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MANITOBA PUBLIC UTILITIES BOARD

Re: 2008/'09 GENERAL RATE APPLICATION  
MANITOBA HYDRO

Before Board Panel:

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

HELD AT:

Public Utilities Board  
400, 330 Portage Avenue  
Winnipeg, Manitoba  
April 16th, 2008  
Pages 2873 to 3101

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

2

3 THE CHAIRPERSON: Okay. Welcome, we have  
4 a new day in front of us and a new group, a witness.

5 Mr. Gange, do you want to introduce  
6 RCM/TREE's witness?

7 MR. BILL GANGE: Thank you very much, Mr.  
8 Chair. With us today is -- is Paul Chernick who has  
9 prepared evidence that has been filed. I believe that  
10 RCM/TREE Number 1 includes the evidence of Steven Weiss  
11 and Paul Chernick, so that material is on the record.

12 I -- I will say, on the record, that  
13 during the lead-up to today, I had requested of counsel  
14 their position as to whether Mr. Weiss, whether his  
15 testimony was necessary or his attendance here was  
16 necessary, and it was agreed by all counsel that Mr.  
17 Weiss need not be here. There may be, Mr. Chair, some  
18 questions by way of interrogatories I expect that may  
19 arise with respect to Mr. Weiss, and if that happens, we  
20 will attend to getting those filed as soon as possible.

21 Also, we're -- we're not attempting to  
22 replicate a Hydro panel with the number of people that  
23 are here, but as this Board knows, Professor Miller, who  
24 is seated at my left, is the representative of TREE and -  
25 - and has -- is here in that capacity. He will not be

1 giving testimony of course, and my associate, Mr. Rempel,  
2 is also with us.

3 As well, in the -- in the gallery, Carolyn  
4 Garlich who is a member of Resource Conservation Manitoba  
5 is in attendance as well.

6 Mr. Chernick is prepared to give his  
7 testimony and -- and so we're ready to proceed.

8 THE CHAIRPERSON: Very good. Mr.  
9 Gaudreau.

10

11 PAUL CHERNICK, Sworn

12

13 THE CHAIRPERSON: Please.

14

15 EXAMINATION-IN-CHIEF BY MR. BILL GANGE:

16 MR. BILL GANGE: Mr. Chernick, welcome to  
17 Manitoba. You've been here for the last couple of days  
18 and -- and listened to the cross-examination of -- of the  
19 Hydro panel that's been testifying for the last -- for  
20 Monday and Tuesday of this week?

21 MR. PAUL CHERNICK: Yes, I have.

22 MR. BILL GANGE: And, sir, you have  
23 prepared evidence that was prefiled with the Board and is  
24 part of Exhibit Number 1, and -- and there are several  
25 clarifications or corrections, as I understand it, that

1 you would like to make with respect to that evidence.  
2 Perhaps you could identify those issues.

3 MR. PAUL CHERNICK: Yes, there are two  
4 (2) corrections that actually I -- I made in response to  
5 interrogatories from Manitoba Hydro.

6 On page 13 of my testimony lines 3 through  
7 6, I corrected that in my response to Manitoba  
8 Hydro/RCM/TREE question 4 and that -- those three (3)  
9 lines should be deleted. Let me just make sure I get  
10 everybody to exactly the right parts.

11 MR. BILL GANGE: That was -- for the  
12 record that's page 13, lines 3 to 6 so the paragraph --

13 MR. PAUL CHERNICK: Yes --

14 MR. BILL GANGE: -- talking about the SEP  
15 pricing?

16 MR. PAUL CHERNICK: Yes, that entire  
17 paragraph can be deleted.

18 On page 25, lines 15 to 20 there's -- I  
19 came up with a proposed rate design for general service  
20 small, and again on Discovery -- in responding to -- to  
21 Discovery I've found that I'd made a computational error;  
22 that was in response to Manitoba Hydro/RCM/TREE-12.

23 And I corrected that in my response, which  
24 I understand is also in the record, so I would just point  
25 out that the details of that paragraph should be read in

1 context with the -- the response.

2                   And finally more generally, just as a -- a  
3 matter of clarification rather than of -- of specific  
4 correction in Manitoba Hydro's rebuttal its witnesses  
5 pointed out that in various places where I relied on the  
6 Company's statements regarding the allocation of costs  
7 and cited a statement that transmission was allocated in  
8 a certain way, or distribution was allocated in a certain  
9 way, Manitoba Hydro's witnesses have pointed out that in  
10 some cases I was referring to a passage in which they use  
11 the word "transmission" but they really meant the AC  
12 transmission excluding the AC/DC transmission.

13                   And what I quoted was correct but it --  
14 what they meant in that particular passage wasn't exactly  
15 the way that I interpreted it. The same thing is true  
16 for distribution where sometimes when they said  
17 "distribution" they really meant poles and wires. And  
18 there's a separate discussion of line transformers and  
19 substations, and to some extent I reflected that in my  
20 testimony as well.

21                   But nonetheless I quoted them about tran -  
22 - distribution and it was a correct quote, but again  
23 perhaps their testimony's clarifying that when they meant  
24 -- when they used the word "distribution" there, they  
25 didn't mean distribution, they meant part of

1 distribution.

2                   And that's helpful in -- in the context of  
3 this case, although the cost allocation was sort of a  
4 side-issue in my testimony. It would be helpful I think  
5 if -- if Hydro could be a little more careful in the  
6 future in its Cost of Service Study to say what it means,  
7 and if they're talking about poles and wires, say poles  
8 and wires, rather than distribution. It would make it a  
9 little less confusing for future reviewers of their work.

10                   Those are all my corrections and  
11 clarifications.

12                   MR. BILL GANGE: I am not, Mr. Chair,  
13 going to review Mr. Chernick's evidence in any kind of  
14 detail, but I do think that it would be useful for the  
15 Board just to have a short review of -- of Mr. Chernick's  
16 qualifications for his appearance today.

17                   THE CHAIRPERSON: Yes, we should do that.

18

19                   (VOIR DIRE COMMENCES)

20

21 EXAMINATION-IN-CHIEF MR. BILL GANGE:

22                   MR. BILL GANGE: And, Mr. Chernick, you  
23 are the president of Resource Insight Inc., is that  
24 correct, sir?

25                   MR. PAUL CHERNICK: Yes.

1                   MR. BILL GANGE:    And that's based in the  
2 State of Massachusetts?

3                   MR. PAUL CHERNICK:    Yes.

4                   MR. BILL GANGE:    Could you provide to the  
5 Board a short history of your professional education?

6                   MR. PAUL CHERNICK:    I have a Bachelor's  
7 and a Master's degree from the Massachusetts Institute of  
8 Technology.  The Master's is in technology and policy  
9 within the engineering school.  And that's my education  
10 you wanted.

11                   Do you want me to move on to my --

12                   MR. BILL GANGE:    Your -- the experience  
13 in terms of this type of -- of hearing.

14                   MR. PAUL CHERNICK:    Well, in 1977,  
15 December of '77, I started working for the Massachusetts  
16 Attorney General's office as a utility rate analyst,  
17 supporting the interventions in electric utility  
18 proceedings and have been doing that kind of work and  
19 testifying as an expert witness since then with the  
20 Attorney General's office and with a consulting firm  
21 analysis and inference for a couple of years.

22                   And then in 1986 I started my own firm,  
23 which is now called Resource Insight, and I've testified  
24 in well over two hundred (200) electric and gas  
25 proceedings in addition to a handful of other issues, and

1 I'm a little vague about the number because some of the  
2 items listed in my testimony represent multiple  
3 appearances in multiple phases of a proceeding.

4 In other cases I've filed testimony and --  
5 for procedural reasons or, as in the case of Mr. Weiss,  
6 because the testimony was stipulated to or there was a  
7 settlement, I never actually testified. So depending on  
8 how you counted it, somewhere in the two hundred (200),  
9 two hundred-fifty (250) range.

10 MR. BILL GANGE: And for the record, your  
11 CV is attached as Exhibit 1 to your evidence. It's  
12 approximately forty (40) pages long. You've testified in  
13 Canadian regulation cases before, is that correct, sir?

14 MR. PAUL CHERNICK: Yes, in Ontario and  
15 Alberta.

16 MR. BILL GANGE: Thank you. Mr. Chair,  
17 I'd invite anybody that has any further interest in -- in  
18 reviewing the degree of expertise of Mr. Chernick to  
19 review the thirty-nine (39) pages that are in the CV, if  
20 they have the time.

21 THE CHAIRPERSON: Thank you, Mr. Gange.

22 Do any of the Intervenors have any  
23 problems with Mr. Chernick being sworn in and giving  
24 testimony as an expert witness, Ms. McCaffrey?

25 MS. TAMARA MCCAFFREY: None from my part.

1 THE CHAIRPERSON: Mr. Williams...?

2 MR. BYRON WILLIAMS: Certainly none from  
3 the Coalition.

4 THE CHAIRPERSON: Let's see if Mr.  
5 Anderson or Mr. Buhr. Ms. Ramage...?

6 MS. PATTI RAMAGE: None from Manitoba  
7 Hydro.

8 THE CHAIRPERSON: Very good.

9

10 (VOIR DIRE CONCLUDED)

11

12 CONTINUED EXAMINATION-IN-CHIEF BY MR. BILL GANGE:

13 MR. BILL GANGE: With that, Mr. Chernick,  
14 the -- the balance of your report, other than those  
15 issues that you've corrected or clarified, you're  
16 prepared to adopt that as your testimony at this Hearing?

17 MR. PAUL CHERNICK: Yes, I am.

18 MR. BILL GANGE: And then we're going to  
19 go over a number of issues that have arisen that we would  
20 like to make special emphasis on. First issue is with  
21 respect to the effect of inverted residential rate, which  
22 is one of the issues that you have raised in your  
23 testimony.

24 The -- we -- we heard over the last couple  
25 of days, Manitoba Hydro and in particular, Mr. Wiens,



1 obviously a matter of some judgment, and ultimately  
2 that's the Board's judgment as to what's an excessive  
3 cost. And as I understand it Hydro, based on its long  
4 term commitment to the 3 percent limit, feels that my  
5 rate design would be a little too much for the -- the  
6 largest customers.

7                   And if that's their concern then -- I  
8 think we asked them in a -- in an undertaking to modify  
9 my proposal to what they think would be a reasonable rate  
10 of increase for larger customers. Whatever it is it  
11 should certainly be larger than their -- I think they  
12 call it a notional inverted rate, which is, I guess by  
13 which I -- I think they mean that it's technically  
14 inverted, but it's inverted to such a tiny extent that  
15 you need a magnifying glass to see it and it's not going  
16 to influence anybody's behaviour. And the purpose of  
17 rate design is to influence behaviour.

18                   And if the 3 percent is -- is as far as  
19 they think they can go then they should be proposing a --  
20 a rate design under that constraint that gets them as far  
21 as they can towards more marginal costs for the tail  
22 block. And then the Board, ultimately, has the decision  
23 as to whether to -- to have Hydro adopt the 3 percent  
24 increment for the largest customers, or 4 percent, or 5  
25 percent.

1                   I thought of 5 percent as being a -- a  
2 reasonable limit. The Board's judgment ultimately is the  
3 important factor here.

4                   MR. BILL GANGE: With respect to inverted  
5 rates again, one (1) of the concerns is low income  
6 customers. And -- and what impact could low -- could --  
7 can inverted residential rates have on -- on low income  
8 customers?

9                   MR. PAUL CHERNICK: Well, in general my  
10 experience has been that low income customers are usually  
11 somewhat smaller users than higher income customers,  
12 because they have smaller homes and so on.

13                   On the other hand, in any jurisdiction,  
14 especially one with a significant amount of electric  
15 heat, there are some low income customers who have  
16 electric heat, either because they're -- they don't have  
17 ready access to another fuel, because of the low initial  
18 cost of building housing with electric heat -- and  
19 sometimes that's relatively inefficient housing in terms  
20 of the building stock. It's either old and leaky or it's  
21 manufactured housing from a -- a vintage when that was  
22 not particularly efficient. And so, therefore, you can  
23 have a relative -- often, it's a small number but you can  
24 certainly have low income customers with large electric  
25 bills.

1                   And various jurisdictions deal with that  
2 in various ways. In many jurisdictions, as you've  
3 certainly have heard from Mr. Weiss there is discounts  
4 for low income customers in general which often consist  
5 of a lower first block, eliminating customer charges,  
6 that kind of thing, to just reduce the burden on them in  
7 general.

8                   Now I understand that you don't have that  
9 system here in Manitoba, and there's certainly are  
10 arguments in -- in many jurisdictions about whether the -  
11 - the electric utility or the gas utility is an  
12 appropriate vehicle for delivering what's essentially a -  
13 - a financial support to low income customers.

14                   But in this situation the issue is not  
15 simply one of sort of social welfare or -- or equity or  
16 taking care of the less advantaged.

17                   There's, I think, a general consensus that  
18 moving towards inverted rates would be good for the  
19 province, to the environment for ratepayers as a whole  
20 because it would encourage conservation and free-up  
21 energy to be sold at higher prices which could then be  
22 used for other things that consumers and the Board and  
23 the province value more highly.

24                   But there's this group of low income  
25 customers who, we can assume, at least, some of, are --

1 are stressed by their -- their bills now and would be  
2 worse off.

3                   And, of course, other low income customers  
4 would be better off because they'd be in the inner blocks  
5 living in small apartments with gas heat and so on.  
6 They'd be better off, but there'd be some who'd be hurt,  
7 and some of them might be hurt substantially.

8                   And so you have this low income issue kind  
9 of standing in the way of something that would be good as  
10 energy policy, as economic policy.

11                   And the solutions to that are to either  
12 get some financial aid to those customers on a targeted  
13 basis or to -- to get them energy efficiency assistance  
14 and perhaps even fuel switching assistance. Again, on a  
15 targeted basis, identifying the people perhaps allowing  
16 them to self-identify by their -- their reaction to the -  
17 - to their bills.

18                   And I would assume that Hydro would hear  
19 from these people about their difficulty paying their  
20 bills from time-to-time and getting them into an  
21 intensive program that basically pays the costs of  
22 bringing down their usage so that you don't have to worry  
23 about the concerns about these customers getting in the  
24 way of an overall policy objective for rate design.

25                   Alternatively or in addition to that,

1 again, I understand Hydro's reluctance to get into the  
2 business of identifying who's a low income customer and  
3 who needs what kind of assistance and perhaps even the  
4 legal concerns about Hydro's playing that role.

5 Another approach would be for Hydro, for  
6 example, to set aside a certain amount of credits and  
7 vouchers and give a government agency or perhaps a non-  
8 profit, the responsibility of identifying the customers  
9 who would most need, most benefit from getting that  
10 assistance.

11 So Hydro then doesn't have to determine  
12 who's low income, who needs help and basically hand some  
13 coupons to a third party with some expertise in this area  
14 who can then take the applications from the customers  
15 showing high electric bills and verifying their low  
16 income status in whatever way that agency determines is -  
17 - is appropriate.

18 And then they can hand out those coupons  
19 which could then come in with the customer's Hydro bill  
20 to offset that problem.

21 Now I would again urge that anybody who's  
22 using that system be prioritized for a very intensive  
23 treatment under Power Smart, an enhancement of the  
24 program, if necessary, to reduce their usage as much as  
25 cost-effective to -- and in some cases actually American

1 jurisdictions have decided it's worth going beyond the  
2 point where it's generally cost-effective, because of the  
3 social costs and drag on the overall utility system of  
4 having to deal with this relatively small number of low  
5 income customers who have difficulty paying and create  
6 problems in terms of other utility operations.

7                   And a combination of those two (2)  
8 strategies of targeted relief and targeted conservation  
9 would help get those vulnerable customers out of the way  
10 so that you can then improve the rate design and improve  
11 the efficiency of the system.

12                   MR. BILL GANGE: I -- I take it though  
13 that the -- the bottom line, in terms of your analysis on  
14 this, is that that energy policy must be set as energy  
15 policy and that -- that the low income issue ought not to  
16 be the one that is -- is driving the energy policy.

17                   MR. PAUL CHERNICK: Yes, I mean I -- I  
18 certainly wouldn't say you should ignore the effects --

19                   MR. BILL GANGE: No, no -- yeah.

20                   MR. PAUL CHERNICK: But just as if you  
21 were going to do any other public project, building a  
22 highway or siting a transmission line, you realize that  
23 there are people who are going to be adversely affected  
24 and you want to take care of them in some way and not  
25 just, you know, throw them out of their houses. And some

1 of them may be renters who are going to have a hard time  
2 finding another place to live you -- often even a private  
3 developer will take on the responsibilities for assisting  
4 the displaced people in -- in finding their new housing,  
5 just as part of the cost of doing -- of pursuing the  
6 basic policy.

7 MR. BILL GANGE: I'd like to move on now.  
8 One (1) of the issues that's been raised in testimony is  
9 the difficulty in terms of distinguishing heating  
10 customers.

11 And -- and what are your thoughts in terms  
12 of -- of how that issue ought to be dealt with as we move  
13 forward?

14 MR. PAUL CHERNICK: Well, I recognized  
15 that as you go to inverted rates even non low income  
16 heating customers would be hurt by having a single rate  
17 which was now more heavily inverted, and as it becomes  
18 more extreme and its tail block gets closer to -- to  
19 marginal costs, that becomes more of a problem for -- for  
20 the customers who are heating customers.

21 And if you're taking an approach of trying  
22 to have an inner block that most customers exceed, then  
23 it makes sense to say, well, for the heating customers,  
24 that inner block can be larger in the winter because  
25 they'll certainly be beyond that, or almost all of them

1 will be beyond that. Or if they're in town at all,  
2 they'll -- unless they've turned their thermostat way  
3 down -- they'll -- they'll be outside of that -- that --  
4 a much larger block.

5           And so I talked about how you could design  
6 that, and Hydro's concern, as I understand it, is that  
7 they aren't confident about their ability to distinguish  
8 heating from non-heating customers. Well, they currently  
9 have a distinction in their -- their billing system which  
10 they use for analyzing the effect on heating customers  
11 and non-heating customers separately, and questions have  
12 been raised about whether there's some small incentive to  
13 -- for customers to declare themselves as heating  
14 customers when they're not.

15           But as I understand it the -- the larger  
16 issue is new customers or customers declaring a change in  
17 their status. And my reaction to that is, well, I -- I  
18 don't see why you would allow anyone who is currently a  
19 non-heating customer to just say, Oh, I'm actually a  
20 heating customer, without providing evidence of that.

21           And similarly for the relatively small  
22 number of new customers, new buildings that are -- new  
23 houses that are built, those that claim to be  
24 electrically heated you'd have to have some kind of  
25 verification process.

1                   For both of those I would think that tying  
2 into Power Smart would be a very effective way of dealing  
3 with the situation. You have an audit which is certainly  
4 going to determine the heating source, determine  
5 eligibility for the electric heating rate, and also  
6 identify energy conservation opportunities and provide  
7 incentives to pursue those -- those opportunities.

8                   So the -- the incremental cost of  
9 maintaining a relatively accurate database of who's an  
10 electric heating customer should not be very great, and  
11 as with anything else in life, it's not going to be  
12 perfect. Some people will be miscategorized. Some  
13 people will wind up being overcharged. If they're  
14 overcharged a lot, they'll probably complain about it,  
15 and they'll be corrected.

16                   Some people will be undercharged, and this  
17 happens. And again I wouldn't worry about a small amount  
18 of -- of leakage in -- enough to say, Well, we cannot  
19 have a separate rate for electric heating customers. Or  
20 a separate, in this case, I'm proposing a different size  
21 first block.

22                   MR. BILL GANGE: One of the issues that  
23 you raised in your testimony was the concept of  
24 eliminating or reducing the customer charge. And there's  
25 been some concerns raised in response to that. Your

1 comments on -- on -- on those concerns?

2 MR. PAUL CHERNICK: Well, If you under  
3 price electrici -- electric consumption, energy  
4 consumption, you're giving a bad price signal, and you'd  
5 expect people to use more electricity than is economic,  
6 than is appropriate; more than they would use if they  
7 were getting an accurate price signal.

8 If you under price the basic monthly  
9 customer charge, it's difficult to see that there would  
10 be much response on the part of the customers in terms of  
11 an adverse or wasteful way. One can imagine that some  
12 customers would call up and say, Well, I want to have a  
13 separate meter on my garage because I'm going to be  
14 renting it out to my neighbour for his tool -- for his --  
15 his woodworking or something.

16 And I could certainly see Hydro, you know,  
17 saying, Well, look, it's a single family property.  
18 You've got your one meter. You've got your one bill a  
19 month. That's covered by whatever customer charge there  
20 is or zero customer charge.

21 If you want another meter for some other  
22 reason, you want to keep track of the power being used  
23 for all those florescent lights in your basement where  
24 you're growing plants, you can pay for that. That's --  
25 that's -- that's an optional add-on charge.

1                   But in -- in general, it's -- it's hard to  
2 see how -- that many people, even if -- if additional  
3 metres were free, would opt for them. And certainly if  
4 you just require people to pay for anything above the  
5 first one, it's very hard to see how there's a  
6 significant adverse behavioural effect from the -- from  
7 having too -- a customer charge that's below cost.

8                   Now, Manitoba Hydro addressed -- came up  
9 with a really interesting argument, first in discovery on  
10 me, and I -- I responded to this by saying that it was  
11 just -- it was backwards. But then they repeated it in  
12 their rebuttal, so I think maybe it's worth clarifying.

13                   As I understand it, Hydro thinks that if  
14 you eliminate the electric customer charge and raise the  
15 tail block, then a gas customer who's facing the decision  
16 about whether to give up their gas stove and spend  
17 hundreds of dollars on a new gas stove -- on a new  
18 electric stove, or give up their gas water heating and  
19 switch over to electric water heating, whether those  
20 customers might be more likely to switch to electric if  
21 there's no electric monthly -- basic monthly charge.

22                   But since there'd be a higher tail block  
23 that goes along with the no monthly charge or a low  
24 monthly charge, the incremental costs of switching from  
25 gas to electricity would be higher because you would be

1 adding usage in the tail block, you know, add a water  
2 heater. That's a lot of load and, therefore, the  
3 economics of switching from gas to electricity become  
4 worse with an electric inverted rate and even with no  
5 customer charge than without it.

6               So Hydro's reasoning on -- on that point  
7 is completely backwards and -- and inexplicable. They --  
8 they seem to be thinking that there are people who will  
9 be sophisticated enough to look at their electric bill  
10 and their gas bill and notice there's a customer charge  
11 in one (1) but not in the other, and therefore say, Oh,  
12 electric is better as a result; who would be  
13 sophisticated enough to look at their bills and break it  
14 down in that way and think about it but will not be  
15 sophisticated enough to say, How much am I paying for the  
16 gas, and how much more would I pay for the electricity as  
17 this tail block rate.

18               And even though they're not sophisticated  
19 enough to do that -- so we're in a fairly narrow  
20 sophistication range here -- would also be willing to go  
21 to all the trouble of getting in the electrician and the  
22 -- the plumber and so on to switch over the water heater,  
23 spend all that money on these services to pursue an  
24 imaginary cost savings.

25               I -- I really find that sort of a far

1 fetched scenario. I mean, you might find somebody who  
2 does it but, again, making rate design policy based on a  
3 concern that there might be somebody someplace who would  
4 be confused in a very complicated way, strikes me as  
5 being misguided.

6 MR. BILL GANGE: During MIPUG's cross,  
7 there's a reference to the NERA economic consulting  
8 report and in particular with respect to elasticities.

9 Do you want to comment on -- on the  
10 elasticities that are referred to there?

11 MR. PAUL CHERNICK: Yes, I was surprised  
12 by the magnitude of the elasticities reported in -- in --  
13 at tables -- page 44 of one (1) of the NERA studies  
14 that's in the record. There are a couple of them.

15 And if the -- the point was of looking at  
16 this table is, Oh, those numbers are very small and  
17 customers don't really respond to price very much, I  
18 would say that's -- that these results are sort of out  
19 of the mainstream.

20 Price elasticity studies are, by their  
21 nature, difficult to do really well. They are trying to  
22 take the complexity of human behaviour and often human  
23 behaviour that's influenced by many factors over decades  
24 into the past, because it's the amount of electricity  
25 used now is determined by how your house was built and

1 where it was located and so on; trying to take all those  
2 complexities and boil it down to a simple formula and --  
3 and obviously when you do that, you have a lot of  
4 uncertainty, and you get different results.

5 I would say, more typically, you -- you  
6 get results of short run elasticities on the order of  
7 minus zero point one (0.1) that is a doubling of the --  
8 the price of -- of electricity would cause a 10 percent  
9 reduction in usage in a short term; that is a year or so.

10 And in the longer term, it would be  
11 typically larger than that. On the order of minus one  
12 point zero (1.0). And when I say "on the order", that  
13 could be zero point six (0.6) or one point three (1.3).

14 There's, as I say, a large variation, and  
15 it depends on exactly how you do the study and what group  
16 you're studying, over what time period and so on. But  
17 certainly these -- these numbers are at -- on the low end  
18 of the range.

19 And in terms of the short run and long  
20 run, elasticity is actually -- there -- there's a second  
21 point of -- of maybe confusion that -- that came up in  
22 the Hydro's responses to cross, and I was -- I was  
23 listening to, and the -- the witnesses suggested that for  
24 water heating customers -- customers with electric water  
25 heating that price only mattered at the time that they --



1 on most end uses -- not on your refrigerator probably  
2 very much -- but on most end uses; and even for very  
3 small customers in terms of your choices about turning  
4 the lights on or off and putting in compact fluorescents  
5 and so on.

6 MR. BILL GANGE: One (1) of the issues  
7 that's been raised in the evidence is there's been a  
8 discussion of subsidies. We did -- there's -- there's  
9 discussion during cross-examination yesterday on -- on  
10 the subsidies, large versus small customers.

11 From your review of -- of these matters,  
12 how do you see the subsidy issue?

13 MR. PAUL CHERNICK: Well, I mean, subsidy  
14 is -- is -- is a term that people see from different  
15 perspectives. And -- and basically if I've got it and  
16 you want it, then it's a subsidy, and if you've got it  
17 and I want it, then it's a matter of equity, but the --  
18 as I look at it, to a large extent, every customer in the  
19 province is being subsidized compared to the market price  
20 of the resources that they're -- they're using; by the  
21 export revenues, by the fact that they're being allowed  
22 to use power that could be sold into the export markets  
23 at a much higher rate.

24 And so the real question is not, Are you  
25 ever going to subsidize anybody. The -- the Board is in

1 a situation where it's got this enormous subsidy  
2 effectively -- this huge benefit -- and it's your job to  
3 figure out how that's going to be distributed. And my  
4 perspective is that you want to do that in a way that  
5 doesn't give adverse or unfortunate pricing signals.

6           So if you're going to subsidize something,  
7 subsidizing more energy use; that is not good for the  
8 environment. It's not good for the economics of the  
9 province because customers are going to be using  
10 electricity that's more valuable than the price they're  
11 paying.

12           On the other hand, if you're subsidized --  
13 if you're subsidizing their -- the cost of their meter,  
14 there really isn't going to be any harm, and you've got a  
15 lot of surplus to distribute to somewhere.

16           So that's -- that's -- I think that  
17 perspective cuts through the argument about small  
18 customers are subsidizing large customers or new  
19 customers are subsidizing existing customers; if you just  
20 recognize that you're dividing up a large subsidy pool  
21 among customers and among rate components.

22           MR. BILL GANGE: With respect to the  
23 general service rate design, there's been discussion of  
24 demand charges and ratchets.

25           With respect to demand charges, what's --

1 what's your view in terms of the approach that ought --  
2 that the Board ought to be considering?

3 MR. PAUL CHERNICK: Well, as I read the -  
4 - the Board's prior order, I -- I believe that the Board  
5 is encouraging Hydro to move away from demand charges,  
6 and I agree with that. Demand charges are not good  
7 measures of contribution of a customer's load to  
8 transmission distribution costs.

9 The -- I believe, in rebuttal, the company  
10 said that the average general service customer has a --  
11 an 80 percent coincidence factor between their billing  
12 peak and -- and the system peak.

13 Well, that means that their own load is  
14 twenty-five (25) -- their own maximum load at some hour  
15 is 25 percent higher than their contribution to the  
16 system peak. So they could take half of that 25 percent,  
17 say 12 percent of their peak load, and move it onto the  
18 system peak, onto the time that their -- the feeder is  
19 peaking and the substation and the transmission lines.

20 They can move it onto the -- the peak and  
21 increase their energy use by being less efficient about  
22 how they use their equipment; starting it up earlier than  
23 they need to and running it idle to flatten their --  
24 their load out.

25 They could do both of those things which

1 would be harmful to other customers, and yet they could  
2 reduce their bill. So you're giving them a very bad  
3 incentive, and reducing demand charges often requires a  
4 lot of effort in terms of controls on equipment, figuring  
5 out timing of equipment; effort that could go into  
6 actually reducing coincident peak, reducing energy use.

7                   So you're giving customers incentives to  
8 work hard at reducing a component of their bill that  
9 doesn't necessarily help the system at all in distracting  
10 them from what would really be useful.

11                   And on page 55 of Manitoba Hydro's  
12 rebuttal they -- they point out that -- that they work  
13 hard with their customers to help them reduce their peak  
14 loads, their demand charges and that the customers are  
15 willing to work with Manitoba Hydro on demand reductions  
16 from the price signal that's created by the demand charge  
17 in the winter ratchet.

18                   And again, that's really putting effort  
19 into the wrong place. Those customers should be working  
20 with Hydro on reducing their coincident peak, reducing  
21 their on-peak energy usage and their energy usage in  
22 general.

23                   And, as I understand it, Hydro  
24 acknowledges that if they had time-of-use rates, then  
25 they wouldn't need the demand charges or at least not

1 such high demand charges. But they don't have time-of-  
2 use rates because they can't figure out how to distribute  
3 generation costs across time-of-use so therefore, they  
4 can't get rid of the demand charges because they don't  
5 have time-of-use rates because they're -- they're still  
6 thinking about how generation costs are spread over time.

7                   Now, for large customers, even if you were  
8 only using the time-of-use rates for the T&D system,  
9 time-of-use meters are not expensive when you're talking  
10 about large general service or even medium general  
11 service customers.

12                   And certainly at some point Hydro will  
13 figure out some time-of-use differentiation in its -- in  
14 its energy costs and that too can be added to the time-  
15 of-use rates.

16                   But Hydro should be moving ahead with  
17 getting interval metering, smart metering, time-of-use  
18 metering, whatever you want to call it, onto the larger  
19 customers moving from demand charges to time-of-use rates  
20 and gradually rolling energy signals -- generation cost  
21 signals -- and along with T&D.

22                   MR. BILL GANGE: Now the Board has  
23 already stated that it will be considering the  
24 incremental industrial load in a follow-up hearing and --  
25 and so ultimately that's going to be separately decided.

1 But in -- in terms of your recommendations with respect  
2 to the industrial load, what are your thoughts on -- on -  
3 - on what the Board ought to be looking at in  
4 establishing policy directions?

5 MR. PAUL CHERNICK: Well, first I think  
6 the Board should indicate that it's looking to bring all  
7 growth to incremental or marginal costs and to give  
8 customers marginal cost incentives to reduce their load  
9 from current levels.

