 2007/2008 where we had a high water year. And I believe BC Hydro was slightly a net exporter in that last fiscal year.

MR. BOB PETERS: And when you talk about annual net exports, in British Columbia it's a very modest amount by the utility because of the Hyder, Alaska, and the Seattle Municipal Utility.

But other than that there are not exports by -- by BC Hydro?

MR. PETER OSTERGAARD: I believe under high-water conditions, where BC Hydro would otherwise have to spill, then the regulatory accountants treat those exports slightly differently than they do the Powerex trade numbers. But in most years the numbers -- in most years that number is -- is zero and then some years it's very small.

MR. BOB PETERS: I don't know that I heard you quantify the exports to Hyder, Alaska and to the Seattle Municipal Utility. Are you able to quantify those either in dollars or energy units?

MR. PETER OSTERGAARD: Not off the top of my head. The Hyder, Alaska net exports would be extremely small, probably in the range of at most a couple of hundred thousand kilowatt hours a years given

the size of Hyder, Alaska, the lack of any industry and the fact that there's only a couple of commercial establishments.

And with respect to Seattle City Light, it was the equivalent of what the High Ross Dam would have generated, and that's a number that I don't have on -- on the top of my head.

MR. BOB PETERS: But in any event the -- the major exporting is done by the wholly owned subsidiary that's not regulated based on what amount to really near term sales opportunities?

MR. PETER OSTERGAARD: That's correct, under a transfer pricing agreement between BC Hydro and Powerex.

MR. BOB PETERS: And -- and that -- I was going to ask you some questions about the transfer pricing. How does Powerex determine what it's paying for its electricity that it's going to export?

MR. PETER OSTERGAARD: I'm not an expert by any means in the transfer pricing agreements. I know that in the responses to the Information Requests, there is a fair bit of information given on the transfer pricing agreement. Generally it's based on the -- on the mid-Columbia forward price, which is a price that -- of electricity that's traded in the mid-Columbia region

where BPA has a lot of transmission lines and generation stations along the river.

MR. BOB PETERS: And that's the price at which BC Hydro sells it to Powerex?

MR. PETER OSTERGAARD: That's the main factor as far as I know. But to -- to reiterate, I'm -- I'm not an expert on the transfer pricing agreement. I -- I don't work for Hydro, I never have.

MR. BOB PETERS: Understood. In terms of the percentage of totally -- of total -- the domestic generation that happens in British Columbia, how much of the domestic needs of British Columbia are served from their -- from BC Hydro's own resources?

MR. PETER OSTERGAARD: If we look at the Annual Report numbers from 2008 fiscal year, in terms of gigawatt hours, BC Hydro's sources of supply for domestic -- sorry, BC Hydro's hydroelectric generation supply totalled 52,140 gigawatt hours. Burrard contributed 260 gigawatt hours, that's the 900 megawatt thermal station in Greater Vancouver.

Other thermal was 353, purchases under long-term commitments was eleven thousand eight hundred and seventy-eight (11,878). Then there was a bunch of export numbers as well.

MR. BOB PETERS: Were those -- sorry to

interrupt on that, but those purchases you mentioned, are those the purchases from the independent power producers?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: All right. And --

MR. PETER OSTERGAARD: And probably Alcan as well, BC Hydro purchases surplus electricity from Alcan.

MR. BOB PETERS: That's from the Kitimat area and --

MR. PETER OSTERGAARD: Correct. The Kemano -- the Kemano generation station in -- in northwestern British Columbia generates more electricity than Alcan needs for it's smelters, so the surplus is sold to BC Hydro.

MR. BOB PETERS: And then if you have that same report, sir, the imports to serve the BC load, is that also delineated on that report?

MR. PETER OSTERGAARD: Oh, it's in here somewhere, but I'm not quite sure where it is, it's not on the same table.

(BRIEF PAUSE)

MR. PETER OSTERGAARD: I believe I have that number in another report, which I brought with me.

(BRIEF PAUSE)

MR. BOB PETERS: Perhaps that's something we can undertake to have you notify your counsel of and he can provide it to the record here.

MR. PETER OSTERGAARD: Generally -- yes, I can do that. Three (3) to 13 percent of domestic requirements would be in the order of -- of 1,500 to 7,000 gigawatt hours a year would be imported to provide domestic requirements.

MR. BOB PETERS: For the 2008 year, are you able to narrow it down as to which end of the scale that was on or is that as close as you can come?

MR. PETER OSTERGAARD: For the '07/'08 fiscal year, I believe it would have been a negative number given the -- the hydro surplus last year.

MR. BOB PETERS: All right. Then we don't need that undertaking from -- from you and your counsel.

MR. PETER OSTERGAARD: Actually, I think I found it here.

MR. BOB PETERS: Oh.

