MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
2004 GENERAL RATE APPLICATION

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

HELD AT:
Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
June 28th, 2004
Volume VII
Pages 1191 to 1355

APPEARANCES

R.F. Peters	)Board Counsel
Patti Ramage	)Manitoba Hydro
Byron Williams	)CAC/MSOS
Michael Anderson (NP)	)Manitoba Kewatinook Ininew Okimowin (MKO)
Peter Miller	)TREE
Randall McQuaker (NP)	)
Garnet Boyd (NP)	)IBEW 2034
John Osler	)Manitoba Industrial
Patrick Bowman	)Power Users Group
Tamara McCaffery	)
Jurgen Feldschmid	)CCEP

TABLE OF CONTENTS

LIST OF EXHIBITS

LIST OF EXHIBITS (cont'd)

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

THE CHAIRPERSON: Good morning, everyone. I call the Hearing back to order.

Ms. Ramage, do we have anymore undertakings?

MS. PATTI RAMAGE: We expect that we're going -- we're going to be filing quite a few after the break, but we thought we'd consolidate it and give them to you all at once, rather than piecemeal.

THE CHAIRPERSON: Very good. On last Wednesday, Manitoba Hydro's Panel on the Cost of Service rates and DSM gave direct evidence. And this morning we will allow Professor Miller, aided by Mr. Lazar to ask questions of Manitoba Hydro's Panel. And then we will hear from Mr. Lazar.

Professor Miller...?

CROSS-EXAMINATION BY MR. PETER MILLER:

DR. PETER MILLER: Thank you, and good morning everyone.

You should all have a four (4) page crib-sheet for this cross-examination. Does everyone have that who needs it?

Fortuitously this was an insert in -- in Saturday's free press; a new PowerSmart newsletter. And

there was a -- a page there that accomplished a lot of what I had intended to do so -- and that's the one (1) right at the top of this packet; number one (1).

And they're asking, what does PowerSmart mean to you? With nine (9) options and a blank to fill in others. And it says, choose one (1). So, I would like to ask Mr. Kuzcek what does PowerSmart mean to you? How -- how would you answer your -- your quiz?

MR. LLOYD KUZCEK: I couldn't just answer with one (1) but just to give you some idea of the background here. What we -- what we're doing here is trying to get an idea of what people think.

Two (2) things actually with the survey here. We want to get some feedback in terms of how many people are looking at the brochure and also we've been branding PowerSmart for I guess about fourteen (14) years now. And one (1) of -- one (1) of the things we are interested in is, what does that mean to people?

And so some people it does mean energy efficiency; using energy efficiently. It does mean increasing my home comfort and you could go through the whole list and so it means something to -- something different possibly to different people.

But we at Manitoba Hydro are pursuing a number of strategic objectives and goals for the company and it

means more than just one (1).
DR. PETER MILLER: Okay, which from the list would you pick out then if you don't want to pick one (1).
MR. LLOYD KUZCEK: Well, I -- I guess from Manitoba Hydro's perspective, if you look at our strategicals we -- the -- the latest version and probably the number one (1) would be -- being a leader in implementing cost effective energy conservation and alternative energy programs. That's -- that's probably the one (1) that is the highest priority in terms of PowerSmart.
But PowerSmart does more. It provides customers with exceptional value and so you get into, you know, increasing my home comfort and that's -- that's one (1) of the non-energy benefits of DSM.
Mr. Tory (phonetic) talked about the non-energy benefits of --
DR. PETER MILLER: PowerSmart programs.
MR. LLOYD KUZCEK: Yes, programs, yes. So -- so one (1) of the things you try -- you do, is you -- you promote the non-energy benefits to consumers as well when you're promoting energy conservation programs.
A third strategic objective of the company is to provide customers with exceptional value. So, that's providing with -- providing customers with knowledge on energy efficiency and also knowledge and awareness of the

benefits associated with energy efficient products.

The fourth strategic objective that it does support is providing customers with an alternative form of resources and that's through DSM.

DR. PETER MILLER: Hmm, hmm.

MR. LLOYD KUZCEK: And that helps through the reduced energy use in Manitoba we, as you know, we can sell the energy in the export market and therefore increase our revenues for the corporation and keep rates low. So that it helps our financial situation.

DR. PETER MILLER: Okay. Thank you, very much. Are there any that aren't there and that might go in the other category?

MR. LLOYD KUZCEK: Well, some people might bring up sustainable development. And there's probably others, you know, nothing --

DR. PETER MILLER: Yes. Well, let -- let me try one (1) and -- and see if -- if you would agree there. How about, on the gas side, keeping dollars in Manitoba's economy instead of sending them to Alberta?

MR. LLOYD KUZCEK: Well, I couldn't say nobody would put that down.

DR. PETER MILLER: Okay. But that's not a -- a -- basically part of the consideration of Manitoba Hydro in developing it for -- for gas customers.

MR. LLOYD KUZCEK: That's correct.
DR. PETER MILLER: Yeah. Okay. Now, if we turn to page 2; this is taken from your introduction to the -- no, this says 2000 but I thought it was 2001 Plan. Anyhow, and that's half-way down the page.
If we look at the stated purposes of DSM, of -- there are two (2) that you mentioned; provide alternative cost effective methods of power supply, and minimize the total cost of energy services to customers, which might correspond on page 1 to the -- to the middle ones on the left and right side, saving money on my energy bills and keeping less electricity rates.
So, would you agree with that?
MR. LLOYD KUZCEK: Yes, yeah.
DR. PETER MILLER: However, those are the only purposes that are stated for the DSM program. Now, there's those two (2) very specific economic ones, in terms of benefits to -- to the -- the Corporation, and to that -- to the ratepayers, and -- and to the individual user of DSM services.
Is this -- does this mean that there's a discrepancy between the 2001 plan and your current view of DSM?
MS. PATTI RAMAGE: Excuse me, Mr. Chair, just before Mr. Kuzcek answers, I thought it might be helpful, it

certainly would be for me to identify -- I think Mr. Kuzcek and Mr. Miller know where this number 2 pages come from --

DR. PETER MILLER: Oh right, sorry about that.

MS. PATTI RAMAGE: -- but I'm not familiar with it.

THE CHAIRPERSON: Thank you, Ms. Ramage. Professor Miller...?

DR. PETER MILLER: Yes, this page is from the Appendix 8, I believe it is, which is the 2001 PowerSmart Plan.

CONTINUED BY DR. PETER MILLER:

DR. PETER MILLER: Okay. So -- so, the question was, this states perhaps two (2) of the -- the nine (9) goals on your quiz, and does this mean that there is an evolution in the view of what DSM -- the purposes of DSM or how -- how can we reconcile that?

MR. LLOYD KUZCEK: I -- I think your -- your term evolution is probably correct. When the new plan comes out, I think we would probably articulate it a little different and broader, and include those strategic goals that we -- that DSM does support, not just the primary goals.

So -- so, I mentioned four (4) of them earlier and I think they all would be on -- on the -- in the new plan, in terms of our objective.

DR. PETER MILLER: Okay, thanks for that. And let me approach this through one (1) other manner. You mentioned that you have a new tenth goal in your strategic plan, which I'm quoting here; I got it from the page 4 of the -- of the Annual Report:

> "Be a leader in implementing cost effective energy conservation and alternate energy programs."

Does the word cost effective there, essentially confine it to the -- to the two (2) objectives in the 2001 plan? I mean, you don't speak of cost effective working relationships with aboriginal peoples, or cost effective safety measures. So, I'm -- I'm wondering why the word cost effective is used in this -- in this one (1) instance.

We know from these Proceedings that everything is under scrutiny, every expense. So, why is this particular one (1) singled out?

MR. LLOYD KUZCEK: The only reason that I could think of is because we have -- well, I don't think it's the only one (1) that's singled out by the way. I think when we talk about developing wind, we also talk about developing wind in terms of it being cost effective.

With DSM, as you know, we have two (2) tests

that we use to determine whether or not we're going to proceed with a program, and you know, the TRY, the total resource costs, and the --

DR. PETER MILLER: Hmm hmm.

MR. LLOYD KUZCEK: -- the RIM test; the Rate Impact Measure test. So, those are the tests that we use, and that's what's being referred to as cost effective.

DR. PETER MILLER: Now, in many of the other programs like establishing good working relationships, or like safety, you -- you don't have comparable tests, do you?

MR. LLOYD KUZCEK: We -- we have tests where it's appropriate. We also have customer service programs that promote conservation that we don't use tests like that.

DR. PETER MILLER: Hmm, hmm.

MR. LLOYD KUZCEK: And -- you know, the -- like, we could go through some of them, the workshops, the seniors-wise program and there's a whole list of them that don't have to pass those tests.

So, it -- it isn't a strict adherence to that, but, the incentive based programs have to pass -- pass those tests.

DR. PETER MILLER: Okay. Thanks for that. Now, I'd like to -- to go on -- there was an earlier discussion with the Board that -- about bringing material over from the Wuskwatim proceedings. And -- so, there's just

one statistic, my favorite statistic that I'd simply like to confirm in this forum.

And I'm sorry that I don't have the -- haven't reproduced the documents. But, in that same 2001 plan which I understand is the most recent one that you have there is a table on page 25, table 2.4 which is the megawatt and gigawatt hours of savings and utility costs for the years 1989-90 to 2000-2001; assess a twelve (12) year period.

And the residential annual saving is thirty seven point six (3.6) gigawatt hours at a cost of 3.9 million dollars. And I reckon that's barely over a penny a kilowatt hour, if -- if my arithmetic is correct and that the percentage of saving compared to the total residential consumption of that year five two eight two (5282) gigawatt hours, is seven (7) tenths of a percent.

Do those figures sound reasonable?

MR. LLOYD KUZCEK: They sound reasonable, yeah.

DR. PETER MILLER: Okay. So, whenever we hear the -- the word aggressive use for DSM, we have to juxtapose that measure of achievement. Do you have any comment on that juxtaposition?

MR. LLOYD KUZCEK: I think I've got a few comments. In -- in the terms of being aggressive one has to view that and judge that in -- in the context of the

environment that you're at and the period of time that you're at.

In the 90's, Manitoba Hydro had a PowerSmart program that, I believe -- this was prior to my time, my understanding of what was going on in the industry was considered aggressive -- certainly was aggressive in Canada.

Our program has evolved since the 90's like a lot of programs have in North America. A lot of US utilities and Canadian utilities, their programs slowed down in the mid-90's as you know, when the market changed.

And as we approached the year 2000, the reverse happened. People started picking up their programs because of the value of DSM programs and other considerations, I guess.

And so throughout that period, Manitoba Hydro has had an aggressive DSM plan. And I think in the context of today, and we've filed evidence to support that, that our program is still aggressive in Canada and North America.

And you mention numbers in terms of what we achieved on -- in the residential market in the 90's and those numbers are approximately correct. We've taken a number of steps to -- to change that as we're moving forward.

We've structured our PowerSmart design program into residential and commercial to ensure that the residential market doesn't get overlooked, that's one of the

structural changes that we've done.

The other thing that we have done and we keep referring back to the 2001 PowerSmart plan and I guess I should -- should talk about that a bit. Even though we have a plan that's formally documented as 2001, we are actually progressing and we've launched a number of programs, including programs that aren't in that plan.

So, our plan really is a modification of that plan and we're moving forward with a number of programs. And I think you mentioned thirty (30) some gigawatt hours that we achieved in a residential market. And I think it's forty-four (44), if I am not mistaken, in 2001.

But, we just launched two (2) programs and we're about to launch another that's going to launch another that's going to target a hundred (100) gigawatt hours by 2010/'11 -- '11/'12 sorry.

And the market potential studies suggests that there's in that time frame, somewhere around two hundred and twenty-five (225) gigawatt hours, and we're looking at launching more programs to achieve those results as well.

So, yes, in the '90s, we didn't achieve as much in the residential market as we did in the -- certainly the industrial market, but that was the '90s, and we're moving forward, and we've -- we're certainly -- plan to achieve -- in fact, probably more so, a greater percentage in

the residential market than in the industrial market, in the -- going forward from this point on.

DR. PETER MILLER: There's more to accomplish there, I guess?

MR. LLOYD KUZCEK: Correct. I agree with you.

DR. PETER MILLER: Okay. Thanks for that. Now, I'd like to turn to the diagram of home and water heating costs, number 3, page 3 of my handout.

As the -- the Panel will know from -- from previous hearings, a concern about Hydro rates and in particular, inverted rates and so on, is that it might unfairly impact electric -- all electric customers.

And -- and I guess the assumption is that the cost of electric heating far exceeds the cost of gas heating. I don't see that large a discrepancy here, if you're talking about say a mid efficiency furnace, is a maybe thirty-one dollars ($31) a year.

Do you see that in the current pricing of gas and electricity, that there is a significantly greater impact on electric heating customers than gas heating customers?

MR. LLOYD KUZCEK: Based on the prices that we're using in here, if you compare the high efficiency to the electric, gas costs about 83 percent of the electric customers. So, is that significant? I guess that's -- and I'm not sure how you would judge that; the gap is narrow,

certainly.
DR. PETER MILLER: Hmm, hmm.
MR. LLOYD KUZCEK: But that depends on where prices are, going forward.
DR. PETER MILLER: And when you look at water heating, you're equal, correct?
MR. LLOYD KUZCEK: Yeah.
DR. PETER MILLER: So, was that part of your consideration, because you -- you faced this problem to a lesser extent with your -- your flat rate; is that correct? I mean, it has a somewhat higher impact on all electric customers. Maybe, Mr. Wiens, can -- can speak to that? The -- the all electric customers would have a slightly higher impact from the rates you're proposing, the uniform ones?
MR. ROBIN WIENS: In this Application?
DR. PETER MILLER: Yes.
MR. ROBIN WIENS: Yes, there's no question about it.
DR. PETER MILLER: Yeah.
MR. ROBIN WIENS: The residential average we're looking at overall in -- in the first year, is about 4 percent and that's the low end of the spectrum. The increases are quite a bit more modest than that.
DR. PETER MILLER: Hmm hmm.
MR. ROBIN WIENS: And as you get up to the

heavy use for electric heating, you're getting up into the five (5)and 6 percent range, and that is obvious fall out from the fact that we priced the whole of the residential class increase, into the tail block.

DR. PETER MILLER: Right, thank you. Have you -- and this is perhaps back to Mr. Kuzcek, when you think of those -- those impacts, is there any programming, DSM programming, that is trying to address groups where the -- the impacts may be greatest?

MR. LLOYD KUZCEK: If you're talking in terms of these rate increases, we -- we haven't discussed that at this point, but we have done that in the past and as instructed, I believe by the PUB, but with the diesel hearings, we're -- we're doing diesel rate increases that just recently took place. We're doing more in those communities to try -- try to help them out in -- in the interim.

We also are focusing -- our geothermal program is focused, although we provide customers with information in general, across Manitoba, whether you use electric or gas heat or have access to those energy sources, we provide you with information on the use of geothermal.

But we are internally targeting the electric market more with the geothermal program than we are with the gas customers. The gas -- served -- service areas.

DR. PETER MILLER: So, in our case they would end up with significantly lower operating costs than -- than the -- the gas customers.

MR. LLOYD KUZCEK: Their operating costs would be lower, yes. And, of course, our concern with any rate structure change if we're talking inverted rates, is the -- one (1) of the impacts that -- that we'd be concerned about is the geothermal market and what that does to it. But we'll be looking at with the study that we're undertaking right now.

DR. PETER MILLER: Okay, thank you for that.

I noticed -- and this is for Mr. Wiens -- that in your rebuttal evidence, there were two (2) of Mr. Lazar's proposals which didn't seem to receive mention, or maybe one (1) of them was mentioned at the introduction but no comment on it. And I guess I'm wondering if silence means agreement?

The first of these is the idea of a hook-up charge to reflect the cost of increased service places additional demand on the system and -- and hence it's going in at marginal costs to a system within -- then -- and Mr. Lazar proposed a -- a charge -- a hook-up charge that would be rebated for energy efficient construction at two (2) different levels.

Has there been any reflection on that?

MR. LLOYD KUZCEK: It's probably best for me

to answer that.

DR. PETER MILLER: Okay.

MR. LLOYD KUZCEK: I -- I chose not to respond to that inner-rebuttal but that doesn't meant we agree with it. I guess, in general, there's -- there's a number of ways that you can achieve market transformation and with Mr. Lazar's proposal, I think that would -- that would achieve it in the new home program.

Because if the customer had the choice of a two thousand dollar ($2000) hook-up charge, or spending three thousand dollars ($3000) on the energy efficiency improvements that would be required to achieve that -- that level that you would -- that would be required to not pay that fee. I think most people would actually go there.

Our overall strategy is to transform the market through eventually codes and standards, as opposed to a hook-up fee. And so, at this point we've -- we've talked about it internally a bit but I don't think we would prefer to go down the route of charging two thousand dollars ($2000) for hook-up fees.

DR. PETER MILLER: Don't you have to achieve a certain level of -- of existing buy-in before you invoke standards, or isn't that the normal pattern? And the question is, how do you get sufficient platform of -- of adoption to then add to that -- the codes and standards that

get the rest?
MR. LLOYD KUZCEK: Yes. I -- I guess, Mr. Miller, it depends on how quick you want it -- you want to get there and how -- how -- what's the techniques you want to use.
Whether you want to ram it down your customer's throat, or you want to slowly transform the customer, so there's the more market acceptance. And you -- you have -- I guess you're balancing achieving your DSM or your conservation objectives with customer service objectives.
And so the balance that we've deiced to go down is to transform the market by having customers accept it in a more -- oh, satisfactory fashion as opposed to it -- I see that as the hard stick actually, in --
DR. PETER MILLER: Mmm hmm.
MR. LLOYD KUZCEK: -- something like a two thousand dollar ($2000) hook-up fee.
DR. PETER MILLER: But isn't part of the problem that it's the builder who would pay the hook-up fee and the -- the homeowner who would make the savings. Isn't that part of the economic dilemma there, and that the hook-up fee as they've tended to address.
MR. LLOYD KUZCEK: I think the home-owner -- or the builder would have to pay the hook-up fees if he was

building the -- the home but the -- ultimately the home-owner would pay for it because the builder would just add it onto his price.

DR. PETER MILLER: That's true. And then -- in -- in which case the -- since the measures are cost effective, the homeowner would be at least as well off.

MR. LLOYD KUZCEK: That's correct.

DR. PETER MILLER: Okay.

MR. LLOYD KUZCEK: And I guess that -- that applies whether you have the hook-up fee or not. So, and I guess I should clarify it, when I say the homeowner is better off. It really depends on the -- the individual case and -- and that's part of the problem with DSM. Is if all customers bought a home, lived there long enough, that's true, some customers, seniors, for example, may want to move to a seniors home in a couple of years, three (3) years, and it may not be cost effective for those customers.

There's other customers that may be looking at moving in the near future, and that wouldn't be cost effective for them as well. And there's the other issue of customer choice of course, and where they want to put their money.

DR. PETER MILLER: At the same time though, there -- it is costing the system, in other words, talk about freedom of -- of choice, but the freedom of choice costs

everyone, costs the system more, by increase in demand, that's incremental power; is that correct?

MR. LLOYD KUZCEK: In general, I guess that would be correct, yeah.

DR. PETER MILLER: Yeah. Let me move on to the other measure that was proposed. In your responses to us, you indicated that there's a different economic reality for gas customers and electric customers, in that energy saved through DSM for an electric customer, can be sold at a -- at a higher price, but not so with a gas customer; is that correct? Is that your -- your testimony?