10 And for the follow-up hearing I think it  
11 would be useful for the Board to provide some direction  
12 such as that substantial load growth should be priced at  
13 -- at marginal cost, that the marginal cost should extend  
14 down into existing usage levels, and that Hydro should  
15 not be handing out incentives for economic development  
16 based on energy use, and any incentives for economic  
17 development should be distributed by a competent  
18 government agency -- again going back to the kind of  
19 system that we were talking about with the vouchers for  
20 low income -- the same way Hydro can say -- the Board can  
21 say, Hydro put aside this much in rate reductions for  
22 desirable economic growth or load -- or retention of  
23 jobs, retention of economic benefits. And then let a  
24 government agency that has the requisite expertise decide  
25 how those dollars should be distributed.

1                   And that may mean that a company with a  
2 relatively small load but with lots of employees would  
3 get some aid, whereas one with a huge load and very few  
4 employees would not. And in terms of the economic  
5 development objectives of a province, that's not an area  
6 particularly as I understand it the Board's ex -- this  
7 Board's expertise or Hydro, and it's better just to move  
8 that responsibility over to another party.

9                   And there's room in the budget for that,  
10 again because of this big difference between the market  
11 value of the product and what's being charged. And it's  
12 certainly appropriate to use some of that from the  
13 provincial perspective to encourage economic development,  
14 but to do it based on incentives conserve more energy to  
15 -- excuse me, to consume more energy, that would be  
16 undesirable.

17                   MR. BILL GANGE: I -- I'd like you to  
18 move now to the issue of externalities and the effects  
19 that -- that externalities ought to have, in terms of  
20 pricing.

21                   MR. PAUL CHERNICK: Well, as I understand  
22 the situation, Hydro basically includes environmental  
23 costs to the extent it expects those costs to be  
24 internalized in market prices and, therefore, the value  
25 of its exports.

1                   So it's treating environmental com --  
2 considerations just like it would the cost of coal in  
3 Minnesota, or the cost of gas; any other factor that  
4 drives what a potential customer's willing to pay for its  
5 product.

6                   And, it's not taking into account any  
7 environmental benefit for which it's not paid by the  
8 market. And, I guess, decisions such as the shut down of  
9 -- of Brandon that go beyond that, but in terms of -- of  
10 the marginal cost pricing, that's as far as -- as Hydro  
11 goes. Now there -- there are a couple of problems with  
12 that.

13                   First of all, Hydro hasn't provided the  
14 Board or the parties with the values it actually assumes  
15 for those internalized emission prices. It gives us a  
16 very wide range of, you know, for carbon, I think, zero  
17 to thirty-one dollars (\$31) a tonne. And maybe that  
18 means it's thirty-one dollars (\$31) a tonne in 2030, in a  
19 10 percent scenario and, you know, the expected value is  
20 two dollars (\$2).

21                   We -- we have no idea what they're doing.  
22 And maybe they have a perfectly reasonable forecast which  
23 is within the -- the range of, I hate to call it  
24 consensus, but anyway, within the sort of in the pack  
25 with other forecaster's guesses about market prices for

1 carbon, but we have no way of knowing. I have no way of  
2 knowing, and the Board has no way of knowing.

3 And, so the Board really should instruct  
4 Hydro to work with instruct -- interested stakeholders to  
5 document those values, and I see no reason to -- to keep  
6 those a secret.

7 And if there's something in Hydro's  
8 modeling that it wants to keep away from the eyes of  
9 Minnesota Power, Northern States Power, and so on, then  
10 certainly a confidentiality agreement among the parties  
11 would be reasonable, and this sort of thing is used in  
12 other jurisdictions on a regular basis for information  
13 that's thought of as being particularly sensitive.

14 And secondly, I think the Board ought to  
15 give Hydro some direction about incorporating, in its  
16 planning, environmental costs for which it is not going  
17 to be paid by people outside the -- the province in -- in  
18 market prices, and to report back to the Board on the  
19 feasibility of including the additional benefits to  
20 Manitoba and the -- the global environment from reduced  
21 carbon emissions, for example, at least in terms of how  
22 those might be incorporated in rate design and DSM  
23 evaluations.

24 MR. BILL GANGE: One of the issues that  
25 has been on the RCM/TREE agenda has been the concept of

1 collaboration in terms of -- of not only these hearings  
2 but -- but just the general process by which both Centra  
3 and -- and Hydro operate.

4 Can you provide some -- some thoughts on -  
5 - on areas of collaboration that would benefit Hydro.  
6 Collaboration with the stakeholders?

7 MR. PAUL CHERNICK: Well, certainly one  
8 area would be rate design. And there are some issues  
9 where I don't think you're going to reach consensus that  
10 -- on things like incremental industrial load. There may  
11 be a range of -- of opinions about the merits of -- of  
12 various approaches.

13 But perhaps you could at least get to the  
14 point where people agree upon a set of facts and can --  
15 can reach agreement on things like how you define  
16 affiliates and how you establish a baseline if you're  
17 going to, and then people can disagree about what the  
18 baseline ought to be.

19 But at least, the process we could reach  
20 some consensus on. And certainly for the other classes,  
21 other than the -- all the very largest ones, there seems  
22 to be a fair amount of support for the idea of -- of  
23 inverted rates and or flat -- sorry, flattening of rates.

24 And as we've seen with my proposals which  
25 I prepared in a fairly short time period, and Hydro found

1 some -- some errors and had some problems with judgment  
2 calls about how much rates would increase for various  
3 kinds of customers.

4                   These are areas in which the parties can  
5 work together and put together a proposal or perhaps it  
6 would be a range of proposals, but at least agree that  
7 when the arithmetic is right and that we've done as much  
8 as we can to agree on the merits and -- and deficiencies  
9 of different break points for the first block or what the  
10 rate design would have to look like if you use three (3)  
11 blocks instead of two (2) blocks and so on.

12                   And present the Board with coherent record  
13 and a clear set of -- of issues to decide. The hearing  
14 process is just inherently inefficient at dealing with  
15 things like that.

16                   The same thing would be true for  
17 integrating demand-side management into a rate design of  
18 -- of using DSM to -- to mitigate the problems that may  
19 arise for certain customers such as we were talking about  
20 before; low income heating customers under a generally  
21 preferred rate structure.

22                   The -- another -- another area where Hydro  
23 is reluctant to talk in a public forum of the Hearing  
24 about their analyses of marginal costs. Again, a  
25 collaborative working, under confidentiality agreements,

1 would allow the parties to review what -- what Hydro's  
2 done and is doing, and either reach consensus, make  
3 suggestions for improving it; if necessary, bring very  
4 narrow issues back to the Board for policy  
5 determinations.

6                   The most likely outcome would be that the  
7 parties would be satisfied, that Hydro's numbers are in  
8 the right ballpark. Some parties would disagree about  
9 certain inputs. For example, perhaps carbon prices or  
10 forecast of gas prices in the lower forty-eight (48), and  
11 those issues could be dealt with as -- as necessary, and  
12 similarly as I mentioned before, the -- the issue of  
13 carbon pricing for regulatory purposes.

14                   Those six (6) or seven (7) items, I think,  
15 would -- would all be amenable to fruitful collaborative  
16 work.

17                   MR. BILL GANGE: Mr. Chair, that  
18 concludes our direct examination.

19                   THE CHAIRPERSON: Thank you, Mr. Gange,  
20 thank you, Mr. Chernick.

21                   I think we might as well go. We haven't  
22 reached the break point so we might as well move into it.

23                   Is Mr. Buhr here? I don't see him.

24                   Next up would be for the Coalition, Mr.  
25 Williams.

1                   MR. BYRON WILLIAMS:    Mr. Chair, I'm ready  
2 to proceed. I do have some documents I wish to  
3 distribute and also I wanted to have a brief chat with  
4 Mr. Gange. So it might be -- I apologize, but it might  
5 be a little more fruitful to stand down and have a break  
6 just a bit early.

7                   THE CHAIRPERSON:    Okay. We'll stand down  
8 now. We'll have the break now.

9  
10 --- Upon recessing at 10:03 a.m.

11 --- Upon resuming at 10:25 a.m.

12

13                   THE CHAIRPERSON:    Okay, Mr. Williams, are  
14 you ready to go?

15                   MR. BYRON WILLIAMS:    Yes. Thank you, Mr.  
16 Chairman. I do have some documents I'm going to be  
17 relying upon and -- which I -- I'd ask be marked as a --  
18 exhibits.

19                   And I always feel guilty with Dr. Miller  
20 here if I present additional paper on the record, so  
21 perhaps one (1) of the collaborative efforts in the --  
22 prior to the next hearing can be working towards a more  
23 electronic, less paper intensive product. But with my  
24 humble apologies to Dr. -- Dr. Miller.

25                   THE CHAIRPERSON:    I would think academics

1 would love paper.

2 MR. BYRON WILLIAMS: He's one --

3 MR. PAUL CHERNICK: Admit -- Mr.

4 Williams, if you've looked at resume, which Professor  
5 Miller approved the filing of, then you -- you know that  
6 -- that my clients accept a certain amount of paper.

7 MR. ROBERT MAYER: I think, Mr. Williams,  
8 the more important issue IS that you've only printed it  
9 on one (1) side.

10 MR. BYRON WILLIAMS: I withdraw all my  
11 exhibits, Mr. Vice-Chair.

12 Let me, I believe if Mr. Gaudreau, whose  
13 numbers I trust more than mine, and I are in accord,  
14 Hypothetical 1 we would mark as Exhibit Number 33.  
15 COALITION-33, excuse me.

16  
17 --- EXHIBIT NO. COALITION-33: Hypothetical Number 1

18

19 THE CHAIRPERSON: We have it.

20 MR. BYRON WILLIAMS: Hypothetical Number  
21 2 we would mark as COALITION-34. And I'd note my  
22 assistant had a sick child this morning, so I was typing  
23 these tables so there is a typographical error on the  
24 bottom of page 2, under "total." On COALITION-34,  
25 Hypothetical 2, Customer B, at the bottom under "total,"

1 the -- the number should eight five zero zero (8,500)  
2 instead of eight six zero zero (8,600).

3 On the second page, yes.

4 THE CHAIRPERSON: Very good.

5

6 --- EXHIBIT NO. COALITION-34: Hypothetical Number 2

7

8 MR. BYRON WILLIAMS: COALITION-35 is  
9 Hypothetical 3. And there's another typographical on the  
10 second page which I've caught already so -- but I'll just  
11 draw that to your attention. You all should have messily  
12 handwritten amendment there.

13

14 --- EXHIBIT NO. COALITION-35: Hypothetical Number 3

15

16 MR. BYRON WILLIAMS: The ex --  
17 attachment, what I'll describe as the LIE -- excuse me --  
18 LIHEAP Eligibility Work -- Worksheet, I would recommend  
19 be Coalition Number 36. That's already on the record.

20

21 --- EXHIBIT NO. COALITION-36: LIHEAP Eligibility

22

Worksheet

23

24 MR. BYRON WILLIAMS: And COALITION-37 is  
25 an excerpt from the A-P-P-R-I-S-E report -- final report

1 of July 2007.

2

3 --- EXHIBIT NO. COALITION-37: Excerpt from the Apprise  
4 final report of July 2007

5

6 MR. BYRON WILLIAMS: And those are the  
7 exhibits I propose, Mr. Chairman.

8 THE CHAIRPERSON: Thank you, Mr.  
9 Williams.

10

11 CROSS-EXAMINATION BY MR. BYRON WILLIAMS

12 MR. BYRON WILLIAMS: Mr. Chernick, we  
13 won't be long, but we will jump around a little bit while  
14 we're -- we're here.

15 Just out of curiosity I -- I see you have  
16 a lot of Massachusetts experience in your -- in your  
17 background.

18 Is that right, sir?

19 MR. PAUL CHERNICK: Yes.

20 MR. BYRON WILLIAMS: Boston Bruins fan by  
21 any chance?

22 MR. PAUL CHERNICK: Please, no sports  
23 quizzes.

24 MR. BYRON WILLIAMS: Fair enough. And  
25 recognizing -- I want to deal very -- for just a second

1 or two (2) with the issue of Manitoba Hydro's proposal  
2 for marginal cost based rates for large customers. You  
3 commented on it, to some degree, both in your written  
4 evidence and your oral evidence today, sir.

5 MR. PAUL CHERNICK: Yes.

6 MR. BYRON WILLIAMS: And again I -- I  
7 don't think we need to turn here, but in terms of your  
8 concerns with the pro -- proposal at a -- a fairly -- in  
9 terms of the baseline, am I right in suggesting to you  
10 that one (1) of your concerns is that the baseline  
11 consumption level proposed is just too high?

12 Is that right, sir?

13 MR. PAUL CHERNICK: Yes.

14 MR. BYRON WILLIAMS: And in addition your  
15 concerned with Hydro's proposal because it would in --  
16 the baseline would increase to cover large amounts of  
17 increased loads.

18 Is that correct as well, sir?

19 MR. PAUL CHERNICK: Yes.

20 MR. BYRON WILLIAMS: So -- and again I  
21 just want -- it's a small point, I just want to make sure  
22 I understand your position.

23 In terms of where you might be going with  
24 a baseline you'd be looking at base usage set as 95  
25 percent of the historical value in 2008 as a starting

1 point.

2 Is that fair, sir?

3 MR. PAUL CHERNICK: Well, it wouldn't  
4 necessarily have to be in 2008. I -- I certainly  
5 understand the -- the point that for some companies the  
6 usage level naturally varies from year to year to, so if  
7 you wanted to use 2005 through '07, a three (3) -- a  
8 fixed three (3) year period to -- to start off with and  
9 say, take 95 percent of -- of the average in those  
10 periods or something like that, that would -- that would  
11 be a reasonable approach.

12 MR. BYRON WILLIAMS: That's fair enough,  
13 Mr. Chernick, and I'm just trying to clarify so I  
14 understand.

15 MR. PAUL CHERNICK: Mm-hm, yeah.

16 MR. BYRON WILLIAMS: And as I understand  
17 -- so whether we arrive at it using one (1) year or using  
18 a three (3) year average you would recommend that it be  
19 95 percent of the -- the -- kind of the -- that figure.

20 Is that right, sir?

21 MR. PAUL CHERNICK: Yes. And -- and 95  
22 percent is -- is obviously an arbitrary percentage but  
23 the point is to start a little bit below your beginning  
24 point so that there's some marginal incentive, marginally  
25 priced incentive, to conserve from the current level.

1 MR. BYRON WILLIAMS: And I as I  
2 understand just the other part of -- of your proposal, as  
3 well as starting at 95 percent you would recommend  
4 declining by 2 percent or so each year thereafter.

5 Is that correct, sir?

6 MR. PAUL CHERNICK: That's -- that was  
7 what I suggested, yes.

8 MR. BYRON WILLIAMS: So a bit less than  
9 whatever the kind of the -- the figure arrived at and  
10 then declining on a 2 percent basis or so, each  
11 subsequent year.

12 Is that right?

13 MR. PAUL CHERNICK: Something along those  
14 lines.

15 MR. BYRON WILLIAMS: Okay. And no growth  
16 allowance should be added to this declining base.

17 Is that fair?

18 MR. PAUL CHERNICK: That's my proposal,  
19 yes.

20 MR. BYRON WILLIAMS: Okay. Mr. Chernick,  
21 again in your discussion with Mr. Gange -- My Friend, Mr.  
22 Gange, this morning you talked to a certain degree about  
23 different processes in different jurisdictions to arrive  
24 at marginal cost forecasts?

25 MR. PAUL CHERNICK: Yes.

1 MR. BYRON WILLIAMS: Yes. And of course  
2 it's been -- I'll infer from your evidence that it's been  
3 a source of some frustration to you that it's difficult  
4 to test the marginal cost derivation of Manitoba Hydro  
5 due to the commercial sensitivity of export prices that  
6 is alleged.

7 Is that fair, sir?

8 MR. PAUL CHERNICK: You are a keen and  
9 insightful reader of my testimony, yes.

10 MR. BYRON WILLIAMS: Well, Ms. McCaffrey  
11 and I were just talking about this. We -- we -- you're  
12 actually a pretty good writer so that -- that came  
13 through fairly clearly.

14 And you've indicated in your evidence at  
15 page 15 lines 12 to 14 -- you don't need to go there I  
16 don't think but --

17 MR. PAUL CHERNICK: Mm-hm.

18 MR. BYRON WILLIAMS: -- that other  
19 utilities release -- that you're familiar with, release  
20 the derivation of their marginal costs.

21 Would that be fair, sir?

22 MR. PAUL CHERNICK: Yes.

23 MR. BYRON WILLIAMS: In terms of the  
24 other utilities that you're familiar with do any of them  
25 that you're familiar with base their marginal costs on

1 export prices?

2 MR. PAUL CHERNICK: Well, in many cases  
3 it's -- there -- we're talking about a market price and  
4 so there's maybe some combination of purchases from  
5 market, sales to the market, sometimes internal costs, as  
6 well, come into it. It depends on the exact situation.

7 MR. BYRON WILLIAMS: And in some of the  
8 utilities that you're familiar with would there be  
9 forecasts of expected purchases or sales?

10 MR. PAUL CHERNICK: Oh, certainly, yeah.

11 MR. BYRON WILLIAMS: And do these  
12 utilities release their forecasted purchases -- or  
13 forecasted purchases or sales, sir?

14 MR. PAUL CHERNICK: In general that would  
15 be the case. There are situations where there's a  
16 contract negotiation in process, or some other  
17 commercially sensitive information that is not put onto  
18 the public record, but it's almost always available to  
19 the regulators and to most or all of the parties under  
20 appropriate protective orders.

21 MR. BYRON WILLIAMS: And again, you  
22 describe this as a protective orders or non-disclosure  
23 agreements.

24 Is that correct?

25 MR. PAUL CHERNICK: Yes.

1                   MR. BYRON WILLIAMS:   And you're familiar  
2 with these types of protective orders and non-disclosure  
3 agreements, sir?

4                   MR. PAUL CHERNICK:   Yes.  I -- I sign  
5 them on almost a weekly basis.

6                   MR. BYRON WILLIAMS:   And based -- and so  
7 based on your many, many regulatory experiences, it's not  
8 an uncommon event, then, sir?

9                   MR. PAUL CHERNICK:   No.

10                  MR. BYRON WILLIAMS:   Can -- can you help  
11 me in terms of -- let's assume that you're under a --  
12 because I'm trying to follow through the logic -- I can --  
13 - the purpose of them, first of all, is to allow other  
14 parties to have some comfort with the estimates and to --  
15 would that be fair, first of all, sir, as the starting  
16 point?  To give some comfort with the -- the numbers,  
17 some transparency.

18                  MR. PAUL CHERNICK:   Yes, right.  So that  
19 for example, in -- in this proceeding, so that RCM/TREE  
20 or the Coalition would be in a position to get a sense of  
21 -- of where Hydro's marginal cost estimates came from,  
22 look over the numbers, say, Oh, this guy's forecasts are  
23 -- are reasonable, and we have received how the  
24 transmission constraints are keeping down the prices in  
25 this period, and you know, maybe we -- we would use

1 different numbers if we ran the model ourselves, but it's  
2 close enough, fine, so we're not going to argue about it.

3 Or we think that four dollars (\$4) a  
4 gigajoule of gas is a little unlikely, and we think you -  
5 - you know, you really ought to bump that up and that  
6 would affect the results substantially and could you do  
7 that, Ron? Or, you know, we'll do an approximation of  
8 what that would -- would do to the -- the prices and that  
9 would affect our marginal cost recommendations and rate  
10 design recommendations.

11 MR. BYRON WILLIAMS: And just to follow  
12 through the process that you've experienced in other  
13 jurisdictions, so within these proceedings, there's an  
14 opportunity to test the -- the reliability of the -- of  
15 the figures that are -- that are put forward, correct?

16 MR. PAUL CHERNICK: Yes, and -- and it's  
17 everything from making sure that the -- the -- the moving  
18 part of the Utility, for example, has done its  
19 calculations correctly to -- just the reasonableness of  
20 underlying forecasts and assumptions.

21 MR. BYRON WILLIAMS: And given the  
22 collaborative spirit that you and Mr. Miller or -- Dr.  
23 Miller are so keen to engage in, sometimes you can even  
24 perhaps arrive at a joint recommendation, joint  
25 improvements to the -- to the forecasts. That's --

1 could happen through that process as well.

2 Is that correct, sir?

3 MR. PAUL CHERNICK: Yes.

4 MR. BYRON WILLIAMS: Just process-wise,  
5 how -- let's say that there's a dispute about marginal  
6 costs forecasts or a -- the -- or the adjudicator is  
7 required to adjudicate upon it. In your experience, how,  
8 if at all, are those reflected in the -- the public  
9 record, like in a Board decision, for example?

10 Like, are you aware of -- of how that  
11 works, sir?

12 MR. PAUL CHERNICK: Yes. The -- the  
13 Board decision might take the format in the example of an  
14 Intervenor arguing that a gas price forecast underlying  
15 the marginal cost projections into a -- assuming that  
16 that was confidential, for some reason, which it usually  
17 wouldn't be.

18 But if for some reason it -- it were, then  
19 the Board order would say, Well the -- this was the --  
20 the basis of the company's modelling. It made certain  
21 assumptions about gas prices. These Intervenors argued  
22 that those were too low, not naming numbers necessarily.  
23 We're convinced that that's the case and based on Exhibit  
24 Number 47 which is covered by a protective order, we  
25 conclude that the marginal cost should be assumed to be

1 eight (8) cents, not seven (7) cents or whatever.

2                   So that the important information that  
3 needs to get into the -- the public domain can -- can be  
4 public, but the -- the underlying details can be kept  
5 confidential.

6                   MR. BYRON WILLIAMS: Thank you for that.  
7 You mentioned in your direct evidence today the  
8 complexity of human behaviour.

9                   I think -- I've -- do you recall making  
10 that statement?

11                   MR. PAUL CHERNICK: Yes.

12                   MR. BYRON WILLIAMS: And you were making  
13 that statement --

14                   MR. PAUL CHERNICK: I -- I have teenage  
15 twins, girls, so I'm -- I -- I was aware of this as an  
16 academic matter before, but I'm -- I'm very clear on the  
17 -- on the complexity of human behaviour.

18                   MR. BYRON WILLIAMS: Okay. And just to  
19 make sure we're gender-neutral, I have teenage boys so I  
20 guess we'll operate on -- on that premise.

21                   And you were really -- you were really  
22 speaking, as I understood it, in terms of how people --  
23 individuals, their responses to -- to pricing signals in  
24 the marketplace.

25                   Is that fair, sir?

1 MR. PAUL CHERNICK: Yes.

2 MR. BYRON WILLIAMS: And there's  
3 responses to the marketplace in theory, and then there's  
4 responses to the marketplace in -- in practice, and --  
5 and at times that those may be not moving in exactly the  
6 same direction.

7 Would that be fair?

8 MR. PAUL CHERNICK: That certainly can be  
9 the case, yes.

10 MR. BYRON WILLIAMS: And in certain cases  
11 the real world and theory do not accord.

12 MR. PAUL CHERNICK: Well most theories  
13 are over simplified and economic theories perhaps more  
14 than most.

15 MR. BYRON WILLIAMS: And I'm going to  
16 come just to how we apply or apply theory or thinking in  
17 terms of pricing signals or bill signals as well in a  
18 minute.

19 But just in terms at a high level, I take  
20 it you're familiar with the implementation of inverted  
21 rate design in the residential context in many  
22 jurisdictions.

23 Would that be fair, sir?

24 MR. PAUL CHERNICK: Yes.

25 MR. BYRON WILLIAMS: Just as a -- as a

1 starting point, obviously the -- the objective is to send  
2 better pricing signals and to encourage more efficient  
3 consumptive behaviour.

4 Is that fair, sir?

5 MR. PAUL CHERNICK: Yes.

6 MR. BYRON WILLIAMS: And in the  
7 jurisdictions in which you have experience, is the price  
8 -- is -- is the price enough? Is the presence of an  
9 inverted rate enough or in your experience, do other  
10 jurisdictions -- when they introduce inverted rates, do  
11 they -- do they advertise? How do they promote it?

12 Perhaps you could discuss that at a high  
13 level, sir.

14 MR. PAUL CHERNICK: Well there -- there  
15 are a couple of things. First of all, many responses to  
16 -- to economic signals in the -- in terms of energy use  
17 are difficult for consumers to respond to without some  
18 assistance. That's the whole point of having DSM  
19 programs.

20 People don't really -- can't necessarily  
21 see where their electricity is going, how it's being  
22 used; and -- and figuring out how to use less of it and  
23 how to arrange for a -- a contractor to come and do the  
24 work and figuring out what work needs to be done and  
25 whether the work was done right and so on.

1                   There are a lot of barriers to -- to those  
2 responses. So DSM programs are certainly an important  
3 part of getting efficient behaviour even with good price  
4 signals.

5                   And then you said something about  
6 advertising, and -- and I would say, yes, an  
7 informational program is very important where you have  
8 inverted blocks to let people know that this is your  
9 bill, but if you reduced your use by 10 percent, you  
10 reduce your bill by 15 percent; that you're -- you're  
11 paying more for your -- your last bit of -- of usage than  
12 you are on average.

13                   And the extent to which consumers want to  
14 think about -- at things like that varies; to the extent  
15 to which they'll re-bill inserts varies, but you can --  
16 you can certainly try and some people will get the point  
17 from an explanation that they wouldn't get from just  
18 seeing the rate schedule printed on their bill for  
19 example.

20                   So all of those things can be -- be  
21 helpful and, you know, whether you think that it's PR or  
22 information or customer assistance, it's a useful part of  
23 any rate design.

24                   And it -- the same thing is true if you --  
25 as you go to time-of-use rates, that certainly have to

1 explain to people -- they may not see a big change in  
2 their bill, but they now may have significant incentives  
3 to reduce that bill that they -- if they do certain  
4 things that they didn't have before.

5 MR. BYRON WILLIAMS: Sticking with  
6 inverted rates and -- and focussing on advertising just  
7 for a second more, in your experience in other  
8 jurisdictions is there empirical support for the -- the  
9 idea that better information campaigns works, or is it a  
10 kind of an intuitive sense, sir?

11 MR. PAUL CHERNICK: I can't think off-  
12 hand of some place where somebody's tried to do anything  
13 like a control experiment, so it's always somewhat  
14 anecdotal.

15 There are certainly plenty of situations  
16 where a utility has done something with a -- a rate  
17 design, or some other offering, and then a couple of  
18 years later has done a survey and found out that 95  
19 percent of their customers don't know about it, or don't  
20 recognize that the -- the term appeared on their bill,  
21 but they don't understand what it is, indicating that  
22 just doing isn't necessarily enough.

23 And that's particularly true with  
24 residential customers, but it's -- it's true with  
25 commercial customers, as well.



1 other jurisdictions they're  
2 familiar with in terms of the  
3 PR, or advertising, or  
4 consumer education approach  
5 that should accompany a  
6 change such as inverted rates  
7

8 CONTINUED BY MR. BYRON WILLIAMS

9 MR. BYRON WILLIAMS: Mr. Chernick, if you  
10 could turn to Coalition Exhibit Number 33, that of the  
11 lovely typing by Mr. Williams, the Hypothetical Number 1.

12 MR. PAUL CHERNICK: I have that.

13 MR. BYRON WILLIAMS: And Mr. Chernick,  
14 I've presented this to you just over the break, because I  
15 just typed it before the Hearing started, so you'll  
16 accept by apologies for that.

17 And I wonder if you're prepared to accept  
18 the math, subject to check? It's really illustrative  
19 rather than evidentiary in that way.

20 MR. PAUL CHERNICK: Yes, I think I  
21 understand the -- the illustration and --

22 MR. BYRON WILLIAMS: Okay. You're  
23 prepared to accept --

24 MR. PAUL CHERNICK: -- what -- whatever  
25 the right numbers would be, I think we can talk about the

1 point.

2 MR. BYRON WILLIAMS: You're not confident  
3 that I put in the right numbers, Mr. Chernick? I'm just  
4 --

5 MR. PAUL CHERNICK: Well --

6 MR. BYRON WILLIAMS: -- teasing you.

7 MR. PAUL CHERNICK: The fact that you  
8 were typing the numbers in, rather than printing your  
9 Excel spreadsheet makes me wonder a little bit, but...

10 MR. BYRON WILLIAMS: That's okay. They -  
11 - they are illustrative. Mr. Chernick, just as a  
12 starting point you'll agree with me, I've presented to  
13 you on page 1 and 2 of Hypothetical 1, two (2) customers,  
14 those being Customer A and Customer B.

15 Is that right, sir?

16 MR. PAUL CHERNICK: Yes.

17 MR. BYRON WILLIAMS: And we're really  
18 dealing with a -- a year in the life of Customer A  
19 running from April to March, and a year in the life of  
20 Customer B.

21 Is that correct, sir?

22 MR. PAUL CHERNICK: Yes.

23 MR. BYRON WILLIAMS: And you'll agree  
24 with me that these customers have the -- the same monthly  
25 consumption and the same annual consumption, sir?

1 MR. PAUL CHERNICK: Yes.

2 MR. BYRON WILLIAMS: And they pay the  
3 same rate, correct?

4 MR. PAUL CHERNICK: Yes.

5 MR. BYRON WILLIAMS: And they also, in  
6 terms of the end of the year have the same total cost  
7 being one thousand six hundred and eighty dollars  
8 (\$1,680).

9 Is that right, sir?

10 MR. PAUL CHERNICK: Yes.

11 MR. BYRON WILLIAMS: And I wonder again -  
12 - you'll agree with me, it's -- that the difference  
13 between these two (2) customers is that Customer A is --  
14 has chosen to pay her or his bill based on -- as it's  
15 incurred on a monthly basis, depending on their -- their  
16 consumption in that month, while customer B, although  
17 it's not expressed in the heading, is on a -- is on a  
18 budget.

19 Is that right, sir?

20 MR. PAUL CHERNICK: Yes. Yes, that  
21 certainly makes sense.

22 MR. BYRON WILLIAMS: So what you see --  
23 and if -- if people are struggling to follow along on the  
24 -- the one (1) difference between the two customers is  
25 that Customer A, their monthly bill being the extreme

1 right-hand column varies from -- from month to month,  
2 while -- going up and down, while Customer B's bill is on  
3 a budget and does not vary from month to month.

4 Is that right, sir?

5 MR. PAUL CHERNICK: That seems to be what  
6 you've illustrated here, yes.

7 MR. BYRON WILLIAMS: And just to -- just  
8 to finish in terms of the -- the table, in terms of  
9 Customer A you'll see that -- that there are some  
10 differences as large as seventy dollars (\$70) in terms of  
11 the -- the variation from one month to the -- to the  
12 next, sir.

13 Do you see that? For example, going from  
14 April down to May? Do you see that, for Customer A?

15 MR. PAUL CHERNICK: Yes.

16 MR. BYRON WILLIAMS: So on a monthly  
17 basis this customer is seeing different prices based upon  
18 how much consumption takes place.

19 Is that correct, sir?

20 MR. PAUL CHERNICK: Yes.

21 MR. BYRON WILLIAMS: And just, again, you  
22 spoke of the complexity of human behaviour and I guess my  
23 -- my question to Mr. Chernick: All other things being  
24 equal, are we likely to see more energy-conserving  
25 behaviour from one of these customers as opposed to the

1 other?