MR. PETER OSTERGAARD: Imports for domestic supply gigawatt hours, 2007/'08, not available at the time this report was prepared; '06/'07, six

thousand two hundred and fifty-three (6,253); 2005/'06 fiscal year, four thousand four hundred and sixty-one (4,461) which was 9 percent of requirements; '04/'05, seven three eight one (7,381) which was 14 percent of requirements; '03/'04, 5,118 gigawatt hours which was 10 percent; 2002/2003, was one thousand seven and fifty-three (1,753) which was 4 percent.

So you can understand the range here of -- in -- in these cases, 4 to 14 percent of domestic requirements were imported.

MR. BOB PETERS: Thank you. I want to turn with you, Mr. Ostergaard, to the Tariff Supplement 6 that's been talked about and -- and also the step rate aspects. And in Tab 13 of a book of documents that I prepared some time ago -- your counsel may have a copy or I see Mr. Bowman has one handy -- in Tab 13 of that book of documents is some information that I believe was filed by Manitoba Hydro but it contains extracts from some of the same information I think you provided in some of your materials.

But I want the Board to understand this Tariff Supplement 8 -- sorry, Tariff Supplement 6, Mr. Ostergaard, as well as the inverted rates that -- that go along with it.

In this particular solution to concerns about load growth

and sending efficiency signals, customers were provided with a baseline, correct?

MR. PETER OSTERGAARD: We're talking about Tariff Supplement...?

MR. BOB PETERS: I'm talking about the -- the stepped rates as well.

MR. PETER OSTERGAARD: Stepped rates, yes.

MR. BOB PETERS: Yes.

MR. PETER OSTERGAARD: Yes. Customer baseline loads were established for each individual industrial customer to provide that baseline load.

MR. BOB PETERS: All right. And -- and the baseline, once it was established, the heritage rate was charged against 90 percent of the customer's baseline in each year, correct?

MR. PETER OSTERGAARD: Not quite. The Tier 2 rate was established. The Tier 1 rate was a derivative of the actual consumption and the Tier 2 rate so, yes, in general, it was very close to the heritage rate.

MR. BOB PETERS: All right. Your correction of me is to perhaps underline the point to this Board that in applying a baseline with a Tier 1 and a Tier 2 rate, the objective was to strive for revenue

neutrality?

MR. PETER OSTERGAARD: At the level of the individual industrial customer, yes.

MR. BOB PETERS: Correct. Not at the customer's -- not the class necessarily, but certainly at the customer level, assuming the customer would use the same amount as their -- as their baseline was calculated at.

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: So that really meant that the -- the Tier 1 rate had to drop a little bit and the Tier 2 rate would be an amount higher than that?

MR. PETER OSTERGAARD: Fifty (50) -- fifty-four dollars ($54) a megawatt hour in the first year and now seventy-three dollars ($73) and change in the second year.

MR. BOB PETERS: Right. And the -- the Tier 2 rate, even though it went from fifty-three dollars ($53) -- or fifty four dollars ($54) to seventy-three dollars ($73) a megawatt, it was still designed -- the rate was still designed to be revenue neutral to the customer, using a hundred percent of their baseline?

MR. PETER OSTERGAARD: Yes. So, therefore, under the second year, the Tier 1 rate would fall. The Tier 1 rate has yet to be established because

the 2008/'09 revenue requirements decision has yet to come down from the BCUC.

MR. BOB PETERS: Understood. Can you explain to this Board why the rate was set to be revenue neutral on a customer-by-customer basis?

(BRIEF PAUSE)

MR. PETER OSTERGAARD: I do recall that that was a direction in the 2002 Energy Plan, where the -- where the stepped rate was announced.

(BRIEF PAUSE)

MR. PETER OSTERGAARD: Of the existing cust -- consumption level, the total cost to the consumer, and the total revenue to the distribution company offering the rate are unchanged.

MR. BOB PETERS: So there was a directive to establish revenue neutrality on a customer-by-customer basis.

MR. PETER OSTERGAARD: Directive is a word I wouldn't use, but there was a policy direction, for lack of a better term, or a policy action that stated that.

MR. BOB PETERS: And the Tier 2 rate, you showed some instability in the two (2) prices, if it went from about five point four (5.4) cents to seven point three (7.3) cents.

A fairly significant increase, you'd agree?

MR. PETER OSTERGAARD: For the -- for the Tier 2, yes, it's a significant increase.

MR. BOB PETERS: But if the customer just used 100 percent of their baseline, they would be revenue neutral to what the old embedded rate would have been?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: And so it's only if the customer exceeds the baseline will they have revenue consequences adverse to what they would be under the heritage rates?

MR. PETER OSTERGAARD: Yes, if they -- if they exceed the baseline, they would pay more for their electricity.

MR. BOB PETERS: But if the customer exceeds the baseline by more than 10 percent, the entire formula is then reset, as I understand it.

Is that your understanding?

MR. PETER OSTERGAARD: That's my understanding, yes.

MR. BOB PETERS: So the customer is still kept revenue neutral, even though they've now got a new baseline?

MR. PETER OSTERGAARD: In -- in the sense that their -- in the sense that their consumption is higher than it was the year before, they are paying more, but they would be argue -- yes, they would revenue neutral compared to their -- to their -- on the basis of cents per kilowatt hour paid in total.