MR. LLOYD KUZCEK: Can you just repeat that, Mr. Miller?

DR. PETER MILLER: You can pay for a DSM investment from the utility standpoint, by the earnings -- the export earnings that you can make on the electricity that otherwise a domestic customer would have consumed.

So, you have a pot of money, using your cost effective standard, to invest in DSM, but I think -- let's see TREE-RCM-MH-I-41, I think is where you responded to this.

But if the gas customer reduces consumption, you don't make any money?

There is a difference between the two (2) businesses. And you are correct with the electric market, because of our ability to export the energy at a higher price

we can actually realize revenues to pay for the program costs and any incentives that we would provide to customers with DSM programs.

Now, you can have -- you can actually have programs that are cost neutral, and still pass those tests, I guess --

DR. PETER MILLER: Like a loan --

MR. LLOYD KUZCEK: The loan program's and no-cost program. Yeah, so whether it's a gas customer or electric customer, it really doesn't matter, it's cost effective.

On the gas side, as you know, there -- there isn't that opportunity to get those revenues to pay for the program costs and the incentive costs.

DR. PETER MILLER: Now, one (1) of the intentions, I -- I believe, or -- or one (1) of your strategies is to try to have a common DSM program, and I realize there's some differences, but as much as possible, in common between gas and electric.

And so that -- the economics on the gas side, would seem to affect the -- your willingness to invest on the electric side, given that it has to be similar; is that correct?

MR. LLOYD KUZCEK: No, actually it's not correct. We will still implement programs that are just

targeted, the electric market, if it still makes sense for our electric business, as well as the consumers of Manitoba. And an example of that is their recently launched insulation program. It's just for electric customers.

DR. PETER MILLER: Okay.

MR. LLOYD KUZCEK: Gas customers don't qualify.

DR. PETER MILLER: Thank you. Now, this is the background to Mr. Lazar's other proposal you didn't comment on, which is the system benefit charge, as a means of creating the revenues for DSM investment that you already have on the electric side. Again, can I interpret silence as agreement?

MR. LLOYD KUZCEK: Well, I'm not -- I'm not sure what agreement means in this case, but probably we're more in agreement with the proposal here than we are in the other one (1).

Since purchasing Centra Gas, Manitoba Hydro has had some ongoing discussions with the Government on gas DSM programs and how best to implement them. Our legislative mandate right now, is -- was written for the electric business, not the gas business.

So there's one (1) of two (2) ways that something like that could -- could happen, I guess; one (1) would be through the Public Utilities Board, the other would

be through legislative changes possibly.
Manitoba Hydro is not opposed to gas DSM programs.
DR. PETER MILLER: Might you include something like that in your next rate application then?
OBJ MS. PATRICIA RAMAGE: If I could interject, in terms of rate applications, we're -- we're now on to the gas side of the business and this is an electric GRA. I don't think this panel was prepared to answer what will happen on the Centra Gas side of the business.
DR. PETER MILLER: If I may comment on that. This is a case where integration at the corporate level hasn't yet reached integration at the regulatory level. And I see that as -- as a problem.
And since this does have an impact on some programming, maybe there are exceptions, but under the emphasizing cost recovery programs rather than others, it -- it seems to me that it is relevant to the electric rate hearing.
MR. LLOYD KUZCEK: Patti, if could just add a comment. Dr. Miller, I have instructed my staff to design programs not to -- not to go forward or recommend any programs because of the gas business.
So, I don't think there's any barriers with us proceeding with -- pursuing electric programs because of us

owning the gas business, as well.

CONTINUED BY DR. PETER MILLER:

DR. PETER MILLER: Okay. Thank you. So, you're willing to spend money on the gas side if that's necessary for a common program.

MR. LLOYD KUZCEK: I don't think I said that. I --

DR. PETER MILLER: No --

MR. LLOYD KUZCEK: -- I instructed staff to proceed with all electric programs that makes sense and if -- if you have to exclude the gas customers, so be it --

DR. PETER MILLER: Okay --

MR. LLOYD KUZCEK: -- but we should still proceed with those programs that make sense.

DR. PETER MILLER: Okay.

MR. LLOYD KUZCEK: So, it's not causing any barriers right now for the electric company -- or for the people designing programs that just make sense or -- pass those tests for the electric business.

DR. PETER MILLER: Okay. Thanks for that clarification. Let's move on to trucking. On pages 13 and fourteen (14) of the -- Hydro's rebuttal, the -- there's a discussion of economic rents from the almost windfall export sales that preceded the last years drought.

And you use the analogy assigning benefits in proportion to usage of generation and transmission systems is no longer appropriate way of distributing that economic rent on a system that's a past investment.

And you say:

> "That type of allocation would be analogous to the Government of Alberta, rebating its resource revenues to -- to petroleum products customers and thereby making the trucking industry, the largest beneficiary of Alberta's greatest resource."

Is -- I'm wondering if that position is -- you view that as similar to Mr. Lazar's recommendations at several points that the benefits should be distributed independently of -- of consumption?

He mentioned several possibilities. Something like you know, the Alaska permanent resident payment to individuals or -- or the Heritage Fund in Alberta, that kind of thing. Do you see that as a similar idea?

MR. ROBIN WIENS: I -- I don't think that we would necessarily be recommending going as far as something like the Alaska Heritage Fund. But, we do see some merit in -- in decoupling to the extent that we can, given our

tradition, our histories, and the economics here; decoupling to the extent possible from the level of consumption, in terms of the distribution of these benefits.

There's a number of ways to do that and we have looked at a couple of them in -- in the report that we filed with this Board, it doesn't mean to say that we are necessarily prepared to offer something that is radically different from what we do now. But we do like the idea of looking at alternatives.

DR. PETER MILLER: And -- and don't have any particular ones to recommend at this point?

MR. ROBIN WIENS: Well, I guess the closest one (1) that we've come to recommending is that we have -- we have said in our response to, I believe the Public Utilities Board Information Request Second Round Number 3, that in principle, we -- we accept the recommendations of the NERA Report; that's as far as you've said we are able to go as a Corporation at this time.

DR. PETER MILLER: Okay. Thank you, very much. And finally, on page 22 of your rebuttal evidence, you state that you're referring to the inverted rate report and which is due at the end of this year, I believe. And you say that if the Manitoba Hydro's Executive and Board concur with the recommendation of the study, you will include it in your next GRA.

I guess my question has to do with the nature of the -- of the report and its being made available to the public and to other Inter -- Intervenors to comment on.

Is it -- is it the policy, I mean, we have in a recent example, it's the NERA Report; does the Board have to approve any report before it is released to the public?

MR. ROBIN WIENS: Are you asking for a legal opinion?

DR. PETER MILLER: No, it's -- it's Manitoba Hydro Policy. I don't know that -- if there's a legal requirement, I'm just talking about your practice?

MR. VINCE WARDEN: Yes, typically, that -- that is the practice; the Manitoba Hydro Board would approve it before it sub -- submitted to this Board.

DR. PETER MILLER: Is there any danger that recommendations might be lost or -- or changed in certain ways, from -- from that particular practice, before we know what the recommendations are?

In other words, what -- what kind of a filtering affect would that -- would that have, to have it internally screened?

MR. VINCE WARDEN: Well, I wouldn't call it internally screened. Manitoba Hydro has to develop its position, and the position of the Board of Manitoba Hydro represents that position.

So, while the -- the NERA report is -- that has been submitted with these Proceedings, is -- is interesting, and useful for purposes of discussion, it doesn't represent Manitoba Hydro's position at this point in time.

DR. PETER MILLER: Yeah, I'm just -- I'm trying to distinguish two (2) things, one (1) is the release of a -- of a report, and the opportunities to comment on that report. And -- and I want to distinguish that from the ultimate decisions by the Corporation on whether to accept or reject various recommendations in the report; it's the first phase that I'm talking about. The -- the release of the report.

MR. VINCE WARDEN: Yeah, well, I think the -- the process allows Intervenors and other interested parties ample opportunity to comment on Manitoba Hydro's position. We clearly stated that this Application does not reflect any of the recommendations contained in the NERA Report, and that future Applications will, if Manitoba Hydro deems it to be appropriate, includes such recommendations and have opportunity for all parties to comment at that time.

DR. PETER MILLER: I guess the difference would be that the NERA Report, as you indicate, was released without the adoption of the recommendations in your Application, whereas the -- this -- the one (1) we're talking

about, is to be the basis for the next GRA, if -- if I understand correctly; the statements that were made in the rebuttal?

MR. VINCE WARDEN: I think what you said is correct, yes. Yes, the -- the -- any -- any recommendations that flow from the NERA Report, will be incorporated in -- in future GRA's, if deemed appropriate by Manitoba Hydro.

DR. PETER MILLER: Now, the -- the analogy though would be -- it'd take the -- the inverted rate study -- there won't be the -- the double sequence if, you know, first the release as an report and opportunity to comment on it. And -- and then implementation of inverted rates would have to -- it would be two (2) processes from now, rather than -- than one (1) -- if I'm making myself clear; probably not?

MR. VINCE WARDEN: Well, I would think if inverted rates are deemed to be appropriate and that report is filed after approval of the -- of the Manitoba Hydro Board, then we will proceed in that direction with future rate applications. And at that point, all -- all Intervenors will have an opportunity to -- to comment.

DR. PETER MILLER: On both the report and the recommendations?

MR. VINCE WARDEN: Yes, exactly.

DR. PETER MILLER: Yes. Trying to look at

another point of possible difference. The -- the NERA report was commissioned -- you -- you commissioned an outside consultant to do that. Are you doing that with the inverted rates as well?

MR. VINCE WARDEN: Yes.

DR. PETER MILLER: Okay. Thank you.

At this point, I would like to turn the cross-exam over to Mr. Lazar on the more technical issues.

MR. JAMES LAZAR: Thank you, and good morning. It's nice to be here again.

THE CHAIRPERSON: Before you -- before you begin Mr. Lazar. I was just going to welcome you back to Winnipeg. You finally got us on a day when it's actually warm.

MR. JAMES LAZAR: And thank you again, very much for accommodating my -- my schedule this week. It's a bit of a chaotic time for me and I really appreciate it.

CROSS-EXAMINATION BY MR. JAMES LAZAR:

MR. JAMES LAZAR: I have some questions on four (4) -- four (4) issues. And I'll just list them off so you can kind of a heads-up of the topics.

The fist is the level of residential rate inversion.

The second is potential for inverted

commercial and industrial rights.
The third have to do with the export credit.
And the last has to do with the load factors of the -- some of the DSM programs that are identified in the rebuttal evidence. And that fourth group will reference the fourth page of the hand-out that Dr. Miller provided earlier.
At page 24 and twenty-five (25) of the rebuttal evidence, you recompute TREE's estimate of the level of rate inversion justified by the load factor difference for usage below two hundred and fifty (250) kilowatt hours and usage above that level; is that correct?
MR. ROBIN WIENS: Yes.
MR. JAMES LAZAR: And the result of that calculation takes the generation and transmission load factor and the distribution load factor into account and computes a cost inversion of just under a penny a kilowatt hour?
MR. ROBIN WIENS: Yes.
MR. JAMES LAZAR: That, just to be clear, that does not in any way address the proposal that TREE has also made for a rate inversion element based on the difference between older and lower cost resources versus newer and higher cost resources; is that correct?
MR. ROBIN WIENS: No, that strictly addresses the issue of distribution load factor.
MR. JAMES LAZAR: Thank you. Will the

inverted rate study that's referenced at the bottom of page 25 also look at the cost differentials between older and lower cost versus newer and higher cost resources?

MR. ROBIN WIENS: The study will definitely look at what the difference is between current embedded costs for the Manitoba Hydro Generation and Transmission and marginal costs of those functions.

We have not specifically instructed the consultant to look at the cost of different vintages of generation.

MR. JAMES LAZAR: What consultant is preparing that work for you?

MR. ROBIN WIENS: It's the same consultant that prepared the -- that prepared the study we filed here, which is National Economic Research Associates.

MR. JAMES LAZAR: Thank you. I'm going to change now to the second topic of commercial and industrial rates.

MR. ROBIN WIENS: At page 18, line 17, you indicated that MIPUG has recognized the issue of large customer rates diverging from marginal costs. And that references MIPUG's testimony.

Are there any specific proposals that either MIPUG or Manitoba Hydro have made in this proposal to move large customer rates for marginal usage significantly closer

to marginal costs?
MR. ROBIN WIENS: No.
MR. JAMES LAZAR: Would you agree that the rolling baseline proposal discussed by TREE is one (1) way to do this without shifting costs between customer classes?
MR. ROBIN WIENS: Yes.
MR. JAMES LAZAR: Does Manitoba Hydro object to TREE's recommendation that Manitoba Hydro measure the impact that one (1) or two (2) example rate designs of the rolling baseline approach be included in a report to the Board later this year?
MR. ROBIN WIENS: We've instructed the consultant to look at invertebrate options for all classes of service, including industrial class.
MR. JAMES LAZAR: Well, let's now turn to the -- the export credit. The current practice as I understand it, subtracts only water rent, fuel and imports from export revenue in computing the export credit, is that correct?
MR. ROBIN WIENS: A portion of those water rentals, but, yes correct.
MR. JAMES LAZAR: And the NERA -- I'll call it the NERA methodology, uses a fully allocated cost approach and subtracts the fully allocated cost of the generation from the export revenues in computing an export credit, is that --
MR. ROBIN WIENS: That's correct.

MR. JAMES LAZAR: What alternatives have been proposed in this docket to the current practice of allocating exports credits on the basis of generation and transmission costs and computing the export credit, as it has historically been calculated?

MR. ROBIN WIENS: If you're -- if by that you mean what methods have been used in this particular application and what is before the Board as part of this application, Manitoba Hydro was directed in Order 703 to prepare a cost of service study, following certain specific instructions regarding a number of factors, one (1) of which was the treatment of export revenues.

And export revenues are treated in the 2003/04 perspective cost of service study in the same manner as which they -- as they had been treated prior to 2002. Which is to say, that we had deducted the variable costs from the overall export revenues.

And we've allocated those export revenues on the basis of customer usage factors with the demand and energy split of those usage factors being on the same basis of generation and transmission.

MR. JAMES LAZAR: That's what in the application. But Manitoba Hydro has also presented in this docket the NERA methodology, correct?

MR. ROBIN WIENS: We have filed it. But, we

have not filed it as part of this application. Manitoba Hydro has filed the NERA report and its recommendations, but, we have not incorporated any of those into the remainder of the application.

(BRIEF PAUSE)

MR. ROBIN WIENS: The report itself and the responses to some of the information requests do indicate what impacts we expect from the application or inclusion of the -- of the NERA recommendations.

But, that is the extent to which we've discussed them in this application.

MR. JAMES LAZAR: But in the rebuttal evidence you've said in a number of places, a concern with the current methodology and have -- it certainly looks to me as though you've made positive noises about changing that methodology in the rebuttal evidence?

MR. ROBIN WIENS: Yes, we have. But, the most of the material that we have filed here, in support of this application has not incorporated it.

MR. ROBERT MAYER: Mr. Lazar, I think what Mr. Wiens is getting at, is they tried to change it last time and we made them change it back. And I think they want to convince us that we were wrong. And they may be right.

MR. JAMES LAZAR: That covers Manitoba Hydro. What about the other parties. What other parties have proposed things in this docket that would change the allocation of the -- either the calculation of the export credit amount or the allocation of it between customer classes or within rates?

(BRIEF PAUSE)

MS. PATTI RAMAGE: Mr. Chair? I'm just -- I'm a little concerned with that question because I think we're -- Mr. Wiens is being asked to -- to pontificate on what the other parties' positions are and I'm not sure that it's appropriate for Manitoba Hydro to be putting those positions in.

THE CHAIRPERSON: Can you phrase it in a different way?

CONTINUED BY MR. JAMES LAZAR:

MR. JAMES LAZAR: Let me -- let me try and rephrase it. I'm -- what is your understanding of the alternatives that have been proposed by other parties in this proceeding?

MR. ROBIN WIENS: Well, I don't think any of the parties has proposed anything that has been taken to any

degree of -- of development. Mr. Lazar, yourself or your client, have proposed a -- a method that would return export revenues to customers on some basis that would make it at least appear not to be related to consumption. Although I -- I guess I don't -- I don't fully understand how that proposal would actually work in practice.

Perhaps one (1) of the other Intervenors has -- has, not necessarily made a -- a different proposal, but they have discussed the possibilities of what might happen if there were some other approach taken to the allocation of export revenues.

MR. JAMES LAZAR: If I refer you to the top of page 19 of the rebuttal evidence, you state,

> "It may be appropriate to make an initial allocation of export revenues to compensate for the effect of uniform rates on the residential class, and to a lesser extent, on the general service, small in area and roadway lighting classes."

Is that a -- an observation, a recommendation, a suggestion for consideration or a suggestion for further study?

MR. ROBIN WIENS: Well, we -- we had a suggestion in the pre-filed evidence of one (1) of the Intervenors that it would be appropriate to -- to add some

revenue to the residential class to compensate for the fact that uniform rates have been legislated by the Province.

And I'm not aware of any way you could do that without -- without affecting the other classes. I guess notionally you don't have to do it as a -- as an initial allocation of export revenue. You could simply assume that it's going to be distributed among the other classes without reference to export revenue. But certainly that's one (1) possibility for dealing with it and I -- I guess we are not making a specific proposal here.

I guess what we are saying is that -- that we do have some degree of sympathy with the -- with the perspective that was put forward by that particular Intervenor CAC/MSOS.

MR. JAMES LAZAR: Thank you. Changing topics just a little bit of it still on the issue of the export credit -- on page 27, you refer to a possible 40 percent change in rates as a result of -- of zeroing out the export credit. It's my understanding that that is based upon the current of method of computing the export credit that is taking out only variable costs from export revenues.

MR. ROBIN WIENS: That's correct.

MR. JAMES LAZAR: And if instead, the NERA methodology was the benchmark for that calculation and so, several hundred million dollars of generation and

transmission costs were allocated to export, that would change significantly, would it not?

MR. ROBIN WIENS: Well, it could, but we would still have the issue about how we were going to deal with the losses coming from the drought. We would be allocating costs, but we wouldn't be getting much revenue.

MR. JAMES LAZAR: In the NERA Report it shows a net export credit for the test year that they use of the sample year that they used of about $169 million. Is that correct?

MR. ROBIN WIENS: That sounds about right.

MR. JAMES LAZAR: And if you divide that by the retail load of Manitoba Hydro, you get something under a penny a kilowatt hour, would you not?

MR. ROBIN WIENS: That sounds right.

MR. JAMES LAZAR: Thank you. The last questions that I have come back to the DSM issue, have to do with the -- some of the figures that have been provided at the end of the testimony on the peak and energy savings of some of these programs.

Would you agree that programs with a high ratio of peak savings, relative to average savings, are more valuable because of the capacity related costs of generation and transmission and distribution that are avoided?

MR. LLOYD KUZCEK: To the extent that the

value is there. We're an energy driven company right now, so there's significant more value in energy for Manitoba Hydro, than there is capacity. But we take into account the value of both those -- the capacity and the energy when we evaluate programs.

MR. JAMES LAZAR: Well, let's take a particular program to start with, the Power Smart Chiller Program of -- that you discuss at the top of page 33, that's a program that affects air conditioning loads, is that correct?

MR. LLOYD KUZCEK: Correct.

MR. JAMES LAZAR: And so the savings would be primarily in the summer afternoons?