2 MR. PAUL CHERNICK: Well, I think that  
3 has to do with the information that's presented on the  
4 bill, and perhaps in other ways, and also to some extent  
5 on the customer. There's -- there's some people who  
6 basically only pay attention to the size of the cheque  
7 that they're writing each month and it's very difficult  
8 to get them to look at much of anything else.

9 On the other hand, you can -- you can  
10 certainly -- and -- and I take it your -- your point  
11 basically is -- is Customer B missing the fact that the  
12 winter uses, whatever they are, are adding a lot to the  
13 bill, and that's being spread throughout the year. And  
14 you don't want the customer to miss it, you want them to  
15 understand where -- where their bill is coming from.

16 And I know that on my electric bill and my  
17 gas bill as well, I have a -- a usage for each of the  
18 last thirteen (13) months, I think. So you see the same  
19 month last year and all the months in between. So you  
20 see that.

21 I would also recommend that in this kind  
22 of a situation there may be a -- a line at the bottom of  
23 the bill that says, you know, Your monthly payment under  
24 your levelized plan is one hundred and forty (140), but  
25 I'd like to see a number preferably in larger print up

1 above that said, Oh, and your -- your usage this month is  
2 costing you seventy dollars (\$70) or two hundred and ten  
3 dollars (\$210) or whatever it is, so that the -- the  
4 customer gets as much information as -- as easily as  
5 possible as the customer's willing to absorb.

6           And you can't make people think about  
7 things they don't want to think about, but to the extent  
8 you can make it easy for them to pick up that pattern and  
9 say, Ah, oh, boy, this is -- I'm not paying for it this  
10 month, but this is an expensive month and I know what I  
11 did differently. And next fall I'll put down the storm  
12 windows earlier because I realize it's cost me a lot in -  
13 - in October and November when I don't do that, or  
14 whatever the issue may be, to help them understand that.

15           And they may not even understand why  
16 something is happening, and perhaps that -- that will,  
17 that's yet another opportunity to get them to contact  
18 Power Smart and get in the conservation programs.

19           MR. BYRON WILLIAMS: I thank you. And  
20 that's a very thoughtful answer, Mr. Chernick. And I  
21 want to -- there's three (3) or four (4) points I -- I  
22 just do -- do want to follow -- follow-up.

23           And in terms of the -- the customer, let's  
24 use a hypothetical name, Byron Williams, who only looks  
25 at the amount that's attached to the size of the cheque.

1 One of the issues fro -- to you, from an efficiency  
2 perspective, is if Byron Williams is on the -- the  
3 budget --

4 MR. PAUL CHERNICK: Mm-hm.

5 MR. BYRON WILLIAMS: -- he may miss the -  
6 - the efficiency signal. The -- or the -- the signal in  
7 terms of -- he may see -- miss the variation that  
8 increase consumption puts to his -- his cost.

9 MR. PAUL CHERNICK: That's -- that's  
10 possible, and let's face it, there are people who pay  
11 their bill every month, and it varies by month, and they  
12 really don't pay a whole lot of attention to it.

13 And they couldn't tell you ten (10)  
14 minutes after they paid the bill how much it was without  
15 looking at their chequebook, so you know, you're -- the  
16 complexity of human behaviour comes in here, and it --  
17 it's not as if every -- if -- if all of your residential  
18 customers were economists, you could do things very  
19 differently than -- or obsessive compulsives, you could  
20 do things very differently than -- than dealing with your  
21 actual mix -- mix of customers.

22 MR. BYRON WILLIAMS: And I appreciate  
23 that answer, and the -- I think I'm married to an  
24 economist.

25 MR. PAUL CHERNICK: You really don't want

1 to say obsessive compulsive.

2 MR. BYRON WILLIAMS: No, I wasn't going  
3 to use that adjective.

4 Something near the end of you're an --  
5 your at -- two (2) previous that you -- you talked about  
6 it, in terms of your actual bill.

7 And frankly I don't look at my bill, so --  
8 but in terms of your experience, your utility provides  
9 you with this -- the usage that you had for the same time  
10 the year previous.

11 Is that right?

12 MR. PAUL CHERNICK: Yes.

13 MR. BYRON WILLIAMS: Okay. And you're  
14 also recommending for the -- for the -- the thicker heads  
15 like the hypothetical Byron Williams, to, at least, on  
16 that bill, let's get not only out there what your -- your  
17 bill is, but let's really bold what your actual cost was  
18 in terms of -- in terms of that -- that particular month?

19 Is that fair, sir?

20 MR. PAUL CHERNICK: I think that would be  
21 useful.

22 MR. BYRON WILLIAMS: Okay.

23 MR. PAUL CHERNICK: Now, Mr. Williams, in  
24 your case, given your level of affluence, this bill may  
25 just be too small to be of -- of much significance to

1 you.

2 MR. BYRON WILLIAMS: Let the record show  
3 that Mr. Williams is speechless for the first time in  
4 this... Good answer, Mr. Chernick. I want to turn to  
5 Coalition -- Coalition Number 34, which is Hypothetical  
6 Number 2.

7 I just want to make sure I haven't missed  
8 anything here in my notes. One second please.

9

10 (BRIEF PAUSE)

11

12 MR. BYRON WILLIAMS: Moving to Coalition  
13 Number 34, you'll agree with me, Mr. Chernick, again,  
14 we've got two (2) customers in Hypothetical 2, Customer A  
15 and Customer B.

16 Is that correct, sir?

17 MR. PAUL CHERNICK: Yes.

18 MR. BYRON WILLIAMS: And without going  
19 into too much detail, you'll see that we're again looking  
20 at a -- a year, and we're looking at an annual  
21 consumption of 8,500 kilowatt hours, correct?

22 MR. PAUL CHERNICK: Yes.

23 MR. BYRON WILLIAMS: And you'll also  
24 agree with me that the con -- consumption from the  
25 customer in each month is -- is the same, i.e., for exa -

1 - the month of April, customer A is consuming four  
2 hundred (400), as is customer B, kilowatt hours.

3 Is that right, sir?

4 MR. PAUL CHERNICK: Yes.

5 MR. BYRON WILLIAMS: And going down to  
6 the bottom right hand corner, the second last column,  
7 you'll see that the cost annually for customer A is five  
8 hundred and seventy dollars (\$570) and the cost for  
9 customer B is five hundred sixty-nine dollars and fifty-  
10 four cents (\$569.54).

11 Do you see that, sir?

12 MR. PAUL CHERNICK: Yes.

13 MR. BYRON WILLIAMS: So they're pretty  
14 much, on an annual basis, the -- the same cost.

15 Is that correct?

16 MR. PAUL CHERNICK: That seems to be what  
17 you were driving at here, yes.

18 MR. BYRON WILLIAMS: And I wonder if  
19 you'll agree with me that the -- the distin -- one (1)  
20 distinguishing feature between customer A and customer B  
21 is that customer A is on a -- on an inverted or inclining  
22 rate structure with the consumption up to 500 kilowatt  
23 hours in a month charged at five (5) cents per kilowatt  
24 hour and above that up to 1,000 kilowatt hours at ten  
25 (10) cents.

1 Do you see that, sir?

2 MR. PAUL CHERNICK: Yes. That -- that  
3 seems to be the way you've set it up.

4 MR. BYRON WILLIAMS: And customer B, on  
5 the other hand, is charged a flat rate of -- of six  
6 dollars and -- and seventy cents (\$6.70) per month --  
7 per kilowatt hour.

8 MR. PAUL CHERNICK: Right. Yeah, I'm --  
9 I'm trying to reproduce your numbers and --

10 MR. BYRON WILLIAMS: It looks like I've  
11 mistyped in the cost column Mr. -- and you know I could -  
12 - I could reproduce them, but I think for the  
13 illustrative purposes -- Mr. Chairman, again it goes to  
14 my -- my typing abilities rather than my mathematical  
15 ones.

16 I can -- I can certainly resubmit the  
17 numbers, but I don't think that they're material. Is  
18 that okay with you, Mr. --

19 MR. PAUL CHERNICK: I -- I think I get  
20 the point of what you're trying to illustrate here  
21 without worrying about whether your -- your arithmetic is  
22 correct.

23 MR. BYRON WILLIAMS: Yeah.

24 MR. PAUL CHERNICK: Or your typing  
25 skills.

1 MR. BYRON WILLIAMS: Yeah, it's clearly -  
2 - I've -- I've made an error here, but we'll -- we'll  
3 work our way through it.

4 The other distinguishing factor be --  
5 between the two (2) customers is that one's (1) on a  
6 budget. Customer A is on a budget, and customer B is not  
7 on a budget.

8 Is that right, sir?

9 MR. PAUL CHERNICK: Yes.

10 MR. BYRON WILLIAMS: So if we look at  
11 customer A, they're getting price signals through the  
12 rate design that are, you'll agree with me, fairly sharp.

13 Would that be fair, sir? From five (5)  
14 cents to ten (10) cents?

15 MR. PAUL CHERNICK: Yes.

16 MR. BYRON WILLIAMS: But their monthly  
17 bill is standard because they're on a budget.

18 Is that fair?

19 MR. PAUL CHERNICK: Yes. Yeah.

20 MR. BYRON WILLIAMS: And whereas customer  
21 B, the -- the monthly bill is -- varies -- not on a  
22 monthly basis, but there are some relatively sharp  
23 differences, for example between June and July and  
24 November and December.

25 Do you see that, sir?

1 MR. PAUL CHERNICK: Yes.

2 MR. BYRON WILLIAMS: And again I  
3 apologize for the math error.

4 MR. PAUL CHERNICK: Mm-hm.

5 MR. BYRON WILLIAMS: But in terms of  
6 going back to the point -- the point I made before, are  
7 there any observations you might make in terms of the  
8 energy efficiency signals being set by the combination of  
9 rate design and monthly billing payments?

10 MR. PAUL CHERNICK: Well with the  
11 inverted rate, it -- it certainly would be helpful to let  
12 the customer -- focus the customer on -- if you saved 5  
13 percent of your -- reduced your energy use by 5 percent,  
14 you'd actually take 7 percent off of your bill or  
15 whatever the -- the number would be to give them a better  
16 sense of -- of how much they -- they could save with  
17 small reductions in their usage.

18 And again, with the budget billing, it's  
19 very important, I think, to let people know what their  
20 usage last month is going to cost them.

21 They don't have to pay it now, but  
22 there'll be some reconciliation at the end of the budget  
23 cycle. And that's -- that's a real number, and they  
24 should see that. Whether you can make them pay attention  
25 to it or not, is another question but at least some

1 people will.

2 MR. BYRON WILLIAMS: And just to followup  
3 and let's use the -- let's not use Byron Williams as a  
4 hypothetical. Let's -- let's use someone who's less  
5 allegedly affluent than I am.

6 But again someone who only looks at their  
7 -- at their -- the cheque they cut at the end of the  
8 month. In this case, I wonder if you'd agree that the --  
9 the inverted rate signal for customer A might be being  
10 muted by the -- the budget signal.

11 Would that be fair?

12 MR. PAUL CHERNICK: Yes. In terms of the  
13 -- the customer not seeing the effect of -- of the  
14 changes over the course of the year, but to the extent  
15 that they're -- that they are concerned about their  
16 electric bill.

17 Again, for -- for people for whom their  
18 electric bill is, you know, Item Number 75 on their list  
19 of concerns, and it's not going to come up in a  
20 conversation, it may not be an issue, but remember that  
21 some customers may just have a relatively high and stable  
22 usage through the year.

23 They'll probably have more in the winter  
24 because there's more lighting and there'll be some  
25 incidental heating and so on, but there are -- there are

1 certainly, you know, some customers whose -- whose usage  
2 doesn't vary a lot seasonally, and the inverted rate  
3 would be giving them the same kinds of incentives to  
4 conserve as -- as somebody whose usage did vary.

5                   And if they're not paying a lot of  
6 attention to the way that -- that information is  
7 presented in the bill, maybe they'll be talking to a  
8 neighbour about how high their bill is and the neighbour  
9 will say, Well, mine's a lot lower, and then they'll look  
10 at it or the customer will say, Well, gee, our houses are  
11 about the same size, why is mine so high and may actually  
12 reach for the phone and call Power Smart.

13                   MR. BYRON WILLIAMS: Thank you. Thank  
14 you for that, Mr. Chernick.

15                   And we'll -- we'll go to Coalition Number  
16 35. We'll -- we'll move a little quicker on that one. I  
17 think I'll just deal with customer A and customer B.

18                   And again, I apologize for -- for either  
19 my typographical or mathematical errors on Number 34, but  
20 if we look at Customer A, in Hypothetical 3, we see a  
21 total consumption of 7,200 kilowatt hours in a year which  
22 is the same as customer B now that I've made my -- my  
23 handwriting changes, sir.

24                   Do you see that?

25                   MR. PAUL CHERNICK: Yes.

1                   MR. BYRON WILLIAMS:   And we see that the  
2 rate for customer A is about seven dollars (\$7) or,  
3 excuse me, seven (7) -- seven point two five (7.25)  
4 cents --

5                   MR. PAUL CHERNICK:   Mm-hm.

6                   MR. BYRON WILLIAMS:   -- per kilowatt  
7 hour.   Do you see that, sir?

8                   MR. PAUL CHERNICK:   Yes.

9                   MR. BYRON WILLIAMS:   We see for customer  
10 B that they're on an inclining rate structure, the first  
11 block being up to 400 kilowatt hours, six (6) cents per  
12 kilowatt hour, the next 400 kilowatt hours monthly  
13 consumed being at eight (8) cents.

14                   Do you see that, sir?

15                   MR. PAUL CHERNICK:   Yes.

16                   MR. BYRON WILLIAMS:   So one (1)  
17 difference between the -- the two (2) customers is one  
18 (1) is on a flat rate and one (1) is on an inverted or  
19 inclining structure.

20                   Is that correct, sir?

21                   MR. PAUL CHERNICK:   Yes.

22                   MR. BYRON WILLIAMS:   And the other  
23 difference you'll agree with me, subject again to any  
24 mathematical errors, is the customer who's on a flat rate  
25 is -- is paying five hundred and twenty-two (\$522) and --

1 on an annual basis where the customer B is paying a  
2 little bit less, four hundred and eighty dollars (\$480)  
3 on an annual basis.

4 Do you see that, sir?

5 MR. PAUL CHERNICK: Yes.

6 MR. BYRON WILLIAMS: So customer A is on  
7 a flat rate but pays somewhat more on an annual basis.  
8 Customer B is on an inclining rate structure and pays  
9 somewhat less on an annual basis.

10 You'll agree with me, sir?

11 MR. PAUL CHERNICK: That seems to be how  
12 you set up the example, yes.

13 MR. BYRON WILLIAMS: Again, just -- we've  
14 got -- essentially here, we've got no budget involved in  
15 -- in these two (2) examples.

16 In terms of the efficiency signal being  
17 sent, do you have any -- any judgment in terms of where  
18 the -- the more effective or stronger signal is being  
19 sent, sir?

20 MR. PAUL CHERNICK: Well, I think the  
21 empirical evidence is that customers respond to both  
22 their average rate and their -- their marginal rate; that  
23 whether they actually look at the -- the bill in detail  
24 and see that they're paying more for the last block or  
25 whether they just get the sense based on the -- the

1 variation from month to month, somehow people -- people  
2 do respond to the marginal rate, but they also respond to  
3 the average rate.

4           So in the -- in the case of these two (2)  
5 customers which one (1) of them would have the greater  
6 incentive to -- to conserve, I -- I don't really know.

7           Obviously, if -- if you change the rate  
8 design so that Customer A became Customer B then there  
9 must be some other customer who is now paying a higher  
10 bill because they're a somewhat larger customer who would  
11 have a higher average cent per kilowatt hour and would  
12 have stronger incentives, both on a marginal basis and on  
13 an average basis.

14           So the overall effect would -- would  
15 certainly -- of switching from the flat to the inverted  
16 rate would be to give stronger incentives to the customer  
17 classes. The whole individual customers, if they're only  
18 looking at their total bill, again it may just drop below  
19 their -- their level of interest.

20           It's -- I don't pay any attention to any  
21 bill under fifty dollars (\$50). So this -- this is a  
22 little smaller, and so I just pay it without thinking.  
23 Again the complexity of human behaviour makes all of  
24 these things much more complicated.

25           But again, you can help by the way you

1 present the bill and get more customers to focus on the  
2 benefits of -- of to them of re -- reducing their usage.

3 MR. BYRON WILLIAMS: Thank you for that,  
4 Mr. Chernick, and I'm going to move to a bit of a -- a  
5 different subject which is, barriers -- barriers to  
6 efficiency that -- and you -- you'll recall speaking of  
7 that this morning, both in the context of low income  
8 persons as well as in the context of renters.

9 Is that fair, sir? At least low income  
10 persons you spoke of.

11 MR. PAUL CHERNICK: Yes.

12 MR. BYRON WILLIAMS: And I won't belabour  
13 this point, because I -- I thought you dealt with it at a  
14 fair degree. But if you just give me a couple seconds,  
15 I'll just review my notes.

16

17 (BRIEF PAUSE)

18

19 MR. BYRON WILLIAMS: And again,  
20 recognizing you've spoken about this this morning, I'll  
21 try and move through it quicker, but it -- it may take a  
22 few minutes.

23 Just in terms of when -- when we look at  
24 consumers, and let's just assume that we're dealing with  
25 consumers who are residential customers in an all-

1 electric home. In terms of proper pricing signals for  
2 incremental uses of con -- consumption, in the short term  
3 your evidence and is that it -- it may incent energy  
4 conserving behaviour whether it's turning down the  
5 thermostat, switching off the lights, turn off the  
6 computer, things like that.

7 Is that -- that fair, sir? In the -- in  
8 the short term, that's what we're trying to do with the -  
9 - sending proper price signals?

10 MR. PAUL CHERNICK: Yes, and -- and there  
11 are some -- some sort of small capital expenditures like  
12 buying a compact fluorescent bulb, or a low flow shower  
13 head, and as well that are -- you can't -- there are  
14 things you can do the minute you look at your electric  
15 bill and say, Oh my gosh, and then there -- there are  
16 things that you can do the next day, or the next week,  
17 and then there are the longer term things.

18 MR. BYRON WILLIAMS: And those shorter  
19 term things generally there would be less financial  
20 barriers obviously to -- to taking those activities  
21 subject to, I guess, the absolute degree of -- of income  
22 that that person has.

23 That's fair, sir?

24 MR. PAUL CHERNICK: That -- that's true.

25 MR. BYRON WILLIAMS: And over the long

1 term I -- I'll suggest to you, and it's -- I think it's  
2 expressed in your evidence, that -- that proper pricing  
3 signals for incremental units of consumption can incent  
4 behaviour such as better insulating one's home, buying  
5 more energy efficient appliances, or converting to a more  
6 economically efficient fuel source.

7                   Would that be fair, sir?

8                   MR. PAUL CHERNICK: Yes, it -- it helps  
9 move customer behaviour in that direction. It doesn't  
10 substitute for good energy efficiency programs from the  
11 Utility, or the province, or some other agency, but it's  
12 -- it certainly helps move people in the right way.

13                   MR. BYRON WILLIAMS: And you -- you've  
14 discussed this this morning in the context of low income  
15 persons, so we can skip through a little bit of the  
16 discussion I had planned today. But you'd agree that for  
17 some low income persons, there may indeed be, leaving  
18 aside low income energy efficient -- efficiency programs,  
19 there may indeed be barriers to these -- to accessing  
20 these longer term capital programs.

21                   You'll agree with that, sir?

22                   MR. PAUL CHERNICK: Okay, I would -- I  
23 would hope that we didn't leave aside the energy  
24 efficiency programs but, yes, there's certainly even with  
25 programs there are barriers.

1 MR. BYRON WILLIAMS: Okay, even with  
2 programs there are barriers, and in the absence of  
3 programs, or effective programs, those barriers would be  
4 greater.

5 You'll agree with that, sir?

6 MR. PAUL CHERNICK: Oh, yes.

7 MR. BYRON WILLIAMS: And we'll come back  
8 to the -- putting those programs back in the equation.  
9 But speaking and focussing on these longer term energy  
10 conserving activities, whether it's switching fuels or  
11 buying better, more efficient appliances, you'll agree  
12 with me that if the low income person lacks the means to  
13 surmount these financial barriers, all other things being  
14 equal, there will be less energy savings.

15 Would that be fair, sir?

16 MR. PAUL CHERNICK: Oh, yes.

17 MR. BYRON WILLIAMS: And for -- in an --  
18 in a price structure on an inclining or inverted basis,  
19 assuming that these consumers are in all-electric homes,  
20 they may be facing higher bills and lacking the -- the  
21 means to enjoy the energy savings.

22 Would that be fair?

23 MR. PAUL CHERNICK: That -- that  
24 certainly could be the outcome, yes.

25 MR. BYRON WILLIAMS: And that really was

1 part of the issue that you were speaking to earlier this  
2 morning, correct?

3 MR. PAUL CHERNICK: Yes.

4 MR. BYRON WILLIAMS: And again, we'll  
5 come back to that in -- in just a few minutes. But,  
6 leaving aside the issue of low income persons, and I want  
7 to focus on renters now for a second.

8 Assume, if you will, that -- that we're  
9 talking about an individual who pays the electric bills,  
10 but rents their premises from a landlord.

11 You're prepared to make that assumption,  
12 sir?

13 MR. PAUL CHERNICK: Yes, there certainly  
14 are such people.

15 MR. BYRON WILLIAMS: And let's say, if it  
16 came to some of these long term energy efficiency tools,  
17 such as purchasing a gas, a high ener -- a high  
18 efficiency gas furnace, you'll agree with me that a  
19 renter who pays the bills but doesn't own the -- own the  
20 -- the property, may -- may lack the same incentive to  
21 invest in a new furnace, as a person who owns their own  
22 home.

23 Would you agree with that, sir?

24 MR. PAUL CHERNICK: Yes, and there can be  
25 -- not only is there -- there the incentive problem,

1 there may also just be a capability problem; that you may  
2 not be in a position to put in gas heating, because it's  
3 something that the -- the landlord is going to have to  
4 make arrangements with Centra for the -- the gas line,  
5 and -- and work with the contractor on -- on installing  
6 the system in the -- the building.

7                   And really, it only makes sense to do it  
8 if you're doing a large part of the building at once, and  
9 -- so as a renter, even if you thought you were going to  
10 be there for twenty (20) years, and even if you were  
11 willing to pay your share of it, you need the -- the  
12 landlord to participate in the process.

13                   MR. BYRON WILLIAMS: So that last comment  
14 relates to capability, correct?

15                   MR. PAUL CHERNICK: Yes. And then -- and  
16 then, of course, if you -- if you're not sure you're  
17 going to be there for twenty (20) years then even if you  
18 have the -- the capital, it may not make sense for you to  
19 -- to make the investment if you -- you think you might  
20 be moving in a year or two (2).

21                   Then it -- you know, the compact  
22 fluorescent is a fine investment, and you know, maybe  
23 wrapping your hot water pipes and that sort of thing, but  
24 when you get into things that have pay backs of even four  
25 (4) or five (5) years, you're -- you may be reluctant to

1 undertake them.

2 MR. BYRON WILLIAMS: And -- and I  
3 appreciate your helpful answer on capability, because I  
4 short-circuited where I -- where I might have eventually  
5 come. But in terms of incentives, I've sometimes heard  
6 the phrase, "split incentives."

7 MR. PAUL CHERNICK: Yes.

8 MR. BYRON WILLIAMS: Is that the -- the -  
9 - really what we're talking about here, sir?

10 MR. PAUL CHERNICK: Yes, that's the  
11 terminology used in the energy efficiency world. That's  
12 a -- a situation of -- of split incentives. There are --  
13 economists like to talk about principle agent problems  
14 where the person who's paying the bill would -- has one  
15 (1) set of incentives, but the landlord, the contractor,  
16 the plumber have -- have other incentives, and it can be  
17 very difficult to get the right result because of that  
18 inefficiency.

19 MR. BYRON WILLIAMS: And I -- and I --  
20 again, I thank you for your helpful comments just now and  
21 then earlier this morning. Just following through this  
22 logic, assuming again we've got a renter, whether --  
23 let's say in a house rather than an -- an apartment, but  
24 -- and they're in an all-electric home.

25 The risk they may face under an inverted

1 or inclining rate structure is that they will -- they  
2 will experience the higher costs but lack the -- either  
3 the capability or the -- the -- or can't make the  
4 business case to take advantage of the -- the energy  
5 assist -- energy efficiency signal by the better pricing  
6 signals.

7                   Would that be fair, sir?

8                   MR. PAUL CHERNICK: Right. And those are  
9 some of the barriers that energy efficiency programs  
10 should be designed to overcome.

11                   MR. BYRON WILLIAMS: And so certainly  
12 that would be -- in the absence of energy efficiency  
13 programs aimed at renters with split incentives, that  
14 would be a --not necessarily an insurmountable barrier,  
15 but that would be a concern as you moved into an  
16 inclining rate structure environment.

17                   Would that be fair?

18                   MR. PAUL CHERNICK: Oh, yes, you would  
19 certainly want to have a set of energy efficiency  
20 programs that were available to -- to everyone and -- and  
21 a -- and would actually work in the marketplace.

22                   MR. BYRON WILLIAMS: To -- to the extent  
23 that those programs were not available, let's say for  
24 renters, would that -- if you were in the business of  
25 rate design as you were, would that incline you to a more

1 gradual approach than if they were in the marketplace,  
2 sir?

3 MR. PAUL CHERNICK: Well I would -- I  
4 would hope that it would incline the participants in the  
5 project to -- in the process to enhance the energy  
6 efficiency programs so as -- again, it's -- it's -- it's  
7 a real waste to have something that would be beneficial  
8 like inverted rates and not be able to do it because you  
9 haven't done something else which is have effective  
10 conservation programs for renters, for example, in your  
11 case.

12 And I'm not -- I haven't reviewed the  
13 Power Smart programs enough to have an opinion. But if  
14 you didn't have those -- so you're missing one (1)  
15 valuable element, and then you're allowing that  
16 deficiency to impede another one.

17 And I just don't see any excuse for that  
18 at all. I mean, you -- you want to clear the path for  
19 doing the good things and especially when that -- the  
20 process of clearing the path for good rate design also is  
21 promoting energy efficiency directly.

22 I -- I just don't see any reason to -- to  
23 slow down the rate design of the process. Now, if you  
24 say, Well but by the time they got the -- the programs  
25 designed and worked out, some of the legal complications

1 in dealing with the landlords and so on, it might be a  
2 year or two (2) and so we want to be -- in this rate case  
3 we want to have a little less of an inverted block, well  
4 maybe.

5 But I would put the emphasis on move the  
6 energy efficiency as long as fast as you can and  
7 implement the -- the inverted blocks along with it.

8 MR. BYRON WILLIAMS: I thank you. Mr.  
9 Chairman, I just want to grab a sip of water if I might  
10 stand down for one -- one (1) minute.

11

12 (BRIEF PAUSE)

13

14 MR. BYRON WILLIAMS: Mr. Chernick, this  
15 may go to you or it might more properly go to Mr. Weiss.  
16 So you'll -- you'll send it -- or Mr. Gange will send off  
17 this question where it -- where it belongs.

18 And -- and I do want to turn to the -- the  
19 issue of -- I'm going to call them using Mr. Chernick's  
20 language, "low income discount programs."

21 MR. PAUL CHERNICK: I think that's Mr.  
22 Weiss' language --

23 MR. BYRON WILLIAMS: Mr. -- Mr. Weiss?  
24 Okay.

25 MR. PAUL CHERNICK: -- whatever --

1 MR. BYRON WILLIAMS: Well, we'll come  
2 back to that. Okay, you're -- the --

3 MR. PAUL CHERNICK: Maybe I use that term  
4 too.

5 MR. BYRON WILLIAMS: Yeah.

6 MR. PAUL CHERNICK: I don't object to it.

7 MR. BYRON WILLIAMS: Okay. In terms of  
8 programs like that and again, Mr. Gange, this may go to  
9 Mr. Weiss rather than Mr. Chernick, but given what we  
10 know of the Manitoba marketplace, there -- okay, first of  
11 all, you'll agree that there's a number of different  
12 models in the American experience, without going into  
13 details, Mr. Chernick.

14 MR. PAUL CHERNICK: Oh, yes. Yes, sir.

15 MR. BYRON WILLIAMS: In -- in terms of  
16 models that -- and again, I'm not familiar with Mr.  
17 Weiss' experience in the Centra Gas Hearing -- but are  
18 there Cadillac programs or are the programs in particular  
19 that you would recommend to the -- to the consideration  
20 of my clients?

21 MR. PAUL CHERNICK: I know that there  
22 are programs that are considered sort of the state of --  
23 of practice. The -- the best practices among the low  
24 income advocacy community, I -- I don't necessarily have  
25 those available at the -- the tip of my tongue, but if --

1 if it's not in Mr. Weiss' evidence then I'm sure we can  
2 get you citations to a couple of those.

3 MR. BYRON WILLIAMS: Mr. Gange, and --  
4 and I've certainly read Mr. Weiss' evidence as well as  
5 the Apprise report, but I guess the question you can send  
6 on to Mr. Weiss is:

7 Given his understanding of the Manitoba  
8 marketplace are there models that he feels would be  
9 particularly apt if the Board chose to go in that -- in  
10 that direction?

11 MR. BILL GANGE: We will give you that  
12 undertaking --

13 MR. BYRON WILLIAMS: Okay.

14 MR. BILL GANGE: -- and -- and respond  
15 with Mr. Weiss' information.

16

17 --- UNDERTAKING NO. 91: RCM/TREE to provide Coalition  
18 a response from Mr. Weiss to  
19 the question: Given your  
20 understanding of the Manitoba  
21 marketplace are there models  
22 that you feels would be  
23 particularly apt if the Board  
24 chose to go in that  
25 direction?

1

2 CONTINUED BY MR. BYRON WILLIAMS:

3 MR. BYRON WILLIAMS: I want to look at  
4 the -- the issue of -- of these low income -- I'm going  
5 to use the firm -- phrase "discount programs" or -- and,  
6 Mr. Chernick, you can either -- but from an efficiency or  
7 a consumption perspective you can either turn, if you  
8 have it nearby, the evidence of -- perhaps the best way  
9 to do it is to go to Coalition Number 36.

10 MR. PAUL CHERNICK: Yes.

11 MR. BYRON WILLIAMS: Coalition Number 37  
12 which is the -- an excerpt from the Apprise report.

13

14 (BRIEF PAUSE)

15

16 MR. PAUL CHERNICK: I have those  
17 documents. Is there a particular page in --

18 MR. BYRON WILLIAMS: Well, there is a  
19 particular page but I erroneously failed to include it,  
20 so what I'm going to do instead is I'm -- I'm going to  
21 read you a -- a quote from page Roman Number XII.

22 Mr. Weiss says something to the same  
23 effect. And -- and I'll read it to you and I'd like your  
24 comment on it. And I apologize for this. This is why Mr.  
25 Williams should be never -- never allowed to prepare his

1 documents by himself.