MR. BOB PETERS: As part of these stepped rates for the industrial class in British Columbia, time of use, you indicated in your direct evidence, was -- was an optional portion heretofore not yet used, as I understood?

MR. PETER OSTERGAARD: That's right, the 2002 Energy Plan stated that time-of-use rate should be developed as an option to the stepped rate structure.

The report and recommendations from the BCUC that discusses this indicates that BC Hydro didn't develop a time-of-use proposal for that particular proceeding, mostly because they didn't think anybody was going to go for it.

The Commission asked them to develop it anyways, because the Energy Plan referred to it. They have a time-of-use rate structure, which is in the

response to the -- one of the Information Requests.

But to date -- in the first two (2) years, at least, of the review of the stepped rate structures -- BC Hydro was noted in these annual reports on the service rates that there have been no takers on time-of-use rates.

MR. BOB PETERS: You heard some of the presenters just before this panel came back on, Mr. Ostergaard?

MR. PETER OSTERGAARD: Yes, I did.

MR. BOB PETERS: And can you maybe explain to this Board why -- why it is -- why there are no takers, according to your understanding, at this point in time in British Columbia?

MR. PETER OSTERGAARD: I don't have a reason to -- to give for that, other than one must assume that it's not as attractive as the stepped rate structure, in the sense that industrial customers have to trade off shifting their consumption requirements to take advantage of lower-priced electricity at certain hours of the day. And they've made the economic conclusion that it's not worth -- worth their while to do so.

MR. BOB PETERS: Does that suggest that the customers have load factors, perhaps like some of the presenters, that are sufficiently high, that they're

running -- they're running on a 90 percent or higher load factor, where time of use, at least daily time of use, might not be an attractive option?

MR. PETER OSTERGAARD: I'm really reluctant to comment on the reasons why BC industrial customers have not taken advantage of time-of-use rate structures. I expect that that will be an issue that the BCUC will -- will include in its terms of reference for its report back to government on these issues in less than a year's time.

MR. BOB PETERS: You're not aware of any inherent rate design aspect of it that has made it unattractive?

MR. PETER OSTERGAARD: I'm not aware of it -- any -- any inherent aspects of the rate design, but neither am I familiar with the time-of-use rate structure.

MR. BOB PETERS: All right, thank you. In British Columbia would it be correct to say that there is -- there's no cap on the growth of any of the industrial customers?

MR. PETER OSTERGAARD: That's correct.

MR. BOB PETERS: They just pay the Tier 2 rate for everything above their -- above 90 percent of their baseline?

MR. PETER OSTERGAARD: Yes, and those customer baseline loads would be reset, either within the year or at the end of the year, in accordance with plant expansions or contractions or, indeed, any other reasons, such as labour disputes.

MR. BOB PETERS: There's no floor in British Columbia for the second tier rate at which it kicks in, in terms of dollars and cents amount; it's not protected by any mechanism?

MR. PETER OSTERGAARD: It's 90 percent of your customer baseline load is where it kicks in, correct.

MR. BOB PETERS: All right. And in terms of setting the actual price for that second tier of energy, that's based on the bids that the independent power producers quote when BC Hydro puts out a request for bids?

MR. PETER OSTERGAARD: It's the results of the calls for tender in the most recent calls. Hydro then applies to the BCUC to set the Tier 2 price. And the most recent example of that was in the spring of 2008, when BC Hydro's Tier 2 price was approved by the BCUC after a written hearing process.

MR. BOB PETERS: Mr. Ostergaard, if the largest of industrial customers in British Columbia grow

disproportionately larger than their class members and more than the class average, who pays for the growth of that large customer?

(BRIEF PAUSE)

MR. PETER OSTERGAARD: All BC Hydro ratepayers would -- would pay for increased consumption in -- in that situation.

(BRIEF PAUSE)

MR. BOB PETERS: When I turn to the Tariff Supplement 6 in the service extension issues, as I understand your evidence, this was the solution in British Columbia for someone expanding at such a significant rate that it would have major financial repercussions to other ratepayers.

This is where the line was drawn?

MR. PETER OSTERGAARD: Tariff Supplement Number 6 would apply to any industrial customer wishing to locate in British Columbia. The 150 megavolt ampere cutoff point is for the very large ones that want to expand -- or -- or locate, rather, in British Columbia.

MR. BOB PETERS: So if we pick the very

largest of the large -- the -- the greater than 150 megawatts, in my measurement -- they would face the prospect of having to contribute to the actual generation facilities that was going -- that would be needed to serve them?

MR. PETER OSTERGAARD: Yes.

MR. BOB PETERS: And as I read your evidence, the aluminum smelter venture on the island was interested, but not when they got the -- the costs, as Mr. Bowman had explained in his evidence.

MR. PETER OSTERGAARD: Yes, that particular proposal was one that was perhaps not as serious as some of the other aluminum smelter proposals that we've seen across North America.

