

MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
COST OF SERVICE STUDY REVIEW
INTERVENOR WORKSHOPS

Before Facilitator: Bill Grant

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba

June 22, 2016

Pages 420 to 735



“When You Talk - We Listen!”



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1 --- Upon commencing at 9:00 a.m.

2

3 THE FACILITATOR: Good morning,
4 everyone. We might as well get started.

5 I was reflecting last night, though, on
6 how well things went yesterday. And I think it was
7 particularly helpful that the -- the various experts
8 were engaging in discussion with each other on the
9 issues, and -- and each reflecting on the thoughts of
10 the other one that I thought provided a --a high level
11 of information gathering for all of us to think about
12 as we move forward with the process. So basically, I
13 was thinking good on all of you, and please keep it
14 up.

15 So today we're starting with general
16 service questions of Bill. Over to you.

17

18 CONSUMER COALITION PANEL RESUMED

19 WILLIAM HARPER, Resumed

20

21 MR. JAROME LESLIE: Good morning, and
22 thank you, Bill.

23

24 CROSS-EXAMINATION BY MR. JAROME LESLIE:

25 MR. JAROME LESLIE: I'd like to start

1 off picking up from where Mr. Chernick left off in his
2 line of questioning yesterday. And can you confirm
3 that direct -- directly assigning costs to partici --
4 participating groups as it relates to DSM reduces the
5 incentives for customers to participate in such
6 programs?

7

8 (BRIEF PAUSE)

9

10 MR. WILLIAM HARPER: I -- I guess the
11 reason I'm pausing is that directly assigning the
12 costs increases the -- increases the costs to that
13 particular customer class, which, if you followed that
14 through the whole process in terms of revenue coverage
15 -- cost coverage ratios, et cetera, would increase --
16 would lead to an increase in -- in the rates.

17 You know, you have to follow through
18 all of those steps, and then I'm not too sure whether
19 a customer on the street is sufficiently familiar with
20 how this whole process and how cost of service works
21 to be able to appreciate that.

22 So -- so that I'm not too sure what the
23 direct cause and effect is. If you get to larger,
24 more sophisticated customers, there -- there may be
25 some more of that. So I -- I think, conceptually,

1 yes, and that's where I was coming from.

2 I -- I think I'm not too sure if -- if
3 in practice, every -- everybody walking up and down
4 Port -- Portage understands this enough to figure that
5 out.

6 MR. JAROME LESLIE: Fair. So to the
7 customer understanding that the direct assignment
8 might cut into some of the benefits that they receive,
9 might -- that might be the case.

10 However, when you look at -- if you
11 have the understanding of the cost of service process
12 and the full assignment of costs, and then the
13 associated rate increases, then you -- in that case,
14 this is where you would see tho -- the direct
15 assignment being, well, netted out of the benefit,
16 essentially.

17 Is that correct?

18 MR. WILLIAM HARPER: I'm sorry, could
19 you walk through -- through that again? I -- I'm
20 sorry, I had a bit of time -- maybe it's early in the
21 morning, but I apologize.

22 MR. JAROME LESLIE: Oh. So we agree
23 conceptually that the direct assignment will assign
24 more costs to these participating customer classes.
25 And when -- if it goes through cost of service, it

1 would see where -- where it's potentially increased
2 accordingly.

3 And you're saying that the average
4 customer might not understand the process of cost of
5 service and how the cause and effect relationship
6 works. But given -- when we -- given our
7 understanding of the process and looking at it
8 holistically, we do see that this dir -- assignment
9 does cut -- essentially cut into some of the benefits
10 that the programs offered.

11 MR. WILLIAM HARPER: Yes, it does.

12 And -- and actually -- actually, I'm reflecting on
13 your first question. I think there was a comment made
14 yesterday, and -- about how the -- you know, if this
15 happens, but maybe there's -- there's an alternative
16 view I -- I could say, you know --

17 MR. JAROME LESLIE: Okay.

18 MR. WILLIAM HARPER: -- like, I -- I
19 heard expressed in that is that, Well, if everybody
20 else is doing it, I might as well get up to the trough
21 and get my piece too, because I'm paying for it
22 anyways. I'm not -- I -- that sounds to me like mafia
23 economics to me. I have to -- everyone else is doing,
24 so -- so I have to get my share or -- or I'm going to
25 lose sort of thing.