2 At page Roman Numeral XII of the Apprise  
3 document there's a statement:

4 "Energy affordable programs --  
5 affordability programs reduce the cost  
6 of using energy and therefore program  
7 managers are often concerned that they  
8 may result in increased --"

9 THE CHAIRPERSON: We don't seem to have  
10 Roman Numeral XII here. Your handout has --

11 MR. BYRON WILLIAMS: Yeah, and that's what  
12 I was apologizing --

13 MR. BILL GANGE: I can help the Board. If  
14 you have Mr. Weiss' testimony, his -- his pre-filed  
15 testimony, page 10, Exhibit 3 of that testimony is the  
16 Apprise report and it does have Roman Numeral XII. So if  
17 that's helpful --

18 THE CHAIRPERSON: We have it. Thank you.

19

20 (BRIEF PAUSE)

21

22 CONTINUED BY MR. BYRON WILLIAMS:

23 MR. BYRON WILLIAMS: And just to confuse  
24 matters more and I apologize, this -- it's Roman Numeral  
25 XIII but I actually have an excerpt here. I apologize.



1                   MR. PAUL CHERNICK: Well, for low income  
2 customers who are constrained in their energy use by their  
3 income, giving them resources of any sort is likely to  
4 encourage them -- increased energy use.

5                   Now, this statement says that that's not a  
6 significant effect. And that certainly may be the case,  
7 because if -- depending upon the -- the eligibility  
8 standards, if you're skimping on food, and skimping on  
9 your medications, and keeping the thermostat down, and be  
10 very careful to keep the lights out, if your budget is  
11 relaxed a little bit by having your electric bill  
12 discounted, or your gas bill discounted, the first thing  
13 you may do is -- is spend your money on -- on the food, or  
14 the medications, or -- or something else that's important  
15 to you.

16                   On the other hand there -- there may  
17 certainly be some increase in usage. I -- I have to say  
18 that even as a -- as strong an -- an advocate of -- of  
19 energy efficiency and -- and responsible use of resources  
20 as I am, I don't really begrudge poor people the ability  
21 to turn up their thermostat enough that they can't see  
22 their breath indoors anymore.

23                   So, I'm -- I'm -- I wouldn't be terribly  
24 concerned if, in fact, it were the case that they were  
25 using a little more energy, especially when you're talking

1 about heating customers or for that matter, in many places  
2 air conditioning use in the summer.

3 MR. BYRON WILLIAMS: And -- and I  
4 appreciate your answer, and obviously you'll understand my  
5 clients wouldn't be that -- certainly wouldn't be  
6 concerned about that either. But the point, I take it --  
7 at least that I've -- I've from -- from your --

8 MR. PAUL CHERNICK: It's not always to  
9 find the point in my answers.

10 MR. BYRON WILLIAMS: There's a -- there's  
11 a helpful point I -- I think, sir, and the point you were  
12 making is with low income people their budgets may indeed  
13 be so constrained that -- that they're indeed practising  
14 energy efficient practices and -- and skimping somewhere  
15 else, and -- and what a discount in their electricity  
16 rate may enable them to do is to buy that extra  
17 prescription or something like that.

18 Is that correct?

19 MR. PAUL CHERNICK: Different people make  
20 different choices, yes.

21 MR. BYRON WILLIAMS: Okay.

22 MR. PAUL CHERNICK: I -- I don't know  
23 whether medications are an issue here in Canada. I keep  
24 forgetting that I'm someplace where you -- you take care  
25 of sick people better than we do.

1                   MR. BYRON WILLIAMS:    Mr. Chernick, just in  
2 your evidence -- and you may just want to go there in your  
3 recommendations section, pages 46 and 48. One is a --  
4 this is a -- a rather tedious and small point of  
5 clarification -- at -- you're talking about starting about  
6 page 46, line 17, using increased revenues from tail block  
7 sales to do a number of things and -- and one (1) of them  
8 on line 19 is low income customer discounts.

9                   Do you see that, sir?

10                  MR. PAUL CHERNICK:    Yes.

11                  MR. BYRON WILLIAMS:    And just directing  
12 your attention now to page 48, and line 21, you're also --  
13 you used the term "low income programs" as a -- as opposed  
14 to "discounts."

15                  I just want to be clear, when you're using  
16 "discounts" you're talking about a reduced rate, and when  
17 you're talking about programs are you talking about low  
18 income energy efficiency programs? Is that -- is that --

19                  MR. PAUL CHERNICK:    No, I'm -- I'm not --

20                  MR. BYRON WILLIAMS:    -- distinction?

21                  MR. PAUL CHERNICK:    -- making that  
22 distinction. I wouldn't -- low income programs could be a  
23 lower electric rate. It could be, as I was discussing  
24 earlier, passing out -- handing over some vouchers to a --  
25 a third party to administer in -- for support of customers

1 that -- that have high electric bills and -- and financial  
2 need. It could be enhanced conservation programs. It  
3 could be a combination of -- of all of those things.

4 MR. BYRON WILLIAMS: In the context of  
5 when you use the word "low income" in the context of  
6 Hydro, you know, or energy rates, do you have a particular  
7 definition of low income in mind, sir?

8 MR. PAUL CHERNICK: No. And for the  
9 purposes of -- of the bulk of my testimony which is about  
10 efficient rate design, the definition of low income is the  
11 people whose economic status would cause you great concern  
12 if you were to go in the direction that I recommended in  
13 terms of rate design.

14 So whoever those people are whom you don't  
15 want to steamroller with inverted rates, for example,  
16 because of their -- their specific needs, those are the  
17 people that I'd want to take care of, and I'm -- I'm not  
18 coming in and telling you who those people ought to be.

19 MR. BYRON WILLIAMS: Right. And -- and  
20 that's fair and I'm not trying to -- but at a thematic  
21 basis, you might define those people based upon, for  
22 example, income. You might define them based upon the  
23 percentage of their income that they had to devote to  
24 their energy budget or as in the -- as the case in some US  
25 jurisdictions, you might target groups whether they're

1 seniors or chil -- children in poor homes or persons with  
2 disabilities.

3 MR. PAUL CHERNICK: Yes, you -- to -- in  
4 some combination of those things; seniors and energy is a  
5 particular concern with -- low income seniors and energy  
6 because of their -- lower temperatures in the winter and  
7 hotter ones in the -- the summer, tend to have more  
8 drastic effects on somebody who's eighty (80) years old  
9 than somebody who's forty (40) years old, even at the same  
10 income level.

11 MR. BYRON WILLIAMS: And, Mr. Chernick,  
12 again, you may not be the person to answer this, but I'll  
13 put it to you anyways.

14 Based on the -- the current rates in  
15 Manitoba, roughly the -- and let's assume that you'll  
16 agree with me, let's say for residential customers around  
17 -- average around six (6) cents per kilowatt hour.

18 You'll agree with that as a starting point?

19 MR. PAUL CHERNICK: Something like that,  
20 yes.

21 MR. BYRON WILLIAMS: Based on those  
22 current rates, is it your argument that low income  
23 discount programs are necessary in Manitoba at current  
24 rates?

25 MR. PAUL CHERNICK: I -- I'm sure that --

1 that Mr. Weiss would have more to say about this than I  
2 would, but it's my impression that in almost every  
3 jurisdiction, there are low income people who have  
4 difficulties paying their bills for legitimate reasons and  
5 -- and that includes their energy bills.

6                   And so there is some need for some  
7 assistance. In many jurisdictions, the utilities have  
8 been given part of the job of providing that assistance  
9 because they are basically a source of -- of cash, because  
10 there's a lot of cash flow through there and it's been  
11 easier in a lot -- for a lot of States to -- to divert  
12 some of that to low income assistance.

13                   In the case of Manitoba, there's the fact  
14 that there's this big gap between value of the energy and  
15 the current rates for customers, as a whole, which creates  
16 if -- if you will look at it that way, a -- the potential  
17 for -- for funding a lot of -- of different kinds of  
18 programs.

19                   I think there is a nexus between low income  
20 assistance and energy bills that makes it relevant for  
21 Manitoba Hydro to be contributing to that solution.

22                   So I -- it's -- if the question is, would  
23 it only be inverting rates that would create a  
24 justification for some sort of assistance from Manitoba  
25 Hydro to low income consumers, I would say, no, it seems

1 like it would make sense in many ways to do it even if you  
2 continue to have an essentially flat rate.

3 MR. BYRON WILLIAMS: And I -- I thank you,  
4 and it's -- I -- I've pondered this question myself so  
5 I'll -- I'll come back to it in just one (1) second.

6 Mr. Gange, would you -- would you be able  
7 to put the same question to -- to Mr. Weiss, and I guess  
8 the question -- hopefully, it's the same question. At  
9 current average rates for residential customers in  
10 Manitoba, is it his view that a low income discount  
11 program is -- is mandated?

12 MR. BILL GANGE: I will ask that of Mr.  
13 Weiss and will respond by way of undertaking.

14

15 --- UNDERTAKING NO. 92: RCM/TREE to provide Coalition  
16 a response from Mr. Weiss to  
17 the question: At current  
18 average rates for residential  
19 customers in Manitoba is it  
20 your view that a low income  
21 discount program is  
22 mandated/required?

23

24 CONTINUED BY MR. BYRON WILLIAMS:

25 MR. BYRON WILLIAMS: Mr. Chernick, just to

1 follow up just for a second or two (2) on your -- on your  
2 question, your answer?

3 MR. ROBERT MAYER: Mr. Williams, the  
4 question is is such a program mandated, well, clearly it's  
5 not. Required maybe?

6 MR. BYRON WILLIAMS: I mean -- well, that  
7 -- that will do. Thank you, Mr. Vice-Chair.

8 MR. BYRON WILLIAMS: If that works for  
9 you, Mr. Gange, I think you have -- I hope you have my  
10 point.

11 MR. BILL GANGE: It does.

12 MR. BYRON WILLIAMS: If not you have the  
13 Vice-Chair's point which was better spoken.

14

15 CONTINUED BY MR. BYRON WILLIAMS:

16 MR. BYRON WILLIAMS: Mr. Chernick, just to  
17 follow up on -- on the point given what you know of  
18 Manitoba residential average rates now, would a drive to  
19 full marginal cost rates make a better or more important  
20 or stronger case, excuse me, for the implementation of a  
21 low income discount program?

22 MR. PAUL CHERNICK: Well, again, going  
23 back to my primary criterion, clearly Hydro thinks that  
24 there's a problem in terms of the effect on vulnerable  
25 customers, and I suspect that they're probably correct. I

1 think that there are a number of parties that have  
2 expressed some concern along those lines.

3                   So I would -- you know, without having done  
4 any independent research about the -- the distribution of  
5 bills to low income customers, I -- I think that's -- it  
6 would be -- moving towards inverted rates, towards  
7 marginal cost pricing -- would certainly enhance the  
8 argument for some kind of -- of energy assistance.

9                   MR. BYRON WILLIAMS:   Mr. Chernick, just --  
10 I'll stay on a related subject for just a few more  
11 minutes, and we'll finish up before the -- or at the -- at  
12 the break.

13                   In terms of the debate about the efficiency  
14 signals sent by inverted rates and the -- the concern  
15 raised by some about its equity impacts on low income  
16 customers, I believe you indicated, this morning, that  
17 some percentage or some fraction of low income customers.  
18 And I -- and I think I'm quoting you correctly where --  
19 you -- you didn't want to see them getting in the way of  
20 the implementation of inverted rates.

21                   Is that a fair characterization?

22                   MR. PAUL CHERNICK:   Yes.

23                   MR. BYRON WILLIAMS:   You can accept this,  
24 subject to check, or if -- if you wish, in terms of the  
25 vol -- the consumption, in terms of the low -- persons who

1 might be getting in the way of the -- the drive to  
2 inverted rates, did you have a particular figure in mind  
3 in term in terms of annual consumption or monthly  
4 consumption?

5                   For example if I'm -- if I'm consuming --  
6 I'm a low income person and I'm consuming 18,000 kilowatt  
7 hours per year, about fifteen hundred (1,500) per month,  
8 would that be an individual who depending on the inverted  
9 rate design may have some -- suffer some negative effects  
10 from -- from the rate design?

11                   MR. PAUL CHERNICK:   It certainly could  
12 be.

13                   MR. BYRON WILLIAMS:   And just so you know,  
14 Mr. Harper at page 38 of his evidence has -- has suggested  
15 that Manitoba Hydro has provided data which -- which  
16 indicates that over 20 percent of customers earning less  
17 than thirty thousand (30,000) per annum have annual usage  
18 in excess of 18,000 kilowatt hours per -- per annum.

19                   Is that a figure that you would dispute or  
20 you're able to comment on?

21                   MR. PAUL CHERNICK:   I -- I really haven't  
22 looked at it.   It's certainly possible.

23                   MR. BYRON WILLIAMS:   Okay.  Mr. Gange, Mr.  
24 Chairman, there's a -- a question I have about the  
25 administration of low income programs.  Rather than put it

1 on the record, I -- I think it -- it's probably easier and  
2 more appropriate based on my off-the-record discussions to  
3 put that to Mr. Weiss. So I'll set that aside and -- and  
4 chat with you with your permission at the -- the break and  
5 hopefully we can agree on a...

6 MR. BILL GANGE: That's fine. We'll  
7 accommodate you in whatever way we can, Mr. Williams.

8 THE CHAIRPERSON: Within reason.

9 MR. BILL GANGE: Within -- within reason,  
10 you're right.

11

12 CONTINUED BY MR. BYRON WILLIAMS:

13 MR. BYRON WILLIAMS: And, again, this may  
14 or may not be appropriate for you Mr. Chernick. You're  
15 aware that on the record of this proceeding and an excerpt  
16 of it is part of Coalition Number 37. There's a report  
17 from Apprise, "Rate Payer Funded Low Income Energy  
18 Programs, Performance, and Possibilities".

19 MR. PAUL CHERNICK: Yes.

20 MR. BYRON WILLIAMS: And you have that,  
21 sir?

22 MR. PAUL CHERNICK: I have the excerpt,  
23 and I believe I have the entire document, yes.

24 MR. BYRON WILLIAMS: And, Mr. Chernick, I  
25 -- I want to be fair to you. I know -- would I be fair to

1 say that you don't have a in-depth knowledge of this  
2 document, but at a high level, you may have some knowledge  
3 of the evaluations of low income programs that --  
4 generally in the United States. Would that --

5 MR. PAUL CHERNICK: Yes.

6 MR. BYRON WILLIAMS: -- be fair? And  
7 again --

8 MR. PAUL CHERNICK: I'm not usually the  
9 witness specifically on low income programs. Often my  
10 rate design and other testimony touches on low income  
11 issues. Occasionally, I'm -- I'm -- I directly address  
12 some of those issues, but clearly there are other experts  
13 who are usually brought in as witnesses when that's a  
14 major concern.

15 But I -- I do see this material either from  
16 -- from other parties or often, as in this case, from  
17 other witnesses for the same party.

18 MR. BYRON WILLIAMS: And, again,  
19 recognizing that I'll -- I'll deal at a high level, and if  
20 we're able to accomplish this with you, we -- we shall.  
21 Otherwise, we'll --

22 MR. PAUL CHERNICK: Okay.

23 MR. BYRON WILLIAMS: -- I'll chat with Mr.  
24 Gange again at the -- the break. I wonder if you can turn  
25 to the -- leaving the Roman numerals and in the bottom

1 right-hand corner, page 80, 85.

2                   Could -- could you turn there, sir?

3                   MR. PAUL CHERNICK:    Yes.

4                   MR. BYRON WILLIAMS:    And you'll -- you'll  
5 see, first of all, and you'll agree with me that Apprise  
6 has conducted ten (10) independent afford -- affordability  
7 evaluations for the purposes of this report?

8                   MR. PAUL CHERNICK:    That's what's listed  
9 here, yes.

10                  MR. BYRON WILLIAMS:    Okay.  Going down to  
11 the -- to the bottom of page 85, there's a statement, the  
12 third last line:

13                                 "Despite the over 4.5 billion in federal  
14                                 and rate payer utility assistant program  
15                                 funding, there are not enough funds to  
16                                 meet the full need for energy  
17                                 assistance."

18                  And is that a statement, at a high level,  
19 that you can indicate that you're familiar with?  It's  
20 part of the debate in the United States, like there's a  
21 gap between the money and the --

22                  MR. PAUL CHERNICK:    Yes.

23                  MR. BYRON WILLIAMS:    -- the actual  
24 programming, sir?

25                  MR. PAUL CHERNICK:    Yes, there's

1 certainly many jurisdictions in which -- there's certainly  
2 a -- a strong argument that -- that additional assistance  
3 is required.

4 MR. BYRON WILLIAMS: Okay.

5 MR. PAUL CHERNICK: Or would be  
6 beneficial.

7 MR. BYRON WILLIAMS: And if you could turn  
8 to just over one (1) page, you'll see both Table V2  
9 "Characteristics of Households Served by..."

10 Do you see that table?

11 MR. PAUL CHERNICK: Yes.

12 MR. BYRON WILLIAMS: "Characteristics of  
13 Households Served by Affordability Programs", sir?

14 MR. PAUL CHERNICK: Yes, I see that.

15 MR. BYRON WILLIAMS: And just under it  
16 you'll see a -- a bullet setting out some key findings.

17 Do you see that?

18 MR. PAUL CHERNICK: Yes.

19 MR. BYRON WILLIAMS: And I'm going to  
20 suggest to you that Table V2 looks like it's looking at a  
21 number of the programs in different jurisdictions whether  
22 it's Maryland, New Jersey, or Pennsylvania, or Wisconsin.

23 Would that be fair, sir?

24 MR. PAUL CHERNICK: Yes.

25 MR. BYRON WILLIAMS: And, you'll see the -



1 income energy efficiency programs that you need different  
2 kinds of approaches because a higher percentage of low  
3 income customers, who most need the assistance, are  
4 reluctant to ask for it for one reason or another.

5 MR. BYRON WILLIAMS: And that's a helpful  
6 answer, and so I guess there's -- there's two (2) points I  
7 would draw from it.

8 One (1) is, first of all, that there's a  
9 gap between those in need and those being served by the  
10 programs which calls for extended efforts to -- to -- in  
11 terms of partici -- encouraging participation.

12 Is that fair, sir?

13 MR. PAUL CHERNICK: I -- I think that's  
14 one (1) lesson you could take from it, yes.

15 MR. BYRON WILLIAMS: Just one (1) last  
16 question about this Apprise report. Just flip over one  
17 (1) page to -- to page 87, and you can see Table V3 in the  
18 middle of the page, sir.

19 Do you see that?

20 MR. PAUL CHERNICK: Yes.

21 MR. BYRON WILLIAMS: And just from the  
22 description of the table above, just immediately above the  
23 table you'll see that it's purporting to examine program  
24 retention and re-certification rates.

25 Do you see that, sir?

1 MR. PAUL CHERNICK: Yes.

2 MR. BYRON WILLIAMS: And you'll see under  
3 the writ -- in the written description just above Table  
4 V3, the last line -- let me back up.

5 By re-certification, you'll agree with me  
6 that many of these programs require customers to verify --  
7 verify their program eligibility either every year or  
8 every other year. Something like that. That's something  
9 that you wouldn't --

10 MR. PAUL CHERNICK: That's what the report  
11 says, and it seems reasonable, yes.

12 MR. BYRON WILLIAMS: And you'll see as  
13 well that the -- the conclusion drawn from this table is  
14 that while most customers remained in need of program --  
15 for program assistance, only 40 to 65 percent re-enroll or  
16 re-certified.

17 Do you see that, sir?

18 MR. PAUL CHERNICK: Yes.

19 MR. BYRON WILLIAMS: So again, that goes  
20 to the challenges of -- of operating these programs and  
21 making sure they enure to the benefit of those that are  
22 designed for, correct?

23 MR. PAUL CHERNICK: I would agree with  
24 that.

25

1 (BRIEF PAUSE)

2

3 MR. BYRON WILLIAMS: Mr. Chernick, we had  
4 a brief -- or you had a brief discussion on the record in  
5 terms of elasticity.

6 You'll recall that this morning with Mr.  
7 Gange?

8 MR. PAUL CHERNICK: Yes.

9 MR. BYRON WILLIAMS: And in terms of --  
10 you cited some figures in terms of elasticity and if I  
11 wrote down the number correctly for short term elasticity,  
12 you were using a figure of point one (.1) and the minus  
13 point one (.1).

14 Would that be fair, sir?

15 MR. PAUL CHERNICK: Yes. Yes.

16 MR. BYRON WILLIAMS: And just to make sure  
17 that, you know -- my math skills have come into question  
18 this morning -- the -- if I'm looking at a 10 percent  
19 increase in rates, what a negative point one (.1) suggests  
20 is that a consumption would decline by 1 percent in the  
21 short term?

22 Is that fair?

23 MR. PAUL CHERNICK: That's -- that's what  
24 it means, yes.

25 MR. BYRON WILLIAMS: When you use that

1 negative point one (.1), were you speaking of -- well let  
2 me move on.

3 I believe in terms of long term  
4 elasticities, you used a figure of minus one point zero  
5 (1.0).

6 Do you recall that, sir?

7 MR. PAUL CHERNICK: Yes. That's a -- a  
8 very round number but that's in the -- the reasonable  
9 range.

10 MR. BYRON WILLIAMS: And when you're  
11 speaking in the long term, how long, sir?

12 MR. PAUL CHERNICK: You're -- you're  
13 talking there about long enough for equipment building  
14 stock to turn over. So you're talking twenty-five (25)  
15 years maybe.

16 The -- long term elasticities are often  
17 determined by comparing rates in two (2) different places.  
18 So you -- you know, in principle, you're -- you're looking  
19 at the effect over many decades.

20 But realistically, most of that effect can  
21 -- is -- is felt probably in the first twenty/twenty-five  
22 (20/25) years.

23 MR. BYRON WILLIAMS: So we're -- you're  
24 looking at many decades, but in -- specifically, at least  
25 twenty/twenty-five (20/25) years out? That's the...

1 MR. PAUL CHERNICK: Yes.

2 MR. BYRON WILLIAMS: Okay. Now when you  
3 spoke of long term elasticities in energy, were you  
4 speaking of consumer behaviour as a whole, or were you  
5 focussing on -- on residential customers when you -- when  
6 you came up with that -- that figure, sir?

7 MR. PAUL CHERNICK: I -- I think those --  
8 those ranges are reasonable for residential and -- and  
9 non-residential uses. There are clearly differences, and  
10 -- and the differences can go -- go either way.

11 In -- in terms of industrial use, there's  
12 the location factor which we've heard about in this  
13 hearing. So in the longer term you get decisions about  
14 where firms are going to locate.

15 And depending upon how prices compare to  
16 competing locations, you may have a very large locational  
17 effect in the -- in the longer term. So there's -- if --  
18 if you do an analysis for a particular jurisdiction and a  
19 particular time frame, you'll -- you're unlikely to get  
20 exactly minus point one (.1) in the short term, and minus  
21 one (1) in the long term.

22 But again, those are the -- the orders of  
23 magnitude that I would expect to see.

24 MR. BYRON WILLIAMS: Now, on the record of  
25 this proceeding, I believe it was put there by -- by the -

1 - the TREE/RCM witnesses in response to an information  
2 request, is an article by Bernstein and Griffin of the RAN  
3 Corporation, "Regional Differences and the Price  
4 Elasticity of Demand --

5 MR. PAUL CHERNICK: Yes.

6 MR. BYRON WILLIAMS: -- for Energy." And  
7 I think an excerpt of that is COALITION-30 -- 31. And,  
8 Mr. Gange, I think you have one (1) of those right in your  
9 back pocket?

10 MR. BILL GANGE: We do.

11

12 (BRIEF PAUSE)

13

14 MR. PAUL CHERNICK: Yes, I have that.

15

16 CONTINUED BY MR. BYRON WILLIAMS:

17 MR. BYRON WILLIAMS: It's COALITION-31,  
18 it's -- for those who are still looking. Mr. Chernick, I  
19 just -- I talked about this -- this paper, at least to  
20 some degree with Mr. Wiens, but, I'll draw your attention  
21 to page -- the excerpt at page 23, which I think is the --  
22 the second last -- the second last page.

23 Do you see that, sir?

24 MR. PAUL CHERNICK: Yes.

25 MR. BYRON WILLIAMS: And you see that

1 there's a -- a table there of price elasticities for  
2 residential electricity, commercial electricity, and  
3 residential natural gas at the national level.

4 Do you see that, sir?

5 MR. PAUL CHERNICK: Yes.

6 MR. BYRON WILLIAMS: And for residential  
7 electricity in the -- in the short run they're looking at  
8 minus point two four (.24). In the long run, minus point  
9 three two (.32).

10 Would that be consistent with your  
11 understanding of the -- of the literature and of the -- of  
12 what some studies have found in terms of residential  
13 customers, sir?

14 MR. PAUL CHERNICK: Well neither of those  
15 is outside the range of -- of numbers that I've seen. The  
16 -- the short term is a little higher than -- sort of at  
17 the higher end of -- of the range for short term.

18 The low -- the long terms is -- is lower  
19 than you usually see. I would say it's -- it's at the low  
20 end. But neither one of these is particularly shocking.

21 MR. BYRON WILLIAMS: Okay. I just have a  
22 -- a few cleanup questions, Mr. Chairman, so I -- I can --  
23 maybe ten (10) minutes I can finish. It's up to you.  
24 It's up to the will of the Board, excuse me.

25 MR. CHAIRPERSON: Yes, go ahead.

1

2 CONTINUED BY MR. BYRON WILLIAMS:

3 MR. BYRON WILLIAMS: Mr. Chernick, at  
4 pages 23 and 24, of your evidence, and specifically page  
5 23, lines 20 to 25. There's -- you'll see that it refers  
6 to an additional allowance for -- for existing heating  
7 customers of about sixty-four hundred (6,400) over the  
8 year.

9 Do you see that, sir?

10 MR. PAUL CHERNICK: Yes.

11 MR. BYRON WILLIAMS: And just for the  
12 clarity of the record, how do you define an existing  
13 heating customer?

14 MR. PAUL CHERNICK: I -- I was using the  
15 classification that the -- that Hydro uses in its -- in  
16 its database.

17 MR. BYRON WILLIAMS: Okay. So for  
18 customers with supplemental electric heating in part of  
19 their residence would that -- if they're not in the  
20 database, they're -- they're not in the -- they're not in  
21 the --

22 MR. PAUL CHERNICK: However they were  
23 treated in the -- the database.

24 MR. BYRON WILLIAMS: Okay. And just --  
25 what about new electric heating customers? What -- is

1 your proposal the same for them as it is for existing  
2 customers?

3

4

(BRIEF PAUSE)

5

6 MR. PAUL CHERNICK: Yes, I -- I would --  
7 as I discussed this morning, I would add a requirement  
8 that any new customers, new electric heating customers,  
9 participate in Power Smart.

10 The -- the Board certainly could define  
11 this -- the heating discount to exclude new electric  
12 heating after the customer -- new buildings that come  
13 online after January 1st, 2009 or something, in areas in  
14 which there's gas service on the grounds that there's just  
15 no reason.

16 If somebody wants electricity -- electric  
17 heating for some reason, they certainly can have it, but  
18 there's no reason to hand out a larger electric heating  
19 discount to them when they have gas as an alternative.

20 So that's a -- sort of an option that I  
21 didn't explicitly address here, but you could either add  
22 customers to the electric heating list when they  
23 participate in Power Smart, and you've actually seen that  
24 they do have electric heating, and they've complied with  
25 minimum levels of efficiency requirements, or you could

1 just limit that to areas without gas heating and without  
2 gas supply.

3 MR. BYRON WILLIAMS: Just so -- in terms  
4 of where you're actually coming down in terms of a  
5 recommendation, just so I'm clear, sir --

6 MR. PAUL CHERNICK: I'm -- I'm providing  
7 options there if there -- I provide a lot of  
8 recommendations that would require changes in the way that  
9 Hydro does business, and -- and I could certainly see that  
10 applying the heating discount to only -- only to -- to  
11 customers in certain areas -- new customers in certain  
12 areas -- might be yet another complication that perhaps  
13 would be best put off for a couple of years till Hydro has  
14 absorbed some of the changes that -- that may come out of  
15 this case. But it's certainly something that should be  
16 considered.

17 MR. BYRON WILLIAMS: In terms of new  
18 customers in areas where there are no -- excuse me, not  
19 "no" but where natural gas is not a -- an option, for  
20 those new customers, the allowance that you're proposing  
21 would apply provided that they -- they participate in  
22 Power Smart? Is that --

23 MR. PAUL CHERNICK: Yes.

24 MR. BYRON WILLIAMS: -- that your  
25 position? Okay.

1                   MR. PAUL CHERNICK:   That would be part of  
2 the verification process that they actually have electric  
3 heat and they aren't gaining a system, and it would also  
4 be an opportunity to make sure that the new buildings were  
5 built efficiently.

6                   MR. BYRON WILLIAMS:   Moving to tenants  
7 just on this same point, new tenants in existing buildings  
8 where there's a separate metering --

9                   MR. PAUL CHERNICK:   Existing buildings, I  
10 would just treat as -- as existing.

11                  MR. BYRON WILLIAMS:   Okay.

12                  MR. PAUL CHERNICK:   I would hope that  
13 when a meter switches from one (1) person's account to the  
14 -- to the next that Hydro would be able to keep track of  
15 whether they were heating or not. I assume they've been  
16 doing that all along.

17                  MR. BYRON WILLIAMS:   Going just to a -- a  
18 -- hopefully a small point on cost of service. Through  
19 your evidence and I'm -- I'm going to suggest at pages 5  
20 to 8 you -- you discuss how higher load factors reduce the  
21 capability of lines and transformers.

22                               Is that correct, sir?

23                  MR. PAUL CHERNICK:   Yes.

24                  MR. BYRON WILLIAMS:   And you also stated  
25 in your evidence that the costs -- the COSS, the Cost of

1 Service Study, ignores the effects of energy on  
2 transmission and investment.

3 Is that correct?

4 MR. PAUL CHERNICK: Just so I understand  
5 your recommendations, are you recommending that a portion  
6 of the cost of transmission and distribution facilities  
7 should be allocated to customer classes based on energy?

8 MR. PAUL CHERNICK: If I were testifying on  
9 the Cost of Service Study itself and -- and recommending  
10 changes in the cost allocation yes, that would be my  
11 recommendation.

12 This part of my testimony is really about  
13 the lessons that I -- that Hydro has taken from the  
14 embedded Cost of Service Study and applied to rate design.  
15 And I'm saying well, it's not necessarily correct even for  
16 the Cost of Service Study and it's not also something you  
17 should bring over into rate design.

18 So I'm not taking a -- a position about the  
19 Cost of Service Study. In -- in this proceeding I was  
20 asked to look at rate design issues. But if I were asked,  
21 I would say yes, you should be allocating some costs on  
22 energy.

23 MR. BYRON WILLIAMS: And just to finish up  
24 -- just to finish up, there's two (2) parts to that --  
25 that answer.

1                   If you were asked so -- I've asked you how  
2 would you determine the appropriate percentage? Do you  
3 have any advise on that?