MR. LLOYD KUZCEK: Correct.

MR. JAMES LAZAR: And are those the hours when export revenue prices are the very highest, typically?

MR. LLOYD KUZCEK: Correct.

MR. JAMES LAZAR: So, savings during those hours to the extent they free up energy for -- for export is -- would be more valuable than savings in 3:00 in the morning on October 13th?

(BRIEF PAUSE)

MR. LLOYD KUZCEK: I'm -- I'm not an expert in

where -- where -- and the amount of the energy -- or the value is that we place on these commodities. I know that resource planning provides us with those numbers, and -- and we use those numbers now, because we're a hydraulic system.

I do -- I do have some -- not because we're a hydraulic system, because I've worked for Hydro for twenty-three (23) years, and I've also worked in the export market. It is true that the short term market is higher in the summer than it is in the winter.

When you're selling a long term product, usually it's across the entire year, and you're -- the value that you get in the winter time and the summer time is the same value.

Now, when they're determining the value of DSM programs, they look at the long term, not the short term, because that's -- that's where we get the greatest value.

MR. JAMES LAZAR: Let's just calculate if we can, the -- the load factor of the savings of that Power Smart Chiller Program. I -- the evidence says that it would save 3 megawatts, I assume that's of peak, and 4 gigawatt hours of energy savings?

What is -- what would the load factor of those savings be, that is the ratio of average to -- to peak savings?

(BRIEF PAUSE)

MR. LLOYD KUZCEK: I calculated the same number you have in the load factor column, they're 15.2 percent.

MR. JAMES LAZAR: And can you confirm that for the other three (3) programs, the load factors for commercial industrial lighting were 40 percent, for Power Smart New Home of 30 percent, and Power Smart Insulation of 34 percent?

MR. LLOYD KUZCEK: I could go through the calculations and confirm that, or we can assume they're correct, and move on.

MR. JAMES LAZAR: Would you accept those subject to check?

MR. LLOYD KUZCEK: Sure.

MR. JAMES LAZAR: Thank you. In summary, would you agree that all of these programs have peak savings that are -- or savings that are more highly concentrated in the peak period, than the average of Manitoba Hydro's load?

That is there -- these are all lower load factors than Manitoba Hydro's system load factor.

(BRIEF PAUSE)

THE CHAIRPERSON: Mr. Lazar, do you have

several more questions?
MR. JAMES LAZAR: One (1).
MR. LLOYD KUZCEK: I'm going to have to get you to repeat that question, sorry Mr. Lazar.
MR. JAMES LAZAR: Two (2). Would you agree that all of the load factors of the savings of these three (3) DSM programs are lower than the Manitoba Hydro system load factor?
MR. ROBIN WIENS: Yes.
MR. JAMES LAZAR: And final question, is the -- each of these load factors, is in fact, lower meaning a higher ratio of peak savings to energy savings, is a lower load factor than the load factor of any of Manitoba Hydro's major customer classes, residential, small general service and on up?
MR. ROBIN WIENS: Yeah, they -- they do appear to be somewhat lower than the load factor of each of the classes. Although we tend to -- I guess we tend to think of the class load factors, in terms of their coincidence with the system peak.
So whether the class diversified load factors are -- are higher than all of these -- it mostly likely would be the case.
MR. JAMES LAZAR: Thank you. That's all.
THE CHAIRPERSON: Thank you Mr. Lazar and

we'll have a ten (10) minute break now. I should mention that we're going to adjourn at 11:30 today and then we'll resume again at 2:00. So when we come back at 10:15 we'll be only running to 11:30.

--- Upon recessing at 10:05 a.m.
--- Upon resuming at 10:25 a.m.

THE CHAIRPERSON: Okay, welcome back, everyone.

Before we -- I ask Mr. Barren to swear Mr. Lazar, I'm just going to suggest that we introduce as an Exhibit, the collage of documents that Professor Miller used during the -- and Mr. Lazar used during the cross-examination.

I suggest we call them all TREE-5, A, B, C, and D. A, would be the PowerSmart advertisement. B, would be an excerpt from the PowerSmart program description, C, would be website comparison, electricity and gas costs. And 5D would be an illustration of DSM savings. So, that will be that. Mr. Barron would you swear Mr. Lazar?

--- EXHIBIT NO. TREE-5A: PowerSmart advertisement.
--- EXHIBIT NO. TREE-5B: Excerpt from the PowerSmart program description.

--- EXHIBIT NO. TREE-5C: Website comparison of electricity and gas costs.
--- EXHIBIT NO. TREE-5D: Illustration of DSM savings.

JAMES LAZAR, Sworn:

THE CHAIRPERSON: Thank you Mr. Barron. I should mention by the way that on Wednesday, we can start right at 9:00 o'clock. One time we talked about starting at 10:30 on Wednesday, but we're back at 9:00. The matter that was to be dealt with at that time has been taken care of.
Mr. Lazar...?

EXAMINATION-IN-CHIEF BY DR. PETER MILLER:
DR. PETER MILLER: Please state your name, address and occupation and summarize your experience in utility regulation?
MR. JAMES LAZAR: Jim Lazar, 1063 Capital Way South, Suite 202, Olympia, Washington, 98501, USA. I'm a consulting economist specializing in utility rate and resource issues.
I've been engaged in utility rate consulting continuously since 1979. During that time I've appeared before many local, state and Federal regulatory bodies, authored papers and articles on utility rate making and have

been a faculty member on numerous occasions at training sessions for utility industry analysts.

I've appeared before numerous regulatory commissions, including the British Columbia utilities commission, this Board and State commissions of Washington, Oregon, Idaho, Montana, Arizona, Illinois, Hawaii and California.

I'm also an associate with the Regulatory Assistance Project or RAP; that is headquartered in Gardner, Maine, and is a group of former utility regulators who provide technical assistance to utility regu -- regulators around the world.

My work with RAP has involved training programs, principally oversees in India, China, the Phillippines, Brazil, Namibia, Mozambique and Indonesia.

I testified on behalf of TREE and RCM in the 2002 rate review for Manitoba Hydro.

DR. PETER MILLER: Mr. Lazar, do you have any changes or corrections to your written testimony?

MR. JAMES LAZAR: Yes I have, one (1); I'll ignore the minor typos, but, there's one (1) that's meaningful. On page 13, at line 32, the word, current, should be changed to NERA, N-E-R-A, so the sentence would then, or the phrase would then read, I have estimated the average revenue per kilowatt hour for each customer class

under the NERA methodology and with separation of the export credit.

MR. JAMES LAZAR: Thank you. What is the purpose of your evidence in this proceeding?

MR. JAMES LAZAR: I've been asked by TREE and RCM to propose measures to encourage energy conservation in Manitoba. These measures include movement toward inverted rates for all Manitoba Hydro customer classes.

The appropriate treatment of net export revenues, the option of implementing new customer connection fees and credits to encourage energy efficiency and new structures built in Manitoba, and I'd also address a means to provide for adequate investment in homes and businesses for energy efficiency in the natural gas space heating and water heating area.

DR. PETER MILLER: Could you please provide an overview of your testimony?

MR. JAMES LAZAR: First I recommend that Manitoba Hydro's request to move from a declining block residential rate to a flat rate design be approved. This is a sensible first step in implementing more efficient and equitable electricity prices.

Second, I recommend that Manitoba Hydro be directed to submit an inverted rate design for implementation no later than the end of 2006. And that should address the

needs of electricity dependent heating customers in some constructive manner.

Third, I recommend that Manitoba Hydro be directed to examine methods to implement inverted or tiered rates, for commercial and industrial customers, and report back to the Board within a year of -- or less, on the options that I have discussed in my evidence. And on other options that they identify, that may provide a system benefit.

Fourth, I recommend that the Board direct that the export earnings credit be separated from the normal electricity rate. And at a minimum, be separately stated on each customer's electric bill.

Rates should be designed to recover the fully allocated costs of serving each class. The export credit to the extent that it's flowed through to customers, as part of the electricity purchases, should at a minimum, be a separate element of the bill.

Fifth, I recommend that the Board direct Manitoba Hydro to explore implementing hookup fees and hookup credits, that provide a greater incentive for new homes and businesses connecting to the Manitoba Hydro system, to choose state of the art, cost effective energy efficiency measures.

Finally, I recommend that a system benefit charge on the Manitoba Hydro natural gas distribution rates be considered in order to fund energy efficiency measures,

low income, weatherisation programs and energy efficiency research and development in natural gas.

DR. PETER MILLER: Let's begin with your proposal for implementing inverted rates. What is the essence of your proposal?

MR. JAMES LAZAR: I propose that Manitoba Hydro be directed to file an inverted rate design in its next Rate Application, and that the flat rate Manitoba Hydro has proposed here, be adopted at this time.

My recommendation is based on two (2) different approaches to rate making, both of which justify inverted rates for the Manitoba Hydro system.

First, I've looked at the differences in cost between the lower cost, older hydro resources, principally on the Winnipeg River, and the higher end cost -- the higher cost and newer northern generating and DC transmission resources.

When you factor in the cost of DC transmission, the northern resources cost far more than the southern resources.

Looking at them as a group, while there's some lower cost northern resources, as a group, the northern units are more expensive.

Allowing each customer an equitable share of the low cost resources at a price commensurate with costs,

and access to additional power from the higher cost resources, at cost based rates, would imply an inverted rate design for Manitoba Hydro.

Second, I looked at the difference in load factor between residential usage below 250 kilowatt hours and usage above that level. I think it's fairly obvious to anyone in Manitoba that 250 kilowatt hours is a pretty minimal level of usage here, covering only maybe lights, refrigerators, television and other very basic appliances. It would not provide for any water heating or space conditioning usage.

I found that the higher load factor of this initial block of usage justifies a lower rate for this usage. I have since reviewed Manitoba Hydro's rebuttal testimony on the load factor issue. And I adopt the methodology used in that rebuttal exhibit, as more accurately reflecting the approach that should be used.

I remain a bit skeptical about the underlying data, it seems to show a higher load factor on the distribution system, that I would expect to see for larger customers with electric heat, and/or electric air conditioning. That's a data issue, not a methodological issue. I adopt the methodology that Hydro has used, to look at both the generation load factor and the distribution load factor separately.

Based on those two (2) different and independent approaches, that is both looking at cheap resources first as more expensive resources and load factor, I've concluded that inverted rates are appropriate for Manitoba Hydro residential customers.

I -- I urge the Board to direct Hydro to submit an inverted rate option or options for effectiveness in 2006.

The speed at which such rates are implemented is dependent upon policy that the Board will have to consider, as well as technical issues.

DR. PETER MILLER: How have you addressed the impact of these inverted rates on customers without access to natural gas?

MR. JAMES LAZAR: I've presented in my evidence the option of a larger initial block during the winter months for customers that do not have access to natural gas.

Now, there's not an economic justification for this, only a public policy justification. These rural customers and northern customers already probably cost more to serve than their revenues cover.

An inverted rate which gave them the same initial block as urban and southern customers would probably actually close the gap that exists in the revenue to cost

ratio for zones two (2) and three (3), while simultaneously complying with the legislative directive for uniform rates.

But those customers would see significant increases in their bills and that's an important public policy matter. And the Board is best suited to consider the delicate balance between economics and policy.

DR. PETER MILLER: What about inverted rates for non-residential customers?

MR. JAMES LAZAR: It's much more difficult to design inverted rates for non-residential classes of customers. This is because the usage patterns of such customer are much less homogenous, the customer size varies over a very wide range.

I've proposed an option, what's called rolling baseline rates be pursued as the best way to provide each general service customer with a fair share of lower cost resources and provide them with access to higher cost resources, as needed, on a cost basis.

Manitoba Hydro and MIPUG, have both expressed some sympathy to some kind of an approach that would move the end block rate for -- or the run out rate for general service customers, closer to reflecting margin cost.

My evidence urges the Board to direct Manitoba Hydro to submit an option or options for inverted rates for non-residential customers in its next rate application.

DR. PETER MILLER: Thank you. Now, let's turn to the treatment of export revenues. What is your understanding of the method that has been used in recent years for accounting for export revenues, and setting rates in Manitoba?

MR. JAMES LAZAR: My understanding is that gross revenues from export sales, are on average very large. Manitoba Hydro has defined its quote, "net export revenue" as this gross revenue, less variable cost, such as water rent, fuel ,and imported power.

The result is a very large amount that is considered the export credit. In its cost of service study, pursuant to Board direction, Manitoba Hydro has assigned all of the fixed costs of the Hydro project, transmission system and other generating resources, to core customers, to domestic customers.

And then applies the large export credit to the class revenue requirement in setting rates.

DR. PETER MILLER: In your opinion, is it appropriate to compute the export credit in the manner that Manitoba Hydro historically has done, assigning the cost to retail classes, and then applying the credits back to retail classes?

MR. JAMES LAZAR: I think it's the second best approach. Because -- Manitoba Hydro is in a surplus position

under normal water conditions and projects that it will not need new resource to serve its domestic load for many years to come, I think it makes more sense to treat the export of power, as a customer class in the cost of service study.

The NERA methodology which has been submitted to the Board in this proceeding does this by assigning costs to export customers on a fully allocated average cost basis. I think that is one (1) reasonable approach.

Another reasonable approach might be to assign the oldest and lowest cost resources on the system, entirely to domestic customers. In my sense, supporting the creation of a first block rate and then allocate all of the remaining resources, the newer, higher cost resources to all classes of customers, and to include export as one (1) of the classes of customers that would get an allocation of those higher cost resources.

In my evidence, when I refer to the term net export credit, I'm sort of referring to -- it is calculated in the NERA methodology, that is the revenues from export, less the full cost of producing power for -- for export. The NERA methodology calculated this net export credit as $169 million dollars a year.

If the southern hydro system or the low cost resources were allocated entirely to domestic load and the NERA methodology then applied to the remaining system, and an

export class were created, that $169 million dollars would go down. I have not calculated the extent to which it would go down.

I understand that when Manitoba Hydro uses the term, net export credit, they're generally referring to the traditional approach of treating almost the entire export revenue, net of variable costs in this fashion. It's a semantic difference. I think we all understand each other.

But to me, only netting out a very small amount of cost and calling it a net export credit, didn't seem intuitive. So, I've used it pretty much the same way NERA has, net of the costs of producing the power; fixed and variable costs.

DR. PETER MILLER: Thanks for that. Mr. Lazar, what methods have you recommended for distributing the net export credit, as you have defined it to the public?

MR. JAMES LAZAR: I've identified several approaches. I think the principle goal should be to distribute this in a manner that does not significantly affect customer consumption.

First and foremost I'd recommend that the export credit be removed from the rate design, and separately stated, if it's included in the electric bill.

I think this will create greater understanding among customers of the benefits of Manitoba Hydro's export

driven capital program, both new generation and -- and DSM are partly justified on the expectation of profitable exports.

Second, I recommend that consideration be given to rebating the export credit to customers once a year, rather than in periodic utility bills.

I think if this were done, the customers would more likely base their consumption decisions during the year, on the electric rate, before the export credit. And receiving a one time cheque or a one time credit once a year from the utility, would, in my opinion, have less of an impact on the customer consumption, than the current method.

The current method applies that in tariff design and thereby suppresses the prices the customers see each month.

The periodic rebate is an approach that BC Hydro used to distribute its very significant profits that it obtained during the 2000/2001 West Coast energy crisis.

I've also discussed in the evidence making the credit uncertain, that is tying it to actual export earnings of Hydro. If customers didn't know what it was going to be in advance, they would be less likely to bias their consumption decisions, based on a rational expectation of receiving it.

And that again is basically what BC Hydro has

-- has done with a one (1) time big credit in the year that they had, I'll call them windfall profits.

Third, I think there's a basis for removing the credit -- the export credit entirely, from the utility, and rebating it to the public in the form of lower taxes, or improved Governmental services, or something else unrelated to electricity usage.

That's in effect what happened when the Government appropriated a dividend from Manitoba Hydro last year.

DR. PETER MILLER: Let's shift now to the evidence on hookup charges and credits. What's your principal recommendation.

MR. JAMES LAZAR: I recommend that Manitoba Hydro be directed to develop a symmetrical program of hookup charges for less efficient structures, and hookup credits, for more efficient structures.

I think these would provide a very strong incentive for builders to choose more efficient building techniques. It would provide financial rewards for those that choose to go above and beyond the minimum construction standards now in place.

I've included, in my evidence, a paper that I delivered more than a decade ago on this subject. I specifically proposed a two thousand dollar ($2000) hookup

fee per residential structure and an off-setting two thousand dollar ($2000) credit for meeting the PowerSmart Program standards. I proposed an additional thousand dollar ($1000) credit for builders that go beyond PowerSmart to the R-2000 standard.

Based on my experience with similar programs elsewhere, I expect this will provide very large savings to the buyers of new homes over time. It would not unduly penalize builders of new homes and I think it would facilitate moving to an improved construction code and standard by having hundreds and thousands of efficient new homes built, you eliminate, I'll call it, builder resistance to code changes.

For the non-residential sector, a hook-up fee should be based on the kilowatts of connected load so that small structures and large structures pay appropriately different connection charges and are treated equitably.

I've recommended a two hundred dollar ($200) per kilowatt connection charge. This also should be off-set by a symmetrical set of credits for builders that go beyond minimum required construction standards. The goal should be for -- for it to be revenue neutral and result in improved efficiency.

In the event that the credit succeed the charges, that is, that the participation rate is higher than

assumed when the program is designed, I would expect that Manitoba Hydro would be allowed to recover those additional credits through the PowerSmart Program cost recovery mechanism.

Manitoba Hydro recognized this proposal in its rebuttal evidence but didn't really address it in its rebuttal.

DR. PETER MILLER: And finally, let's turn to your proposal for funding natural gas efficiency. What's your recommendation there?

MR. JAMES LAZAR: My evidence recommends establishment of a 2 percent uniform system benefit charge for natural gas customers. This would generate about $10 million dollars per year to pay for energy efficiency programs directed at natural gas consumers. It would, essentially, bring the gas consumers served by Manitoba Hydro into parity with electricity consumers in access to energy efficiency programs.

DR. PETER MILLER: Thank you, very much, Mr. Lazar. That concludes the -- the direct examination and Mr. Lazar's available for cross-examination by the parties.

Before that happens though, I'd like to introduce Carolyn Garlich there, who was a former board member of RCM, by the window there.

THE CHAIRPERSON: Thank you, Professor

Miller. Thank you, Mr. Lazar.

We'll move on now to cross-examination. Will be of TREE and RCM's Witness and -- and we'll begin with CCEP, Mr. Feldschmid -- Mr. Feldschmid ...?

MR. FELDSCHMID: Should we -- sorry, Mr. Chair, thank you. CCEP has no questions for this Witness, thank you.

THE CHAIRPERSON: Then after that we'll move to CAC/MSOS. Mr. Williams ...?

MR. BYRON WILLIAMS: Mr. Williams, we do have a few questions on behalf of my clients. With your permission, I wonder if I could move to the other side of the room. I'll only be there for about, you know, about twenty (20) minutes or so. But I think both Mr. Lazar and I would appreciate not having to twist and contort our bodies.

THE CHAIRPERSON: By all means.

MR. ROBERT MAYER: While we're waiting for Mr. Williams to relocated, you -- you've drawn the distinction between high cost power and low cost power and somehow justify the inverted rate based on those differences.