And they were proposing, at the time, that BC Hydro provide a long-term supply contract at a fixed rate. So therefore, BC Hydro rightly had no choice but to sugge-- well, to -- to indicate that their -- that they were going to be guided by Tariff Supplement Number 6, at which point, the proponents of the smelter complained to the BC Utilities Commission.

The Commission asked BC Hydro for some information and then indicated in its response -- BCUC, that is, indicated in its response to the Alberni Aluminium Corporation that BC Hydro's general

interpretation of Tariff Supplement Number 6 was correct, but if -- and -- and BC Hydro also had indicated that -- that they wanted a -- a more specific estimate, or -- or a more specific quote, as to what the actual number was than the cost would be in the order of four hundred thousand dollars ($400,000).

MR. BOB PETERS: The most serious of the requests for relief under Tariff Supplement 6, then, came from the pipeline company you mentioned.

And they did in fact proceed with their generation -- or with their construction and also contributed to generation?

MR. PETER OSTERGAARD: There was no request for relief from Kinder Morgan. And I do not believe there was any contribution to generation, since the load was in the range of 55 to 60 megawatts, as opposed to 150 megawatts.

MR. BOB PETERS: On a related issue, in terms of service extension, BC Hydro provides an offset or credit against the cost of system reinforcement.

And that formula appears to be the net revenue increase times seven (7) years, plus 50 percent of one (1) year's depreciation, as well as other benefits, to be determined by -- by the utility?

MR. PETER OSTERGAARD: Generally, yes.

The formula is -- is set out in both Tariff Supplement Number 6, which is attached to a response to an Information Request, and I believe it may also be in my report.

MR. BOB PETERS: Can you tell this Board what the typical, or maybe even range of, offsets or credits are as a percentage of the cost of system reinforcement?

(BRIEF PAUSE)

MR. PETER OSTERGAARD: Sorry for the delay.

In my response to Manitoba Hydro/MIPUG-9, page 4 and 5, we were asked to give some examples of Tariff Supplement Number 6.

And as I believe I noted in the section dealing with examples, based on examples that I am aware of, TS-6 customers tend not to pay any system reinforcement costs but do tend to pay the full cost of the transmission extension and connection to the system, based on that formula.

That is because BC Hydro's revenues over the number of years usually fully offset the -- the costs of transmission reinforcement under the formula. BC

Hydro does require some sort of financial security or a letter of credit which is refundable over the years as the new customer does indeed take the electricity that it says it's going to take, for the purposes of calculating the formula.

MR. BOB PETERS: All right. Thank you for that answer, Mr. Ostergaard.

When you sit back and you've heard considerable discussion and evidence here in the Manitoba proceedings -- and I suppose, if I put you on the spot, maybe even -- had you -- if you had to be a panel member deciding this in Manitoba, what solution do you think works best, based on your understanding of the Manitoba solu -- situation?

MR. PETER OSTERGAARD: Well, as I mentioned in my -- my direct evidence yesterday, I do believe that the -- for existing customers, some form of stepped rate system to discourage consumption at the margin and encourage efficiency investments, self-generation, works in British Columbia, it may be appropriate for Manitoba.

And, similarly, for new customers, there is a need, similar to what was described in Tariff Supplement Number 6 as a -- as a way to have new customers pay much of the freight of locating in a new

jurisdiction, but at the same time, not being suffi -- so onerous that you're discouraging new industrial loads to locate in Briti -- in -- in Manitoba.

The -- the long-term ramifications, I expect, of what is under review in this application could be quite serious, if you look at the long-term.

My father, in the 1940s, worked in an industrial plant in Neepawa, and I don't think that plant is there anymore. I don't know why it shut down. But over the very long run, industries in any jurisdiction come and they go for lots of reasons.

But if you're discouraging new industry from locating and existing industries go, for whatever reason -- mines in British Columbia open and close, aluminum smelters in Pacific Northwest normally close because electricity costs are too high -- then over time, your society may transform itself into a post-industrial society sooner than you think it otherwise might.

So what British Columbia has done here with industrial loads is to try to send price signals at the margin for industry to become efficient, self-generate, to find efficiencies through -- through power smart programs on the margin, and for new customers to pay part of the freight, much of the freight, but not to the point where you're saying no to new industry based on

electricity costs.

MR. BOB PETERS: Does that -- and I thought you might answer something like that towards the existing customers, sir, and I -- I do appreciate your other answers.

In terms of those stepped rates for existing customers, in your view, is there a need that they be revenue neutral to the customer, or would it work if they were revenue neutral to the -- to the class only as a whole?

MR. PETER OSTERGAARD: I haven't given that any thought, but I would imagine that in -- in another jurisdiction, then -- in terms of thorough analysis, studies, discussion, agreement -- then revenue neutrality at the level of the class may be something that we should be looking at.

MR. BOB PETERS: Thank you, Mr. Ostergaard.

Mr. Bowman and Mr. McLaren, I have a few areas to ask question of you, and I -- I know we've talked quite a bit about constraints and different types of constraints. One of the constraints that we may not have talked a lot about yet are the market constraints.