4                   MR. PAUL CHERNICK:   That can be done in a  
5 number of different ways. I -- in the past I've looked at  
6 what the capacity of transformers would be, for example if  
7 they were only serving a needle peak, just one (1) hour of  
8 load, and the rest of the time the -- on those days the --  
9 the load was at, say, 40 percent of peak, as opposed to a  
10 real day when the energy load over the whole day heats up  
11 the transformer. And the -- the same kind of thing with -  
12 - with heating up underground lines.

13                   And I don't have those numbers at -- at  
14 hand but there are engineering approaches to looking at  
15 the issue of what part of the capacity is really being  
16 driven by the peak and what part is being driven by -- by  
17 energy --

18                   MR. BYRON WILLIAMS:   That's fair enough.  
19 And it probably wasn't a fair question, but thanks for  
20 your thoughtful answer.

21                   Just in terms of rate design, your position  
22 is that the -- the Cost of Service Study, C-O-S-S, should  
23 only be used as a guide and from your perspective you're  
24 looking to marginal costs and the incentive effects as a  
25 primary basis for rate design.

1                   Is that a fair statement?

2                   MR. PAUL CHERNICK:    Yes.

3                   MR. BYRON WILLIAMS:    Thank you, Mr.

4 Chairman, and thank you for your patience, both Mr.

5 Chernick and -- and the Board.

6                   THE CHAIRPERSON:    Thank you, Mr. Williams.

7 Thank you, Mr. Chernick.

8                   Okay, we'll come back at 1:15. Thank you.

9

10 --- Upon recessing at 12:08 p.m.

11 --- Upon resuming at 1:22 p.m.

12

13                   THE CHAIRPERSON:    Welcome back.

14                   Mr. Williams...?

15                   MR. BYRON WILLIAMS:    Mr. Chairman, I

16 believe I'm done, subject to undertakings.

17                   THE CHAIRPERSON:    Very good.

18                   Okay, Ms. McCaffrey...?

19

20 CROSS-EXAMINATION BY MS. TAMARA MCCAFFREY:

21                   MS. TAMARA MCCAFFREY:    Thank you very  
22 much. Good afternoon, Mr. Chernick. As you know I  
23 represent Manitoba Industrial Power Users Group, MIPUG.

24                   Given the areas that have already been  
25 covered, I have just a few key areas that I want to cover

1 with you, and I'd like to start with time-of-use rates  
2 which you discussed in your direct evidence, sir. Pages  
3 32 and 33 of your evidence.

4 Just generally, Mr. Chernick, when you talk  
5 about time-of-use rates, are -- are you talking about  
6 different times of day, or different seasons of the year,  
7 or both?

8 MR. PAUL CHERNICK: Well usually both.  
9 But the part that's complicated is -- is the time of day,  
10 time of week. Time of -- of year you can just have  
11 different rates for different seasons and just use a  
12 regular monthly meter reading for those kinds of seasonal  
13 rates.

14 MS. TAMARA MCCAFFREY: So just to  
15 elaborate on your answer a little bit then, when you're  
16 talking at the page -- top of page 33, for example, in  
17 response to the question whether it was feasible to design  
18 a time-of-use rate that signals highest cost hours, it  
19 seems your answer there at the top of page 33 is  
20 contemplating a three (3) period and seasonally  
21 differentiated rate.

22 So that would be something that will  
23 combine elements of both. Am I right in my understanding  
24 of that?

25 MR. PAUL CHERNICK: Oh yes, yes.

1 MS. TAMARA MCCAFFREY: Sir, what  
2 experience do you have with the design or implementation  
3 of these types of rates in other jurisdictions?

4 MR. PAUL CHERNICK: Well, in terms of  
5 design I've been involved in -- in a large number of  
6 proceedings having to do with establishing time-of-use  
7 rates, modifying them.

8 I'm not sure what you mean by  
9 implementation. I've never actually worked for utility  
10 dealing with customers and -- and explaining it or getting  
11 the billing system working, so I don't have any direct  
12 experience with that side of implementation.

13 MS. TAMARA MCCAFFREY: So your experience  
14 then is more in terms of -- along the lines of developing  
15 these types of proposals in the context of -- of regulate  
16 jurisdictions or --

17 MR. PAUL CHERNICK: Yes.

18 MS. TAMARA MCCAFFREY: Okay. Looking at  
19 your impressive and extensive resume, sir, and all the  
20 jurisdictions that you've been involved in, could you tell  
21 us how common would you say time-of-use rates are?

22 MR. PAUL CHERNICK: For large customers,  
23 that is industrial, large commercial even, nearly  
24 universal as a -- at least as an option. In some cases  
25 there is a fixed rate available. Many jurisdictions for

1 customers over a certain size there's only a time-of-use  
2 rate.

3 And, you know, when I say "nearly  
4 universal" it might be only 80 percent of -- of the  
5 significant sized utilities that have them but it's very,  
6 very common.

7 MS. TAMARA MCCAFFREY: Thank you. And I  
8 won't hold you to a -- to a --

9 MR. PAUL CHERNICK: Thank you.

10 MS. TAMARA MCCAFFREY: -- number. I'm  
11 asking you in a general way --

12 MR. PAUL CHERNICK: Yes.

13 MS. TAMARA MCCAFFREY: -- if it's  
14 something that is commonly done and -- and --

15 MR. PAUL CHERNICK: Yes, very common.

16 MS. TAMARA MCCAFFREY: -- use another  
17 jurisdiction south of the border --

18 MR. PAUL CHERNICK: Mm-hm.

19 MS. TAMARA MCCAFFREY: -- and you're --  
20 you're telling me yes?

21 MR. PAUL CHERNICK: Oh, yes.

22 MS. TAMARA MCCAFFREY: And in terms of  
23 your specific experience with the designer of these types  
24 of rates for large industrial customers, then I take it  
25 that would -- that would be the same as the answer you

1 gave us a moment ago, in terms of generally policy -- from  
2 a policy development sort of perspective?

3 MR. PAUL CHERNICK: Well, yes, policy and  
4 -- and the economics. And in some cases dealing with  
5 feasibility issues, such as if you have a -- a utility  
6 whose billing system is only able to deal with three (3)  
7 or four (4) types of -- of billing units on any one (1)  
8 bill then how do you divide those up among demand and  
9 energy charges and -- and get the -- the biggest bang for  
10 the limited capabilities of the billing system. That --  
11 that sort of thing.

12 So we get into -- I've gotten into a  
13 variety of -- of practical issues as well. It's not  
14 entirely at the policy level.

15 MS. TAMARA MCCAFFREY: And -- and, sir, we  
16 know you've had input in the context of regulated  
17 proceedings, what about from a collaborative point of  
18 view?

19 You talked earlier this morning how  
20 collaborations between different interested stakeholders  
21 can be useful and -- and increase the efficiency once you  
22 get to -- to this stage in a hearing room such as this.

23 Have you been involved in -- in similar  
24 types of collaboration with respect to design of time-of-  
25 use rates regarding industrial customers or -- or

1 otherwise? Or has your involvement been more directed at  
2 -- once it gets to a -- a review, a public review level?

3 MR. PAUL CHERNICK: I'm -- I'm trying to  
4 sort that out. I've been involved in a lot of sort of  
5 negotiations. There's a range of -- of activities from --  
6 from the negotiation settlement offers, development of  
7 joint proposals and so on, and I'm trying -- just trying  
8 to sort out in my head which of those had to do with rate  
9 design.

10 I've done more of that, especially the -- a  
11 collaborative -- not in the sense of a settlement for a  
12 particular case but a -- a setup going forward to -- to  
13 guide a process. I've done more of that, with respect to  
14 various energy conservation and related kinds of projects.

15 So I'm not -- I -- I don't really recall  
16 sitting around a -- a table talking about the alternatives  
17 for industrial rate design. I -- I may have done -- done  
18 that once or twice, but not -- not for a while anyway.

19 MS. TAMARA MCCAFFREY: I was just -- I was  
20 just interested in -- in your discussion from this morning  
21 --

22 MR. PAUL CHERNICK: Mm-hm.

23 MS. TAMARA MCCAFFREY: -- I was just  
24 following up with that a little bit.

25 Are you able to share with us how, in your

1 experience, customers have reacted to time-of-use-type of  
2 proposals with respect to rates and particularly -- I'm  
3 coming from an industrial customer perspective --

4 MR. PAUL CHERNICK: Mm-hm.

5 MS. TAMARA MCCAFFREY: -- but if you have  
6 other perspectives to share I'll -- by all means do so.

7 MR. PAUL CHERNICK: Well, it depends. In  
8 times there -- the industrials have been the moving  
9 parties or among the moving parties. But there's a -- a  
10 tendency for most customer groups to be nervous about  
11 changes and to prefer to have either a relatively small  
12 change initially.

13 Or -- something that's often done with  
14 time-of-use rates is to have parallel billing, where for a  
15 period of time the older rate design is actually being  
16 applied, but the customer is also getting a bill as if  
17 they were on the time-of-use rates. So the metering's in  
18 place. They see how much they're using on-peak and off-  
19 peak.

20 They see what's gonna happen to their bill  
21 if they don't change their behaviour. And they -- they  
22 can then, in many cases, look at the -- their hourly load  
23 profiles and say, Oh, so the problem is that early in the  
24 peak period, we're still running all this equipment from  
25 when we started up in the morning, can we shut it down

1 faster, or get it to its stable position so it's not using  
2 as much power, a little earlier?

3 And so they're better prepared when the  
4 time-of-use rates come on.

5 Nobody likes surprises, unless it's a  
6 surprise reduction in their bill, and that certainly  
7 applies to industrial customers.

8 MS. TAMARA MCCAFFREY: And -- and just in  
9 terms of the concept of nervousness, I'm hearing you  
10 talking about sort of the issue of customers being nervous  
11 and uncomfortable with change, wanting to know what those  
12 changes are going to be, and what the implications are.

13 And also the stream that you talked about  
14 with respect to collaboration and -- and consultation in --  
15 -- in terms of the design and implementation of those  
16 rates, is that something you see, that if -- if industrial  
17 customers, having a role in terms of collaboration and --  
18 and context, in terms of the design or development of  
19 those types of rates would be something that could address  
20 the nervousness factor, and also perhaps the efficiency  
21 factor and impacts as well?

22 MR. PAUL CHERNICK: Yes, it may turn out  
23 that, oh for example that a -- a particular proposal by  
24 the Utility may -- some detail about it, may cause a lot  
25 of concern on the part of -- of a customer group, and

1 changing that in some fairly minor way, would resolve the  
2 problem. Or doing some analysis of, Oh, if we -- we  
3 applied the rule this way, what would be the effect on a  
4 company that had this kind of load profile, and run the  
5 numbers.

6                   And -- and I -- often -- and I -- I don't  
7 think this is limited to industrial customers -- but often  
8 when customer concerns are dealt with and they see what  
9 the effects are and they feel like they understand the  
10 calculation, then the -- the concern level goes down a lot  
11 about the effects of the change.

12                   MS. TAMARA MCCAFFREY: Thank you very  
13 much, sir. I just want to take you now to page 46 -- 47  
14 of your evidence. That's your recommendations section,  
15 Roman Numeral VIII of your direct evidence.

16                   And the one I'm wanting to follow-up with  
17 you on here, is at the bottom of page 46, where you talk  
18 about the implementation of time-of-use energy charges,  
19 being one (1) of your --

20                   MR. PAUL CHERNICK: Mm-hm.

21                   MS. TAMARA MCCAFFREY: -- recommendations,  
22 starting with the largest customers, and with respect to  
23 that recommendation, can you elaborate on the specific  
24 proposal that you're making here to the Board?

25                   MR. PAUL CHERNICK: Well, I'm not

1 proposing a set of -- of time-of-use energy charges. So -  
2 - what I'm -- I'm proposing is that the -- the Board more  
3 clearly direct Hydro to -- to develop such a proposal, a  
4 specific proposal, and certainly, to at least include the  
5 transmission and distribution charges in that calculation,  
6 and to move towards figuring out how to -- to reflect  
7 time-of-use energy values.

8                   And so I -- I assume that's what our brief  
9 will eventually say on that.

10                   MS. TAMARA MCCAFFREY: Thank you. And --  
11 and with respect to a Board direction to Hydro in terms of  
12 developing time-of-use rates, I take it that a Board  
13 direction involving consulting and -- with industrial  
14 customers, would be something that may find its way into  
15 your -- your proposal, too, in terms of that.

16                   MR. PAUL CHERNICK: In general, I -- I  
17 think it would be in everyone's benefit for Hydro to -- to  
18 meaningfully consult with customer groups on these --  
19 these issues.

20                   MS. TAMARA MCCAFFREY: Thank you. Thank  
21 you for that, Mr. Chernick. If -- if I may take you  
22 through one (1) more area --

23                   MR. PAUL CHERNICK: Mm-hm.

24                   MS. TAMARA MCCAFFREY: -- and that's on  
25 the area of DSM targets. It's dealt within your evidence

1 at pages 42 through 44.

2 Just for context and understanding, Mr.  
3 Chernick, is it your understanding that Manitoba Hydro has  
4 a DSM spending budget?

5 Or what is your understanding of how  
6 Manitoba Hydro would determine the amount that it would  
7 spend on DSM in a given year?

8 MR. PAUL CHERNICK: Well, I -- I would  
9 assume that for internal purposes there's some budgeting  
10 process. I -- I think to a long extent what's spent is  
11 determined by Hydro's rules for participation, and -- and  
12 rules for -- for their payments, and the market response  
13 to those offerings, and to the -- the marketing of those  
14 offerings.

15 MS. TAMARA MCCAFFREY: Just in terms of  
16 your evidence then you're -- you're talking about the  
17 spending rate, Hydro's spending rate, and I just wondered  
18 what kind of assumptions you were making; if you were  
19 making specific assumptions about a certain number budget,  
20 or -- or otherwise --

21 MR. PAUL CHERNICK: I'm --

22 MS. TAMARA MCCAFFREY: -- that's what I  
23 was trying to --

24 MR. PAUL CHERNICK: I'm just reporting  
25 what Hydro says it's -- it is spending and is planning on

1 spending. I'm not -- I'm not assuming that that's a -- a  
2 fixed budget or an absolute cap.

3 MS. TAMARA MCCAFFREY: All right. And I  
4 see when I'm looking at the bottom of page 44 that you are  
5 recommending, it's seems an actual spending target as I  
6 would read it that Hydro should be able to double or  
7 triple it's energy efficiency spending and savings.

8 Is that --

9 MR. PAUL CHERNICK: Well, it depends --

10 MS. TAMARA MCCAFFREY: Am I understanding  
11 your evidence?

12 MR. PAUL CHERNICK: -- it depends on what  
13 you mean by a target, I guess. Sometimes target is used  
14 in terms of a -- a rather strict goal requirement; this is  
15 -- this is your assignment, if you don't meet your target,  
16 you've -- you haven't lived up to expectations.

17 I guess I would say it's reasonable to --  
18 for Hydro to -- to say -- for the Board to say to Hydro  
19 that there may be opportunities for a lot more savings  
20 than Hydro's been getting, and they should be looking --  
21 taking a hard look at how their compare -- their programs  
22 compare to programs in other jurisdictions, and learning  
23 what they can from them, and ramping them up, especially  
24 in areas such as the low income where there are special  
25 concerns about reaching vulnerable customers that are then

1 impeding good rate design and other energy policies. That  
2 same thing would be true for -- in the industrial area.

3 But I don't intend this -- I'm not  
4 suggesting that the Board should tell Hydro to double its  
5 energy efficiency spending and savings within three (3)  
6 years or fall on its sword. I'm -- this is sort of my  
7 prediction about what they'll find if they work hard at  
8 looking for it.

9 MS. TAMARA MCCAFFREY: And I appreciate  
10 your point that there's a lot more perhaps DSM potential  
11 there that -- that could be and should be explored.

12 Just to make sure that -- that your  
13 evidence is clear though, are you suggesting that Manitoba  
14 Hydro should spend money on DSM programs where the cost,  
15 for example, per kilowatt hour is higher than the cost of  
16 other generation resources or imports?

17 MR. PAUL CHERNICK: Well, the DSM doesn't  
18 just save on generation. So this -- this would be my  
19 expectation for what Hydro could find that would be cost-  
20 effective given its marginal costs.

21 MS. TAMARA MCCAFFREY: You -- there was a  
22 response that you had given to MIPUG/RCM/TREE-2B in which  
23 -- you may not need to turn to it, but I'll put it to you  
24 -- you noted that some utilities actually get funding for  
25 DSM from surcharges on utility rates.

1                   Do you -- do you -- are you familiar with  
2 that?

3                   MR. PAUL CHERNICK:    Yes.

4                   MS. TAMARA MCCAFFREY:   Okay.  I'm  
5 wondering if you can elaborate on that a little bit for  
6 us.  Would these be cases where the DSM doesn't represent  
7 the least cost source of supply in -- in the situations  
8 where that's you're aware?  Or can you answer that  
9 question?

10                  MR. PAUL CHERNICK:   No, in general it's --  
11 it's still least cost.  The question is whether the  
12 capital budget is built into base rates, or whether it's a  
13 specific allowance that's three (3) mils or something  
14 that's added to all bills, or whether it's a surcharge  
15 that's calculated based on what the Utility's been  
16 spending over the preceding quarter or preceding year, and  
17 then rolled into rates independent of general rate cases.

18                  It's a mechanism issue rather than a cost-  
19 effectiveness issue, because somehow the -- the -- even if  
20 the project is cost-effective the Utility has to come up  
21 with the funds for it and can do that in a number of ways.  
22 It can spend the money, capitalize or defer the costs,  
23 have a rate case, rolls those into base rates, or it can  
24 have various kinds of adjustment mechanisms.  And  
25 different jurisdictions handle it differently.

1 MS. TAMARA MCCAFFREY: Thank you, Mr.  
2 Chernick. I appreciate the distinction you're making  
3 between the -- the cost-effectiveness point and the actual  
4 funding of the programs.

5 From the cost-effectiveness perspective I  
6 suppose, have you reviewed Manitoba Hydro's total resource  
7 cost? They refer to it sometimes as TRC and rate-impact  
8 measure, referred to sometimes in these proceedings as RIM  
9 test.

10 Are you familiar with them?

11 MR. PAUL CHERNICK: Yes, I did look at  
12 that.

13 MS. TAMARA MCCAFFREY: In your experience,  
14 sir, are these approaches consistent with the way other  
15 utilities evaluate DSM opportunities in jurisdictions that  
16 you've been involved with?

17 MR. PAUL CHERNICK: Those tests both go  
18 back to I guess the California's Standard Practice Manual  
19 in the late 1970s or maybe even in the middle of the  
20 1970s.

21 The -- the TRC, or the societal test, or  
22 various variations on the TRC -- certainly the dominant  
23 test and -- and especially for the jurisdictions that have  
24 significant conservation programs, the rate-impact measure  
25 it's not really a -- a good measure of rate-impact,

1 despite its name, and it's -- it's not really useful in  
2 screening of -- of programs. There are other ways of  
3 looking at rate-impacts that I think are much more useful.

4 But certainly you do see some utilities  
5 still using the rate-impact -- either reporting the rate-  
6 impact measure which is mostly what Manitoba Hydro seems  
7 to do, and in some cases actually using it as a guide in  
8 their program design which I would not support.

9 MS. TAMARA MCCAFFREY: Thank you for that.  
10 I'm just wondering if you want to elaborate on -- on other  
11 ways of evaluating that that are more useful, as opposed  
12 to the -- the RIM?

13 MR. PAUL CHERNICK: Well, the -- the  
14 problem with the RIM test is it's a present value ratio  
15 basically of a set of things that affect bills in upward  
16 direction to those that affect them in a downward  
17 direction.

18 And that's not usually a good measure of  
19 what it is that the Board or Hydro would actually be  
20 concerned about. It would be more a matter of what's the  
21 effect on rates over the next couple of years when they're  
22 -- they're very high or what's the effect on this  
23 particular class which is experiencing high rate increases  
24 or some other more focussed analysis.

25 And I've done analyses in which we've taken

1 the energy savings and the effect on rates of covering  
2 costs that are fixed, at least in the short term, over  
3 smaller kilowatt hour sales, and taking the avoided cost  
4 benefits of avoided T&D and increased sales or reduced  
5 purchases, or whatever the Utility is saving, and walk  
6 through year by year and sometimes class by class, and  
7 looked at the effect on residential customers; in this  
8 case 2010, 2011, 2012 and for industrials, looking for is  
9 there a rate-impact problem here, given this plan's  
10 spending?

11                   And if -- it's like looking at a proposed  
12 rate design and saying is there a problem for this kind of  
13 customer and this size of customer, and so on. And then  
14 if you find one, then you can look at how can we deal that  
15 in a way that gets us the benefits we're looking for but  
16 doesn't cause an undue rate effect for this particular  
17 segment of the customers in this time frame.

18                   MS. TAMARA MCCAFFREY: Thank you for that  
19 thoughtful answer, sir. One (1) final matter I wanted to  
20 bring you to, and that was your response to PUB/RCM/TREE-1  
21 in which you were asked to provide RCM/TREE's  
22 interpretation of the results of a comparison of  
23 generation marginal costs to marginal cost table contained  
24 in Appendix 11.2, compared to Manitoba Hydro's estimate of  
25 marginal costs, the SEP-based comparison.

1 Do you have that Interrogatory?

2 MR. PAUL CHERNICK: I'm sorry. This is --

3 MS. TAMARA MCCAFFREY: It's PUB/RCM/TREE--

4 MR. PAUL CHERNICK: Oh, I'm sorry. I was  
5 looking at -- at Manitoba Hydro.

6 MS. TAMARA MCCAFFREY: It's just -- just  
7 in -- regarding Manitoba Hydro's marginal cost analysis.

8 MR. PAUL CHERNICK: Yeah, hold on just a  
9 second.

10 MS. TAMARA MCCAFFREY: Sure. Reference to  
11 a table at page 14.

12

13 (BRIEF PAUSE)

14

15 MS. TAMARA MCCAFFREY: I apologize for not  
16 making additional copies to circulate around, but my  
17 intent is actually not to go through the table, but rather  
18 to confirm the response here that the numbers contained in  
19 the new table are -- are correct.

20 And that's what I'm going to ask you to do  
21 once you have a chance to have it before you.

22 MR. BILL GANGE: If you could just give us  
23 a second, Ms. McCaffrey.

24

25 (BRIEF PAUSE)

1 MR. PAUL CHERNICK: I'm sorry, this may be  
2 the one (1) document that I forgot to put on my computer.

3

4 (BRIEF PAUSE)

5

6 MS. TAMARA MCCAFFREY: If it's all right,  
7 I'll just show the document to the Witness and -- okay.

8 MR. PAUL CHERNICK: Thank you very much.  
9 Oh, yes, isn't this the question that was correct in my  
10 table?

11

12 (BRIEF PAUSE)

13

14 MS. TAMARA MCCAFFREY: Okay. Well, we'll  
15 just have a chat right here, I think, Mr. Chernick. this  
16 is my last question anyway.

17 MR. PAUL CHERNICK: Okay, that's fine.  
18 I've got my counsel on this side.

19 MS. TAMARA MCCAFFREY: It gives me a  
20 chance to get up and stretch.

21 MR. PAUL CHERNICK: Okay.

22 MS. TAMARA MCCAFFREY: You've had a chance  
23 to -- to look at this table?

24 MR. PAUL CHERNICK: Yes, yes. I recall  
25 this, ma'am. Thank you.

1 MS. TAMARA MCCAFFREY: And you corrected -  
2 - there were some numbers that you found on table -- on  
3 page 14 that were incorrect?

4 MR. PAUL CHERNICK: That's correct. It's  
5 correct that they were incorrect. And I corrected them in  
6 PUB/RCM/TREE-1 and I -- when I was doing my corrections  
7 this morning I should have mentioned that as well.

8 I -- I managed to completely botch the --  
9 copying the data from Excel into -- into Word.

10 MS. TAMARA MCCAFFREY: Well, that's fine,  
11 sir. And so you can confirm that these are -- these are  
12 the correct figures now that --

13 MR. PAUL CHERNICK: Yes.

14 MS. TAMARA MCCAFFREY: Thank you very  
15 much. That completes my questions for this Witness.

16 THE CHAIRPERSON: Thank you, Ms.  
17 McCaffrey.

18 Ms. Ramage, do you have questions from  
19 Hydro?

20 MS. PATTI RAMAGE: Yes, I do. And if we  
21 just get Mr. Williams to slide this chair over it'll be  
22 perfect.

23 THE CHAIRPERSON: Very good.

24 MR. PAUL CHERNICK: Well, hello.

25

1 CROSS-EXAMINATION BY MS. PATTI RAMAGE:

2 MS. PATTI RAMAGE: Good afternoon. The  
3 world is just out of alignment right now for me. But good  
4 afternoon, Mr. Chernick and welcome to our jurisdiction.

5 In reviewing your prefiled testimony at  
6 page 3 -- and I don't think you need to turn to it, but if  
7 you like, feel free -- the question put to you was: What  
8 role should the study of embedded costs play in revenue  
9 allocation and rate design?

10 And your response was that: Imbedded --  
11 the embedded study should only -- should be only a guide  
12 to revenue allocation and rate design, not a determinant.  
13 And you go on to state that the primary determinant of  
14 rate design should be marginal cost and incentive effects.

15 I'd be interested to hear from you -- to  
16 hear you elaborate on this concept. And what really is  
17 the difference between embedded cost being a determinate  
18 or simply being in a -- a guide? Where were you going  
19 with the distinction there?

20 MR. PAUL CHERNICK: Well, as I've -- the  
21 way I would -- I usually put it, and we -- we're here in a  
22 particular context and so I start in a little different  
23 place. But the way I -- I usually put it is that cost  
24 allocation among classes is a matter of equity.

25 And in general, you want to share whatever

1 the burdens or the benefits of the -- the system are  
2 across all of the classes. And so as a first  
3 approximation, embedded cost and cost causation, embedded  
4 cost causation is your guide.

5           Now, unfortunately, em -- embedded cost  
6 causation, or the causation of embedded costs, is  
7 sometimes almost as much a philosophical as a technical  
8 issue, about things like why do we have costs of cleaning  
9 up manufactured gas plants, for example, and who should  
10 bear them, and is it related to the classes that were  
11 using the -- the gas when -- when it was being produced;  
12 the ones who are using it now; the one -- the ones who use  
13 the equipment that's now on the -- the contaminated site,  
14 and so on.

15           Some of these issues can -- can be argued a  
16 lot of different ways. But to the extent that you have a  
17 -- a clear sense of -- of how your costs came to be, the  
18 embedded cost allocation is a guide to -- to a fair  
19 distribution of the costs and benefits to the system.

20           For rate design, equity is still a -- a  
21 concern, but there's a very important efficiency function  
22 of rate design, that -- whereas, how you allocate costs  
23 among classes doesn't necessarily affect customers  
24 behaviour very much. And whether energy is used  
25 efficiently, and whether people make wise decisions about

1 whether to use gas or electricity for heating, for  
2 example, the rate design has everything to do with -- with  
3 those decisions.

4                   And so, for rate design efficiency and  
5 hence marginal cost considerations, in my mind, are  
6 predominant. And you look at equity issues. You look at  
7 things like constraints on how much you're willing to  
8 raise the -- the rates of larger customers versus smaller  
9 customers and so on, on an annual basis.

10                   You -- you look at those kinds of concerns,  
11 but that's a secondary factor to the efficiency. Now  
12 sometimes, your efficiency objectives require you to go  
13 back and change your allocation; that you've just  
14 allocated so little cost to a particular class, that you  
15 can't give them efficient price signals. If you use your  
16 -- your theory of equity and embedded cost allocation in  
17 the first place.

18                   So you can't take a -- a nice sharp knife  
19 and divide the world into embedded cost allocation and  
20 marginal cost rate design, into equity and efficiency, but  
21 I -- I take perhaps a duller knife and at least kind of  
22 mash a groove in between the two, and try and keep the --  
23 the embedded cost concepts on the allocation side.

24                   Is that helpful?

25                   MS. TAMARA MCCAFFREY:    Yeah, I think so.

1 And I'm going to take you to -- to Manitoba Hydro/RCM/TREE  
2 -- I think it's 1 here -- yes, it is 1, and -- and  
3 following down that line, what you were saying, I will  
4 read to you and show that I can read also, like the rest  
5 of counsel here. Just -- and I think you've already  
6 probably taken me a long way down this path already, but--

7 MR. PAUL CHERNICK: Oh yes, I think I did  
8 write this.

9 MS. TAMARA MCCAFFREY: But you -- in -- in  
10 your response to Manitoba Hydro's question, you wrote:

11 "In particular, when the unit revenues -  
12 - when unit revenues allocated to the  
13 class through an embedded cost of  
14 service study, are significantly below  
15 the cost of serving major new loads in  
16 the class, both locational decisions and  
17 efficiency decisions will be distorted  
18 by allowing the new load onto the  
19 embedded cost rate."

20 And then going down further in that  
21 response:

22 "In such situations both equity and  
23 efficiency may require that some classes  
24 or subclasses pay more than would be  
25 allocated to them using the embedded

1 cost methods."

2 And I think that's what you were just  
3 discussing. But -- the part I'd like to look at is the  
4 last sentence of that response where you say:

5 "This outcome is particularly likely for  
6 large industrials where marginal  
7 generation costs are much higher than  
8 embedded generation costs."

9 First of all, by "this outcome", do you  
10 mean the outcome where the efficiencies and equities you  
11 spoke of require this class to pay more than embedded  
12 costs?

13 Would that be what you were referring to in  
14 your earlier response?

15 MR. PAUL CHERNICK: Where the -- the  
16 outcome I'm talking about is the unit revenues allocated  
17 to the class through embedded Cost of Service Study are  
18 significantly below the cost of serving additional load.

19 That's -- that's the -- the outcome that's  
20 particularly likely for -- for industrial customers whose  
21 bills are mostly generation costs, and in the case of  
22 Manitoba, those generation costs are -- are well below the  
23 marginal -- the embedded generation costs below marginal  
24 costs.

25 MS. PATTI RAMAGE: And when we have that

1 situation, that leads us to, I think you referred to it as  
2 the subsidies that --

3 MR. PAUL CHERNICK: Well you're -- you're  
4 in a -- you're in a world of subsidies, and you have to  
5 decide who's going to subsidize -- who's going to be  
6 subsidized most by and what proportion they're going to be  
7 subsidized by this big gap between embedded and marginal  
8 cost.

9 MS. PATTI RAMAGE: Okay. And then could -  
10 - could I ask you now to elaborate on that gap? I don't  
11 think it's going away even with the recommendations here,  
12 we have our embedded costs or our embedded revenue  
13 requirement and -- and difference between the export  
14 market.

15 So could you elaborate in terms of any  
16 recommendations you might have on how Manitoba Hydro  
17 should be allocating those subsidies or the -- the net  
18 export revenue?

19 MR. PAUL CHERNICK: Well, what I've been  
20 advocating is that the -- that the discounts for marginal  
21 cost should be in the monthly customer charge, should be  
22 applied to the monthly customer charge to the inner  
23 blocks; that is to say, 95 percent of the historical usage  
24 for an industrial customer or the first, say, 500 kilowatt  
25 hours or 600 kilowatt hours per month for a residential

1 customer.

2                   And that the -- as much as possible,  
3 marginal energy consumption be priced close to marginal  
4 cost. And marginal energy consumption would include  
5 basically the entire energy consumption of large new  
6 industry.