But it strikes me that, that's somewhat of an artificial difference in light of the fact that what you call low cost power of the Winnipeg River appears to represent about 8.66 percent of Hydro's hydraulic production. Is that

not just then an artificial figure?
MR. JAMES LAZAR: Well, the figure is a cost based figure that I, actually you know, looked and calculated at the amount of power available from the low cost resources and the cost of that power as it shows up in the Manitoba Hydro revenue requirement.
I think it's very real, but, I agree with you, it's not a huge part of the hydraulic production. And that's actually the reason that -- one of the reasons that I proposed a relatively small initial block in my rate design.
MR. ROBERT MAYER: The other comment -- I happen to be one of those people who has -- who is most concerned about people who, basically are required to heat with electricity, unless one wants to go to propane. And your exhibit shows what that would do to us.
And I am sorry, but, I don't recall -- what was the initial block you proposed for hydro customers to use electricity for heat, what was the initial block and what did you call winter?
MR. JAMES LAZAR: The discussion of this begins at the bottom of page 7 in my evidence. I used an initial block of a thousand (1000) kilowatt hours and the calculation that I did was to apply that in all months.
So, I guess I call winter, January through December, if -- if that's responsive. But, that was only

because I -- I didn't have the monthly bill frequency analysis data that would have enabled me to tailor it to less than twelve (12) months of the year --

MR. ROBERT MAYER: I thought your evidence here though you -- I thought when I heard your recommendation you said that block -- you did mention during winter months?

MR. JAMES LAZAR: Well on page -- the calculation that I did in my evidence was all months. The recommendation that I make on page 8 at line 27, is an initial block of a thousand (1000) kilowatt hours during November through April.

Now, the -- keep in mind that when the initial block is a thousand (1000) kilowatt hours, that means that customers are going to pay less than the average rate, for the first thousand kilowatt hours and more than the average rate for all above that.

The crossover point where they actually start paying larger bills than with an average rate, is up above two thousand (2000) kilowatt hours.

So, if you're looking at it as, where does the price incentive show up; it shows up at a thousand (1000) kilowatt hours. Where does the bill actually get larger; it gets larger above two thousand (2000) kilowatt hours.

And that amount was chosen, in part, because with the geothermal heating system customers ought to be able

to stay below that two thousand (2000) kilowatt hour level and therefore there is a electrically heated alternative available to them that would provide for a -- a lower bill than they would get with the flat rate.

MR. ROBERT MAYER: I'm firstly not sure how far you would have to go down into the permafrost to get the heat out of the ground but, the issue of November to April, is an interesting concept when you understand that a good portion of those people who are in my position live north of the 53rd parallel, where we don't call winter, November to April.

But, more likely, we call it October to the end of May and this year we were heating houses until just recently. I realize that's not a question.

MR. JAMES LAZAR: I've indicated that the treatment of these customers is more a policy issue than a technical issue. And I'm trying to primarily address the technical side of it and recognize the policy side.

THE CHAIRPERSON: Mr. Lazar, Mr. Evans has a few questions as well.

CROSS-EXAMINATION BY MR. LEN EVAN:

MR. LEN EVANS: Thank you, Mr. Graham. I appreciated your presentation and appreciate your great knowledge and experience in this area. And I have a lot to

learn and I'm not sure whether I understand everything that you've stated.

But, you're making reference to the cost of old power and new power, you know, the Winnipeg river versus facilities in the north. And it seemed to me, I may have missed it, but you're suggesting that rates reflect -- be separated somehow to reflect the old and the new facilities. And I'm not sure whether I follow you, and it seems to me you're making life awfully complicated for a utility, by trying to bring that into affect.

And the cost of power is cost of power, and you have to confront it as a utility, and then you set your rates to, you know, recover your costs or whatever.

But why make the distinction between cheaper versus the higher costs of power?

MR. JAMES LAZAR: Let me, if I may, approach that in -- in two (2) different ways; the first sort of from a traditional utility economics perspective. The utility's revenue requirement is a function of its embedded cost of power; it is the sum of cheap costs for cheaper power plants, higher costs for newer and more expensive power plants, and all the costs of the transmission and distribution system. Each element of which has a cost that's partly a function of when it was built.

The total of that comes out to less than the

current or marginal or market value or cost of -- of power. And that creates the distortion in how customers use electricity.

And Manitoba Hydro's approach to this, well, let's look at it, sort of, I'll call it the NERA way, which is rates should be equal to marginal costs, and we should apply discounts to infra-marginal consumption elements, so as to not distort consumption.

And I think that's a very legitimate and -- and methodological way to look at it from an economic theory perspective.

From my perspective, we get to the same place, by actually looking at the building blocks of the revenue requirement, and pricing them according to costs. If we sell the cheap power cheap in limited quantities, and the expensive power at cost, we wind up with a tail block that looks pretty much like marginal cost, and every element of the rate design is tied to the cost of some real thing.

I find it easier to explain than switching to economic theory and employing what we call Ramsey pricing, and deviating from marginal costs, so as to reduce distortion. I just find it easier to say, sell the cheap stuff cheap and the expensive stuff at cost, and the people want more of the expensive stuff, then sell it to them.

So, that's -- that's sort of the utility way

of looking at it.

If I use -- a whole different way of looking at it is an analogy; I bought my house twelve (12) years ago, and I paid a hundred and ninety-two thousand dollars ($192,000) for it, and my mortgage payment is a thirty (30) year fixed rate mortgage. My cost of living in that house doesn't change over time.

But if I want to add two (2) more rooms and another bathroom to my house, I'm going to have to pay today's cost to do that, and my decision of whether or not to increase my consumption of housing is not going to be based upon a builder who charges me the average of what it costs to build today, at what it costs to build twelve (12) years ago. They're going to charge me marginal costs for the additional consumption.

And that's the way the real market works for stuff that's not regulated in price. And so, one (1) of the functions of regulation is to preserve the efficiencies that an unregulated market can achieve, while preserving the equity that people expect from a basic public service such as electricity.

And this particular rate design, I think accomplishes that. It makes electricity consumption growth function a little bit more like the consumption of growth of almost anything else one (1) might buy. So, I -- it is a

little complicated, but all -- averaging everything together to me, is over simplification.

MR. LEN EVANS: Thank you. I'm not sure whether I followed your argument entirely, and I'm not sure whether Manitoba consumers would understand, if they were being charged different rates, one (1) being referred to as based on old or cheaper power production, versus newer more expensive power production. And maybe I don't follow what you're proposing.

But it seems to me if you had a rate schedule and you're publishing it, and you're saying this is cost of the old versus the new and -- it sort of boggles my mind. How do I decide whether my consumption or any individual's consumption, you know, is -- is related to the old facilities versus the newer higher cost facilities.

In fact, I guess what I'm saying is I -- I find it rather complicated and I find it sort of difficult to pursue in whether it's practical, that's another question.

But anyway, I had a couple of other areas that -- when you talk about net export credits, giving them once a year, this is interesting. What happens if there isn't a credit? What happens if, unfortunately you had a debit situation?

Do you ask the customers to rebate to Hydro or?

MR. JAMES LAZAR: Well I -- I come from a Hydro dominated region and we deal with -- with drought regularly and some of the utilities of -- do implement, with Board regulator approval, drought year surcharges. We currently have a surcharge in effect for Evista Utilities and the State of Washington because of the -- actually it's a still hangover from the drought of 2000/2001.

I think that the more sensible and prudent thing to do would be to design rates so that you would never have a debit situation and that you -- no one would ever get a lump of coal in their -- in their Christmas stocking.

That they would either be a -- a few dollars in the -- in the stocking, or a lot of dollars in the stocking. But I think you would want to design the program so that over the -- the debits would be accounted for in advance. And -- and the -- the credits would be the uncertain element.

MR. LEN EVANS: Just one (1) more and I'll let the experts carry on here. The relation -- the reference to inverted rates for industries, and you're recommending Visa's, I gather, and others are as well. Inverted rates as opposed to retail consumption or residential consumption, you're suggesting it for industrial consumption?

MR. JAMES LAZAR: Yes, my -- I'm recommending the consideration of what's called a rolling base line rate

and the example that I give is on pages 10 and 11 of my evidence that -- that the example is that everyone would get -- all of these customers would get 90 percent of their historical usage at the initial block rate. And any usage in excess of that would be at the second block rate.

So, essentially, all of the customers would have some their consumption at the marginal rate that would give them the incentive to conserve. Or when expanding their plant or facility, to choose cost-effective energy efficiency measures.

It wouldn't change the total amount of money collected from the class, but it would structure the rate so that for marginal consumption, customers would always see something close to marginal cost.

MR. LEN EVANS: Well, just very briefly, I don't want to take too much time but -- so, you're not -- you're not considering the impact of the rate proposals on the efficiency, or rather not efficiency, but the profitability of the particular industry that has to perhaps compete in the market, export market or the domestic market.

MR. JAMES LAZAR: No, actually, that's exactly what I am doing, is taking that into account. Is by -- by giving all of them a reasonably certain block of power at a low and predictable price we're preserving their -- or strengthening, their competitiveness.

What we're doing is we're pricing the cost of expansion for competitors moving into Manitoba to take advantage of your low cost power more closely to marginal cost.

We have one (1) utility in --near where I live, the Grand County Public Utility District has about the cheapest electricity of any utility in the world, two (2) large dams on the Columbia River.

And all of the energy intensive industries in the whole region -- the silicon smelters and the chloralkalide plants, they're all converging on that one (1) county and driving up rates for all of the irrigators who were the historical backbone of that County's economy.

Now they're -- they're being very profit -- the new industries are being very profitable compared to what they could do elsewhere. But, their devastating the existing industry of potato growing and potato processing, in the process.

And the approach that I've proposed would protect existing industry in Manitoba from price increases caused by growth on the system. I think you're at real risk of attracting some very energy intensive industries that use a lot of electricity and provide very little employment because your rates are so low.

And this would protect your existing economy

from that kind of situation.
MR. LEN EVANS: Thank you.
THE CHAIRPERSON: Thank you very much. Interesting exchange. Mr. Williams...?

CROSS-EXAMINATION BY MR. BYRON WILLIAMS:
MR. BRYON WILLIAMS: Thank you Mr. Chairman. Mr. Lazar and Dr. Miller. I guess before starting again I did this during the Clean Environment Commission and on behalf of my clients, I do want to thank both Dr. Miller and yourself for the interesting thoughts that you bring to the process and the -- the challenges to the status quo that TREE RCM brings to the proceedings and it's much appreciated by my clients.
Mr. Lazar, before we move to kind of perhaps departures from the status quo, I want to talk about your analysis of -- or one (1) aspect of your analysis of the system, as it currently is, in terms of the current allocation of costs and revenues.
And my understand is, that in terms of the residential shortfall from full cost coverage, your analysis is that it's largely or perhaps all explained by below cost pricing to zone three (3) customers. Is that right, sir?
MR. JAMES LAZAR: Yes, that's correct, a little bit on two (2), but overwhelming zone three (3).

MR. BRYON WILLIAMS: And that's based upon your review of an interrogatory response, I believe MIPUG I-21, which shows that zone one (1) and zone two (2), residential customers are paying about -- close to 100 percent of their cost of service, whereas zone three (3) customers are -- paying close to 80 percent.

Is that right?

MR. JAMES LAZAR: Yes, that's one (1) part of it, but there also was an analysis that Manitoba Hydro did that looked at the pre-export credit revenue to cost ratio and showed that the residential class, as a whole, even including the effective of uniform rates, was very close to the system average on a pre-credit basis.

And so it appears to me that the -- their also is, in addition to the distortion caused by the uniform rate requirement, there's an additional distortion caused by the method of calculation and allocation of the export credit.

MR. BRYON WILLIAMS: Mr. Lazar, you're always tremendous at segues, I remember that from the -- the last time that I was here.

So I do want to turn to the -- to the issue of the export revenue. And specifically, I want to talk first of all, at a high level about the analysis of yourself and NERA in terms of -- of the problem that may be caused by the current -- by the status quo, as it currently exists.

And again, without asking you to elaborate too much, it would appear to me that a concern that both yourself and NERA share in terms of the status quo, in terms of the allocation of export revenues is that it's distorting in terms of economic efficiency; would that be fair?

MR. JAMES LAZAR: Yes.

MR. BRYON WILLIAMS: And, in particular, and I think this would be a fair characterization of -- of yourself as well, as your analysis of NERA that it -- it's distorting the status quo in terms of the allocation of export revenues is distorting, in terms of its impact upon energy consumption. Would that be fair?

MR. JAMES LAZAR: Yes, it has the effect of bringing the prices paid by customers far below the market value of the power or the marginal cost of the power.

MR. BRYON WILLIAMS: Now, I want to turn, just to a second, for where you and NERA may agree or disagree, in terms of the status quo as it currently stands. And as I understand it, in terms of the idea of an export class, you're in agreement with the NERA recommendations, at least at a high level, in the sense that you think the creation of -- of such a class would be appropriate?

MR. JAMES LAZAR: Yes, I do. It's going to be a part of the system for many years to come, it appears. I don't think it should be treated as a simply transitory

event.
MR. BYRON WILLIAMS: And in terms of your analysis of the NERA recommendation to allocate the net off-system sales revenue on total cost to serve, as compared to the current status quo, I take it you'd agree and it's your view that the NERA recommendation is more economically efficient than the status quo?
MR. JAMES LAZAR: I think it's -- it's more economically efficient, I -- I don't think it's optimal.
MR. BYRON WILLIAMS: And we'll get to that in -- in just a second, but one (1) of the reasons you consider it's more economically efficient would be that it would be less distorting, in terms of energy consumption, is that fair?
MR. JAMES LAZAR: Yeah, there's -- there's two (2) parts to it, first of all it recognizes a real cost of providing power to the export classes and assigns that to them. I just think that's more logical for a system such as this.
And then when it applies the credit, it does so in the manner that has less of an affect on the incremental consumption pricing, than the current method does.
MR. BYRON WILLIAMS: Thank you for that, and I was -- I noted from -- and you don't need to turn to it, but

when you were -- your response to the first Interrogatory that the Public Utilities Board asked you, in terms of your comments on NERA, you noted that it might be considered very controversial in terms of its treatment of export revenues, but you seem to suggest that your approach would be as well. Is that right?

MR. JAMES LAZAR: Yes.

MR. BYRON WILLIAMS: And I guess you'd agree with me that one (1) of the reasons that both of your approaches might be considered controversial is because they're challenging the -- the status quo or the tyranny of the status quo, would that be fair?

MR. JAMES LAZAR: Change is difficult and this is sort of a zero (0) sum gain, when we're dealing with cost allocation. So, if you make changes, you create winners, and in the process of creating winners you create losers. And losers are often not very happy about that situation.

MR. BYRON WILLIAMS: And just without needing a great deal of elaboration, as -- as I understand one (1) of the differences between your preferred routes and the -- the NERA route is that your preference would be for the export net revenue, any kind of credit or net revenue benefit to be applied in a way that's decoupled from consumption.

Is that correct?

MR. JAMES LAZAR: Yes, that's one (1) of the

differences.

MR. BYRON WILLIAMS: And that's a fairly material difference, would that -- would that be fair?

MR. JAMES LAZAR: Yes, I think actually the other difference that I identified in my -- in my evidence, is the possibility of assigning the low cost resources entirely to domestic customers, and that would reduce the $169 million export credit by some amount. And I haven't calculated what it would be, but it would be a significant reduction.

MR. BYRON WILLIAMS: So both -- NERA's proposal and your proposal, are departures from the status quo. And -- and I think I heard Mr. -- Mr. Wiens say this morning, I think he was talking about your -- your proposal as radical. And I'm sure you wouldn't accept that characterization.

But I wonder if you would agree with me that you move farther away from the status quo than NERA does?

MR. JAMES LAZAR: Yes, I do. I'm not quite as radical as what they've done in Alberta with the oil export revenue credit, but father away than NERA.

(BRIEF PAUSE)

MR. BYRON WILLIAMS: I just want to turn -- I

noted in your introductory remarks, you were talking about your experience, both in appearing before many regulators. And also in assisting a number of regulatory tribunals in the international arena, is that correct, sir?

MR. JAMES LAZAR: Yes, it's an increasing part of my work.

MR. BYRON WILLIAMS: So, both as a participant before -- before regulators, as an expert -- providing advice to regulators in a forum like this, and also kind of in the back -- back rooms, in terms of providing advice to regulators, in terms of your international consulting work, you've had an opportunity to put yourself in the shoes of regulators from time to time, is that correct?

MR. JAMES LAZAR: Well, I haven't ever laced them up all the way.

MR. BYRON WILLIAMS: Well, even with your shoes partly laced up, I wonder if you'd agree with me, and I'm sure you'd accept this as well from your experience as a -- as a participant, or as an expert, that regulators benefit when they're exposed to a -- a variety of reasonable ideas, would you agree with that, sir?

MR. JAMES LAZAR: Oh, in general, as long as all of those reasonable ideas are mine.

MR. BYRON WILLIAMS: I wonder if I could push you a little -- little farther and say, not only just your

ideas which are reasonable, but you'd agree with me that regulators benefit from the competition of ideas, whether it's from the utility, from reasonable individuals like yourself, or -- or very reasonable individuals like Mr. Harper?

MR. JAMES LAZAR: Regulators benefit from the diversity of ideas and they are appointed for the express purpose of being able to consider all of these ideas in -- in the context of broad public policy goals.

MR. BYRON WILLIAMS: And you're aware that in terms of Manitoba Hydro's responsibilities, in terms of preparing a study on the subject of inverted rates, that the -- the new date for the filing of the report is, I believe to be in December of 2004.

Are you aware of that, sir?

MR. JAMES LAZAR: Yes, I am.

MR. BYRON WILLIAMS: And just asking you to put yourself in the partially laced up shoes of a regulator, and recognizing that this regulator has -- has directed the Manitoba Hydro study to be presented to it.

I wonder if you'd agree with me that from that perspective, if you were that regulator, you'd want to be in the position, in terms of the issue of inverted rates, to fully consider the issue, taking into account not only your August opinion, but Mr. Harper's and the fully informed

opinion of Manitoba Hydro.

Would -- would you accept that, sir?

MR. JAMES LAZAR: Yes, I would. And in fact, the reason that I recommended in my evidence that the Manitoba Hydro's proposal to move to a flat rate be approved at this time, and that inverted rates be looked at for implementation in '06, is the sense that I have in my experience with regulators, that things do and generally should, move gradually.

MR. BYRON WILLIAMS: So -- and -- and I appreciate that -- that answer. So, for the regulator, it certainly would not be unreasonable to weigh your advice, but also take into account what Manitoba Hydro's put on -- on the table. And see what other parties, such as my clients have recommended to them, once they've had an opportunity to consider all the -- all the material on the subject.

MR. JAMES LAZAR: Yes, absolutely, when I was sixteen (16) years old I knew everything, but I've been slipping since then, and other people have quite a bit to offer to a discussion now.

MR. BYRON WILLIAMS: I find that as well, Mr. Lazar, much as it pains me to say that. I thank you once again for the opportunity to speak with you, and for your insight you've provided to my clients.

And those are my questions, Mr. Chair.

THE CHAIRPERSON: Thank you, Mr. Williams. Ms. McCaffrey, from MIPUG...? Would you like to --

MS. TAMARA McCAFFREY: Mr. Chair, perhaps I can move perhaps to the side or across the room.

THE CHAIRPERSON: Perhaps where Mr. Williams was and Mr. Peters before him.

(BRIEF PAUSE)

CROSS-EXAMINATION BY MS. TAMARA McCAFFREY:

MS. TAMARA McCAFFREY: Good morning, Mr. Lazar.