And is it your understanding, gentlemen, that there are market constraints that impact Manitoba

Hydro's ability to export?

MR. PATRICK BOWMAN: Yes, good afternoon. I would say I have heard discussion in this room about constraints with people who would not be interested in purchasing Manitoba Hydro's power at times.

I seem to recall a bit of discussion that I've read transcript of recently where you were asking about exports to Saskatchewan of Manitoba Hydro, and them indicating there's not a lot of interest in -- in Saskatchewan on buy -- buying Manitoba Hydro's power.

And I think we've also heard some discussion about Manitoba Hydro's new possible tie-lining into the United States and the need to get far enough -- it's not just a matter of getting to the border. It's getting quite a ways across the border, because there's also tie-line constraints on that side of the border.

So if all of those fit into the aspect of constraints that occur outside of Manitoba's borders but are market-related constraints, I think the -- there has been evidence at times that those exist.

(BRIEF PAUSE)

MR. BOB PETERS: Mr. Bowman, Mr. McLaren, I want to make sure I understood -- I -- what it -- what

Mr. Bowman may have talked about in his direct evidence.

But when Hydro equates 1 megawatt of firm industrial load to 1.1 megawatts of potential new exports, does that, in your view, accurately reflect the quality of energy being moved?

MR. PATRICK BOWMAN: It -- I don't believe that the concept of equating those two (2) is entirely accurate.

Clearly, on a capacity side, there are reserves that are required. But it's not like those reserves necessarily cause one to have to spill a bunch of water that you'd otherwise generate with. The water is still there, and I'm assuming it's not leading someone to waste water in order to maintain reserves.

It may mean that in -- you might have to keep certain capacity in reserve. It's -- it's part of the rationale for the comments Mr. Turner made earlier today that he's a -- he's a part of a capacity DSM program, that -- that his plant effectively acts as a backup generator to Manitoba Hydro.

But it doesn't mean one goes in and spills the water. You just store it to another time.

MR. BOB PETERS: In your view, can Manitoba Hydro, through reservoir storage manipulation, convert all off-peak energy from reduced industrial

consumption to on-peak export sales?

MR. PATRICK BOWMAN: Not if the evidence is that there are generation constraints at on-peak times.

MR. BOB PETERS: In the below-average flows, that answer might be different, Mr. Bowman?

MR. PATRICK BOWMAN: Below-average flows require one to think about the system entirely differently. It may not be possible to move all water from off-peak times to on-peak times, for example, because you may have off-peak minimum flow constraints, where you have to release the water.

And of course, it -- at very low flow conditions, you may be into marginal resources, incremental resources -- in fact, being from things like thermal generation, not from the hydro generation.

So I don't want to understate the extent to which the system -- thinking your way through all of the different scenarios, this -- this system becomes very complicated, because high flows look very different than low flows, look different than -- than average.

But I think at a -- at a basic level, Hydro's system obviously can -- can firm and shape power. It's what it does for wind resources. It does -- what it does for aspects of the water that it receives.

But that -- that isn't an unlimited capability.

MR. BOB PETERS: If and when Keeyask and Conawapa generating stations come online, does the substantial increase in energy available affect the marginal price that should be employed as a proxy rate that we're discussing in this Hearing?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: We have to be very careful about the -- the proxy rate that people are talking about and the use to which it is put.

If you're talking about a rate being used in a way that Mr. Ostergaard has noted in BC, in a revenue-neutral way, your price signals aren't intended to be perfect. They're intended to be directional.

If you get that run out rate a little high so that the base rate is a little low, it's not the end of the world, because the customer is generally being kept -- held whole. That run over is only being used to send a price signal.

It's an entirely different situation when you're into the -- this type of thing that Mr. Svidal was talking about that Enbridge deals with in a lot of

jurisdictions, where you have market prices. When your load is almost entirely exposed to market, you -- you really want to make sure you get that price right, because they don't see the offset somewhere else.

But outside of that comment, the -- bringing on Conawapa and Keeyask will obviously change the mix with respect to exports, the mix of firm and opportunity, the extent to which the system is at risk of opportunity in any given year, the extent to which the system is at risk of having to use imports in any given year.

And -- but probably that -- what will change it as much as that is what happens in the overall market, in particular, with addition of a new tie-line that's -- that's in -- intended to be part of that overall capital development plan.

That may change -- the tie-line may change more substantially Hydro's system than -- than Conawapa and Keeyask alone do. And it's very hard to look at the Power Resource Plan that's arrived yesterday and get one's mind all the way around that issue.

MR. BOB PETERS: I want to jump to the Service Extension Policy issue that I discussed briefly with Mr. Ostergaard.

And Mr. Bowman and Mr. McLaren, are you

familiar with what Manitoba Hydro's gas subsidiary does, in terms of extensions?

MR. PATRICK BOWMAN: Generally, it's pretty common to other regulated utilities we've dealt with.