7                   MS. PATTI RAMAGE: But if rate design --  
8 if we're having ongoing subsidies and rate design has --  
9 hasn't been able to look after it, what would the other  
10 uses be?

11                   Do you have any comments?

12

13                   (BRIEF PAUSE)

14

15                   MR. PAUL CHERNICK: If rates -- would it  
16 be possible for you to -- to rephrase the question? I'm  
17 not quite sure what you're asking me to focus on.

18                   MS. PATTI RAMAGE: Okay. If we haven't  
19 through rate design been able to -- we've gone as far as  
20 we can in reducing that first block and we've gone as far  
21 as we can perhaps with the basic monthly charge and we've  
22 gone as far as we can with the -- the tail block rate  
23 where --

24                   MR. PAUL CHERNICK: Mm-hm.

25                   MS. PATTI RAMAGE: -- we're going to --

1 we're going to reverse the effects.

2                   What else can we do when -- when I think we  
3 have the difficult problem our -- our subsidy being so  
4 large? The -- the very beneficial problem that we would  
5 like to have, I should say. Mr. Warden's going to stab me  
6 over here.

7                   MR. PAUL CHERNICK: Yes, you're cursed  
8 with -- with so much benefit here. Well there -- there  
9 are other things that you can do with the revenues that  
10 we've talked about here, such as various kinds of -- of  
11 assistance to low income customers, and using some of the  
12 -- your marginal cost revenues to support economic  
13 development activities, which certainly make sense in an  
14 environment where you're consciously giving up the  
15 economic development of attracting industry just based on  
16 your low embedded electric costs because those are way  
17 below your marginal costs.

18                   And you don't want to just give away all  
19 that savings to anybody who shows up who wants to use it.  
20 And yet you do want to encourage, assuming you do -- the  
21 province does, wants to encourage indust -- continuing  
22 economic development, it makes sense to divert some of  
23 that -- your potential surplus into economic development  
24 support which is something that's traditionally been done  
25 through low energy charges, but that, as Hydro has -- has

1 identified, is -- is not an efficient way of attracting  
2 business.

3 MS. PATTI RAMAGE: Moving -- if -- if we  
4 are moving from an embedded -- if we're using rate design  
5 to move from embedded towards marginal, how much of a -- a  
6 rate increase do you feel is acceptable for a residential  
7 customer?

8 Where -- where would the rate -- would rate  
9 shock kick in, in terms of our speed of movement?

10 MR. PAUL CHERNICK: You have to take into  
11 account here the fact that I live -- live in the -- in the  
12 northeastern United States where electric and gas rates  
13 have -- have well, probably, at least, doubled over the  
14 course of -- of a year or so.

15 And so, therefore, my -- my sense of what's  
16 shocking -- a shockingly large change in -- in bills is --  
17 is not necessarily the same as it would of been twenty  
18 (20) years ago or -- or as it is here now. When -- just  
19 to give you an example, and -- and there are no hard and  
20 fast rules about when shock sets in, at -- at least none  
21 that I know of.

22 When I did my residential rate design, the  
23 example that I did, I basically took the company's  
24 proposed rate design and said, Well it should be safe to  
25 increase any one (1) charge by up to 5 percent cause it --

1 everybody's going to get some of the decreasing charges as  
2 well 'cause those are in the inner blocks. So nobody's  
3 bill could go up even as much as 5 percent if I do my math  
4 right.

5 I felt quite safe that that was not going  
6 to create rate shock. I -- I don't know that 10 percent  
7 would, 20 percent is -- can be pretty shocking as I --  
8 from what I've seen in the past. But again this is a  
9 matter of -- of perception as much as anything else and  
10 when people are used to energy bills going up and down a  
11 lot, a -- a larger adjustment is not as disruptive as it  
12 is when people are accustomed to very stable rates.

13 MS. PATTI RAMAGE: And I'm just curious,  
14 if your -- your own energy bills have gone up that  
15 significantly, I'm assuming that's commodity price and --  
16 and it's a market price not a regulated price?

17 MR. PAUL CHERNICK: Yes, actually the --  
18 the prices are regulated, but they're -- both the electric  
19 and gas utility are buying in the market on a fairly short  
20 term basis and generation costs have gone up a lot as --  
21 as driven by natural gas costs and -- and other factors.

22 MS. PATTI RAMAGE: And then it's  
23 ultimately a pass through, is that right, to you?

24 MR. PAUL CHERNICK: Yes.

25 MS. PATTI RAMAGE: Mr. Chernick, if I

1 could have you turn to it's Coalition Exhibit --

2 MR. PAUL CHERNICK: So if anybody here  
3 would like to trade electric bills with me. I'll -- I'll  
4 use any exchange rate you want. I'm sorry. You were  
5 moving on to something more serious.

6 MS. PATTI RAMAGE: Coalition -- Coalition  
7 Exhibit 26 if you can get that in front of you.

8 MR. PAUL CHERNICK: I have that.

9 MS. PATTI RAMAGE: Okay. Now I'm not sure  
10 if you had an opportunity to review this exhibit, but if  
11 you could accept that is was put together by Mr. Williams,  
12 so --

13 MR. PAUL CHERNICK: Obviously not typed by  
14 Mr. Williams.

15 MS. PATTI RAMAGE: And it's a depiction of  
16 the marginal cost information provided in Manitoba Hydro's  
17 Exhibit 68, but for the purposes of my question, I'd just  
18 like to preface it that I'm not asking you to agree with  
19 these numbers, Mr. William's numbers or whether they're  
20 Hydro's, regardless, but I'd like to use the exhibit for  
21 just the purpose of -- of an example.

22 And if we could look at the third column of  
23 that exhibit, it's headed Marginal Cost RC Capital and  
24 OM&A.

25 MR. PAUL CHERNICK: Yes.

1 MS. PATTI RAMAGE: Would you agree that if  
2 these classes, in aggregate, provide revenue equal to the  
3 50 to 55.8 percent, or the .558 shown at the bottom, and  
4 that's 55.8 percent of marginal cost.

5 In that case, will Manitoba Hydro earn its  
6 revenue requirement?

7 MR. PAUL CHERNICK: Well, as I understand  
8 it that was the -- well, I'm sorry, I'm not sure whether  
9 these -- these ratios are being based on current rates or  
10 proposed rates, but I certainly understand that the  
11 proposed rates are intended to cover Hydro's revenue  
12 requirement and whether the ratio is 55.8 percent or  
13 something a little higher, it's well below 100 percent of  
14 marginal cost and yet it's all of the revenue requirement.

15 MS. PATTI RAMAGE: That's right. So as  
16 long as the, the various classes total to the -- to 55.8  
17 distributed between them, we will recover our revenue  
18 requirement, correct?

19 MR. PAUL CHERNICK: Assuming that's your  
20 revenue requirement, fine. Yes.

21 MS. PATTI RAMAGE: And are you familiar  
22 with the term equal proportion of marginal cost for  
23 allocating revenue requirement among customer classes?

24 MR. PAUL CHERNICK: I have seen that used,  
25 yes.

1 MS. PATTI RAMAGE: And would I be correct  
2 in saying that using this approach, any class above the  
3 total, that being greater than fifty (50) -- point five  
4 five eight (.558), for example, here we could use  
5 residential, they would get a lower rate increase than --  
6 than average.

7 MR. PAUL CHERNICK: That would be the  
8 implication of that approach, yes.

9 MS. PATTI RAMAGE: And conversely, any  
10 class lower than the total, and here we would be looking  
11 at, I think, the general service medium and general  
12 service large, for example, would get a higher than  
13 average increase.

14 Is that correct?

15 MR. PAUL CHERNICK: Yes, that's how that  
16 approach would be applied. The -- the idea is to move  
17 towards equal percentage of marginal cost.

18 MS. PATTI RAMAGE: And are you aware of  
19 any jurisdictions that adopt the equal proportion of  
20 marginal cost?

21 MR. PAUL CHERNICK: I don't know how  
22 rigorously they follow it at this point, or perhaps even  
23 how rigorously they followed it in the past, but I believe  
24 at least California and Oregon subscribe to this or have  
25 subscribed to this approach. There may be others as well.

1 I haven't done a survey recently.

2 MS. PATTI RAMAGE: Okay. I'm going to  
3 turn now to Manitoba Hydro's proposed large industrial  
4 rate. In reading your evidence, I can see you have some  
5 disagreements with the specifics of Manitoba Hydro's  
6 proposal to apply a marginal cost-based rate to load  
7 expansions associated with large industrials, but at a  
8 high level, I'd like to confirm that you understand and  
9 perhaps go as far as agree with why Manitoba Hydro would  
10 want to put such a rate in place.

11 MR. PAUL CHERNICK: Yes. As a matter of  
12 fact, when you phrased the -- the first part of your  
13 question, the background, and you said that I had some  
14 problems with your proposal to implement a marginal cost-  
15 based rate, I was going to say, Well, actually I don't  
16 have any problem with your proposal to implement it. I do  
17 have some problems with the way that you've structured  
18 that proposal.

19 But at -- at that level of -- the proposal  
20 to implement a marginal cost-based rate for a large and  
21 industrial load, I certainly agree with you.

22 MS. PATTI RAMAGE: One of your concerns, I  
23 recall, was to do with -- you were concerned that there  
24 was a rolling baseline.

25 MR. PAUL CHERNICK: Yes.

1 MS. PATTI RAMAGE: Is it fair to say now  
2 you understand that that baseline is -- is not intended to  
3 roll -- or to move?

4 MR. PAUL CHERNICK: It's quite clear from  
5 Hydro's rebuttal testimony that that's not what the Hydro  
6 witnesses thought the document said.

7 I would say that, as it's written, if that  
8 went directly into tariff language, I would read that as a  
9 rolling average. So I -- I guess -- I don't have any  
10 problem with Hydro's professed intent, but the language  
11 still reads to me like a -- a rolling average -- a rolling  
12 peak.

13 MS. PATTI RAMAGE: Okay. So perhaps we'll  
14 give you a call once we get around to writing the tariff  
15 just to make sure it reads such.

16 MR. PAUL CHERNICK: I have an excellent  
17 technical editor who will ask you many questions about  
18 exactly what you mean.

19 MS. PATTI RAMAGE: Now I'm going to go out  
20 on a limb here with this question which isn't something we  
21 usually do, but -- during Monday's discussion with MIPUG's  
22 counsel, the example of Google's expansion into Iowa was  
23 discussed.

24 And as I looked across the room, you seemed  
25 to becoming -- become quite animated. I had -- I got the

1 feeling that you wanted to jump into the fray at that  
2 point, and if I'm correct, I -- I was wondering if you  
3 have any particular information or comment regarding the  
4 matter. I don't think anyone's put that to you yet, but  
5 you sure looked like you wanted to jump in.

6 MR. PAUL CHERNICK: Well, thank you. It's  
7 not so much that I wanted to jump in, but I -- I thought  
8 that was a -- an excellent example in a number of ways.

9 First of all, I mean Google sounds so good,  
10 how could anybody turn down Google. And the thought  
11 occurred to me was, well if Google wanted to move some of  
12 its software development operations to, you know, maybe a  
13 site adjacent to the University of Manitoba, that -- my  
14 client says University of Winnipeg -- anyway, some place  
15 close to the universities, -- I -- I have cousins who work  
16 at the University of Manitoba as well so -- that split  
17 loyalties here.

18 Anyway, the -- that's the kind of economic  
19 development that I would see any jurisdiction being very  
20 interested in attracting. If Google were going to build a  
21 server farm and train local people in servicing equipment  
22 and basically create a -- a centre of excellence, and be  
23 exporting and training locals and sending them to -- out  
24 to -- to work, not just at this farm but other -- other  
25 Google facilities and -- and training them in ways that

1 would be useful in terms of other parts of the information  
2 economy in Manitoba, that again is a kind of -- of  
3 economic development that I could see as being very  
4 attractive.

5                   If it's a matter of bringing in a prefab  
6 box and putting a bunch of -- of server machines in it and  
7 running a big power line in and running a big fire cable  
8 out and hiring a few people to basically go around and  
9 dust off the machines and replace boards when they burn  
10 out and that's it, this is a lot of -- of electric energy  
11 value to be giving up embedded cost to gain a small  
12 economic development benefit.

13                   Now -- you know, it's not really my job,  
14 and it may not be Hydro's job or the Board's job to decide  
15 whether that's the best way to spend the province's  
16 resources in terms of economic development.

17                   As I suggest in my testimony, there's --  
18 there must be somebody in provincial government who's  
19 better situated to make those calls. But while Google  
20 sounds good, the -- the real issue is what would Google  
21 bring and how much would you have to pay in terms of lost  
22 export revenues to get it.

23                   MS. PATTI RAMAGE: And I think that's  
24 right, that's always the issue. The follow-up question,  
25 based on the information we had on the record of this

1 proceedings, could we make that judgment?

2 My recollect -- my recollection is, for  
3 example, that some sort of law was passed that we wouldn't  
4 know what the energy con -- consumption of Google was. So  
5 if -- if you didn't have that information, could you make  
6 a judgment whether it was good or bad?

7 MR. PAUL CHERNICK: No, if I cer -- if I  
8 were in the situation advising whoever was handing out the  
9 economic development subsidies, whether that's in the form  
10 of a -- a block grant for -- for utilities, or some other  
11 tax reduction, or whatever, I wouldn't be able to make  
12 that kind of tradeoff without knowing what it was going to  
13 cost.

14 It's just like you have to know how much  
15 the province is going to have to spend on -- on roads, and  
16 schools, and whatever other infrastructure is necessary to  
17 support this new entity. And if you can't get a  
18 reasonable estimate of that, then you really can't make an  
19 informed decision.

20 MS. PATTI RAMAGE: And in your opinion, is  
21 a subsidy by an electric utility an appropriate way of  
22 attracting industry?

23 MR. PAUL CHERNICK: Well, not a subsidy  
24 for electric use. If it's a matter of we'll decrease your  
25 bill by a thousand dollars (\$1,000) a month for every

1 twenty (20) jobs that are created or some other measure,  
2 that may be reasonable if the Utility's in a better  
3 position to provide that service -- that service to the  
4 province than other public entities.

5                   It -- it's really not a matter of great  
6 concern to me whether the incentives flow through the  
7 electric utility or through some other government agency.  
8 In this case, Manitoba's got a situation where the Utility  
9 has, in essential, a -- a bunch of goodies to hand out;  
10 this -- this big chunk of -- of below market power that  
11 you can either sell at a profit; use to -- to keep some  
12 domestic rates down; use to attract business.

13                   And it may make sense for the -- the  
14 Utility to be involved in -- in giving incentives. But  
15 giving incentives that grow with the amount of energy you  
16 use seems to me to be giving -- giving the incentives the  
17 wrong way.

18                   I don't think anybody in Manitoba says what  
19 -- what we need is more energy use in the province. What  
20 I suspect people are saying is, Well, it'd be nice if we  
21 had more tax base. It'd be nice if we had more entry  
22 level jobs with training opportunities. It would be nice  
23 if we had jobs in this area and that area of the -- the  
24 province with these kinds of skill sets. And that's what  
25 you want to give an incentive for, not just coming in and

1 sucking up your cheap electricity.

2 MS. PATTI RAMAGE: Thank you. I'm going  
3 to turn to demand charges now.

4 MR. PAUL CHERNICK: Okay.

5 MS. PATTI RAMAGE: An entirely different  
6 direction. And in your evidence, I think you're pretty  
7 clear that demand charges don't provide adequate  
8 incentives to conserve even during high load hours.

9 And I wanted to ask you if we -- if we take  
10 the ability to use -- to implement time-of-use rates for  
11 the moment, what alternatives would you suggest to this  
12 Board to recover capacity related costs from general  
13 service customers?

14 MR. PAUL CHERNICK: Well, in that case you  
15 probably would want some demand charge. You would want to  
16 have to charge something that gave customers an incentive  
17 to keep their usage flat even though you know that for  
18 some customers that incentive will cause them to flatten  
19 their use from a peak at a relatively low cost time for  
20 the T&D system more on to the -- the T&D peak. But it's -  
21 - it's a very crude incentive, but it may be the best tool  
22 that you have if you don't have time-of-use pricing.

23 MS. PATTI RAMAGE: And if you do have  
24 time-of-use pricing, which I understand from the  
25 discussions I've heard today you -- you support, but if

1 you're in a jurisdiction like ours where this is  
2 relatively new, in terms of an investment, would you agree  
3 that this Board would have to clearly support those time-  
4 of-use rates and be satisfied with the proposal from the  
5 Utility before the Utility went out and made the  
6 investment of purchasing meters for thousands of  
7 customers.

8 We would want a clear direction.

9 Is that correct?

10 MR. PAUL CHERNICK: Well, actually, I'm  
11 really surprised that you don't have interval metering,  
12 hourly or even quarter -- fifteen (15) minute interval  
13 metering on your large customers now, even if you weren't  
14 going to charge them, just for the load research  
15 information, for being able to show them when they're  
16 using their energy, help them manage their demand charges,  
17 and so on.

18 For a -- a customer -- a large industrial  
19 customer, the -- the cost of a -- a time-of-use meter is  
20 now so small compared to their bill that I think you could  
21 probably do that and justify it in about six (6) different  
22 ways, even before you put in time-of-use rates.

23 So I would certainly urge you to -- to just  
24 do that, in any case. There are smaller customer classes  
25 as you get into the -- the medium general service, for

1 example, where you -- you have to think about what the  
2 benefits are going to be.

3 MS. PATTI RAMAGE: And just if it helps,  
4 Mr. Wiens advised me we do have the metering for the  
5 general service large. It's really the mediums --

6 MR. PAUL CHERNICK: Okay.

7 MS. PATTI RAMAGE: -- we're looking at  
8 where we're -- I believe the medium, subject to check,  
9 would be fifty-eight thousand (58,000).

10 So would you agree that -- that is a fairly  
11 --

12 MR. PAUL CHERNICK: Yes.

13 MS. PATTI RAMAGE: -- significant  
14 investment for the Utility?

15 MR. PAUL CHERNICK: Yes. That -- that --  
16 you would like to have a clear sense of where you're  
17 going. And it may turn out that again, for at least part  
18 of that group, their usage is large enough that the cost  
19 of -- of metering would be -- diminish and -- and would  
20 clearly be beneficial for -- for other purposes.

21 And you could go ahead even before --  
22 assuming that you would eventually have some time-of-use  
23 rate and would have some benefits, that you could go  
24 ahead. But you -- you have to look at that on a -- on a  
25 more detailed basis.

1                   As to your general point, should the -- the  
2 Board and the company sort of be seeing -- be in sync,  
3 shall we say, with respect to the development of time-of-  
4 use rates, I would say, yes, that's a very good idea.

5                   MS. PATTI RAMAGE:    Now, at Manitoba Hydro-  
6 RCM/TREE-14D, and you don't have to look at it, you were  
7 asked to provide a list of major North American electric  
8 utilities which do not employ demand charges.

9                   And you provided the example of, and I love  
10 this name, the Cleveland Electric Illuminating Company's--

11                  MR. PAUL CHERNICK:   That's the name.

12                  MS. PATTI RAMAGE:    Yeah. Electric Process  
13 Heating and Electric Boiler -- Boiler rate.

14                  MR. PAUL CHERNICK:    Yeah.

15                  MS. PATTI RAMAGE:    I'm wondering if you  
16 have any examples of more mainstream rates, similar to  
17 those charged to Manitoba Hydro's general service medium  
18 or large customers?

19                  MR. PAUL CHERNICK:    No, as I -- I think  
20 I've said in the response, it's difficult to -- to sort of  
21 do a generic search for -- for a rate with no demand  
22 charge. There may be some out there. They're certainly -  
23 - demand charges certainly exist in most large customer  
24 rates.

25                  MS. PATTI RAMAGE:    Do they -- do you know

1 of demand charges being included in rates with time-of-use  
2 or where there are time-of-use rates?

3 MR. PAUL CHERNICK: Yes.

4 MS. PATTI RAMAGE: Would you agree that a  
5 regulator who directed the elimination of demand charges  
6 would be considered a pioneer?

7 MR. PAUL CHERNICK: A pioneer, maybe not  
8 the first, but it certainly is not common practice.

9 MR. ROBERT MAYER: Would that be the  
10 politest we might be called?

11 MR. PAUL CHERNICK: I thought out on the  
12 plains, pioneer was a -- a good thing to be.

13

14 (BRIEF PAUSE)

15

16 CONTINUED BY MS. PATTI RAMAGE:

17 MS. PATTI RAMAGE: Looking at page 47 of  
18 your pre-filed testimony, I saw that your recommendation  
19 included a distinction between heating and non-heating  
20 customers.

21 And -- and MIPUG has asked for examples of  
22 utilities that made such a distinction.

23 MR. PAUL CHERNICK: Mm-hm.

24 MS. PATTI RAMAGE: And in your response to  
25 MIPUG's question, which I think was 1B, you provided six

1 (6) examples of utilities.

2 MR. PAUL CHERNICK: Mm-hm.

3 MS. PATTI RAMAGE: And I can tell you, the  
4 other night, I went on the web to try to look at those six  
5 (6) examples.

6 I was able to find rates for three (3) of  
7 them, and that might speak more to my ability to navigate  
8 through their sites than --

9 MR. PAUL CHERNICK: Some of them are just  
10 awful.

11 MS. PATTI RAMAGE: But in two (2) of them,  
12 and let me just see here, they had what I think you called  
13 a "water heat discount" for Nora -- I'm not sure how to  
14 say that -- Utilities.

15 MR. PAUL CHERNICK: Narragansett.

16 MS. PATTI RAMAGE: Narragansett Electric.  
17 There was a water heat discount, and they called it a  
18 "controlled water heating credit."

19 And looking at it, it says it's being  
20 phased out, as is the public service electric and gases  
21 water heat rate.

22 And I'm wondering if you have any comments  
23 just why they would be phasing out those rate  
24 distinctions, and that would be their -- they appear to be  
25 phasing out their heating versus non-heating load

1 distinction.

2                   And I'd add I'm not sure that's an entirely  
3 fair question to you.

4                   MR. PAUL CHERNICK:     Right.

5                   MS. PATTI RAMAGE:     I was just wondering if  
6 you could --

7                   MR. PAUL CHERNICK:     I -- I don't --

8                   MS. PATTI RAMAGE:     -- direction in the  
9 eastern US that I don't -- I couldn't tell. I couldn't  
10 see anything on their websites.

11                   MR. PAUL CHERNICK:     Well, let's see. The  
12 water heater discount may have existed from a time when  
13 the Utility and the regulator thought of generation  
14 capital costs as being primarily demand related, primarily  
15 peak related. And so if you had a controlled water heater  
16 which, in particular -- any -- any water heater does this  
17 to some extent, because they -- tank water heaters have a  
18 relatively flat load during the day, to the extent that --  
19 that you've shifted load off of peak.

20                   You reduce the need for new generation.  
21 And new generation's expensive, and so therefore we're  
22 willing to -- to give you a discount for doing that.  
23 That's the historical genesis of -- of the water heater  
24 discounts in general. And --

25                   MS. PATTI RAMAGE:     And if I could just

1 jump in. By "controlled," just for --

2 MR. PAUL CHERNICK: Controlled meaning --

3 MS. PATTI RAMAGE: That means the Utility  
4 controls.

5 Is that correct?

6 MR. PAUL CHERNICK: Yes, it may be a time  
7 clock that just shuts off the -- the bottom element of the  
8 water heater at 8:00 in the morning and doesn't turn it on  
9 again until 7:00 in the evening, keeping the top element  
10 energized in case you completely run out of hot water.

11 Or it may be radio controlled or controlled  
12 in some other way to --to be turned off at peak hours,  
13 whenever those occur.

14 And as -- first, as jurisdictions recognize  
15 that generation costs are more heavily energy related than  
16 demand related, and then once they went -- all of these  
17 examples happen to be from utilities that are now in  
18 competitive generation markets. And power supply is  
19 purchased from those markets for the customers. And the -  
20 - the -- those charges are all on an energy basis.

21 So there is an on-peak/off-peak distinction  
22 in many cases in -- in how that's charged. But apparently  
23 this has not been enough to -- to maintain the -- the  
24 viability of some of these rates.

25 In the case of public service, electric,

1 and gas, the -- originally there may have been a discount  
2 for space heating on the grounds that New Jersey is  
3 strongly a summer peaking area, the space heating would be  
4 less expensive to serve, primarily in terms of generation  
5 costs. Now those generation costs are being flowed  
6 through on a monthly basis based on market prices.

7                   It turns out that winter energy is not so  
8 cheap, because gas prices are high. So even though it's  
9 not the highest demand period, it's a high-cost period.  
10 And the distinction makes less sense than it used to, so  
11 that might be why they're -- they're phasing that out.

12                   And in some cases they're going to seasonal  
13 rates and time-of-use rates for larger customers. So  
14 somebody with an electric water heater may find it useful  
15 to be on time-of-use rate to take advantage of the fact  
16 that they're inherently less on-peak. And that may also  
17 be undermining the -- the need for a water heater.

18                   MS. PATTI RAMAGE: Well, given what you  
19 know of the Manitoba market, do you think then Manitoba  
20 Hydro should be -- should perhaps be discouraging the use  
21 of electricity for water heating? Does that...?

22                   MR. PAUL CHERNICK: I don't think you  
23 should be encouraging it particularly to the extent that  
24 you have water heating -- electric water heating customers  
25 who don't really have an alternative, which to some extent

1 includes customers who've -- who've got a -- a relatively  
2 new tank and are looking at spending several hundred  
3 dollars to -- to switch to -- to gas, even if it's  
4 feasible for them. Then there may be an argument for  
5 allowing some discount for those customers who -- who find  
6 themselves in that situation.

7 But in terms of encouraging new customers  
8 to use electricity for heating or use space heating or  
9 water heating where gas is an option, I don't think it  
10 makes sense.

11 MS. PATTI RAMAGE: And looking back to  
12 your list of the six (6) utilities, the other one (1) I --  
13 I found was Pepco's Rate Schedule AE.

14 MR. PAUL CHERNICK: You know, I think we  
15 actually included the tariffs in a -- a Information  
16 Response, so that should be in the record. But anyway...

17 MS. PATTI RAMAGE: That may be, but...

18 MR. PAUL CHERNICK: I'm glad that you were  
19 interested enough to do all this research.

20 MS. PATTI RAMAGE: But the Pepco one (1),  
21 that was the all electric. Why I was looking was to try  
22 to find -- to resolve this issue we seem to be having or  
23 seeing if it could enlighten us at all on how they  
24 distinguish between their heating and non-heating  
25 customers.

1                   So I was searching through to see, because  
2 they have an all electric rate, if there was an  
3 application or anything else online that would sort of  
4 give us a -- an indication how other utilities do it when  
5 they have that type of rate. And I couldn't find anything  
6 there.

7                   I'm wondering if you have any information  
8 about what they do to -- to distinguish between their two  
9 (2) customer classes.

10                   MR. PAUL CHERNICK:     I don't know  
11 specifically. I know that in many cases the -- even going  
12 way back -- the all electric rates have had some, by now,  
13 quite modest, but had some efficiency requirements, that  
14 you could not be on an electric heating rate from any  
15 utilities unless you had insulated walls. I'm sure  
16 they're only 2x4 kind of walls, but there's -- there's --  
17 at least there's insulation in the walls, and 6 inches of  
18 insulation in the ceiling, or something like that. Not  
19 necessarily very strict, but there were some standards.

20                   And it's my understanding that the  
21 utilities would actually visit the job sites to confirm  
22 that they -- that houses were being built to their  
23 standards. And obviously, part of that standard is you  
24 actually are putting in a heat pump or electric baseboard  
25 heating.

1                   So there -- I believe most of them had a  
2 direct verification for new construction, and it probably  
3 had it from the time the -- the rate first existed. And -  
4 - and so, therefore, they have at least a list of -- of  
5 buildings that were once electrically heated. Some of  
6 those may have switched over, and I don't know how  
7 carefully they -- they monitor that.

8                   MS. PATTI RAMAGE:    Okay, thank you. I  
9 think the -- probably the final topic I'm going to discuss  
10 is to do with marginal costs.

11                   And I was wondering if Ms. Fernandes, I  
12 have a document here. I think it's your document. It was  
13 referenced in your materials that I read through. It's  
14 "The Avoided Energy Supply Costs in New England." I have  
15 a few questions for you.

16                   It's, Ms. Fernandes will just distribute a  
17 copy around the room. I don't know that actually any of  
18 my questions will be so detailed that anyone requires a  
19 copy, but to be safe.

20                   This is -- the copy being distributed is  
21 not the -- the entire document, but it's the portions that  
22 I was interested in.

23

24

(BRIEF PAUSE)

25

1 MR. PAUL CHERNICK: Nicely formatted,  
2 isn't it?

3 MS. PATTI RAMAGE: It's quite lovely. It  
4 was a lot easier to read than those web sites.

5

6 (BRIEF PAUSE)

7

8 MR. PAUL CHERNICK: Perhaps when Google  
9 moves to Manitoba you can get them to set up a -- a  
10 continent-wide database of -- of utility tariffs.

11 MS. PATTI RAMAGE: Well, first we're gong  
12 to have to learn plain English.

13 Mr. Chernick, in your pre-filed testimony -  
14 - or perhaps I -- well, no I'll start here.

15 In your pre-filed testimony you concluded  
16 that Manitoba Hydro calculated its marginal costs from  
17 historic prices charged to our Surplus Energy Program  
18 customers.

19 That's at page 8 of your pre-filed.

20 MS. PATTI RAMAGE: And Manitoba Hydro  
21 attempted to correct what it believes is an unders -- a  
22 misunderstanding, at page 39 of its rebuttal, noting that  
23 generation marginal cost is based on the production  
24 costing benefits to the Manitoba Hydro system, with export  
25 revenues being the primary factor in influencing the

1 marginal benefit.

2                   Is it safe to say now at this point, that  
3 you no longer -- you no longer believe that our marginal  
4 costs are derived from our SEP estimate -- estimates?

5                   MR. PAUL CHERNICK: Well, let -- let me  
6 run through my understanding. I -- I think that the  
7 primary disagreement that the -- that Hydro had with my  
8 statement was that it was -- that it was historical as  
9 opposed to a projection of what could be sold.

10                   And then also, the SEP is a -- a non-firm  
11 rate, and it's -- I'm not quite clear on Hydro's position  
12 on -- on the firmness of the sales being modelled in the -  
13 - in the -- the forecast of -- of marginal cost. But  
14 there's -- that's my understanding, that -- that Hydro's  
15 explanation is that it's a -- based on a -- a forecast of  
16 marginal costs, which are primarily exports.

17                   MS. PATTI RAMAGE: Now, I wanted to  
18 discuss your comments at page 15 of your pre-filed  
19 evidence, in light of that clarification.

20                   Here you are asked whether utilities  
21 generally release the derivation of their estimates of  
22 avoided costs for DSM evaluation. And you answered yes  
23 and went on -- went on to provide the New England example.

24                   And when I refer to the New England  
25 example, I'm talking about this document, "The Avoided

1 Energy Supply Costs in -- in New England."

2 MR. PAUL CHERNICK: Yes.

3 MS. PATTI RAMAGE: And can I confirm,  
4 first, I believe you're one of the authors of this  
5 document?

6 MR. PAUL CHERNICK: I believe I am.

7 MS. PATTI RAMAGE: And I'm wondering if we  
8 could perhaps have that made a -- and exhibit. It -- it  
9 is referenced in the Coalition evidence, but I don't think  
10 the document itself, unless I'm mistaken, was included.