MR. JAMES LAZAR: Good morning.

MS. TAMARA McCAFFREY: Just on -- just as a starting point then, the scope of what you looked at and were asked to do, basically focused on rate design and demand side management, is that fair to say?

MR. JAMES LAZAR: Primarily, yes.

MS. TAMARA McCAFFREY: All right. In the -- in the PUB-TREE-I, do you have that available at all? You're discussing NERA's proposals?

MR. JAMES LAZAR: Yeah, I -- I can bring that up if it's important, or I can --

MS. TAMARA McCAFFREY: You may -- you may not need to.

MR. JAMES LAZAR: Okay.
MS. TAMARA McCAFFREY: I'll ask the question, and then if you need to, you've got the reference.
MR. JAMES LAZAR: Yes, I have it.
MS. TAMARA McCAFFREY: I just want to make sure that -- that we're on the same page with respect to what you're talking about there in terms of net off system or export sales.
First of all, it seems that you've said that it's appropriate to try to develop an export cost for customers?
MR. JAMES LAZAR: Yes.
MS. TAMARA MCCAFFREY: Or some other way to allocate fixed costs and variables to exports, in order to determine the net off system sales. I'm right there?
MR. JAMES LAZAR: Yes.
MS. TAMARA MCCAFFREY: Second on the top of the second page of that response, you suggest that there may be some alternative ways to do this, compared to what NERA came up with? That's also accurate?
MR. JAMES LAZAR: I've identified some different ways of apportioning costs and calculating the credit than NERA has.
MS. TAMARA MCCAFFREY: And in the end, you support using some new approach to allocating the net off-

system revenues. And when I'm talking about net off-system revenues, I'm talking about net of fixed costs, you know, the bricks, the mortars types of costs and net of variables, which include things like water rentals and fuel, the things you outlined earlier.

And that would focus more on infra-marginal usage, is that -- is that right, sir?

MR. JAMES LAZAR: I'm not sure I understand the question.

MS. TAMARA MCCAFFREY: I just want to make sure that when we're talking about net off-system revenues, we're actually talking about a number that's less variable costs, as well as fixed costs?

MR. JAMES LAZAR: Yes, I would -- I've used the $169 million calculation that NERA presented as my touchstone and then suggested that there might be some slightly different ways of calculating a number like that.

But I'm not using $400 million that Hydro has historically used.

MS. TAMARA MCCAFFREY: Thank you. Now, can you explain infra-marginal?

MR. JAMES LAZAR: To me, infra-marginal means the portion of consumption that is unlikely to vary in the -- in response to -- to prices for a residential customer. My refrigerator brings me such tremendous value and there are so

few alternatives to it that even when I'm in Hawaii where the electricity is twenty cent (.20) a kilowatt hour, I keep the milk in the refrigerator.

Whereas space heat or space cooling, there are substitutes available and they are subject to price competition. And I -- those are not infra-marginal.

MS. TAMARA MCCAFFREY: And with respect to the marginal costs, you've recommended that Manitoba Hydro continue to consider and study a two (2) part or inverted rate for large commercial industrial customers, that's one (1) of your recommendations here?

MR. JAMES LAZAR: Yes.

MS. TAMARA MCCAFFREY: Now, I take it you've had an opportunity to review the evidence filed on behalf of MIPUG, that of Mr. Osler and Mr. Bowman?

MR. JAMES LAZAR: I've looked at it briefly, yes.

MS. TAMARA MCCAFFREY: I'm going to refer to a couple of points that were made at page 10 and 11 in the evidence. You may not have to turn to it, it's brief points, I'm going to read the statement to you okay --

MR. JAMES LAZAR: Okay --

MS. TAMARA MCCAFFREY: -- and then I'm just going to ask you just to give just a brief comment. For reference, however, I'm looking at page 10 of the pre-filed

testimony of Mr. Osler and Bowman.

And I'm looking at the last paragraph on that page, where they're talking about,

> "Other jurisdictions have recently been engaging in cooperative efforts to redevelop industrial rate designs to attempt to increase the price signals on the marginal consumption or the part of the load that is most subject to management, i.e. conservation by the customer. To both result in increase costs from short term load incursions and cost savings to the customer from incremental efficiency improvements or self-generation."

That statement I've read to you, sir, from that evidence is essentially something similar in principle to what you're proposing, right? You're proposing that rate design ought to be refined with a couple of objectives in mind, but one (1) of which is to attempt to increase the price signals on the marginal consumption.

Am I right there?

MR. JAMES LAZAR: Yes, you are.

MS. TAMARA MCCAFFREY: Now, in the MIPUG evidence they also talk again about this cooperative approach. And at the end of the first paragraph on page 11,

sir, the evidence reads that:

> "It would seem timely to ensure the Board's directive to Hydro in this proceeding are aimed at developing a cooperative proposal over time between Hydro and large consumers, to refine rate designs, to address Hydro's concerns with respect to price signals."

This is obviously a -- a general sort of proposal but it's not at odds with the type of thing that you're coming here and proposing.

Is that fair?

MR. JAMES LAZAR: I -- I think that's fair. Although I would want to caution the Board to make sure that not just large customers and Hydro were engaged in any discussions designed to produce some kind of a change but that all stakeholders were invited to the -- to the table.

MS. TAMARA MCCAFFREY: That's a very comment, Sir, and -- and of course that's in keeping with the discussion you just had with Mr. Williams, where you talked about how regulators, in particular, benefit from a variety of ideas and -- contribution from different -- different sources, different experts, different ideas.

And so in a cooperative approach between industrials or other customer classes will be something that you would recommend.

Is that fair?

MR. JAMES LAZAR: Yes, but -- but always in the sense of a -- of a collaborative, with all stakeholders at the table.

I've -- I've seen too many cases where a utility has gotten together with one (1) stakeholder group or another and reached an agreement and then brought it to the Commission and it had so much momentum that even though stakeholders that hadn't been involved disagreed with it, they were unable to -- to steer the ship at that point.

So, it's being involved at the earliest stages of discussion, I think is important.

MS. TAMARA MCCAFFREY: I thank you very much for that, Sir. Now, one (1) final point to talk to you about and again you don't have to turn to it, but for the reference of the record, we have got MIPUG TREE Number Two (2).

Now you're -- you've given a response to that and I think it's -- it's clear but I just want to confirm that you think any and all activities,

> "Any and all activities that can lower electrical load, including by switching customers to another fuel such as gas or

others, should be part of electrical utility DSM programs since it does in fact save power."

Is that right?

MR. JAMES LAZAR: Yes, switching to natural gas I think definitely falls into that situation. And fuel choice programs, I think, are an important point. Some alternative fuels have adverse environmental impacts that are, I think, might want to make regulators at least a little bit skeptical.

I mean, converting people over to direct burning of coal in residential neighbourhoods, I think, would, you know, it would be kind of icky. To use a technical term.

MS. TAMARA MCCAFFREY: So common sense would, of course, have to apply here.

MR. JAMES LAZAR: Yeah. But natural gas is -- is a fairly easy one (1) because any increase -- any substitution of natural gas for electricity consumption in Manitoba immediately translates into an export of -- of electricity from Manitoba and a decrease of either natural gas or coal consumption south of the border. And it all blows back up into Canada anyway.

So, except for the fact that you're benefitting Ontario, the -- environmentally the shift from

electricity to natural gas is one (1) that has pretty unambiguous environmental benefits whereas some other fuels might -- might be more -- more of a concern.

MS. TAMARA MCCAFFREY: All right, I have no further questions for you. Thank you very much.

THE CHAIRPERSON: Thank you, Ms. McCaffrey and you couldn't have timed that better. So, we'll stand adjourned until -- I'm wondering before we go there. I -- I see we don't have Mr. Anderson here for a MKO. Do you, Mr. Peters, whether he intends to cross-examine Mr. Lazar?

MR. BOB PETERS: Mr. Chairman, in my discussions with Mr. Anderson, I've kept him aware of the -- the timetable and specifically as to whether he has questions of Mr. Lazar, I do not know. I suspect not. But I'll try to follow it up at the break.

MS. PATTI RAMAGE: No, I don't.

THE CHAIRPERSON: Okay then, we'll stand down.

MS. PATTI RAMAGE: Mr. Chair, I have a package of undertakings. We didn't get them quite slipped in and it might be helpful for the parties to have them before the break but if --

THE CHAIRPERSON: Let's do it now.

MS. PATTI RAMAGE: Would you like to -- to assign them exhibit numbers now? Or wait until after the

break because there is quite a few in this package.
THE CHAIRPERSON: Let's assign the numbers to save time when we go back to cross-examination.
We'll take them now and we'll number them later.
MS. PATTI RAMAGE: Got you.
THE CHAIRPERSON: All right, so...

(BRIEF PAUSE)

---Upon recessing at 11:30 a.m.
--- Upon Resuming at 2:05 p.m.

THE CHAIRPERSON: Welcome back everyone. Ms. Ramage, when we dropped off you were going to introduce the various exhibits, which there's a significant number here.
Manitoba Undertaking No. 5. Do you have number to propose? I must admit I've lost track in my head of --
MS. PATTI RAMAGE: Yeah. This number five (5) is actually just an updated version of Exhibit 16.
THE CHAIRPERSON: Okay, so it supersedes the previous distribution of sixteen (16)?
MS. PATTI RAMAGE: Yes. And moving through the package, and I'll take the liberty of -- the numbers have

been assigned on the document in front of me so, Exhibit -- or the document labeled, Undertaking No. 7, I'd suggest be Exhibit NO. 40, which is response to the question, has the surplus energy program been revenue neutral over the past two (2) or three (3) years.

--- EXHIBIT NO. MH-40: Response to Manitoba Hydro Undertaking NO. 7

MS. PATTI RAMAGE: Then we have a Manitoba Hydro Undertaking No. 8, wherein Manitoba Hydro was requested to file the Phase I Initial Review of Risks of the Risk Advisory Report on drought, and that would be Exhibit number 41.

--- EXHIBIT NO. MH-41: Response to Manitoba Hydro Undertaking NO. 8.

MS. PATTI RAMAGE: I apologize, I've missed under -- oh, no, Undertaking Number 7 is the Surplus Energy Program. Number 8 is the Risk Advisory Report, which is Exhibit 41.

THE CHAIRPERSON: Yes.

MS. PATTI RAMAGE: Then Manitoba Hydro Undertaking Number 24, which would be Exhibit 42, is the

reference to the CICA handbook, for capital expenditures.

--- EXHIBIT NO. MH-42: Response to Manitoba Hydro Undertaking NO 24.

MS. PATTI RAMAGE: Undertaking number 26, I propose it be assigned Exhibit number 43, and that is the ratio of capital expenditures to total expenditures of Manitoba Hydro. And then subsequent questions with respect to payroll dollars and EFTs.

--- EXHIBIT NO. MH-43: Response to Manitoba Hydro Undertaking NO. 26.

MS. PATTI RAMAGE: Manitoba Hydro Undertaking Number 30, with respect to EFTs which are planned, which with respect to planned overtime for 2004/'05 and '05/'06, that be assigned Exhibit number 44.

--- EXHIBIT NO. MH-44: Response to Manitoba Hydro Undertaking NO. 30.

MS. PATTI RAMAGE: Manitoba Hydro Number 32, requesting information with respect to the thirty-three (33) EFT increase in IT services, which were the result of

transfers and what of those thirty-three (33) increases was attributable to the fact Manitoba Hydro took over Banner. And I suggest that be Exhibit 45.

--- EXHIBIT NO. MH-45: Information in respect to EFT increases in IT services, which are the result of transfers and what of those thirty-three (33) increases was attributable to the fact Manitoba Hydro took over Banner.

MS. PATTI RAMAGE: Undertaking 35, which deals with $20 million dollars reductions in the operate -- in the O&A costs for 2003/'04, and whether that resulted from deferred spending to the present and its contingency budget and I would suggest that be assigned Exhibit number 46.

--- EXHIBIT NO. MH-46: Response to Manitoba Hydro Undertaking NO. 35.

MS. PATTI RAMAGE: Next is Manitoba Hydro Undertaking Number 36, which we were asked to add a column to the previous Manitoba Hydro Exhibit Number 24, showing the updated O & A forecast for '04/'05. I suggest that be

Exhibit 47.

--- EXHIBIT NO. MH-47: Response to Manitoba Hydro Undertaking NO. 36.

MS. PATTI RAMAGE: Undertaking Number 37, which was to update the response to CAC/MSOS-I-18-C, to specifically reference the treatment of subsidiaries in the actual and forecast OM&A costs. I suggest that be Exhibit number 48.

--- EXHIBIT NO. MH-48: Response to Manitoba Hydro Undertaking NO. 37.

MS. PATTI RAMAGE: Manitoba Hydro Undertaking Number 38 is next, which was a question requesting confirmation of whether the calculation of the operating costs per customer of Manitoba Hydro's Corporate Strategic Plan has been presented consistent with the operating costs per customer in this Application. And I suggest that be Exhibit number 49.

--- EXHIBIT NO. MH-49: Response to Manitoba Hydro Undertaking NO. 38.

MS. PATTI RAMAGE: Undertaking Number 39, is providing the OM&A costs for each year commencing 1998, '99 and ending in 2003, and the calculation Manitoba Hydro used to achieve the 1.9 percent annual increase. That be Exhibit 50.

--- EXHIBIT NO. MH-50: Response to Manitoba Hydro Undertaking NO. 39.

MS. PATTI RAMAGE: Manitoba Hydro Undertaking Number 43 was a request by MKO to provide copies of information communicated to customers, regarding the implementation of uniform rates. That with the attachments, be assigned Exhibit 51.

--- EXHIBIT NO. MH-51: Response to Manitoba Hydro Undertaking NO. 43.

MS. PATTI RAMAGE: And then we have Undertaking Number 44. Mr. Anderson was requested to assemble -- requested us to assemble extracts from the Hearing, that are relevant to the description of how the model -- this would be the splash model is developed and worked, and file it as an exhibit, I suggest that be assigned number 52.

--- EXHIBIT NO. MH-52: Response to Manitoba Hydro Undertaking NO. 44.

MS. PATTI RAMAGE: And finally, Manitoba Hydro Undertaking Number 46, was dealing with the goodwill associated with the acquisition of Winnipeg Hydro, I suggest that be marked as Exhibit number 53.

--- EXHIBIT NO. MH-53: Response to Manitoba Hydro Undertaking NO. 46.

THE CHAIRPERSON: That's fine. Thank you, very much. Okay, I think, Ms. Ramage, we were up to the point now where Manitoba Hydro can examine Mr. Lazar.

Before beginning I'll just mention something I should have covered off before. I just want to indicate that the Board accepts Mr. Lazar as an expert witness.

Ms. Ramage...?

MS. PATTI RAMAGE: Thank you, Mr. Chair.

(BRIEF PAUSE)

MS. PATTI RAMAGE: Mr. Lazar, at page 3 of your rebuttal testimony, and I don't think it's necessary to turn to it, but you -- you note that since Washington

Utilities and Transportation Commission ordered the implementation of an inverted rate design, that one (1) significant shift has been for new residential customers to -- to choose natural gas heat and go on to say:

> "In 1980, as much as 80 percent of new homes in Washington installed electric heat. Today, that statistic has reversed with about 80 percent choosing gas heat."

You would agree that switching from an all electric home to a natural gas home would require a fairly significant up-front contribution on the part of a customer, would you not?

MR. JAMES LAZAR: Converting an existing home would, yes. The -- the reversal that I referred to in the evidence was new construction had been 80 percent electric and is now 80 percent gas. And where you're installing a new heating system, the cost differential is much smaller.

MS. PATTI RAMAGE: Well, in any event, you would agree that the gas commodity price itself is not -- would not be within Manitoba Hydro's control?

MR. JAMES LAZAR: No.

MS. PATTI RAMAGE: And that the gas commodity price is largely dictated by the market?

MR. JAMES LAZAR: Yes. The -- the exception of that would be if Manitoba Hydro acquired long term gas resources under contract or by ownership of resources in the ground. Some utilities have sought to stabilize their commodity cost by some form of long term acquisition.

MS. PATTI RAMAGE: But to -- to make a switch from natural gas for -- I guess for any consumer actually. I was going to say for the one (1) who already has electric heat but, for any consumer is ultimately an economic decision and would be dependant on that customer's view of the market place.

MR. JAMES LAZAR: It's probably an economic decision. It's partly a -- driven by factors such as comfort and convenience. Gas water heaters provide essentially unlimited hot water. Electric water heaters usually take much longer to recover. So there's -- there's some other -- some other factors there that will affect people.

I have one (1) neighbour who -- the only gas appliance in their home is a gas range. They like to cook on gas. They otherwise have an electric heat pump. But they wanted gas for cooking. That's the way they like to cook. So, generally, economic but there's some non-economic issues.

MR. ROBERT MAYER: Some of us think gas explodes.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: And -- and in your evidence, Mr. Lazar, we also -- you explored the idea of a --- a hookup charge. Now the hookup charge is for the purpose of encouraging energy efficient building choices. Is that correct?

MR. JAMES LAZAR: Well, it's for the purpose of recovering the incremental distribution system additions and perhaps up to the generation level that the utility incurs to serve a new customer in excess of the revenues that it will receive from that customers. This is applicable in a situation like Manitoba Hydro where marginal cost exceeds tariff rates.

One (1) of the benefits of doing so is to encourage customers to avoid putting that demand on the utility in order to avoid the hookup charge. But I -- I would describe the purpose of the hookup charge as being to recover costs that utility actually incurs to serve.

MS. PATTI RAMAGE: It -- it would be a cost that is -- when you say, a cost to serve, it's a cost that hasn't been incurred so it's more in the nature of a deterrent to provide an incentive to avoid that cost. Would that be right?

MR. JAMES LAZAR: If I build an inefficient house, than Manitoba Hydro needs another five (5) kilowatts

of generation capacity, and another five (5) kilowatts of transmission capacity, and another five (5) kilowatts of distribution capacity. And that's expensive for Mani -- Manitoba Hydro to build.

The hookup charge is my way of compensating the system for a portion of that cost that you will incur if I build the inefficient house.

If, instead, I choose to build an efficient house, you don't need some part of that capacity. The utility doesn't incur that cost. I don't pay a hookup fee and the cost is avoided to me. The revenue is unnecessary to the utility and we can go ahead with an efficient house and a smaller utility.

MS. PATRICIA RAMAGE: But the hookup fee, it wouldn't be in any way dependent then on consumption after -- actual consumption, in terms of how long they left the lights on or something like that, the hook up fee is something that you pay -- independent of the price for power; is that correct?

MR. JAMES LAZAR: The way I proposed it, it would for the residential sector, it would be a fee per house and for the non-residential sector, it would be a fee per kilowatt of connected load and it would -- the customer would then pay the normal tariff right for whatever electricity they use after they're connected to the system.

MS. PATRICIA RAMAGE: So, I understand it -- so it's -- it's independent of the price for power?

MR. JAMES LAZAR: Yes.

MS. PATRICIA RAMAGE: You also reference in your evidence -- now, I'm going to find it for myself, the situation in British Columbia when dealing with export credits.

And you indicated that BC Hydro paid a one time two hundred dollar ($200) credit to residential customers rather than to build the credit into rates.

Would you agree that that credit pay in 2001 was in response or directly related to the California energy crisis, where it related to revenues, export revenues that the utility earned because of that crisis?

MR. JAMES LAZAR: Yes, BC Hydro had the wonderful I guess I should say, vision, but, I'll at least say luck of having a very large storage reservoir in Bennett Dam and was able to make a ton of money during the California energy crisis.