MR. BOB PETERS: And your general understanding is that it's a thirty (30) year net present value test over the expected revenues and -- and costs?

MR. PATRICK BOWMAN: Expected revenues and incremental costs arising on the system as a result of the -- the -- the customer, yes.

MR. BOB PETERS: Could a similar system be invoked for Manitoba Hydro's service extension for industrial customers?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: Certainly mathematically, a similar system could be used. Whether it would have a major practical difference, compared to what Manitoba Hydro does now, is an -- is an exercise that would be interesting to see some analysis done on.

But the -- the number-one item that one must be cautious of is that we're not doing through the back door, through that route, exactly the thing that

we're saying you have to be very careful and -- and is not recommended to be done with but through the front, which is saying to the new customer, You're the one who's going to have to pay for Conawapa, not me, because I was here first.

That -- that is -- whether that principle is -- is -- is violated on an ongoing rates basis or whether it's the -- being violated by making a customer pay a one (1) big -- a big, one (1) time contribution that is intended to pay for the present value costs of Conawapa, or -- or Wuskwatim or whichever resource you want to talk about, it's -- it's not what's in Tariff Supplement Number 6. It's -- it's not what's in Hydro's current System Extension Policies. And it -- it should not be brought into the ongoing setting of rates for -- for a subclass of customers. And equally it shouldn't be brought into the one (1) time contribution number for customers.

And so doing -- doing a thirty (30) year net present value analysis is fine as long as you're not trying to do via that route, dinging the customer with saying, You're the marginal guy and I'm not; your power is the marginal one and mine isn't.

MR. BOB PETERS: In the few minutes I have left, gentlemen, I had a series of questions about -

- about the different way a rate could be applied. But I'm going to maybe ask it in a different way.

We heard from Mr. Ostergaard in terms of possible solutions that he sees working in Manitoba.

I want to give you equal opportunity to tell the Board what specifically you see as a -- as your preferred solution in Manitoba?

(BRIEF PAUSE)

MR. PATRICK BOWMAN: We summarized this in the evidence at page 7 to 8. But there is effectively three (3) pieces, if I understand your correction -- question correctly, three (3) pieces to the overall recommendations we were putting forward.

First, on the rate front, maintain rates for all customer classes set on the -- and all customers set on the same principles, which is the embedded costs of Hydro's system. If that means that when load grows, everybody who's using power has to share in the costs of new resources, so be it. That's part of the overall principle of embedded cost rates.

Second, rather than the focus that's been there to date on how to target three (3) customers, spend the time figuring out how to get efficient price signals

in as -- in as many situations as possible to all of the different customers.

It's -- it's a lost opportunity when we're sitting here today -- and -- and going to Mr. Turner's comments, for an example, that his plant could be running differently, in a way that would cause less costs on Hydro's system than it's running right now. And the way -- currently the rate structure offers him no opportunity to do that. And rather than being able to work with Manitoba Hydro towards a way to do that, he's having to come in and deal with the issues that -- that people have been focussed on here.

And third, in the event that people are very concerned about these massive new loads, like -- like the Alberni Aluminum smelter or the other things that Mr. Lazare was talking about back in 2004, look at the way that a Tariff Supplement Number 6 could deal with something like that, similar to British Columbia.

If it's causing major shocks to the system that are in the BC language, aligned with the rate base of the system, aligned with the investment in the capacity cost of the system, the ability to supply the load, then the -- then the new customer should to be made to bear those one (1) time costs.

But those aren't -- that isn't the same as

charging the new customer for -- for Conawapa. It's charging them for a system that can reliably deliver the power on the capacity side.

The -- the point is, if you're bringing on a Conawapa and -- and every kilowatt hour being used in Manitoba is -- is in part being served by Conawapa, then every kilowatt hour needs to see that as part of its pricing.

MR. BOB PETERS: And I -- I understand that answer and appreciate it.

But in terms of some specifics, Mr. Bowman, can I interpret you to be saying that a 90 percent baseline at heritage rates, with 10 percent of the customer's baseline exposed at a Tier 2 rate would be the right -- the right way to go in Manitoba?

MR. PATRICK BOWMAN: No, for two (2) reasons. First, because the 90 percent baseline, using a British Columbia type of example, wouldn't be at heritage rates. It would be at below heritage rates, with a runout rate at above heritage rate, such that the average cost in the heritage rate.

That - that's the princi -- principle behind when people use the term "inverted rates," there is an inverse impact on the two (2) different components of the rate block; one (1) goes up -- the tail rate --

one (1) goes down -- the base rate. It's an inverse impact.

But separately, I don't say that that's what one would impose today because that was the outcome of two (2) years of discussions in BC between the industrial customers and the utility, framed by a policy decision by government and facilitated by a staff member of the BCUC.

In Newfoundland, a similar process went on, that Mr. McLaren was involved in more than me, that led to a different type of -- of inverted rate being -- being put forward to their Board, which does not yet have a pro -- proceeding to make a decision on; so it's not yet in place. But it would have had an inverted type of structure, different than BC's, because it suited Newfoundland's context.