11 THE CHAIRPERSON: Hydro 72.

12

13 --- EXHIBIT NO. MH-72: Document - "The Avoided Energy  
14 Supply Costs in New England"

15

16 CONTINUED BY MS. PATTI RAMAGE:

17 MS. PATTI RAMAGE: For anyone who's having  
18 trouble following along with that numbering system, we had  
19 a filling. So there was a blank spot. So we've just put  
20 in MH-72.

21 MR. PAUL CHERNICK: I'm glad that I could  
22 help with that.

23

24 (BRIEF PAUSE)

25

1 MS. PATTI RAMAGE: Now, if I turn to  
2 chapter 5, page 1 of that document.

3

4 (BRIEF PAUSE)

5

6 MR. BILL GANGE: Ms. Ramage, not that  
7 anything --

8 MS. PATTI RAMAGE: Yeah.

9 MR. BILL GANGE: -- immediately turns on  
10 it, but it would appear that what's been filed is every  
11 second page.

12

13 (BRIEF PAUSE)

14

15 MR. PAUL CHERNICK: Oh, some of them --  
16 it's a double-sided document. Some of the copies are  
17 single-sided. The witness has been provided with a  
18 complete copy.

19 MR. ROBERT MAYER: Which one did we file?

20 MS. PATTI RAMAGE: Yeah, we better check  
21 this.

22 THE CHAIRPERSON: Yeah, we are missing the  
23 -- we just have the one.

24

25 (BRIEF PAUSE)

1

2 THE CHAIRPERSON: Can you do this without  
3 Well, give it an effort.

4 MS. PATTI RAMAGE: I'll give it an effort  
5 to -- to save the time.

6 MR. ROBERT MAYER: Mr. Williams might be  
7 able to help you.

8

9 CONTINUED BY MS. PATTI RAMAGE:

10 MS. PATTI RAMAGE: I understand Mr.  
11 Chernick's fairly familiar with it.

12 So at the -- at the first page of this  
13 chapter, it's the energy -- or electric energy price  
14 forecast, which I understand you played a large part in  
15 putting together from --

16 MR. PAUL CHERNICK: Well actually, this  
17 was primarily the work of Synapse, was the prime  
18 contractor on the -- on the project. They ran the  
19 production costing model. I had roles in the --  
20 developing some of the inputs to the price forecast, but -  
21 - so I -- I can't take credit or blame for everything  
22 that's in here.

23 And I can't necessarily answer all of the  
24 questions that you might have about the PROSYM model. But  
25 why don't we see? I'm certainly familiar with the --

1 MS. PATTI RAMAGE: Well that was one of  
2 the first questions. Manitoba Hydro, I understand, had  
3 the PROSYM model at one time.

4 And one (1) of the questions I got from our  
5 engineers was they wondered, it -- it indicates that the  
6 Global Energy decision's PROSYM model was used to derive  
7 marginal cost in electricity prices.

8 And the first question I guess I have is,  
9 Who was -- who was performing the simulation? Was that --

10 MR. PAUL CHERNICK: That was Synapse  
11 staff. That was -- that was one (1) of the, you know, some  
12 of the authors were -- were actually doing runs.

13 MS. PATTI RAMAGE: And then they performed  
14 that using various inputs, and those inputs are described  
15 in -- in the document?

16 MR. PAUL CHERNICK: Yes.

17 MS. PATTI RAMAGE: The first ones I see  
18 are -- and I think they actually appeared earlier in the  
19 document.

20 But there's a -- a summary of them at five  
21 one (51) that included regional fuel price forecast,  
22 regional natural gas forecast, regional forecast for  
23 petroleum products, coal, fuel wood.

24 And I'm just wondering, whose forecasts  
25 were these? Were those independently obtained forecasts?

1 Or were they from the utilities within the region?

2 Or were they developed by Synapse?

3 MR. PAUL CHERNICK: They were -- they were  
4 obtained from utilities within the region. In general the  
5 natural gas forecast was developed as part of this  
6 process. That's another chapter in the -- chapter 2, the  
7 developing the natural gas forecast both as an input to  
8 the electric forecast and because we were simultaneously  
9 developing avoided gas costs for the gas utilities and  
10 their programs.

11 And I'm not quite clear on -- I don't  
12 exactly remember how we did the -- the crude oil forecasts  
13 and the -- the ratios of crude oil to various kinds of  
14 product prices. But we -- we started with various  
15 government and commercial forecasts and then basically  
16 produced our own version based on -- on our understanding  
17 of -- of the markets and on futures prices, which  
18 certainly helped with the early years, and then put those  
19 together into the electric price -- electric model.

20 MS. PATTI RAMAGE: Okay.

21 MR. PAUL CHERNICK: Is that enough detail?

22 MS. PATTI RAMAGE: Yeah, that's -- that's  
23 what I was -- that's more -- that's plenty.

24 At the next page it indicates the -- the  
25 PROSYM model used highly detailed information on

1 generating units.

2 MR. PAUL CHERNICK: Mm-hm.

3 MS. PATTI RAMAGE: And that information  
4 was drawn from sources including the US Energy Information  
5 Administration, the US Environmental Protection Agency,  
6 NERC and FERC.

7 MR. PAUL CHERNICK: Mm-hm.

8 MS. PATTI RAMAGE: Also the -- oh, I --  
9 the ISO of --

10 MR. PAUL CHERNICK: New England.

11 MS. PATTI RAMAGE: -- New England's  
12 databases.

13 MR. PAUL CHERNICK: That's right.

14 MS. PATTI RAMAGE: Would I be correct in  
15 saying those are generally publicly available sources of  
16 information?

17 MR. PAUL CHERNICK: Those are publicly  
18 available. Some of the -- as it says, Global Energy did  
19 some of the synthe -- excuse me -- synthesizing and  
20 reconciliation of those -- those data sources.

21 MS. PATTI RAMAGE: And then the report  
22 goes on to list a number of inputs. And from what I  
23 understand, you've said today that you -- you developed  
24 some -- you -- you were involved in the preparation of  
25 those inputs.

1                   And without going through them all, they  
2 were things like electric market zone topology, existing  
3 generation unit characteristics. Those included nuclear  
4 unit characteristics, conventional hydro characteristics,  
5 that sort of thing, load forecasts.

6                   And I'm wondering, were any of the  
7 individual utilities within the region called upon to give  
8 their specific information for you to develop those  
9 inputs?

10                   Or were those also developed from public  
11 databases?

12                   MR. PAUL CHERNICK: Well, the Utility  
13 inputs in the forecasting go into the ISO forecast, which  
14 then produces forecasts by zone. And so the -- we had the  
15 -- the Utility forecasting in sight, already sort of  
16 embedded in the ISO forecast, which was a public document.

17  
18                   (BRIEF PAUSE)

19  
20                   MR. PAUL CHERNICK: I don't recall having  
21 gotten any other information from the utilities about the  
22 -- these factors.

23                   MS. PATTI RAMAGE: Now, having -- would it  
24 be fair to say -- because what I don't see in any of the  
25 inputs, and I just want to confirm -- is that there is not

1 any individual utility's forecast based on their view of  
2 the market.

3 That doesn't come into this forecast?

4 MR. PAUL CHERNICK: No, they -- they  
5 reviewed our view of the market, because they were going  
6 to use these numbers in doing their evaluation of -- of  
7 energy conservation programs. And they needed to be  
8 comfortable sponsoring the numbers, and so they -- they  
9 wanted to make sure that our -- our results made sense to  
10 them at that level.

11 But we were doing that for them. And so we  
12 -- we became -- our product became their forecast of  
13 market conditions.

14 MS. PATTI RAMAGE: And so while -- and  
15 this report represents, therefore, your view -- and I  
16 guess their view, eventually -- of avoided energy supply  
17 costs in the New England Region.

18 It's not the avoided cost of any particular  
19 utility. It's not based on information particular to one  
20 single utility, is it?

21 It's taking information from across the  
22 Region?

23 MR. PAUL CHERNICK: Well it's a regional  
24 market price, or it's a zonal market price within the  
25 region. The zonal market price for -- for Connecticut is

1 a price for all of the utilities that serve Connecticut,  
2 and the price for Vermont is the price for all of Vermont.

3 So I'm not quite sure what -- what your  
4 question means in this context.

5 MS. PATTI RAMAGE: It's not -- it doesn't  
6 purport to be the Vermont -- I'm going to make up --

7 MR. PAUL CHERNICK: Yep, sure.

8 MS. PATTI RAMAGE: -- a utility's name,  
9 just Vermont Utility's avoided cost. It -- it's one for  
10 their region.

11 It's now one produced for that particular  
12 utility specific to all of their -- any -- any particular  
13 circumstances that apply just to that utility?

14 MR. PAUL CHERNICK: Well other -- this --  
15 we were doing the generation avoided costs. And those  
16 would be the same for all the utilities in Vermont. And  
17 the -- and the Connecticut Light and Power, and United  
18 Illuminating, and New Haven, and the Municipal Utilities  
19 in Connecticut would all have the same avoided energy  
20 costs, the same avoided generation capacity costs.

21 And then each of them applies their own  
22 avoided transmission and distribution costs and their own  
23 loss factor. And that would -- that's just a separate  
24 step.

25 So yes, it -- this is exactly the

1 Connecticut Light and Power's avoided generation cost  
2 forecast. It's also the United Illuminating forecast.  
3 They're in the same state, in the same zone, and  
4 therefore, they have the same prices.

5 MS. PATTI RAMAGE: Okay. Thank you. Now  
6 just to clarify -- because during these proceedings you've  
7 used the terms "avoided cost" just now. And I think we've  
8 been fairly loose with avoided cost/marginal cost.

9 Would you agree then, this is a marginal  
10 cost that is focussed on avoided cost, as opposed to  
11 Manitoba Hydro's marginal cost is focussed on opportunity  
12 cost?

13 MR. PAUL CHERNICK: Well, yeah, in the  
14 sense that these utilities are buyers and Manitoba Hydro  
15 is a net seller, then there -- there is a -- a difference  
16 in the -- in the calculation.

17 MS. PATTI RAMAGE: Thank you. If I could  
18 just have one second.

19

20 (BRIEF PAUSE)

21

22 MS. PATTI RAMAGE: This is what happens  
23 when people give you questions on the fly, that they --  
24 the Synapse --

25 MR. PAUL CHERNICK: I like doing that to

1 attorneys, myself.

2 MS. PATTI RAMAGE: The Synapse report  
3 states that the primary drivers of marginal costs are  
4 prices for natural gas and of CO2 emissions, and that's in  
5 Appendix A4.

6 It stated that fuel in the form of natural  
7 gas represented 73 percent of the marginal costs, while  
8 costs of CO2 emissions represented 22 percent; that's  
9 post-20/22.

10 Do you recall that finding?

11 MR. PAUL CHERNICK: I -- I remember that  
12 we had numbers like that in there, yes.

13 MS. PATTI RAMAGE: Given that this was --  
14 this was prepared for the New England region, would you be  
15 prepared to go as far as to say natural gas prices and  
16 prices for CO2 emissions would also be the primary  
17 marginal cost drivers in the MRO and MISO region that  
18 Manitoba Hydro finds itself in or transacts in?

19 MR. PAUL CHERNICK: I would -- I would  
20 expect that coal would also contribute to the margin. I -  
21 - I don't know what percentage off-hand, but they would  
22 both -- both gas and coal would -- would matter. In terms  
23 of -- of volatility, gas would matter more.

24 On the other hand, because of the coal, CO2  
25 is going to be a bigger factor, all else equal, in the

1 Midwest.

2 MS. PATTI RAMAGE: Thank you. Thank you,  
3 Mr. Chernick, I -- it was -- it was good to have you up  
4 here. It's nice to have new witnesses come into the  
5 proceedings just to liven things up a little bit, and I  
6 wanted to thank you. I enjoyed speaking with you today.

7 MR. PAUL CHERNICK: Well, and thank you  
8 for the nice weather.

9 THE CHAIRPERSON: Thank you, Ms. Ramage.  
10 Before we go now to Mr. Peters, perhaps we will have a  
11 short break.

12

13 --- Upon recessing at 2:51 p.m.

14 --- Upon resuming at 3:05 p.m.

15

16 THE CHAIRPERSON: Okay. Welcome back,  
17 everyone.

18 Mr. Peters, if you would like to begin?

19 MR. BOB PETERS: Yes, thank you.

20 THE CHAIRPERSON: One (1) member will be  
21 leaving at 4:00, so we will have to shut down.

22 MR. BOB PETERS: And the record should now  
23 indicate that Manitoba Hydro has re-filed Exhibit Manitoba  
24 Hydro 72, complete copy of the study that was referred to  
25 by Ms. Ramage.

1

2 CROSS-EXAMINATION BY MR. BOB PETERS:

3 MR. BOB PETERS: Mr. Chernick, in turning  
4 to the book of documents, Tab Number 56, you'll see the  
5 results of the Cost of Service Study performed by Manitoba  
6 Hydro for this General Rate Application, correct?

7 MR. PAUL CHERNICK: Yes.

8 MR. BOB PETERS: And you didn't go through  
9 the numbers to see whether you agreed with how the numbers  
10 were calculated or would have achieved the same results.  
11 You looked at it from a methodological basis.

12 Would that be fair?

13 MR. PAUL CHERNICK: Well, I looked --  
14 looked at some parts of the methodology, but more in terms  
15 of issues that -- that the -- that Hydro was -- was  
16 relying on in its - some of its arguments about rate  
17 design. I wasn't primarily concerned with the cost  
18 allocation itself.

19 MR. BOB PETERS: Fair enough. But you do  
20 -- you do conclude that their embedded Cost of Service  
21 Study was faulty for various reasons?

22 MR. PAUL CHERNICK: Well, I certainly  
23 would have done some parts differently, yes.

24 MR. BOB PETERS: And one of the parts you  
25 would have done differently, and perhaps you're

1 recommending this Board consider requesting be done  
2 differently for future embedded costs of service, is to --  
3 to account better for the effects of energy use on the  
4 transmission and distribution costs?

5 MR. PAUL CHERNICK: Yes.

6 MR. BOB PETERS: And you went on in your  
7 evidence to discuss that.

8 Should the Board interpret your  
9 recommendation to be the transmission and distribution  
10 costs should be allocated according to the energy used by  
11 the customer classes?

12 MR. PAUL CHERNICK: Well, not entirely.

13 MR. BOB PETERS: To a certain percentage?

14 MR. PAUL CHERNICK: Yes.

15 MR. BOB PETERS: What percentage?

16 MR. PAUL CHERNICK: I -- I haven't done  
17 that analysis for -- for the Manitoba Hydro system.  
18 That's -- you first start out with the decision that  
19 you're going to look at that.

20 And then you go through the kinds of  
21 considerations I raised and ask questions like, Which of  
22 the AC lines are primarily to integrate the -- the low  
23 energy cost plants into the system? To what extent is the  
24 sizing of -- of substations and -- and line transformers  
25 driven by the planning for a -- a high peak day load

1 factor? And come up with an allocation based on those  
2 kinds of considerations.

3 MR. BOB PETERS: All right. I want to  
4 turn quickly to the distribution costs.

5 And do you find it somewhat unusual that  
6 the distribution costs are heavily weighted in -- in use,  
7 in terms of the residential class?

8 MR. PAUL CHERNICK: No.

9 MR. BOB PETERS: And you don't find it  
10 unusual that the general service large, the largest of the  
11 classes and the subclasses in there, have very little  
12 distribution costs allocated to them under the embedded  
13 Cost of Service Study?

14 MR. PAUL CHERNICK: That -- that's not  
15 unusual either, no.

16 MR. BOB PETERS: And if -- if the Board  
17 was to consider having Manitoba Hydro consider the effects  
18 of energy use on the transmission and distribution costs,  
19 how would that consideration impact the distribution costs  
20 that are currently allocated?

21 MR. PAUL CHERNICK: Well again, not having  
22 done that kind of analysis, I -- I don't -- I don't know  
23 in -- in detail, and I don't even know how different the  
24 cost allocations would be.

25 As -- as I said, my concern was that Hydro

1 seemed to be taking embedded cost calculations based on  
2 the assumption that, for example, distribution costs were  
3 -- were not driven at all by energy and then saying, well,  
4 those costs need to be collected through demand charges,  
5 because they're not energy related.

6                   And I was just trying to break that  
7 connection for the rate design purposes. I really haven't  
8 done any work on how you would change the allocation  
9 study.

10                   MR. BOB PETERS: All right, thank you,  
11 I've got your point.

12                   You also say, and you said to my colleagues  
13 who asked you questions, that the documents that you find  
14 at book of documents, Tab 56, those documents should be a  
15 tool or a guide in terms of the use to which they're put  
16 by this Board?

17                   MR. PAUL CHERNICK: Yes.

18                   MR. BOB PETERS: And Exhibit Manitoba  
19 Hydro 68, a copy of which I gave your counsel, is some  
20 results -- have you had -- have you seen a copy of  
21 Manitoba Hydro Exhibit 68 before?

22                   MR. PAUL CHERNICK: Yes, I have.

23                   MR. BOB PETERS: You're telling the Board  
24 that, without getting into the specifics of the numbers,  
25 the results of a cost of service study that would look

1 like Manitoba Hydro Exhibit 68 would be preferable to use  
2 than the results that you see in the book of documents Tab  
3 56.

4                   Would that be correct?

5                   MR. PAUL CHERNICK: No. I mean, I think  
6 there is a benefit to -- to doing a cost of service study  
7 based on embedded costs with -- and I would change the  
8 perspective on calculating embedded costs or -- or  
9 figuring out what part of embedded costs are due to what  
10 driver, energy versus demand, for example.

11                   I think there's a value in doing that, in  
12 terms of getting a sense of if we take the existing system  
13 and try and divide up the costs and benefits fairly, in a  
14 fair manner, by our best standard about what fair would  
15 be, in terms of what drives those kinds of costs, divided  
16 up among the classes, that's a useful thing to do.

17                   And that's what Tab 56 is reporting the  
18 results of, that kind of analysis. Not the analysis I  
19 would do, but that kind of approach.

20                   Manitoba Hydro Exhibit 68, on the other  
21 hand, is looking at the marginal costs and the embedded  
22 revenue allocation and asking questions about the  
23 relationship among those.

24                   And that is also -- and the interesting  
25 kind of question to ask, I think they're both useful in

1 terms of -- in forming decisions about cost allocations.

2           It's when you get into the rate design  
3 section that you really want to be looking at the kinds of  
4 marginal costs that you've got on -- on Manitoba Hydro 68,  
5 in -- in terms of guiding your decisions about what your  
6 tail block rates ought to look like, for example.

7           But those are very different purposes, and  
8 I -- I don't see that Manitoba Hydro 68 and Tab 56 are  
9 substitutes for one another. They're complements.

10           MR. BOB PETERS: How would you recommend  
11 to this Board that Manitoba Hydro calculate the marginal  
12 costs of generation?

13           MR. PAUL CHERNICK: Well, the way that the  
14 company has described it so far, in -- in general sense,  
15 sounds appropriate, that, as I understand it, they look at  
16 the future and try to estimate what the market prices  
17 might look like, what the additional revenues they would  
18 get for each kilowatt hour of generation that's freed up,  
19 each kilowatt, and -- and in some cases what it would cost  
20 or what -- what costs they would avoid by not running  
21 their own generation, their own thermal generation, or not  
22 purchasing in times of shortage.

23           And that approach -- again we -- I don't  
24 know the inputs so I can't say that I agree with the  
25 numbers, but that general approach seems to be an

1 appropriate approach for -- for determining marginal  
2 generation cost.

3 MR. BOB PETERS: Do you understand that  
4 approach to include 85 percent of that marginal cost  
5 number would be set by an expected value of exports?

6 MR. PAUL CHERNICK: Well, that's sort of a  
7 result of your -- your modelling. I understand that's  
8 roughly the kinds of numbers that the -- the Company  
9 reports for their projections. That doesn't surprise me  
10 given Hydro's position in the market.

11 MR. BOB PETERS: And in addition to that,  
12 7 1/2 percent roughly would be on account of import costs  
13 as well as thermal costs that you mentioned?

14 MR. PAUL CHERNICK: Those -- those  
15 certainly seem like reasonable numbers. Again, I haven't  
16 seen any details in the model.

17 MR. BOB PETERS: And in terms of the  
18 marginal cost for -- for transmission, what methodology do  
19 you believe would be appropriate for this jurisdiction?

20 MR. PAUL CHERNICK: Well, the -- the basic  
21 approach for modelling marginal cost is to -- to look at  
22 investment including the associated O&M over time either  
23 historically, or on a projected basis, or both and looking  
24 at the ratio between the amount of investment required and  
25 -- and the growth in load and by definition if you have

1 that -- that correct, that's your marginal cost.

2 MR. BOB PETERS: And for the marginal cost  
3 of distribution, would you relate -- would you use the  
4 full embedded costs attributed to that -- to that  
5 function?

6 MR. PAUL CHERNICK: No, I would use an  
7 approach similar to that that I just described for  
8 transmission of looking at the -- the costs of expanding  
9 the system to meet higher loads.

10 MR. BOB PETERS: Would the same marginal  
11 cost that you calculate be used for evaluating DSM  
12 programs as well as for rate setting purposes?

13

14 (BRIEF PAUSE)

15

16 MR. PAUL CHERNICK: In general. There --  
17 there may be some differences in that for example for DSM  
18 you want to be able to distinguish between or among the  
19 measures of different lifetimes.

20 And there are measures, for example a  
21 compact fluorescent bulb that probably saves energy over  
22 the next seven (7) years as opposed to building an energy-  
23 efficient building which probably saves energy over the  
24 next thirty (30) or forty (40) years, and your forecasts  
25 for marginal or avoided costs for the benefit side may be

1 different over those different periods but you want to use  
2 a similar kind of approach, let's put it that way.

3 MR. BOB PETERS: But in that answer you  
4 would -- you would use different avoided costs or a  
5 different expected export value for -- for different DSM  
6 measures?

7 MR. PAUL CHERNICK: Yes, based upon the  
8 shape of the savings, the -- the duration of the savings,  
9 I would.

10 MR. BOB PETERS: Included in your marginal  
11 cost considerations, you would want this Board to embed a  
12 -- a value for a carbon tax or expected emissions  
13 recognition in -- in its prices?

14 MR. PAUL CHERNICK: Yes.

15 MR. BOB PETERS: I know you've given, in  
16 your materials, some -- some calculations, but can you  
17 accept that no one is paying a carbon tax on Hydro's  
18 exported energy currently?

19 MR. PAUL CHERNICK: That's correct.

20 MR. BOB PETERS: And if no customer is  
21 paying the carbon taxes, but Manitoba Hydro includes it in  
22 its DSM evaluations, doesn't that then suggest that  
23 Hydro's domestic customers would be subsidizing the DSM,  
24 at least until somebody starts paying the carbon tax?

25 MR. PAUL CHERNICK: That's one way of

1 looking at it. When you use the word subsidy, everything  
2 always sounds dirtier than if you use some other term.  
3 Like, you know, they're -- they're paying more than  
4 they're getting in direct economic benefits, that -- that  
5 certainly could be the case.

6                   Then the question is is the province  
7 interested in doing things to protect the environment  
8 above what's cost-effective, and if that's a provincial  
9 policy to -- to do some things that actually cost money,  
10 as opposed to just things that save money -- do things  
11 that cost money to protect the environment, then  
12 presumably you'd want to do that to some extent.

13                   MR. BOB PETERS: All right. I want to  
14 turn to your proposed rate structures to promote  
15 efficiency, and I took from your evidence that your  
16 blanket recommendation would be to use inverted rates for  
17 all classes with a tail block eventually being set at  
18 marginal cost?

19                   MR. PAUL CHERNICK: If you can find a way  
20 to do that, yes.

21                   MR. BOB PETERS: And when would eventually  
22 be? How long would you recommend it take to get to that  
23 marginal cost?

24                   MR. PAUL CHERNICK: That's more a matter  
25 of -- of how fast you can change the rate design without

1 causing what is perceived, ultimately by the Board, to be  
2 excessive rate shock.

3 I mean, obviously, larger customers are not  
4 going to like their bills going up. And the question is  
5 how much are you willing to do that? How much do you  
6 think is acceptable as part of this process?

7 MR. BOB PETERS: And the whole purpose of  
8 that is to create a better price signal to the end user?

9 MR. PAUL CHERNICK: Yes.

10 MR. BOB PETERS: And you and Mr. Williams  
11 went through some hypothetical examples that he -- he  
12 prepared for you, and you reviewed the impacts per -- the  
13 potential impacts of being on a budget program.

14 One (1) that I don't think was mentioned  
15 was if the bill that the consumer pays in Manitoba is  
16 read, I'm sorry, if the meter on which the bill is based--

17 MR. PAUL CHERNICK: Mm-hm.

18 MR. BOB PETERS: -- in Manitoba is read  
19 only once every two (2) months, the consumer will be  
20 ending up with an estimated bill every second month,  
21 correct?

22 MR. PAUL CHERNICK: Yes.

23 MR. BOB PETERS: And at that point, it may  
24 be that the consumer isn't aware of whether the -- the  
25 result on the bill is as a result of overpaying or

1 underpaying on the estimate.

2 That would be another confusing factor,  
3 wouldn't it?

4 MR. PAUL CHERNICK: The -- estimated bills  
5 are very confusing.

6 MR. BOB PETERS: And is the solution to  
7 that to read the meter more often?

8 MR. PAUL CHERNICK: Well that is -- that  
9 certainly a solution for that confusion.

10 MR. BOB PETERS: And that will bring more  
11 costs attended to that as well?

12 MR. PAUL CHERNICK: In general -- many  
13 utilities have found -- and I haven't checked their  
14 numbers, but they have claimed that remote meter reading,  
15 which allows you to read the meter every month -- every  
16 day if you wanted to -- the remote meter reading actually  
17 saves money because the costs of the additional equipment  
18 are more than covered by the reduced cost of -- of having  
19 meter readers going around to houses.

20 And especially with a disburse rural area  
21 as you have here, I would think that that would be a very  
22 attractive option. And I understand that you sometimes  
23 get some snow in the winter, which can make it difficult  
24 to get around and read all the metres.

25 MS. SUSAN PROVEN: Maybe I could just

1 interject, Mr. Peters, by saying that we do read our  
2 metres in the rural area. So that's a responsibility that  
3 we have, and we self-report on a monthly basis.

4 Now I don't know how many jurisdictions  
5 would do that, and I don't know what the experience of  
6 utilities is in terms of the honesty, but I'll tell you,  
7 that it's corrected.

8 If it isn't correct, they correct it. So,  
9 you know, I'm -- I'm thinking this might be a cost saving  
10 measure as well to be implemented maybe on a larger scale.  
11 Has it ever been done in any of the US jurisdictions?

12 MR. PAUL CHERNICK: Well, I know I was  
13 reading my metre every second month in the suburbs of  
14 Boston, until Boston Edison basically switched to a remote  
15 reading system because they -- they had bi-monthly  
16 readings.

17 And I got so sick of their errors and their  
18 estimations for me that I -- I convinced them to just let  
19 me send in an estimated reading every -- every other  
20 month. But I don't know of anyone who's -- who's done  
21 that for more than, you know, a -- a couple months in a  
22 row.

23 I mean, I think if you -- if you had an  
24 actual reading quarterly then that would be probably  
25 sufficient to -- to maintain some reliability. And maybe

1 it would encourage people to actually pay attention to  
2 what their electric meter is -- is doing.

3 MS. SUSAN PROVEN: Thank you.

4

5 CONTINUED BY MR. BOB PETERS

6 MR. BOB PETERS: Mr. Chernick, when it  
7 came to inverted rates for the residential class, you're  
8 supportive of enlarging the -- the size of the first  
9 block. You just don't want to go quite as large as  
10 Manitoba Hydro's proposed.

11 Would that be correct?

12 MR. PAUL CHERNICK: I -- yeah, I think  
13 their -- their proposed first block is -- is too large.  
14 It's obviously a judgment call as to where you cut it off.

15 MR. BOB PETERS: And your concern is that  
16 there'd be too few customers facing marginal costs in the  
17 tail block.

18 MR. PAUL CHERNICK: Yes.

19 MR. BOB PETERS: And if they -- if they  
20 weren't facing the marginal costs, there'd be no incentive  
21 for them to save energy.

22 MR. PAUL CHERNICK: Well, there'd be less  
23 incentive.

24 MR. BOB PETERS: And in terms of taking  
25 into consideration the heating customers or the all-

1 electric customers as I've called them, you propose that  
2 those customers, when identified, be given a larger first  
3 block if not a second block?

4 MR. PAUL CHERNICK: That -- that's  
5 correct.

6 MR. BOB PETERS: You've given a  
7 quantification of it in your materials. Is that based on  
8 calculations, or is that just directional?

9 MR. PAUL CHERNICK: That was based on --  
10 on calculations. In one (1) of the discovery responses,  
11 Hydro provided the bill frequency data for heating and  
12 non-heating residential customers, and I did some  
13 calculations on -- based on those.

14 MR. BOB PETERS: You -- you would --

15 MR. PAUL CHERNICK: Oh, well, excuse me --

16 MR. BOB PETERS: Okay.

17 MR. PAUL CHERNICK: -- the -- the alloc --  
18 I believe the allocation among the months was just an  
19 approximation. I was just sort of suggesting what you  
20 might do in terms of doing it across the months. But in  
21 terms of the total number of -- of kilowatt hours per  
22 customer that -- that might be discounted over the course  
23 of the year, that I -- I calculated from the bill  
24 frequency.

25 MR. BOB PETERS: Appreciate that, and your

1 calculation was 6,400 kilowatt hours of additional energy  
2 at a lower price for the all-electric or the heating  
3 customers.

4 MR. PAUL CHERNICK: Right, which would  
5 give the average all-electric customer the same average  
6 rate as the -- the average non-heating customer.

7 MR. BOB PETERS: And you would -- you  
8 would introduce that additional 6,400 kilowatt hours on a  
9 increasing monthly basis as the weather got colder in  
10 Manitoba?

11 MR. PAUL CHERNICK: I think that's a  
12 reasonable way of doing it.

13 MR. BOB PETERS: All right. I gave to  
14 your counsel a copy of, actually my only colour copy of  
15 Exhibit 12. This is a document that we had -- we had  
16 talked about earlier in the proceedings. I'm not sure if  
17 you've had a chance to ever see it before.

18 MR. PAUL CHERNICK: I don't believe I  
19 have.

20 MR. BOB PETERS: Can you take it as  
21 Manitoba Hydro's depiction on their website of the  
22 comparison of home heating costs for a typical home in  
23 Manitoba on the top half of the sheet, coloured in mostly  
24 red. And then the bottom is the water heating. I -- I  
25 guess my question to you is from my understanding Centra

1 Gas Manitoba, Inc. is a wholly owned subsidiary of  
2 Manitoba Hydro, and you're aware of that?

3 MR. PAUL CHERNICK: Yes.

4 MR. BOB PETERS: You may not be aware that  
5 they apply to this Board to increase their rates on a  
6 quarterly basis for the commodity.