And they decided, rather than reduce rates on a long term basis to give all the money back in -- in one shot, one of the reasons for doing that was to not distort consumer -- consumption habits of consumers.

MS. PATRICIA RAMAGE: But, BC Hydro continues to earn export revenue and incorporate that revenue into

their prices today, correct?
MR. JAMES LAZAR: Yes, they do. Sort of normal level of revenues are built into prices.
MS. PATRICIA RAMAGE: So, the export credit that was paid in 2001 was maybe best put as a windfall for that year because of BC's fortuitous position?
MR. JAMES LAZAR: Yes, I think that's a fair characterization.
MS. PATRICIA RAMAGE: Are you aware of any other -- any jurisdiction that shows the equivalent of an export credit on customer's bills?
MR. JAMES LAZAR: Well, I certainly know of the -- the opposite of utilities that have imple -- implemented drought surcharges, hydro based utilities that have put in temporary surcharges during a drought when the going got rough.
But, these are mostly investor owned utilities and when then the going -- it goes really well they just hid the money from the regulators and don't give it back. There have been a couple of rebates not exactly analogous to the export credit.
But, when Pacific Power sold its interest in a coal plant they had a three (3) credit in rates to return the -- the windfall profits to ratepayers. After a couple of mergers, there were merger credits that went in for a year or

two (2) or three (3) years, so that customers would see the economic benefits that were touted as a justification for the merger.

So, I can think of some temporary decrements to rates that have been ordered, but, none that were specifically export related. Of course, I live on the importing side of the border. So -- don't get to see the -- the benefits of -- of an export credit very much.

MS. PATRICIA RAMAGE: Would it be fair to say and I believe I'm thinking of an answer you gave to an information request, but, that you would prefer -- prefer to see a annual credit of export revenues as opposed to it being included in the monthly bill at the --

MR. JAMES LAZAR: I would prefer to see -- I think it would be more beneficial to have a credit that was decoupled from the -- the monthly bill so that people viewed the export credit as something that wasn't directly related to their own power consumption.

I think it would be even better if it really and truly were not related to their own power consumption. But the once a year credit of an uncertain amount, based upon actual export earnings for a previous year, would:

One (1); let customers see the utility tariff that didn't include the export tariff on a month to month basis and base their consumption decisions on that. And then

when they received a credit of a hundred dollars ($100), or a hundred and fifty dollars ($150), or two hundred dollars ($200), once a year, on -- in early December, they probably wouldn't run out and spend that money on electricity. They might run out and spend that money on something for their kids. And they would continue to not distort their electricity consumption habits.

Well, the goal is to not distort the electricity consumption habits and I think a once year rebate is a -- is a way of doing that.

MR. ROBERT MAYER: Manitoba Hydro as Santa Claus.

MR. JAMES LAZAR: Actually, it's the people of Minnesota that are -- it's -- it's Manitoba Hydro that has a team of reindeer.

CONTINUED BY MS. PATTI RAMAGE:

MS. PATTI RAMAGE: But would you agree that if we're dealing with the sophisticated customer, that they would understand that the lump sum related to consumption is little different than -- than embedding that credit in the rates?

MR. JAMES LAZAR: If the lump sum was understood that it was going be eight-tenths of a cent times the number of kilowatt hours consumed during the year, the --

the sophisticated consumer would know that in advance and would incorporate that into their decisions.

If, however, what they knew was, they were going to get a pro rata share of the net export earnings for the year, but they have no idea what those would be for any particular year, they would look at their monthly bill of four (4) cents a kilowatt hour and probably base their consumption decisions on that and treat a ex-post rebate as a unplanned windfall.

Maybe the most sophisticated consumers would track Manitoba Hydro wholesale power operations on a week to week, or month to month basis in order to be able to forecast that rebate, but I think it would be very customers that would go to -- to that kind of -- of effort to know what the rebate would be and let that guide their energy consumption decisions.

MS. PATTI RAMAGE: Yeah. The typical consumer would, you'd agree -- would likely -- would more likely use the past a guide to the future than -- than doing the -- the type of exercise you've just described.

MR. JAMES LAZAR: I think would more likely use the present as a guide to the future. They'd see a -- a Manitoba Hydro bill that's six (6) cents a kilowatt hour instead of 5.17 cents a kilowatt hour and respond to that. And when a cheque came in for a hundred dollars ($100) or a

hundred and fifty dollars ($150) that in December, they wouldn't necessarily associate that with -- with their level of consumption.

MS. PATTI RAMAGE: And might -- might that, certainly if it was implemented immediately, cause undue hardship on those customers who were unable to budget their revenues and expenses during the year?

MR. JAMES LAZAR: Well, this is where the -- the definition of net export credit becomes important. When I did the calculation, based upon the NERA methodology that produced $170 million dollar credit, I found it was about at eight-tenths of a cent per kilowatt hour credit.

And if that were removed from the base rate, and showed up as an annual rebate, it would be at eight-tenths of a cent a kilowatt hour increase to -- to customers.

And, yeah, that's a -- you know, that's a twelve (12), 13 percent rate increase for a Manitoba Hydro customer. It's not devastating, but it's certainly significant and would affect customers who would -- would see it as nothing other than a 13 percent rate increase.

And then they would see a cheque for a hundred (100) or hundred and fifty dollars ($150) at the end of the year as a windfall, and they may never associate the two (2). But the increase, in the short run, would be an increase.

It's one (1) of the reasons that I suggested

it in my testimony in part that phasing this in over a period of a couple of years might be necessary to avoid that kind of rate shock.

MS. PATTI RAMAGE: I'm now going to turn to a -- a brief discussion on -- you talked about putting rolling averages in, or in terms of an inverted rate structure for commercial and industrial customers.

Now, my understanding is that customers would grow into their baseline allocations so that in the first year, if a new commercial customer was to come into Manitoba, in that first year, 100 percent of that customer's usage would be at the end-block pricing. Is that right?

MR. JAMES LAZAR: Yes, that's shown at the top of page 11 of my evidence.

MS. PATTI RAMAGE: And in the second year I think it -- it's 70 percent of the higher block as -- at the higher block of pricing and -- and in the -- I think it's thirty (30) or 40 percent. Is that right?

MR. JAMES LAZAR: 30 percent at the lower block and 70 percent at the higher block.

MS. PATTI RAMAGE: So, that -- that the new customer will have to compete with the -- the current -- Manitoba Hydro's current customer base paying a different electricity rate; that's correct?

MR. JAMES LAZAR: The new customer would pay

exactly the same rate for power that an existing customer that wanted to increase its load would pay. So, they would be competing fairly in the sense of serving additional demand for widgets, or office supplies, or office space, or whatever it was that the space was.

The existing customer that wanted to increase consumption would pay the same price as a new customer coming onto the system. They would pay a higher price than the existing customer maintaining their existing usage.

MS. PATTI RAMAGE: So, who would -- you've just led me to a question. Who would you define as a new customer? Expansion is included in a new customer?

MR. JAMES LAZAR: Well, expansion would be an increase in the usage of an existing customer, and that customer in the first year of the expansion, would get 90 percent of their historical usage. So, in essence a 100 percent of their expanded usage would be at the upper block rate.

MS. PATTI RAMAGE: So, by definition then, a new customer equals new load; is that?

MR. JAMES LAZAR: New customer equals new load, growth of an existing customer equals new load.

MS. PATTI RAMAGE: And would you agree that if the new customer was to take steps to conserve energy in its operation, that customer will provide exactly the system

benefits as those same conservation efforts would produce if they were to be -- if -- if a long-standing customer was to take those same conservation efforts.

MR. JAMES LAZAR: Yes and under this proposal both customers would receive exactly the same savings on their electric bill from taking those measures unless the measures by an existing customer exceeded the -- the baseline amount.

The example I've got -- and if they conserve more than 10 percent, they'd be down into their lower block. But the first 10 percent that they cut back, they would be getting the end block savings just as a new customer that chose to install more efficient heating system or lighting system, would avoid end block savings.

And one (1) of the reasons I made the recommendation in testimony for Hydro to study a couple of options, is to really look at how many of the commercial and industrial customers you think could reduce by more than 10 percent with efficiency measures and if there's quite a few that can, then maybe you want to lower threshold; 80 percent, something like that.

The goal is to give everybody the same incentive to conserve; new and existing customers.

MS. PATTI RAMAGE: Mr. Lazar, something I hear these -- this group of people tell me throughout the

years is that when they explain all these concepts to me, is all load is new load. That each time we switch a light on it's new load to the system. And I'm wondering how -- how the -- your proposals here today mesh with that concept.

MR. JAMES LAZAR: I think it meshes very well. It provides design to provide that the incremental usage by every customer is priced at the incremental cost so that, whether it's an existing customer deciding whether or not to turn a light on, or whether to install a more efficient light or a new customer deciding whether to buy a light -- an efficient light, or an inefficient light, all will be seeing the marginal cost on Manitoba Hydro system as the price that drives their decision.

MS. PATRICIA RAMAGE: That's all the questions that I had this afternoon. Thank you Mr Lazar.

MR. ROBERT MAYER: Mr. Lazar, you've mentioned that some of the electrical utilities are not price sensitive, I mean, you mentioned the refrigerator. And why do I have the distinct feeling that most of us don't actually look at our hydro bills with a view to -- to reducing our -- our usage.

Do you have any statistics on how many of residential consumers, on the average, would actually make decisions based on price?

MR. JAMES LAZAR: We have a number of what are

called, elasticity studies that measure the price response of -- of different classes of customers to price. They show uniformly that there is some price response in the residential.

We just finished a pretty substantial study in California, actually Charles River Associates was the consultant to the California commission in doing that and they also did a similar study in Washington and found that a 10 percent increase in the price of electricity would produce a one (1) to 2 percent decrease in consumption. That's looking at large numbers of consumers and how did they actually respond to price changes.

So, there is some response. It's not a high degree of response. Just as response to higher gasoline prices, in the short run we still go to work every day and use about the same amount of fuel. In the long run we might pay attention to the fuel efficiency of the next car we buy.

The long term response tends to be greater than the short term response. And the residential customers when they see higher electric bills, as a result of higher marginal electric prices, may pay more attention and buy a front loading washing machine that spins the clothes dryer and -- and needs less electricity for water heat and less energy for the clothes dryer. And that becomes a long term price response.

MR. ROBERT MAYER: Based on that statistic about the 10 percent, I'm assuming that 10 percent is probably the level at which you're going to start to see a price response.

So, wouldn't then, assuming your new -- the inverted rates and assuming this -- I think we talked about 13 percent increase, wouldn't we -- wouldn't Hydro be better off to do that from the point of view of conservation and price response, to do that like, bang right now, rather than phase it in over years?

MR. JAMES LAZAR: From a economic and price response perspective, yes, the example that we talked about, removing the export credit, using it either for something else or making it annual rebate, independent of -- of short term usage, would have a -- the greatest consumer impact.

You have to be the judge of whether that's acceptable from a public policy perspective.

THE CHAIRPERSON: Mr. Peters, are you prepared to begin now.

MR. BOB PETERS: Yes. Thank you. And good afternoon -- good afternoon Mr. Lazar.

MR. JAMES LAZAR: Hello.

MR. BOB PETERS: On behalf of the Board as their Counsel on this case, I'd like to ask you some questions that will hopefully provide us a better

understanding of your evidence and your positions while we have you here.

CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: Can you tell the Board, to start off with, how long you have been looking at Manitoba Hydro's system?

MR. JAMES LAZAR: I first looked at Manitoba Hydro's system analytically in 2002 in my previous appearance here. Prior to that I had looked at it only with respect to a couple of small issues. I did a survey of diesel pricing across North America and Manitoba Hydro was an example that I used.

And I've done various rate surveys and Manitoba Hydro always shows up as one of the cheapest utilities in North America when I've done those.

MR. BOB PETERS: Would I -- would I be correct to take from your resume, sir, that your geographic area of expertise deals with utilities primarily in the Pacific northwest?

MR. JAMES LAZAR: Well, there's -- most of my career has been in the northwest and the southwest; Arizona and New Mexico. The last six (6) years I've been doing an awful lot of my work internationally with the regulatory assistance project, and I probably know more about the system

in Indonesia and Namibia at this point than I do about that in Oregon.

MR. BOB PETERS: That Regulatory Assistance Program, if I have -- if I have it correct, is where you would provide services to the regulators in -- in those countries that are developing regulation I suppose, of their energy utilities.

MR. JAMES LAZAR: Most of our work at RAP has been funded by the US Agency for International Development, and we're providing training and technical assistance to mostly new regulators of newly created regulatory boards that are establishing a regulatory framework for the first time.

MR. BOB PETERS: When you look at Manitoba Hydro's system, Mr. Lazar, do you find it be capacity constrained or energy constrained?

MR. JAMES LAZAR: Well, the hydro system's primarily energy constrained, but it's connected to a grid to the south that is coal/thermal based and is capacity constrained. So, it has tremendous opportunities to market the capacity that it has available.

MR. BOB PETERS: Do you consider Manitoba Hydro's rates to its consumers as market rates?

MR. JAMES LAZAR: No, I think they're below market rates.

MR. BOB PETERS: And for them to be truly

market rates, how would that be determined?
MR. JAMES LAZAR: Well, I think one would first separate the power supply rate from the distribution rate. I don't know that there's a simple way to measure a market rate for distribution. I think that most -- throughout the world, regulators that have looked at the deregulating industry have left the distribution function regulated. So, let's just talk about generation and transmission.
I think I would look at long term contract rates that would be available in this grid for power supply at the load shape of the different customer classes. And I think that you would find that that power supply availability was in the four (4) to five (5) cent US range, significantly higher than the power supply costs of Manitoba Hydro, which are maybe 40 percent lower than that.
MR. BOB PETERS: In your answer, sir, when you referenced the -- the grid, were you referring to Manitoba Hydro's grid within the Province, or the grid to which they are interconnected in the -- through the MISO arrangement?
MR. JAMES LAZAR: The grid to which they are interconnected both east and west within Canada, and to the south into Minnesota, Wisconsin and -- and the mid-continent interconnection.
MR. BOB PETERS: Would the Board be correct in

interpreting your evidence to be primarily to show the Board that conservation should be a focus going forward?

MR. JAMES LAZAR: Well, I'd prefer to think -- use the word efficiency to conservation. Conservation means too many different things to too many people. Cost effective energy efficiency should be a focus going forward.

MR. BOB PETERS: Does that cost effectiveness vary with whether or not Manitoba Hydro charges market rates or below market rates?

MR. JAMES LAZAR: No, that wouldn't affect cost or cost effectiveness, it would only affect price.

MR. BOB PETERS: In Manitoba, if a kilowatt hour is saved, what happens to that kilowatt hour?

MR. JAMES LAZAR: Most often that kilowatt hour is -- is then available for sale off of the Manitoba Hydro grid, and generates the revenue from sale to the south or sale east or west.

MR. BOB PETERS: So, from a -- let's go back to my word I guess, a conservation effort, there's really no -- there's no benefit to Manitobans in that scenario, by saving that kilowatt hour?

MR. JAMES LAZAR: Well, there's the -- there's the revenue from selling that kilowatt hour off of the system. And I -- I guess I'm still old-fashioned enough that I think when somebody gives me money that's a benefit.

MR. BOB PETERS: Would the -- would the displacement benefit then in terms of production or generation, be that what would exist down in the -- in the export market?

MR. JAMES LAZAR: Yes, using term export to meet export from Manitoba, not necessarily export from Canada.

MR. BOB PETERS: Does it follow in your understanding then of economic theory, that if Manitoba Hydro exports its power to another jurisdiction that can -- can use it as cheaper power than they could otherwise get, that that's tantamount to Manitoba, or to perhaps exporting jobs or value added processes to other jurisdictions?

MR. JAMES LAZAR: No, I think actually it's stealing business from Alberta. Because the export of electricity I'll say into Minnesota would displace most often a natural gas fired generating unit in -- in Minnesota. And then the gas wouldn't be purchased from Alberta.

(BRIEF PAUSE)

MR. BOB PETERS: When you talked with my colleagues about the inverted rate study that you've recommended to this Board, the inverted rate program you've recommended to this Board, you've now also indicated you're

aware that Manitoba Hydro is doing a study as they've been requested to do by this Board?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And the date that we've I think agreed upon from the various Board orders, is that's expected to be received by this Board by the end of this calendar year?

MR. JAMES LAZAR: That's my understanding, yes.

MR. BOB PETERS: And your initial recommendation was to go to inverted rates -- was it over a five (5) year term?

MR. JAMES LAZAR: Well, my -- my recommendation for inverted rates is to -- for them to take effect in 2006, for the -- for the residential class. I -- specifically recommended that Manitoba Hydro be directed to file an inverted rate to be effective 2006, that's at the bottom of page 8 of my evidence.

MR. BOB PETERS: No, I recall that and is that -- is that recommendation one (1) in which the final rate structure would be in place, or do you see a migration to this inverted rate structure?

MR. JAMES LAZAR: In this proceeding, Manitoba Hydro is seeking to move from a declining block rate to a flat rate and I'm recommending that be approved.

The next migration would be -- I'll call it a mild level of inversion because I think that rate changes should be made gradually in 2006. And I think there would be a continued re-examination of the appropriate rate design thereafter with decisions by this Board or its successors based upon the information available in 2007 and '08 and 2009 and beyond.

MR. BOB PETERS: I want to deal with the concept of the inverted rate as it applies to the all electric consumer in Manitoba. Do you have any idea how many that would number? How many consumers would be all electric?

MR. JAMES LAZAR: You know I reviewed that number in the preparation of my testimony and I've -- I'm pretty sure I can find it. And it's not exactly the same as zone three (3) because there's quite a few all electric customers even in zone one (1).

And the number seventy thousand (70,000) comes to mind, but I think that was a zone three (3) number and so it would be larger number than that.

MR. BOB PETERS: You've essentially taken zone three (3) as the proxy for the number of consumers who are -- who are electric -- all electric?

MR. JAMES LAZAR: Yes, and I described that as an imperfect proxy.

MR. BOB PETERS: As I understood your

recommendation for those who are all electric, is that you could still go to an inverted rate structure, but for policy reasons you could give them a break?

MR. JAMES LAZAR: Yes, you could make the decision to give them a break, or you could make the decision to treat them the same as all other customers. If you did that, you would over time erase the -- the current revenue to cost ratio deficiency that exists for -- for zone three (3).

(BRIEF PAUSE)

MR. BOB PETERS: In terms of being economically efficient, you don't see a justification for providing all electric customers with a larger first block, if you will?

MR. JAMES LAZAR: Generally not. There can be an argument that customers that have been on the system for a long time at high usage levels, have contributed to the building of a large low cost system and ought to be entitled to continue to use what they've invested in.

But, in general, I don't think it's a very strong economic argument.

MR. BOB PETERS: You would prefer to make the economic decision and then layer on top of that, any outstanding or additional policy decisions that a regulator

may have?

MR. JAMES LAZAR: Just -- just as an economist, I would rather charge all of the customers uniform rates based upon marginal cost and if I had extra money left over, give them some money and let them do with the money whatever they think brings them the most satisfaction.

Rate making is -- is a little bit more complicated than that and -- and one (1) of the -- because the utilities revenue requirement is -- is a factor in the equation.

One (1) of the ways that a lot of jurisdictions have handled this is to go ahead and invert the rates, set cost based rates for all customers and then focus energy efficiency program and those kinds of subsidies on the customers that are most adversely affected. Help them control their usage rather than just giving them subsidized electricity.