Similarly, it was the industrial customers working with Hydro, and at times, an appointee from the Board, and eventually, bringing in other customer groups to come forward with a report on how that could be done.

I'm not saying that today I could grab a napkin and design the rates on the back of the napkin. There's -- there's work needed to be done to set out your objectives and to make sure that you're finding a way to do it that -- that works for people, including an

educational process, and building some buy-in, and let -- letting people consider how they could respond to it, and seeing how it could work for Manitoba.

MR. BOB PETERS: In light of that last answer, Mr. Bowman, is it possible that a customer-specific rate within a range of a minimum and a maximum could be applied to perhaps the top four (4) or five (5) customers through such a process of discussion and negotiation in an attempt to -- to make it a win-win situation?

MR. PATRICK BOWMAN: Customer-specific baselines using a standard set of rates designed on a consistent set of principles could lead to a win-win situation. That's the basic framework that inverted rate have been applied.

Customer-specific rates, probably, is the most specific example I could imagine of -- of discrimination at that personal level that is as antithetical to a regulated environment as I -- as I can imagine.

MR. BOB PETERS: All right. I thank you for that.

And Mr. Chairman, I'm going to ask the permission of the Board and -- and the panel's counsel that I be given an opportunity to submit some written

questions to them that would complete the questions that I do have. And I would try to provide those timely so they could be answered, I'll say by early January.

And that would then complete my questions of this panel.

THE CHAIRPERSON: Is that okay with you, Mr. Landry?

MR. JOHN LANDRY: That's fine. I've spoke to Mr. Peters about that; that's fine.

THE CHAIRPERSON: Very good.

MR. BOB PETERS: And then I'd like to thank Mssrs. McLaren, Bowman, and Ostergaard. Those do complete my questions at this time.

And I do believe Mr. Landry may have some -- some re-examination issues he would like to address.

THE CHAIRPERSON: Mr. Landry...?

MR. JOHN LANDRY: Thank you, Mr. Chair. If I could just be given a moment to take a look at my notes?

(BRIEF PAUSE)

RE-DIRECT EXAMINATION BY MR. JOHN LANDRY:

MR. JOHN LANDRY: Sir, I have a few areas that shouldn't take me much more than five (5) minutes,

so if I can.

Mr. Ostergaard, I'll go to you first and--

MR. ROBERT MAYER: Much more than five (5) minutes is not available.

CONTINUED BY MR. JOHN LANDRY:

MR. JOHN LANDRY: I sort of looked up and saw that so I -- I gave myself a minute leeway there.

Mr. Ostergaard, in a question that you received from Mr. Williams, regarding Tariff Rate Supplement Number 6, he was asking you about the challenges with respect to that -- that rate.

Do you recall that?

MR. PETER OSTERGAARD: Yes.

MR. JOHN LANDRY: And the one that you mentioned as one of the challenges related to -- and I'm going to use my terminology; I think you and I know what it is -- the Northwest Transmission Line in British Columbia, correct?

MR. PETER OSTERGAARD: Yes.

MR. JOHN LANDRY: And it -- and it related to the -- just to get some background -- it related to the, I think you said three (3) or four (4) potential large mines that may in the near or medium future become viable?

MR. PETER OSTERGAARD: Yes.

MR. JOHN LANDRY: Now, it's in relation to that that I would like to ask the question, sir.

In that context, if I understood your answer, the -- the load that would be required for those mines was at or above the 150 MVA that's in Tariff Rate Supplement 6?

MR. PETER OSTERGAARD: Yes, we have one (1) mine there called Red Chris, which was in the vicinity of 65 megawatts. We had a second mine called Galore Creek, which could have been in the range of 115 megawatts. And then there was a third mine -- actually more than -- more than a third mine that would have added significantly more, in terms of load requirements. And we also had in that particular region a independent power producer of 105 megawatts to provide generation.

So you can expect that, how do you plug all those variables into a formula to come up with an equitable allocation of -- of costs under a scenario where the mines themselves didn't know what their final loads were going to be, and in fact, none of them were going to get even close to 150 megawatts, for the possible reason that they might have to -- to contribute to generation, and where you also had a different time table. Nobody wanted to go first, in terms of being the

new mine, because they felt that they would have to shoulder a disproportionate burden of possible transmission reenforcement costs.

And you also had the very fact that you had a large independent power producer in that same region that could conceivably provide just about all the electricity required for the new mines.

MR. JOHN LANDRY: Sir, the question -- and -- and that -- that is helpful background for the question that I have arising out of that.

And that is, sir, first of all, were you involved in the discussions that led to the -- the, at least attempted, resolution of -- of the issue?

MR. PETER OSTERGAARD: Yes.

MR. JOHN LANDRY: And, sir, in your discussions in respect of the attempt of resolution, when you have such a large load coming on the system, was there any discussion at that time about the concern that that load might have in relation to the export capabilities of Powerex or -- or Hydro, and the -- and the financial impact that would have on the -- on the trading revenue that we've been talking about?