7 Did you know that?

8 MR. PAUL CHERNICK: I -- I didn't.

9 MR. BOB PETERS: And the next quarter is -  
10 - is coming up May the 1st, and so a rate increase is  
11 being sought by the gas utility on account of commodity as  
12 well as a -- an additional 1 percent on account of non-  
13 commodity costs.

14 You wouldn't have been aware of that?

15 MR. PAUL CHERNICK: No, not specifically.  
16 I can't say that I'm surprised that commodity costs are  
17 rising.

18 MR. BOB PETERS: Just -- just maybe for  
19 interest or more so, what's the kilowatt hour that you pay  
20 or that people pay in Massachusetts? I don't want to...

21 MR. PAUL CHERNICK: Well, like Mr.  
22 Williams, I have a wife who handles the bills. So I don't  
23 look at this on a -- on a usual basis for my own bill. I  
24 know that in -- well, I -- I think we -- we'd be up around  
25 seventeen (17) cents a kilowatt hour.

1                   MR. BOB PETERS:   New York would be about  
2 the same or a little higher?

3                   MR. PAUL CHERNICK:   New York City is more  
4 like twenty (20).

5                   MR. BOB PETERS:   And that's for the  
6 residential customer?

7                   MR. PAUL CHERNICK:   Yes.

8                   MR. BOB PETERS:   What's the marginal cost  
9 in -- in Massachusetts, where you are?

10                  MR. PAUL CHERNICK:   You know, I would have  
11 to go through the avoided cost study and look at avoided  
12 T&D and so on to -- to try and get you the number.  It's  
13 probably -- it's probably below the -- the seventeen (17)  
14 cents.  It might be twelve (12) or fourteen (14) cents,  
15 but that's really just a guess.

16                  MR. BOB PETERS:   Okay, and likewise in New  
17 York City the marginal cost would be lower than the --

18                  MR. PAUL CHERNICK:   Yes.

19                  MR. BOB PETERS:   -- the current billed  
20 rate?

21                  MR. PAUL CHERNICK:   I -- I think that's  
22 probably the case.

23                  MR. BOB PETERS:   All right.  Those  
24 jurisdictions won't have the same problem that you've  
25 heard here in Manitoba about rate set on embedded costs

1 being quite a bit lower than the marginal cost.

2 MR. PAUL CHERNICK: We would love to have  
3 this problem.

4 MR. BOB PETERS: Back to Manitoba Hydro  
5 Exhibit 12 for a minute. If you're looking at the mid-  
6 efficient gas furnace, which presently looks like nine  
7 hundred and forty-four dollars (\$944) on an annual basis,  
8 and comparing that to the electric at nine hundred and  
9 sixty-one dollars (\$961) on an annual basis, at this point  
10 they are relatively comparable, but gas is still sending a  
11 better signal in terms of being cheaper to heat on an  
12 annual basis.

13 MR. PAUL CHERNICK: Well that's what the  
14 numbers here show, yes.

15 MR. BOB PETERS: And if Manitoba Hydro --  
16 it was successful in this rate application, as they've  
17 applied for, and if their gas utility is successful in the  
18 rate application they've applied for, what would be the  
19 price signal if -- if the gas then became a thousand and  
20 sixteen dollars (\$1,016) and the electric became nine  
21 hundred and eighty-nine dollars (\$989), so the gas was now  
22 more than electric?

23 MR. PAUL CHERNICK: Well then it would --  
24 it would look like the electric resistance is less  
25 expensive.

1                   MR. BOB PETERS:    Would that entice people  
2 then to say, Well maybe we should consider fuel switching  
3 from gas to electric?

4                   MR. PAUL CHERNICK:    It -- it certainly  
5 might. It would -- it might affect the decision of people  
6 who were going to be redo -- redoing their heating system  
7 anyway and trying to decide whether to go to the high  
8 efficiency furnace or to say an electric furnace.

9                   MR. BOB PETERS:    New home construction  
10 would also be influenced by a decision if those prices  
11 were considered to be maintained in the long term?

12                   MR. PAUL CHERNICK:    Yes, or if it's the --  
13 the builder who's making the decision about what to put  
14 in. There's obviously -- there's a -- in general a  
15 preference for electric because they -- they don't have to  
16 bother with the gas lines and -- and the gas equipment  
17 tends to be somewhat more expensive than electric.

18                   And so if they -- they think that, in the  
19 short term, the electric will give them a lower cost and  
20 an attractive selling point that electric heating is today  
21 cheaper than gas heating, they are likely to go with that  
22 regardless of what they think is going to happen in five  
23 years.

24                   MR. BOB PETERS:    You might not be  
25 familiar, and I may even have it factually incorrect, but

1 in new home development in say the Winnipeg area the  
2 services for both gas and electricity would be provided to  
3 the -- to the lot and then it can be connected to the home  
4 I suppose at the -- at the developer's discretion.

5 MR. PAUL CHERNICK: Yes, and there -- they  
6 -- they obviously have to run a line, electric line, from  
7 the street into the home. They don't have to run the gas  
8 line and -- and deal with that part of it.

9 There is some additional cost to them then.

10 MR. BOB PETERS: And what -- what is the -  
11 - the differential between electricity and gas heating in  
12 New England?

13 MR. PAUL CHERNICK: Electricity is much  
14 more expensive than -- than gas.

15 MR. BOB PETERS: Twice as much?

16 MR. PAUL CHERNICK: It certainly could be,  
17 yes.

18 MR. BOB PETERS: In terms of the energy  
19 intensive industry rate, and you've had a discussion with  
20 Ms. Ramage about that, but I took your evidence to -- to  
21 be that you disagreed with the baseline level, and you  
22 disagreed with the rate calculation, and you disagreed  
23 with the exemptions. Other than that you liked it.

24 Now --

25 MR. PAUL CHERNICK: The rate calculation

1 in -- in terms of -- of what the -- the marginal cost was,  
2 I -- I think that's a fairly minor point at this time. I  
3 think that -- that moving to the marginal cost-based  
4 charge that the -- that Hydro proposes is -- is -- would  
5 be a significant improvement, and I -- I certainly didn't  
6 mean to distract anyone by quibbling over whether that  
7 should be another half cent higher or something.

8 MR. BOB PETERS: No, and in -- in  
9 seriousness, your -- your thrust is you think marginal  
10 cost-based rates is the way to go, not only for the  
11 energy-intensive industry but you would say for the entire  
12 rate class and in fact, all rate classes on the tariff  
13 schedules here in Manitoba?

14 MR. PAUL CHERNICK: Yes, they're -- for --  
15 inverted rates become more complicated in -- for the small  
16 and medium general service because you've got the problem  
17 of a large, medium customer on an inverted rate could wind  
18 up with a bill that's higher than a small, large general  
19 service customer who's in -- in their first block.

20 Or -- and -- and so you have to be careful  
21 about how you design the rates so you don't have those  
22 kinds of peculiarities where it might actually pay  
23 somebody to use enough additional electricity to be kicked  
24 up to the next rate and get a rate decrease.

25 But with that -- that caveat which can be a

1 very important practical concern to the extent that you  
2 can, you'd like to move towards inverted rates.

3 MR. BOB PETERS: And in terms of  
4 exemptions you were suggesting that's a matter best left  
5 for government?

6 MR. PAUL CHERNICK: Yes, and again the --  
7 the funding could basically come from -- from Hydro, but  
8 it seems redundant to have -- to ask Hydro to create and  
9 the -- the Board to internally be able to supervise an  
10 economic development process that parallels what the  
11 province already does.

12 MR. BOB PETERS: And turning to your last  
13 issue which was the -- Manitoba Hydro's efforts on  
14 promoting demand-side management --

15 MR. PAUL CHERNICK: Mm-hm.

16 MR. BOB PETERS: -- you showed the Board a  
17 savings rate calculation, and you compare that to a  
18 spending rate calculation, correct?

19 MR. PAUL CHERNICK: Well, it's not so much  
20 that I compare them, but I -- I offer both of those, yes.

21 MR. BOB PETERS: You calculated them?

22 MR. PAUL CHERNICK: Yes.

23 MR. BOB PETERS: And you also provided  
24 them I thought for some other jurisdictions:  
25 Massachusetts, Connecticut, Vermont?

1 MR. PAUL CHERNICK: Yes.

2 MR. BOB PETERS: Was the purpose of your  
3 showing those to say that Manitoba Hydro isn't keeping up  
4 with other jurisdictions in their spending?

5 MR. PAUL CHERNICK: Well, it's not so much  
6 that I'm advocating spending for spending's sake. I'm  
7 primarily interested in the savings, and Hydro is not  
8 projecting savings at the -- the high end of -- of the  
9 continental range.

10 And when you look at how much they're  
11 spending, that would help to explain why it is that  
12 they're not -- not seeing that level of savings.

13 MR. BOB PETERS: Does that suggest they're  
14 missing some programs or they're not using the right  
15 tests?

16 What does it suggest to -- to you?

17 MR. PAUL CHERNICK: Well, unfortunately I  
18 -- I didn't really have the -- the time to do a -- a  
19 thorough review of -- of Hydro's DSM programs. I don't  
20 know whether it's that they're not marketing effectively;  
21 whether their program designs are discouraging  
22 participation. I'm just not sure what the problem is  
23 because I haven't gone into enough detail.

24 MR. BOB PETERS: Well --

25 MR. PAUL CHERNICK: We heard earlier some

1 concern on Hydro's part that they wouldn't be able to --  
2 to reach all of the low income customers with a DSM  
3 program for many years to come, even if those customers  
4 are clearly in great -- great need of -- of assistance.

5                   So I'm -- I'm just not sure what the  
6 constraint is. I asked Hydro whether they had waiting  
7 lists, whether there were any things they weren't doing  
8 because of budget constraints and they said no so I -- I  
9 don't know where the hang-up is.

10                   MR. BOB PETERS: All right, and it would I  
11 also be correct in suggesting that, in terms of  
12 alternative methods used to test the results, you can't  
13 indicate whether they would be any different than what the  
14 -- the TRC or the RIM test is presently in Manitoba?

15                   MR. PAUL CHERNICK: Well, I -- I would  
16 recommend not using the RIM test for screening as I  
17 explained earlier. In terms of the TRC, again I just  
18 don't know that much about the -- the derivation of the  
19 marginal costs despite my best efforts and -- and  
20 therefore I can't really tell you whether I would have a  
21 substantially different estimate for the TRC ratios.

22                   But if -- you know, it's not necessarily a  
23 matter of their throwing out measures or programs because  
24 they failed the TRC. They may have them in there but  
25 somehow not be promoting them effectively.

1                   MR. BOB PETERS:    And they may have a  
2 basket of programs that will collectively pass the RIM  
3 test but individually might not, and you're saying is that  
4 a proper way to screen them or would they all have to be -  
5 - to be measured?

6                   MR. PAUL CHERNICK:    I would just throw out  
7 the RIM test completely and not use it for anything.

8                   MR. BOB PETERS:    And without knowing the  
9 specifics of how Manitoba Hydro would measure on the total  
10 resource cost test, your suggestion then to double or  
11 triple their DSM spending would be -- would be qualified  
12 because you'd get a better understanding of how they're  
13 measuring it, what programs are included, and which ones  
14 are just outside the program at this point -- at this  
15 point?

16                   MR. PAUL CHERNICK:    Well, again there --  
17 the -- it may not even have to do with TRC screening. It  
18 may have to do with program design. It may have do with  
19 what measures are included. It may be a matter of how --  
20 how things are bundled. I -- I really don't know the --  
21 the reason for the -- the shortfall.

22                   MR. BOB PETERS:    Mr. Chairman, I'd like to  
23 thank Mr. Chernick. Those complete the questions that I  
24 have, and I appreciate his answers.

25                   THE CHAIRPERSON:    Thank you, Mr. Peters

1 and thank you, Mr. Chernick. Appreciate your providing  
2 your views and expertise to the panel.

3 MR. PAUL CHERNICK: My pleasure.

4 THE CHAIRPERSON: Hope you have a good  
5 trip back.

6

7 (WITNESS STANDS DOWN)

8

9 THE CHAIRPERSON: Ms. McCaffrey, do you  
10 think you could return to your cross-examination of the  
11 panel for the last twenty (20) minutes or do you prefer to  
12 wait till we come back together?

13 MS. TAMARA MCCAFFREY: I'm happy to -- to  
14 do it, and I'm at the Board's pleasure.

15 THE CHAIRPERSON: Do we still have the  
16 panel, Ms. Ramage?

17 MS. PATTI RAMAGE: Yes, we do. I'm  
18 wondering if Ms. McCaffrey wants to do it backwards here  
19 or it might...

20 MS. TAMARA MCCAFFREY: Perhaps I'll just  
21 go and sit beside the witnesses and...

22 THE CHAIRPERSON: Sure, that --

23 MS. PATTI RAMAGE: Yeah, she can come sit  
24 with me.

25 MS. TAMARA MCCAFFREY: Well, that's fine.

1 I can -- I can move. It is easier for me to move over,  
2 so...

3 THE CHAIRPERSON: Very good, thank you.  
4 Given the schedule for when we come back together again,  
5 if Ms. McCaffrey can make a dent in what she has left to  
6 do, it just helps. I'm just saying we might as well take  
7 advantage of the twenty (20) minutes.

8 MS. PATTI RAMAGE: If -- while the parties  
9 are making their moves, just in the interest of time, I'd  
10 note that Manitoba Hydro has three (3) more undertakings  
11 that they have --

12 THE CHAIRPERSON: Please.

13 MS. PATTI RAMAGE: -- passed out. And  
14 while everyone's moving around, Hydro Undertaking 86, we  
15 suggest be Manitoba Hydro Exhibit 79.

16  
17 --- EXHIBIT NO. MH-79: Response to Undertaking 86

18  
19 MS. PATTI RAMAGE: Undertaking 88, be  
20 Exhibit 80.

21  
22 --- EXHIBIT NO. MH-80: Response to Undertaking 88

23  
24 MS. PATTI RAMAGE: And Undertaking 89 be  
25 Exhibit 81.

1

2 --- EXHIBIT NO. MH-81: Response to Undertaking 89

3

4 MS. PATTI RAMAGE: And while I notice  
5 people are moving the exhibit numbers, we've taken the  
6 liberty of already putting them on there so they will find  
7 them when -- when they arrive in their new locations.

8

9 THE CHAIRPERSON: Very good, very helpful,  
10 thank you.

11

12 (BRIEF PAUSE)

13

14 THE CHAIRPERSON: There's nothing like a  
15 new perspective on things.

16 MS. TAMARA MCCAFFREY: Very refreshing.

17 THE CHAIRPERSON: But you don't have a  
18 back row.

19 MS. TAMARA MCCAFFREY: I'm -- my hearing's  
20 not very good. I'm sorry, I missed your...

21 THE CHAIRPERSON: I was joking that you  
22 don't have the back row that Manitoba Hydro had --

23 MS. TAMARA MCCAFFREY: No.

24 THE CHAIRPERSON: -- when they were in  
25 your spot now.

1 MS. TAMARA MCCAFFREY: No, that's true,  
2 but I have Mr. McLaren, so...

3 MS. PATTI RAMAGE: Actually, Manitoba  
4 Hydro no longer has a front row.

5

6 MANITOBA HYDRO COST OF SERVICE AND RATE DESIGN PANEL

7 RESUMED:

8 KURT ROBIN WIENS, Resumed

9 CHIC THOMAS, Resumed

10 VINCE WARDEN, Resumed

11 HAROLD SURMINSKI, Resumed

12

13 CONTINUED CROSS-EXAMINATION BY MS. TAMARA MCCAFFREY:

14 MS. TAMARA MCCAFFREY: All -- all right,  
15 the meter's running. So dist -- distribution costs. I'm  
16 looking at Public Utility Board/Manitoba Hydro-1-57F --  
17 oh, it's 37, I'm sorry, I've got -- I've got a, never  
18 mind. COALITION-24.

19 I'm looking at COALITION-24, probably a  
20 simpler way to -- to refer to it. And it was a -- a graph  
21 of domestic prices showing separately for residential and  
22 general service. You don't even need to turn to it. Mr.  
23 Williams went through it with you. But just to confirm  
24 for the record again, a substantial portion of residential  
25 customer embedded costs are related to distribution.

1 Is that right?

2 MR. ROBIN WIENS: Yes.

3 MS. TAMARA MCCAFFREY: And, of course, we  
4 all know well, general service large greater than 100  
5 kilowatts and exports make little if any use of the  
6 distribution system.

7 Again correct, sir?

8 MR. ROBIN WIENS: Yes.

9 MS. TAMARA MCCAFFREY: And if I were to  
10 take the residential customer distribution customer  
11 service costs and the distribution plant costs, and they  
12 were contained in Schedule B(3) of the PCOSS '08.

13 You don't necessarily need to turn here,  
14 but it's -- for your reference, it's also in the Public  
15 Utility Board's Tab 13 -- Exhibit 13, Tab 56.

16 If I took the two (2) line items there in  
17 that -- in that "P" Cost of Service, I see a \$47.670  
18 million plus \$151.223 million, with respect to those two  
19 (2) items, distribution customer service costs and  
20 distribution plant costs.

21 And when I add it up, it comes to about  
22 198.893 million.

23 Would you accept that subject to check?  
24 And I know Mr. Wiens doesn't need that calculator.

25 MR. CHIC THOMAS: Yes.

1 MS. TAMARA MCCAFFREY: And those numbers  
2 are after export revenue allocations, correct, Mr. Thomas?

3 MR. CHIC THOMAS: Yes.

4 MS. TAMARA MCCAFFREY: Now, if we were to  
5 divide that number by the 6,578 gigawatt hours of sales to  
6 domestic customers at the meter -- which was in your  
7 schedule B(5), if you need to check it later -- I get  
8 about three (3) cents per kilowatt hour.

9 Does that sound about right?

10 MR. CHIC THOMAS: Yes, it does.

11 MS. TAMARA MCCAFFREY: So then it would be  
12 fair to say that residential customers need to pay about  
13 three (3) cents per kilowatt hour at the meter just to pay  
14 for the distribution cost, correct?

15 MR. CHIC THOMAS: That would be fair.

16 MS. TAMARA MCCAFFREY: All right, now  
17 let's move on to the NERA study, elasticity subject.

18 Coalition Exhibit 25 contains some excerpts  
19 from that 2005 NERA study. And Mr. Williams took you to a  
20 table that was on page 44 of that study dealing with own  
21 price elasticity, and I just want to confirm a couple of  
22 things briefly.

23 Do you recall, sir, that you told Mr.  
24 Williams that these elasticities were calculated for a 1  
25 percent change in price.

1                   Is that right?

2                   MS. PATTI RAMAGE:    Oh, Ms. McCaffrey, if  
3 we could just -- just take a brief pause. We don't -- our  
4 -- all our materials aren't with us, so we're just  
5 struggling a little bit to find a copy.

6

7 CONTINUED BY MS. TAMARA MCCAFFREY:

8                   MS. TAMARA MCCAFFREY:    You know, you  
9 really -- you have my sympathies completely. That's fine,  
10 I just thought -- I just thought from a general -- it's a  
11 more general discussion, actually, as opposed to going  
12 through item by item, which was not my intention to do.

13

14   (BRIEF PAUSE)

15

16                   MR. ROBIN WIENS:    We have that now.

17                   MS. TAMARA MCCAFFREY:    Do you recall, sir,  
18 whether you told Mr. Williams that the elasticities were  
19 calculated for a 1 percent change in price?

20   Is that...?

21                   MR. ROBIN WIENS:    I don't recall it, but I  
22 think that that would be the case.

23                   MS. TAMARA MCCAFFREY:    All right, so let's  
24 -- let's move on from there then.

25   I believe that you also indicated that you

1 would consider the elasticities to be characteristic of an  
2 inelastic demand, which to me means you can increase the  
3 price lot, but only conserve a little, in simple terms.

4 Is that about right?

5 MR. ROBIN WIENS: Yes, generally speaking,  
6 that the findings have been that electri -- electricity is  
7 a commodity where the demand is inelastic.

8 MS. TAMARA MCCAFFREY: And -- and with  
9 that statement in mind, sir, I'll just remind you of what  
10 the NERA reports indicated at the top of that page 44, "In  
11 the US..." I'm going to just read it through with you.

12 "In the US much of the elasticity work  
13 was done in the late '70s and early  
14 '80s. Because the electricity prices,  
15 rate designs, marketing utility  
16 structures have changed significantly  
17 since then, the results of those studies  
18 must be interpreted cautiously."

19 Would agree with that statement, sir?

20 MR. ROBIN WIENS: Well, I would agree with  
21 the statement that you have to be fairly cautious in  
22 interpreting any elasticity study, because it, I think, as  
23 Mr. Chernick remarks, is dealing with the complexities of  
24 human behaviour. And you can't always model those as  
25 precisely as you'd like.

1                   To -- as to the bulk of the work done in  
2 the '70s and '80s, I -- I do recall there was a lot of  
3 work done then. There is work that continues to be done.

4                   MS. TAMARA MCCAFFREY: And carrying that a  
5 little bit further, NERA goes on to say:

6                   "The elasticity estimates are not used  
7 to predict changes in demand, but rather  
8 to evaluate the relative shifts that  
9 might occur with implementation of the  
10 tariff structures."

11                  Am I correct, sir, in understanding that  
12 essentially what they're saying here is that these  
13 elasticities are useful for evaluating results between  
14 different rate design options, but they're not intended to  
15 forecast actual demand responses, are they?

16                  MR. ROBIN WIENS: I think that would be  
17 fair. I think the intent here is that they're trying to  
18 use some indicative measures of elasticity to evaluate  
19 what the results would be from various types of  
20 assumptions about rate changes.

21                  And -- and while I have the mic, I -- I  
22 would like -- I would like to point out that if you go to  
23 the previous page, page 43, NERA identified illustrative  
24 short-run, own price elasticities. So I'm happy with, or  
25 reasonably happy, with the definition that Mr. Chernick

1 provided for short run, within a year. This is -- this is  
2 what they're providing here.

3 Just in case there was any confusion,  
4 because there's been some discussion on -- on the record  
5 of -- of how much faith you can have in those types of  
6 measures. So I thought you need to understand the context  
7 in which they've been provided.

8 MS. TAMARA MCCAFFREY: And I thank you for  
9 that, sir.

10 Essentially, though, NERA wouldn't be remec  
11 -- recommending that you use these elasticities to  
12 allocate costs to different customers for the purpose of  
13 rate setting, to put a plainer point on it?

14 That wouldn't be what -- what these kinds  
15 of results be used for, given the cautions that we have to  
16 keep in mind when we're -- when we're looking at them?

17

18 (BRIEF PAUSE)

19

20 MR. ROBIN WIENS: No, I don't -- I -- I  
21 think you might want to use estimates of elasticity to  
22 test various assumptions about what might happen with  
23 different rate structures, but to allocate costs, no.

24 MS. TAMARA MCCAFFREY: Thank you, sir.  
25 And just -- just one final following-up point.

1                   I believe you also indicated, I think, in -  
2 - in conversation with Mr. Williams that NERA had sent you  
3 a list of about two hundred (200) or so elasticity  
4 studies.

5                   Would it be a fair assumption to say that  
6 the results of those studies could -- could vary widely?

7                   MR. ROBIN WIENS:   Well, I'm -- I'm -- if I  
8 said NERA had sent me a list of two hundred (200) studies,  
9 I -- I might have been in error there.  Certainly, I have  
10 seen -- although perhaps not read, marked, learned, and  
11 inwardly digested -- that volume of studies.  But I'm  
12 aware that that's the type of volume we're talking about.  
13 And -- and NERA has certainly provided us with -- with  
14 some references.

15                   And, yes, the studies come up with  
16 different results, and often it's because they're intended  
17 to test different hypotheses.  Some of them are  
18 longitudinal; they're looking at changes in times.  Some  
19 of them are looking at changes across different geographic  
20 regions.

21                   So they don't all have the same purpose and  
22 they don't all have the same data.  So yeah, there are a  
23 lot of differences.

24                   MS. TAMARA MCCAFFREY:   And given those  
25 differences, you -- elasticities could also be very

1 different for individual customers in a particular rate  
2 class.

3                   And further, they could be different for  
4 the same customer at different points on their demand  
5 curve as well?

6                   MR. ROBIN WIENS: I think that's fair to  
7 say.

8

9                   (BRIEF PAUSE)

10

11                   MS. TAMARA MCCAFFREY: I think I've got  
12 five (5) minutes left.

13                   With respect to the Curtailable Rates  
14 Program, Mr. Thomas, could you very succinctly and  
15 eloquently sum up what the Curtailable Rates Program is  
16 for us?

17

18                   (BRIEF PAUSE)

19

20                   MS. TAMARA MCCAFFREY: How about we start  
21 with this, given the time.

22                   Is the -- is the Curtailable Rates Program  
23 a valuable program for Manitoba Hydro?

24                   Is it something that Manitoba Hydro likes  
25 and would like to see consee -- see continue in the

1 future?

2 MR. ROBIN WIENS: Yes, we believe it has  
3 value for Manitoba Hydro.

4 MS. TAMARA MCCAFFREY: And this is a  
5 program where a certain customer -- Manitoba Hydro, if you  
6 need additional load you can contact a cert -- a  
7 particular customer who is part of this program and say,  
8 Can you shut it down, free up some load, and -- and  
9 there's a particular rate that's associated with that?

10 Or how would you rephrase it, sir?

11 MR. ROBIN WIENS: Yeah, it's -- it's --  
12 once the customer's in it in the contract, it's the  
13 question of would we expect the customer to respond to any  
14 and all calls for curtailment.

15 The customer is provided with a discount to  
16 the -- relative to the regular rate that they pay on a  
17 month, and that discount is provided on a monthly basis in  
18 exchange for the customer standing willing to curtail when  
19 requested, up to a certain maximum number of curtailments  
20 per year.

21 MS. TAMARA MCCAFFREY: Is it a program  
22 Manitoba Hydro actively uses?

23 MR. ROBIN WIENS: We do use the program.  
24 Some years we use it more than others. Some seasons we  
25 use it more than others.

1 MS. TAMARA MCCAFFREY: Can you give us  
2 sort of a ball park for how often Manitoba Hydro might  
3 make use of its abilities to curtail customers?

4 MR. ROBIN WIENS: Well, I can give you all  
5 the detail you want, but I'd need to find the sources for  
6 it. It's gone as high as to the maximum in some years.  
7 In some years it's been as little as one (1) or two (2) or  
8 -- or even none. It depends on the circumstances on the  
9 system.

10 MS. TAMARA MCCAFFREY: And what do you  
11 mean by the maximum?

12

13 (BRIEF PAUSE)

14

15 MR. ROBIN WIENS: The most commonly used  
16 program, which we des -- we describe as Option A, the  
17 maximum in any one (1) year is fifteen (15).

18 MS. TAMARA MCCAFFREY: Sixteen (16)  
19 curtailments?

20 MR. ROBIN WIENS: Fifteen (15), one-five  
21 (15).

22 MS. TAMARA MCCAFFREY: Thank you. Okay.  
23 Now Hyd -- Hydro is proposing a minor change to the terms  
24 and conditions of the program.

25 Can you briefly just tell the Board what

1 that is and why you're asking for it?

2

3

(BRIEF PAUSE)

4

5 MR. ROBIN WIENS: As I -- as I mentioned a  
6 moment ago, I talked about fifteen (15) curtailments as  
7 being the maximum for Option A. But the -- actually the  
8 option that we are asking for a minor changes is Option R.  
9 And there is some difference between these two (2)  
10 programs.

11 In the case of Option A, we use Option A to  
12 maintain our reserves at -- our -- our planning reserves  
13 on the system. We use Option R to assure that we have  
14 sufficient operating reserves on the system.

15 Option R provides the same monthly credit  
16 to the bill as Option A. But in addition to that monthly  
17 credit, there is an actual small credit per kilowatt hour  
18 of load curtailed at the time that the -- at the time that  
19 the curtailment is requested.

20 The maximum number of curtailments for  
21 Option R is twenty-five (25) curtailments during the  
22 course of the year. Now the change that we are  
23 requesting, Option R, because it is an operating reserve  
24 requirement, we want to be absolutely sure that when we  
25 ask for these curtailments, we're going to be able to get

1 them.

2                   And one of the reasons where a customer may  
3 not be able to provide a curtailment, even if they wanted  
4 to, is if the load -- their load wasn't on the line -- or  
5 wasn't drawing load at the time.

6                   So we want to be aware of those situations  
7 if and when they're likely to be encountered. So one of  
8 the terms of Option R is currently, in the rate terms and  
9 conditions, is that we want the customer to provide us  
10 twenty-four (24) hours notice.

11

12                   (BRIEF PAUSE)

13

14                   MR. ROBIN WIENS: We are asking to have  
15 that notice period increased to forty-eight (48) hours.

16                   MS. TAMARA MCCAFFREY: And Hydro is not  
17 asking for any other changes to the program rate overall  
18 or terms and conditions of services?

19                   MR. ROBIN WIENS: That's the only one.

20                   MS. TAMARA MCCAFFREY: And we've already  
21 heard that Hydro would like to continue the program,  
22 thinks it's valuable, just as a follow-up to that, in the  
23 perhaps sixty (60) second remaining, one (1) of the values  
24 of the Curtailment -- Curtailable Rates Program, is that  
25 it -- it benefits the system and all customers, because it

1 enhances system reliability, as I understand it.

2 Am I -- am I correct in that?

3 MR. ROBIN WIENS: That's the purpose of  
4 the program.

5 MS. TAMARA MCCAFFREY: And are there any  
6 other benefits that you'd like to elaborate on, or is that  
7 -- is that the main one?

8 And that will be my last question for the  
9 panel.

10

11 (BRIEF PAUSE)

12

13 THE CHAIRPERSON: You appeared to have  
14 asked a good one, Ms. McCaffrey, because they're...

15 MR. ROBIN WIENS: It -- it is to provide  
16 reliability, but the -- the value of the curtail load,  
17 particularly in the summertime, is determined by the  
18 revenue Hydro can earn from short term firm sales. That's  
19 how we value the -- the capacity.

20 But it is tied to being able to make those  
21 sales and still have reliability on the system.

22 MS. TAMARA MCCAFFREY: Thank you very  
23 much, Mr. Wiens, and -- and the panel. It's always a  
24 pleasure.

25 Subject to having an opportunity to review

1 undertakings, of course, if anything arises, that  
2 completes our cross-examination now.

3 THE CHAIRPERSON: Thank you, Ms.  
4 McCaffrey, and thank you for your cooperation in this.

5 Mr. Peters, I imagine we cannot release the  
6 panel yet? Mr. Anderson --

7 MR. BOB PETERS: Mr. Anderson advises me  
8 via email that he will be here on the 30th and he will  
9 conduct his cross-examination of this panel on Wednesday  
10 the 30th of April.

11 THE CHAIRPERSON: Okay, so we will save  
12 our thanks for the panel. We will give you early thanks  
13 and we'll see you back on the 30th.

14 Thank you. We stand adjourned.

15

16 (WITNESSES RETIRE)

17

18 --- Upon adjourning at 4:00 p.m.

19

20 Certified correct,

21

22

23

24 \_\_\_\_\_  
Cheryl Lavigne

25