MR. BOB PETERS: In your direct evidence to Professor Miller, this morning, I understood -- or I want to confirm with you, whether or not you have changed how you would calculate the first rate block.

MR. JAMES LAZAR: My evidence identifies two (2) different justifications for the first rate block. One (1) is, I'll call it, a allocation of the low cost Hydro resource; and the other is a recognition of the load factor

differential between initial usage for lights and appliances and additional usage for water heat and/or space heat.

I changed the way I would calculate the first block differential to reflect the second category that I just described, that is, the load factor differential. By accepting Manitoba Hydro's separation of the load factor calculation between the generation load factor and the distribution load factor, I think they've done it correctly.

MR. BOB PETERS: Well, let's put some numbers to that. You're initial recommendation was a 250 kilowatt hour first block?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And that 250 kilowatt hour first block was primarily based on what you calculated was the low cost resources available to domestic customers from -- excuse me -- from their Winnipeg River Generating Stations?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And coincidentally was it, that from a load factor perspective it was also comparable to that under your initial calculations?

MR. JAMES LAZAR: The Manitoba Hydro load research had done analysis in the zero to two-fifty (250) block separate for the usage above that. And so by happenstance the amount of power that there would be available, if you took sort of the residential share of the

old cheap Hydro projects, works out to about 250 kilowatt hours a month per customer.

And that happened to match the load research that Manitoba Hydro had done. That's just happenstance that they happen -- they came out the same. But it provided a convenient basis for suggesting a -- a very low cost initial block.

MR. ROBERT MAYER: Just be -- excuse me a minute, Mr. Peters. Where would you put that piece of the puzzle that we have been told it costs the system just to be hooked to it before you turn a switch?

MR. JAMES LAZAR: The jointly used part of the system, I believe, should be recovered in usage related charges. The customer specific part of the system, I believe, belongs in a customer specific charge.

So the service drop to the house, the meter -- reading the meter, rendering the bill, processing the payment, to me is customer specific and should be the basis for the -- the monthly basic charge.

The jointly used facilities -- the distribution circuit, the line transformers, the substations, to me is a cost that won't go away if my house burns down. And it won't go up if I divide my house into a duplex. And it's not a customer specific cost and it doesn't belong in a customer specific charge.

And that's an area that -- where I have a disagreement with the way Manitoba Hydro has done their cost study. It's a little beyond the focus of my evidence here.

But the -- the entire system has to be there all the way back to the generating facility for there to be electricity coming to the switch. But it's the customer specific part that I think belongs in a customer specific charge.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Just to follow up on the Vice-Chair's questioning. The customer specific charges have been quantified at approximately eighteen dollars and sixty-seven cents ($18.67) a month by the utility, have they not?

MR. JAMES LAZAR: The cost that the company as identified as customer related have been quantified to that level, but that includes a portion of the distribution circuit cost.

And I don't -- would not include the distribution circuit cost in that calculation. I -- if I can have the pre-costs back, I can -- on page 21 of Section B of the prospective Cost of Service Study, it shows that 40 percent of the pole, wire, and related facilities, were classified as customer related. And that's the area where I have a methodological difference with -- with the company.

And if that were removed, the eighteen dollars ($18) would go down to some lower level, and I don't know exactly what it would be.

MR. BOB PETERS: All right, while you don't know the specific amount, can you put it into a ballpark for the Board, in terms of what you would -- what you could recalculate this customer class to be?

MR. JAMES LAZAR: Well, I've done that calculation for three (3) other utilities in the last three (3) months. None of them Manitoba Hydro. And for all three (3) of them it came to between four (4) and five and a half dollars ($5.50) a month US per customer.

So, it's similar magnitude to the six twenty-five (6.25) now being charged. Maybe a little bit more.

MR. BOB PETERS: So your suggestion then is that you wouldn't have to readjust the basic monthly charge very much from what's presently being sought, to follow your methodology?

MR. JAMES LAZAR: I don't think so, no. But it would be I think fairly easy for Manitoba Hydro to -- to segregate out that eighteen dollars ($18) between the customer specific and -- and the joint facilities.

MR. BOB PETERS: Back, Mr. Lazar to the -- the inversion level, in terms of the energy blocks. Your initial recommendation, as I understood it was a first block of 250

kilowatt hours, and I think you've agreed with me that was initially where you were -- where you were positioned?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And as a result of the methodology that Manitoba Hydro showed you in their rebuttal evidence, I believe, what would you -- what would you be prepared to revise your first block limit to?

MR. JAMES LAZAR: Well, the first block would still be 250 kilowatt hours. The level of inversion justified by load factor would decrease from a one point seven-five (1.75) cent inversion, to a zero point nine-five (0.95) cent inversion. The amount of inversion related to -- I'll call it old versus new or cheap versus less cheap hydro facilities would not be affected.

MR. BOB PETERS: And this again, does not assume there would be for policy reasons, any dispensation granted to those who use electricity for space heat?

MR. JAMES LAZAR: No, I've described in my evidence an option for the Board to consider for customers who do not have gas available, some of those -- most of those probably do use electricity for space heat. Some of them probably use oil or propane for space heat. But I would do it on a gas available, gas not available basis, rather than a choice of heating fuel basis.

MR. BOB PETERS: And the option that you were

suggesting to the Board was they could pick a number that would represent an amount that would include some space heat to receive at the lower rate?

MR. JAMES LAZAR: Well, it would. I recommended a 1,000 kilowatt hours a month, with the understanding that even at the 2,000 kilowatt hour a month level, customers would still be enjoying some savings. The bills would actually cross over at something approaching the average use of space heat customers.

MR. BOB PETERS: You haven't studied that -- that kilowatt hour level in Manitoba where the actual cross over would be?

MR. JAMES LAZAR: I did review the bill frequency analysis for the Zone 3 customers in choosing the rate design that I did. And did some basic analysis that convinced me that at a 1,000 kilowatt hours a month, the space heat customers in Zone 3 would see -- who didn't change their usage patterns, would see little change in their annual electricity bill.

MR. BOB PETERS: Okay. Thank you. And in terms of the industrial customer, the inverted rates, My Friend Ms. Ramage, had a few questions on that. But basically you are recommending that a baseline be established for each commercial or industrial customer?

MR. JAMES LAZAR: Yes, it's -- of all of the

options for dealing with commercial and industrial customers, that seems like the least problematic. I don't even necessarily want to call it the easiest, because it's not easy, but the least problematic.

MR. BOB PETERS: And your suggestion is a three (3) year average and then pick a percentage after which a higher block would be charged?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And in your evidence you say a three (3) year average and I think you say 90 percent of the energy that they would use under that average would be at the first block and the remaining would go at the higher tail block?

MR. JAMES LAZAR: Yes, at the top of page 10, I say as an example, following the BC approach, each customer would get 90 percent.

I'm not particularly attached to 90 percent. 80 percent might be a better number if Manitoba Hydro finds that its -- existing commercial customers have on average, more than a 10 percent cost effective efficiency potential. You would want to lower the threshold so as to provide them with a tail block rate that applied to everything that they can economically avoid.

MR. BOB PETERS: Would the Board be correct in assuming that under your example and we'll stick with the 90

percent and the 10 percent example, that the first time it's done it would be done on a revenue neutral, by class basis?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And following up on Ms. Ramage's question, if you were bringing a new business into Manitoba to compete here, you would not get the benefit of having a pre-established baseline correct?

MR. JAMES LAZAR: That's correct. You would have to earn it.

MR. BOB PETERS: And to earn it you'd have to stick around for a few years, correct?

MR. JAMES LAZAR: Well, you'd start earning it in the beginning of the second year.

MR. BOB PETERS: And in doing your business plan to decide if you were going to set up in Manitoba, you would recognize that you'd be starting off at an economic disadvantage to a company who does exactly the same thing you did, but has been set up here prior to you?

MR. JAMES LAZAR: No, you would have exactly the same economics as an existing business that was seeking to serve the growing demand for whatever you're -- you're producing, as they would.

That is, for them to grow their business would pay the tail block rate, for you to grow your business would pay the tail block rate.

MR. BOB PETERS: That's --
MR. JAMES LAZAR: We would be protecting the existing business and its existing market share from -- from competition in effect, but exposing existing business to exactly the same incentives as a new business in securing additional market share.
MR. BOB PETERS: Maybe you've drawn the distinction then as to competing for additional market or new market. But in terms of competing for existing market, the new competitor would be at a disadvantage?
MR. JAMES LAZAR: Yes.
MR. BOB PETERS: Do you see that potentially such a -- such a industrial or commercial inverted rate program would perhaps limited economic growth in Manitoba?
MR. JAMES LAZAR: I think actually the -- the opposite. I think it would have the effect of discouraging, as I mentioned earlier, some very energy intensive businesses from locating in Manitoba.
I think there's a strong incentive for a chloralkali industry or the aluminum industry to locate here now. And if they were to locate they would gobble up so much of your low cost power that it would have long term adverse effects on all business in Manitoba.
This approach, I think, would serve to discourage very energy intensive industry but would be a very

insignificant deterrent to any other business or industry that might come to Manitoba.

So protecting the existing jobs while not discouraging new jobs very much, I think is better than the current policy, which invites energy intensive industry, creating a threat to all existing business in Manitoba.

MR. BOB PETERS: Just so I can digest that last answer, Mr. Lazar, you're saying under Manitoba Hydro's existing pricing policies, new industry could come to Manitoba because of the cheap energy prices, and that would remove the ability of Manitoba Hydro to export it at -- at higher prices. And that would therefore hurt the entire customer base in Manitoba?

MR. JAMES LAZAR: That's correct, yeah, basically if you have a -- a limited amount of roast beef at your buffet table, you don't want to invite me to come up her from America and get in line at the buffet table.

MR. BOB PETERS: But you do want to keep the -- the Manitoba people liking roast beef still at the buffet table, and just discourage new entrance to the line of the buffet?

MR. JAMES LAZAR: That's correct. That's correct.

THE CHAIRPERSON: May not be the greatest example, since we can't ship the roast beef to you.

MR. ROBERT MAYER: Depending on the results from the latest cow.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Have you any examples, Mr. Lazar, where Manitoba Hydro's current policy has I suppose, operated to the detriment by bringing in energy intensive companies to Manitoba?

MR. JAMES LAZAR: I have a vague recollection of a conversation to that affect, and I don't recall the specifics of it. But there was an expansion or addition of a -- of a chemical industry or another energy intensive industry here in the last few years, but I don't recall -- I don't recall the details of the discussion.

MR. BOB PETERS: All right, then let me just help that. If an existing Manitoba company that uses considerable energy expands its facilities, to maybe take advantage of economies of scale or those types of things. That too, you would say would be detrimental to the remaining customers of the system?

MR. JAMES LAZAR: That would be detrimental to the remaining customers on the system. Under my proposal for the first three (3) years they would pay a tail block rate for a portion of their power and then would earn a new base line and get the same benefits of the system as everyone

else.

On making the decision to expand, I think three (3) years is not a long time, but in making a decision of what kind of efficiency measures to install in the facility that they're expanding, three (3) years might actually influence what they would install. You wind up with a new business or an expanded business that's more efficient than it otherwise would have been.

MR. BOB PETERS: Assuming this energy intensive business decides to come to Manitoba, because of the low energy prices and thinks it can survive for the first three (3) years, doesn't it then present the same problems starting in year four (4), that you're worried about in year one (1), with no inverted rates?

MR. JAMES LAZAR: Yes, after making a three (3) year investment to -- to join the system, they would have the same rights as anybody else. It's just the -- the first three (3) years I think would -- would serve to at least partially deter energy intensive business.

And you put this in the context of -- of a normal business that's using ten thousand (10,000) or 20,000 kilowatt hours a year per employee, we're talking about maybe a hundred dollars ($100) a year of extra cost per employee. A pretty small number in the context of a hundred thousand dollar ($100,000) a year turnover per employee for a typical

business.

But where you've got an energy intensive industry like a smelter or a chlorine plant that's using 3 million kilowatt hours a year per employee, and employs you know, eighteen (18) people and uses 42 megawatts of power, it becomes pretty significant.

So, it's not discouraged -- not much of a discouragement to a labour intensive employer, but it would affect an electro process employer.

MR. BOB PETERS: Without sounding like I'm with the Chamber of Commerce, but it's your last couple of answers seem to suggest that it's not a good idea to use low energy costs as a basis for encouraging new industry in Manitoba?

MR. JAMES LAZAR: It's certainly one (1) of the things that Manitoba has to offer and will continue to have to offer new industry. I don't think you should use it to attract particularly energy intensive industry.

If they will wind up -- if I just use the example of -- of a smelter, an aluminum smelter using 3 million kilowatt hours per year, comes on to the system paying three (3) cents a kilowatt hour, when that power could otherwise be exported for six (6) cents. That's a three (3) cent per kilowatt hour subsidy, times 3 million kilowatt hours a year, that's ninety thousand dollars ($90,000) a year

per job in subsidy from other Manitobans.
At the risk of sounding like the Chamber of Commerce, I don't think a ninety thousand dollars ($90,000) a year subsidy is really the way to attract new jobs to Manitoba. Better you should pay people sixty thousand dollars ($60,000) a year to not work.
MR. ROBERT MAYER: That's an interesting concept for minimum wage.

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Let me move, Mr. Lazar, to the export credit and I wonder if it would be helpful if Professor Miller could, together with the Board and other parties, turn to the book of documents that I provided initially.
THE CHAIRPERSON: Mr. Peters?
MR. BOB PETERS: Yes?
THE CHAIRPERSON: How much more time are you going to require?
MR. BOB PETERS: Probably another twenty (20) minutes.
THE CHAIRPERSON: Let's have a seven (7) minute break now.
MR. BOB PETERS: Thank you.

--- Upon recessing at 3:07 p.m.

--- Upon resuming at 3:30 p.m.

THE CHAIRPERSON: Mr. Peters?
MR. BOB PETERS: Thank you, Mr. Chair.
THE CHAIRPERSON: Today is the -- obviously the Federal election day, so we'll be shutting right down at 4:00 so --
MR. BOB PETERS: Thank you.
THE CHAIRPERSON: That's not a suggestion that you would normally run right 'til then.
MS. PATRICIA RAMAGE: Mr. Chair, you're getting the hang of this aren't you?
MR. BOB PETERS: I understand the comment.

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Mr. Lazar, I've taken from your direct evidence and the questions posed by My Colleagues, that you support an export class being established to deal with these outside of Manitoba power sale revenues that are talked about?
MR. JAMES LAZAR: Yes, they seem to be a long term feature of the utility and I think they should be recognized as having cost responsibility for generation,

investment and operating costs.
MR. BOB PETERS: And I was looking for a comment and maybe I only have it committed to memory, but I think your view was that the methodology that was being employed by NERA, was not, in your view, considered optimal. Have I got that right?
MR. JAMES LAZAR: Actually, it was the current methodology that's been used that I described as second best. I think the NERA methodology is a substantial improvement. I have relatively minor issues that I would have with the -- with the NERA report. But, as I say, they're -- they're really pretty minor.
MR. BOB PETERS: Well, one (1) of those minor points was that you would consider assigning the oldest and cheapest resources to domestic customers and then use the NERA methodology for the other customers?
MR. JAMES LAZAR: Yes, I would consider that.
MR. BOB PETERS: Can you tell the Board, is the split on the old Hydro versus the new Hydro, generating stations or sources of -- of power, as of a specific date?
MR. JAMES LAZAR: When I did my testimony in 2002, I did it strictly geographically, the Winnipeg river versus everything in the north. In this proceeding, the -- Manitoba Hydro responded, well, wait a minute, we've got a couple of older cheap projects in the north. And that's

true. And they were integrated to the system before the DC inter-tie was built was my understanding.

And so maybe it's appropriate to consider those also. But, clearly the newer northern facilities and the DC inter-tie that was built in order to move that power to market are in a different category.

MR. BOB PETERS: Which were the key plants?

MR. JAMES LAZAR: You know, I have that -- I can bring that up. And I'll try and do that if I can --

MR. BOB PETERS: I'm assuming that Kelley was one(1). Did they call Grand Rapids and Kettle?

MR. JAMES LAZAR: Remember I'm a foreigner, I have to actually look at data in order to assign names and numbers to things.

MR. ROBERT MAYER: We can probably get that from Hydro a little later.

(BRIEF PAUSE)

MR. ROBERT MAYER: Mr. Peters is going to complain I'm cutting into his time here.

(BRIEF PAUSE)

MR. JAMES LAZAR: Kelley, Kettle, and Long

Spruce were the cheap ones.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Mr. Lazar, I believe Professor Miller has in front of you, at Tab 30 of a book of documents that has been previously used in these Proceedings. And Tab 30 is out of Manitoba Hydro's Cost of Service Study for March 31, 2004, and it's Schedule A-1.

Have you that in front of you, sir?

MR. JAMES LAZAR: Yes, I do.

MR. BOB PETERS: As I understand your -- your recommendations to the Board on export credits. As I said, you -- you seem to agree to establish an export class, if the Board is of like mind, and then allocate an export credit back to the customers in some fashion that's not tied to their consumption, and maybe will be irregular as well, in terms of amount.

MR. JAMES LAZAR: Yes, but the export credit that I'm referring to is not the $419 million that's shown in the net export revenue column on this page. That to me is the sort of the gross export revenue, it doesn't include an assignment of power supply costs.

MR. BOB PETERS: I appreciate that, sir, but stay with me then if you would on Schedule A-1, which is at Tab 30. We can see in the middle column, the RCC percentage

pre-export allocation.
MR. JAMES LAZAR: Yes.
MR. BOB PETERS: Have you found that column? That's basically saying that the residential customers, according to these numbers, are paying approximately 63.9 percent of their allocated costs; correct?
MR. JAMES LAZAR: Yes, for about 95 percent of the system average.
MR. BOB PETERS: And you're saying the system average then is the 67.7 percent found at the total general consumers line in the same column?
MR. JAMES LAZAR: Yes.
MR. BOB PETERS: And you also are saying that this is one (1) way of calculating that number, but it's not the -- not the method that you would recommend, is what you've said?
MR. JAMES LAZAR: That's correct.
MR. BOB PETERS: You would prefer the Board used the methodology that's found two (2) tabs later in the -- in the brief of documents, at Tab 32, which is -- which is the revised cost of service that incorporates some of the recommendations from the NERA Report.
MR. JAMES LAZAR: Yes. Although I might stop at Tab 31 along the way, in order to note that Tab 31 breaks down the three (3) residential zones separately, and shows a

significantly different revenue cost coverage in Zones 1 and 2, than Zone 3.

I might want to do the same thing in Tab 32, so that the -- the cost that is imposed by the Uniform Rate Legislation is at least made explicit.

MR. ROBERT MAYER: Don't go there, Mr. Lazar, or you and I are going to have a real scrap. I live in what used to be Zone 3, which I understood was eliminated by Legislation.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Let me -- let me try to help you out here and not get into the fisticuffs at this point, Mr. Lazar. But your purpose of stalling here on Tab 31, is to demonstrate to the Board that the -- numerically, the source for the low RCC can be found attributed to customers in the low density area.

MR. JAMES LAZAR: Yes, that's -- that's correct. And there was some discussion both on the Hydro evidence and I think the -- the Society of Seniors, and in the NERA Report itself, about applying some portion of the export credit first, to cover those -- those low density costs, and then applying them elsewhere. And I don't necessarily think that would be a mistake.