MR. PETER OSTERGAARD: No, there was no concern whatsoever on that front. The main issue was to develop a long-term transmission solution for that region

to serve the region over many, many decades, as opposed to serve one (1) or two (2) possible mines with -- with inferior transmission voltage that, a few years down the road, would have to be reinforced.

MR. JOHN LANDRY: And, sir, did the -- did the province, and -- and I guess BC Hydro, in those discussions consider the addition of mines to the province to be of a economic advantage to the province?

MR. PETER OSTERGAARD: Very much so. An additional benefit was to take the diesel generation in a First Nation's community called Iskut-Eddontenajon and provide it with line power from this new proposed transmission line.

MR. JOHN LANDRY: Sir, staying again with you, Mr. Ostergaard, on another topic, which relates to a question that came from Mr. Peters and the issue of revenue neutrality on a customer basis, which led you into some discussions about step rates, and I just wanted to make it sort of clear from the record -- for the record that is.

You referred to the -- I believe it was the 2002 Energy Policy of the -- the British Columbia government. Just so that, like I say, it's clear for the record, you -- you had a little discussion with Mr. Peters about whether that was a policy or a policy

direction.

I wonder if you could just make it clear to the -- for the record how that -- I think you called it a "policy direction" -- how the policy direction ultimately ended up into the proposal that is now implemented in rates.

And what I mean by that, sir: How did -- how did it go from the government to BCUC to the stakeholders and -- and back through into rates?

Do you -- can you give us a little bit of a -- a very quick history lesson on that?

MR. PETER OSTERGAARD: And yes, I was referring to the 2002 Energy Plan. Policy Action Number 21 reads:

> "New rate structures will provide better price signals to large electricity consumers for conservation and energy efficiency."

It then goes on to describe what was meant by that, including:

> "At the existing consumption level the total cost to the consumer, and the total revenue to the distribution company offering the rate, are unchanged.

The policy action also specifies that:

> "The BC Utilities Commission will conduct a hearing to develop new stepped and time-of-use pricing for BC Hydro's industrial and large commercial customers. As a principle for stepped rates, the last block of energy conshum -- consumed should reflect the cost of new supply."

Then it goes on to set, basically, the criteria. The criteria were set in more detail in a subsequent terms of reference for a BCUC inquiry into the heritage contract and stepped rate structures.

The Commission conducted that inquiry in the summer of 2003, issued its report and recommendations to government that fall.

The government responded with a letter back to BC Hydro on the commission saying, Thank you very much; here are the recommendations we accept without qualification; here are the ones that we want to amend. This is the government talking.

And the next step was for BC Hydro to apply for rate schedules to deal with those stepped rate structures. That was done through a negotiated settlement process over a period of approximately six (6)

months, where the rate schedules for the 1823-A (phonetic), and the other ones listed in my response to the Information Requests, were articulated, framed by a bunch of what are called the "customer baseline load guidelines."

So at -- at that point, the stepped rates were in -- put into place and -- with the following qualifications.

That BC Hydro was to submit an annual report, or report card, on the transmission service rate structures every year with the BCUC. And after three (3) of those annual reports, BCUC is to submit an evaluation report on how well the stepped rate structures are doing.

Basically, a report card to the province by the end of 2009.

MR. JOHN LANDRY: Thank you, sir. Mr. Chair, I have one (1) more question --

THE CHAIRPERSON: I think --

MR. JOHN LANDRY: -- and I'm beyond the 4 o'clock, so I --

THE CHAIRPERSON: -- I think, Mr. Landry, the problem we have is a plane. Could we extent to you the same courtesy we have given to Mr. Peters?

Could you provide the question and circulate it around and get the response?

MR. JOHN LANDRY: I will do that.

(MIPUG PANEL STANDS DOWN)

THE CHAIRPERSON: Thank you, sir. Thanks are due to the MIPUG Panel. You have provided good information and interesting views, and this will be drawn on in our subsequent deliberations.

This brings us to the end of the evidence phase of the proceeding. This proceeding had its origins with a concern expressed by Hydro, this now going back a few hearings ago.

Well, much is as it was then, much has changed. Loads. New export contracts, capital expenditure plans, currency values, the general economy, and the impact on all customer classes.

The outcome of this proceeding may be significant so it is important that each of the parties present provide careful and supportable closing statements, towards assisting the Board, not only in assessing the application as it has been presented, but also in considering any options that a party may consider feasible and in the public interest. We are to come together again on January the 20th after the holidays for the closing statement of Board counsel and the

Intervenors. Two days later, on January 22nd, we will hear from Hydro.

Speaking for the Board, the proceeding to date has been both informative and of great interest. We grasp the range of issues that will need to be taken into account in our deliberations that will follow January 22nd. We appreciate the contributions of all parties present, including witnesses and presenters and we wish you all a good holiday season. Thank you.

--- Upon adjourning at 4:04 p.m.

Certified correct,

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Cheryl Lavigne, Ms.