The low density costs are clearly a result of

policy decisions, not -- not accounting analysis. And using the export credit to -- to cover the costs of that policy determination might be a reasonable approach.

MR. BOB PETERS: But with respect, Mr. Lazar, that would be a decision to be made once the Board determined it would even go to an export class and secondly as to a methodology to calculate what would be the next -- net export revenue.

MR. JAMES LAZAR: Well, actually --

MR. BOB PETERS: The -- the third step would be how to -- how to share the wealth.

MR. JAMES LAZAR: Actually, the decision of how to share the wealth needs to be made whether there's an export class or not if the export revenue is going to be factored into Hydro's revenue requirement. It -- we could do that on Tab 30 just as easily.

We could take Tab 30 which has exports calculated sort of the current way. Break residential into three (3) zones and apply a portion of the $419 million to cover the low density area deficiency and then apply the rest in the method that's -- that's shown in Tab 30.

I think that the decision of using export revenue to support low density areas can -- is independent of whether an export class is created. And the creation of an export class is independent of whether the export revenue is

used to cover the low density areas. I happen to think that both have merit.

MR. BOB PETERS: And the low density areas in Manitoba have contributed approximately $14.8 million to the -- to the additional revenue required from that class to get towards unity in their RCC.

MR. JAMES LAZAR: I'm not sure I see where you're referring to.

MR. BOB PETERS: Let me ask it this way then, Mr. Lazar. Do you know what the financial impact of the decision to go to uniform rates was in Manitoba on the utility?

MR. JAMES LAZAR: Well, I've -- I've reviewed that in -- in one (1) of -- I think it was one (1) of the MIPUG data responses, but I didn't commit it to memory.

MR. BOB PETERS: And my suggestion to you, Sir, is was around the fourteen (14), $15 million mark.

MR. JAMES LAZAR: That -- that sounds like the right order of magnitude.

MR. BOB PETERS: All right. Let's then -- let's then turn to Tab 32, if I could.

The revised prospective cost of service study that's on TREE/RCM MH-II-13, also has a column in the middle called, RCC Percentage Pre-Export Allocation. Correct?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And here again, the residential class is considered as a whole which other classes are as well at various line items and a percentage is allocated based on the NERA methodology.

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And we see again, that for example, the residential class is below the class average of 84.1 percent.

MR. JAMES LAZAR: Yes, and I expect that that again is driven by the -- the impact of the uniform rate requirement in the low density areas.

MR. BOB PETERS: Just to be clear then, for the Board, before the export credit is assigned, is it your recommendation that the class revenues equal the class costs?

MR. JAMES LAZAR: No, not necessarily. Almost every utility has deviations between costs and revenues.

Those exist for a variety of reasons, including the limited precision of cost of service analysis, the desire to have rates that reflect perceptions of equity and fairness, gradualism in moving towards the results of a cost study and, in many cases, forecasts of where costs will go in the future. Not wanting to, if you will, overshoot.

MR. BOB PETERS: Would you agree with me then, that under your recommendations, you would at least

want the total consumer's revenue to equal total consumer's costs before the allocation of export credits?

MR. JAMES LAZAR: Ideally that would be my recommendation and that -- in -- in the context of having the export credit be completely decoupled from -- from rates and show up as a -- as a periodic rebate to either electric consumers or tax payers in some manner unrelated to consumption.

The goal would be to have the tariff rates produce the utilities -- excuse me -- the tariff rates applied to retail sales, plus the export revenues required to recover export costs, to cover the utilities revenue requirements and then have the export revenues in excess of export costs available for distribution, independent of electric usage.

MR. BOB PETERS: Does that follow from your answer Mr. Lazar that to get to that ideal point, the residential customers, RCC would have to increase from 77.3 percent up to the zone of reasonableness, whether it be, 95 percent or any number below 105 percent.

MR. JAMES LAZAR: Yes, with the caveat of what we discussed a moment ago, that the 77.3 includes the effect of the uniform rate legislation. And one might want to separate that effect and -- and treat it differently, in which case you'd be looking at going from 83 percent,

something like that up to -- the zone of reasonableness.

MR. BOB PETERS: All right. And can you tell the Board, in your opinion sir, what would you consider to be rate shock en route to getting to such a -- such a RCC?

MR. JAMES LAZAR: Well, I think that a 10 percent increase in rates, in a single year is to me where rate shock begins. Now, that was a -- I've had that position for a couple of decades.

And in saying that, it was built in an era of inflation that averaged 5 percent. And with lower inflation I might take it down a percentage point or two (2).

MR. BOB PETERS: Does your answer apply whether it's a residential customer or a commercial or industrial customer?

MR. JAMES LAZAR: Yes, it does. And for that reason I think that one moves -- needs to move gradually to do this.

(BRIEF PAUSE)

MR. BOB PETERS: In terms of passing on an export credit to consumers, one (1) methodology, as I understood from the evidence so far, is that you could pass on an expected export credit, maybe based on this flash model or some other indicator as to what Manitoba Hydro would

expect to be the export credit in a forecast year?
MR. JAMES LAZAR: Yes, that would be one (1) approach.
MR. BOB PETERS: And if that was done, sir, would it follow then that the risk being taken is that of the corporation, as opposed to the consumer, in terms of whether that export level is achieved?
MR. JAMES LAZAR: Yes.
MR. BOB PETERS: And what happens if the export level is not achieved, is the -- does the utility get a chance to recover part of that through increased rates, or does the utility have to suffer that shortfall?
MR. JAMES LAZAR: Well, in the short run, the utility suffers the shortfall through attrition of its retained earnings. But in the long run, the utility is allowed whatever the Board allows the utility to do.
If the utility applies for a drought surcharge and the Board allows it, then it goes back onto the customers.
MR. BOB PETERS: The other methodology would be to be passed through the actual export credits that would be based on some calculation of what actual results have been over a period of time, correct?
MR. JAMES LAZAR: Yes.
MR. BOB PETERS: And in that instance, it

would be the consumers who would bear the risk as to whatever those credits would be?

MR. JAMES LAZAR: That's correct. And that's -- that's basically, you know the way the Alaska permanent fund example on page 13 of my evidence works. It's done over a period of time and it's a portfolio so it moves kind of slowly, but the -- whatever the actual earnings of the permanent fund are, are what the citizens of Alaska say.

MR. BOB PETERS: Well, let's segue there as My Friend, Mr. Williams would say, because I did have a question about that.

This Alaska permanent fund is really a payment to those residents in Alaska, based on how well the investment of the crude oil royalties comes out?

MR. JAMES LAZAR: Yes, that's correct.

MR. BOB PETERS: And what I took from your evidence is what you liked about it, it was unpredictable in amount and therefore consumers can't bank on it in advance?

MR. JAMES LAZAR: That's -- well the first thing I like about it is, that it's rebated to consumers, independent of their oil consumption. And the second -- related to my oil consumption, but not to Alaskans oil consumption.

The second thing that I like about it is that it's somewhat unpredictable, the people can't really bank on

it because they use a five (5) year average, it doesn't move dramatically from year to year.

But it -- it's not a predictable amount.

MR. BOB PETERS: When you say, it doesn't move dramatically, it has ranged from eleven hundred dollars ($1100) to nineteen hundred dollars ($1900) over the timeframe you've presented?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: And that's the -- that's the Santa Clause or the gift at Christmas time that could be presented to -- to different consumers?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: Would you agree with me, sir, that the -- the export market credit, as you've talked about it, doesn't then become a change in the rates, but it's really just a presentation issue, in terms of how you get the money back to the consumer?

MR. JAMES LAZAR: Well, one (1) option that I proposed was simply to line item it on the bill and not change the way it's computed or credited, except to show it as a separate item.

Another was to make it an annual item on an expected value basis, and the third was to make it an annual item on an actual basis. And a fourth was to give it to the Government to spend on healthcare and schools and other

things, and completely separate it.
So I've made several suggestions, and each of them moves away from it being built into the tariff rate and towards having customers pay tariffs that reflect ongoing costs of -- of power supply.
MR. BOB PETERS: In your advice to this Board, sir, which is the preferred methodology in your view?
MR. JAMES LAZAR: Well, at a minimum I would say that the -- an annual rebate, rather than a -- building it into the tariff, would be desirable. Going all the way to removing it from the electric tariff -- from any relationship to the electric bill would be, from an economist's perspective, an excellent step. From a public policy perspective, maybe more courageous than some would want to attempt.
MR. BOB PETERS: And --
MR. ROBERT MAYER: And with respect, the Minister of Finance would really like to talk to you.

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: In terms of a preference on an annual basis, would it be based on actual or forecast net export revenue?
MR. JAMES LAZAR: Well, that would be the Board's decision, I prefer to have it related to actual.

Both because that stabilizes Manitoba Hydro finances, and makes it easier for them to get access to lower cost debt for the -- for the capital programs, but also because it makes them unpredictable for the customer, and therefore less likely to affect consumption.

MR. BOB PETERS: That actual amount in your recommendation, based on a one (1) year, two (2) year, three (3) year, how do you calculate that?

MR. JAMES LAZAR: Well, initially I think one would need to phase into it, because if you did it all at once in -- in a situation where you've got a drought, and I'll call it a zero credit, to avoid using a negative number, it would constitute rate shock. And so at a minimum, I would recommend phasing into it over a -- a -- maybe a three (3) year period.

But after a three (3) year phase down of the export credit, I think it could be done on a single year annual basis or a two (2) year basis.

MR. BOB PETERS: Thank you. Mr. Lazar, I'd like to just switch with you to these hookup fees you talked to My Colleagues about, and I understood your evidence to suggest that these hookup fees are supposed to encourage efficient building techniques?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: Does that suggest that

without these hookup fees, they would be inefficient building techniques?

MR. JAMES LAZAR: My understanding that the majority of homes built in Manitoba today, are built to less than the R-2000 standard, which I consider to be a pretty -- pretty good efficiency standard.

So, I'll call them less efficient rather than inefficient, to avoid insulting builders who have come a long way from where they were twenty (20) years ago.

MR. BOB PETERS: Can you tell this Board what the cost is, in terms of new home construction, to install for space heat from different sources?

MR. JAMES LAZAR: The limited information that I pursued, indicated to me that the difference between conventional building techniques and Power Smart was about two thousand dollars ($2,000), and the cost to go to R-2000 was about another thousand dollars ($1,000). But that was a very limited source of data, and that's what I relied on in preparing my recommendation.

MR. BOB PETERS: All right, and that underpinned your recommendation for a two thousand dollar ($2,000) refund if you hit the Power Smart standard of construction, and going up to a three thousand dollar ($3,000) rebate, if you went to the R-2000 standard?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: Do you know what the time period is in terms of payback, for going to one (1) of these higher standard efficiency homes?

MR. JAMES LAZAR: I've looked at that for eastern Montana, which is not quite as severe as -- as Manitoba, but pretty close. And the payback period is -- is more than a decade. But actually what's important from the homeowner's perspective is the time deposit of cash flow, that is at what point does the utility bill savings exceed the mortgage payment increment? And that happens immediately.

So, from the very beginning the customer's monthly sum of their mortgage payment plus the utility bill is smaller. And payback period -- because a house is a long lived asset, I mean, we use seventy (70) years as the life of a house.

So they have a ten (10) year payback period, and it's a lighting fixture in an office building that might be there for eight (8) years, that's not a very good investment. But in a house that's going to be there for seventy (70) years or a hundred (100) years, a ten (10) or twelve (12) payback period is still a pretty good thing.

I would prefer to look at the -- the customer's impact from a cash flow perspective. And it's cash flow positive from the beginning.

MR. BOB PETERS: And you assume that the -- the builder incurs additional costs to get the home more efficient, and passes that on to the homeowner, and the homeowner then gets the rebate under your recommendation?

MR. JAMES LAZAR: Under my recommendation, the connection charge and the rebate would go -- would be paid by the -- would be -- the connection charge would be paid by the builder, the rebate would go to the builder upon meeting the standards, if there were an owner/builder, obviously the owner/builder would pay the connection charge and receive the rebate.

MR. BOB PETERS: Mr. Lazar, in the -- in your evidence, you also talked about natural gas efficiency, and I don't want to go too far down that line, and incur the wrath of My Colleague, Ms. Ramage. But mindful of her comments previously, my interpretation of your evidence was you don't see Manitoba Hydro being very strongly motivated to do some -- some efficiency gains in the gas side of their business.

Have I stated your position, generally?

MR. JAMES LAZAR: Yes, and I think there's some cost effective opportunities there, it creates jobs for -- for efficiency contractors in Manitoba and reduces a few jobs for roustabouts in Alberta, I don't see that as a bad thing.

MR. BOB PETERS: But in -- in talking about

the natural gas efficiency, sir, would you agree with me that many of the programs that the utility offers now, benefit homeowners, whether they heat electrically or by gas?

MR. JAMES LAZAR: Well, let me refer to the company's rebuttal evidence at -- beginning at page 32. The company listed out some of the -- the energy efficiency programs that it's running. The -- the Energy Star appliance program is available to customers with natural gas. But the Power Smart New Home Program is focused -- is -- it is an electric program currently. The Power Smart Insulation Program is an electric program currently.

So, some of the programs are, and some of the big ones are not.

MR. BOB PETERS: And the essence of your 2 percent system benefit charge recommendation, is to provide the utility with some ready available money to get into efficiency programs on the gas side?

MR. JAMES LAZAR: Yes.

MR. BOB PETERS: To be -- to be the incentive for the utility to do that?

MR. JAMES LAZAR: Well, to be the funding for the utility to do that. I think that the incentive for them to do that is simply their sense of what their customer's want and what's good for their service territory.

MR. BOB PETERS: But you also criticize them

in your evidence to say, that there's really little in it for them, because if they save a gigawatt hour of gas generated elect -- energy, that just benefits somebody outside of Manitoba?

MR. JAMES LAZAR: Well, no, the savings of gas benefits the customers in Manitoba, who don't have to pay for that gas.

MR. BOB PETERS: No, I appreciate that, and likewise, the same for electricity, whether it's gas or electric, correct?

MR. JAMES LAZAR: Well, it's -- it's different. Gas is an imported commodity that won't be imported if the demand isn't here. Electricity is an export commodity that will be exported if the demand isn't here.

So it's -- financially, the impact on Manitoba is about the same. But it's -- the relationship is different.

MR. BOB PETERS: There's -- there's fewer system savings on the gas side than there are on the electric side.

Would you agree with that?

MR. JAMES LAZAR: No, I think they're about the same. The cost of purchased gas is about two-thirds (2/3) of the cost of the delivered gas service. And the -- the value of electricity, the market value of electricity is

about two-thirds (2/3) of the cost of delivered electricity.

I think the difference is that there's a gas flow-through mechanism for gas costs and not a similar mechanism for electricity. So, it -- it affects the utility financially a little bit differently.

(BRIEF PAUSE)

MR. BOB PETERS: Just to touch up on a couple of quick points.

When you and I talked about market rate implications in Manitoba, and you acknowledged that the market rate was not being paid by consumers.

Where do you peg the market rate for Manitoba electricity?

MR. JAMES LAZAR: I haven't looked at the Mid-West market for a couple of months. But it was in the four (4) to five (5) cent US range when I last looked a couple of months ago, in -- and given where gas prices are right now, around five dollars ($5) US, I would expect to find it in that range if I were to look at it.

It was lower than that a year ago when gas prices were lower. But it generally tends to be driven by the cost of natural gas. It's the incremental generating fuel in the markets to which Manitoba Hydro exports.

MR. BOB PETERS: Mr. Chairman, I'd like to thank Mr. Lazar for his answers. Those complete my questions.

THE CHAIRPERSON: Thank you, Mr. Peters. Mr. Evans has a question.

MR. LEN EVANS: Yeah, yeah. This is a -- a general question of clarification. I think earlier on, Mr. Lazar, you said that, Manitoba -- just generally, Manitoba Hydro rates were too low.

And I don't know whether I got all of your explanation, but I'm just wondering, too low compared to what? Like, I wonder how do you come to that conclusion? I think you -- I don't want to put words in your mouth, but I think that at some point earlier on today you said, that the Manitoba Hydro rates were too low.

MR. JAMES LAZAR: I said they weren't market rates.

MR. ROBERT MAYER: Well, below market rates. They're -- if, instead of the people of Manitoba having all these wonderful dams that provide a reliable source of economical and sustainable power, you had to go out into the market place to buy the electricity, as you do with natural gas, the costs would be significantly higher.

MR. JAMES LAZAR: As -- as we've found out over the last drought.

MR. ROBERT MAYER: When you did go off and buy some power, yes.

MR. LEN EVANS: So -- so are you saying for -- are you saying, just to elaborate, are you saying that -- you're making reference to rates in the United States or anywhere else outside of Manitoba, that we're much lower in market rates outside of the province.

MR. JAMES LAZAR: The costs on the Manitoba Hydro system are below the market value of the power in the area where that system is -- is located, what it would cost to replace that power were it not available from the dams. If Scotty beamed up all your dams tomorrow, your rates would go up a whole bunch.

And, you know, thankfully you -- you have people of the generations before us -- to thank for -- for making that investment and -- and it's a good thing for Manitoba. But it's now sufficiently different than market that it's distorting consumption patterns and you may want to, as the company has said, take those economic rents and figure out a different way to distribute them.

MR. ROBERT MAYER: For your information, Mr. Lazar, Mr. Evans was part of one (1) of those governments that built --

MR. JAMES LAZAR: I -- I

MR. LEN EVANS: Yeah.

MR. JAMES LAZAR: I didn't want to accuse him of being older than me but -- if I can do it with that level of respect maybe I'll get away with it.

MR. LEN EVANS: Just as -- just as a footnote, we were involved in one (1) big project called Limestone and the opposition of the day referred to it as Lemonstone. I don't know whether they still use that term today.

MR. ROBERT MAYER: I asked Mr. Edwards that when he was here the last set of hearings, he didn't answer.

MR. JAMES LAZAR: Well, Limestone is producing power at about twenty-two dollars ($22) a megawatt hour and then if you add in the -- the -- roughly ten dollar ($10) cost of the -- or megawatt hour cost of the DC transmission, it's at thirty-two (32). A few years ago that was about market. Today it's very attractive resource.

And I don't think gas prices are going to go down very much, very soon. I expect it will continue to be an attractive resource henceforth.

THE CHAIRPERSON: Thank you very much, Mr. Lazar. We appreciate your testimony. Professor Miller ...? Would you like to ask any further questions?

DR. PETER MILLER: Yes, I have one (1) question on re-direct.

RE-DIRECT EXAMINATION BY DR. PETER MILLER:

DR. PETER MILLER: Mr. Lazar, what effect would the three (3) year rolling baseline have on energy efficiency.

MR. JAMES LAZAR: I think it would have a very beneficial effect because customers that invest in efficiency, whether it's at an existing facility or in deciding to expand a facility or build a new facility, would see a higher, closer to marginal cost price of electricity for at least the first few years.

We found in looking at commercial and industrial efficiency investments, those customers only tend to look one (1) to three (3) years ahead in deciding how much to invest in efficiency. And having some kind of an inverted rate for -- for the commercial and industrial sector, would provide a stronger incentive for them to invest in efficiency measures that are cost effective.

DR. PETER MILLER: Thank you, that's all.

THE CHAIRPERSON: Okay, thank you everyone. We'll stand down for the day and Mr. Feldschmid, you're up first tomorrow.

--- Upon Adjourning at 3:55 p.m.

Certified Correct,

_____
Carol Wilkinson, Ms.