1 So there -- there may be an element of
2 that in there, but I think that sort of -- that --
3 that logic is a little bit conflicted, I think, but
4 otherwise I agree with you, yeah.

5 MR. JAROME LESLIE: Okay. Thank you.
6 And as relates to your evidence on page 47
7 specifically --

8 MR. WILLIAM HARPER: Excuse me, that
9 was forty-seven (47) or twenty-seven (27)?

10 MR. JAROME LESLIE: Forty-seven (47),
11 sorry. Also on the topic of DSM.

12

13 (BRIEF PAUSE)

14

15 MR. JAROME LESLIE: Here -- yes, the -
16 - the first paragraph, here. You state that DSM costs
17 should be functionalized as generation, transmission,
18 and distribution with the 86.6 percent shared to
19 generation, six point five (6.5) to transmission --
20 six point six (6.6) to transmission, sorry, and six
21 point eight (6.8) to distribution.

22 And this is based on, I believe, a
23 marginal of what it costs provided by Hydro in their
24 responses to one (1) of your Information Requests. Is
25 it --

1 MR. WILLIAM HARPER: That's right.
2 This was based on the avoided costs that were applied
3 to the 2012 DSM program, which is -- my understanding
4 is the DSM programs that -- that were underlying sort
5 of what -- what's in PCOSS14, yes.

6 MR. JAROME LESLIE: Okay. And I'll --
7 I was looking at that particular Information Request,
8 and also saw that they provided essentially the same
9 information for the 2015 DSM cost review -- or DSM
10 evaluation?

11 MR. WILLIAM HARPER: Yes. I think --
12 I think the same information in another Information
13 Request we asked -- you know, we wanted to understand
14 what was in -- what had been done at the time of the
15 PCOSS14. And then I was interested in seeing what the
16 more recent values were --

17 MR. JAROME LESLIE: M-hm.

18 MR. WILLIAM HARPER: -- that had been
19 used in the most recent plan, which I -- I think
20 you're right, is 2015, around there, the -- the most
21 recent DSM plan. And the values were slightly
22 different, but I'm not too sure if the proportions
23 were -- would be all that different than what we have
24 here.

25 MR. JAROME LESLIE: Correct. And just

1 to confirm that my understanding to correct -- that --
2 that my understanding is correct, this -- these
3 avoided marginal costs show the per kilowatt dollar
4 value of what generation costs would be, transmission
5 costs, and the distribution costs would be for --

6 MR. WILLIAM HARPER: Well, I think
7 it's the per kilowatt hour --

8 MR. JAROME LESLIE: Yeah.

9 MR. WILLIAM HARPER: -- avoided costs
10 associated with generation, transmission, and
11 distribution, yes.

12 MR. JAROME LESLIE: Across the system
13 as a whole, not specific to a customer class. And so
14 given you're taking this approach, is it the case,
15 then, that you believe that the DSM is -- or should be
16 viewed as a substitute for all three (3) of these
17 products in -- in this particular split?

18 MR. WILLIAM HARPER: Well, to -- to
19 the extent that when you're offering DSM programs to
20 smaller customers who are served at dis --
21 distribution voltage, the evaluation of those programs
22 considers savings at generation, transmission, and
23 distribution, that should be factored into how you
24 allocate those costs to those three (3) functions.

25 In the exercise I did here, when it

1 came to the larger customers, say the GS greater than
2 fifty (50) -- greater than -- excuse me, greater than
3 one hundred (100) customers --

4 MR. JAROME LESLIE: Yeah.

5 MR. WILLIAM HARPER: -- clearly,
6 they're served at transmission voltages, so programs
7 offered to them would -- would -- you'd only be
8 getting benefits from generation and transmission, and
9 so I factored that in. If you look at the table, when
10 -- when it comes to the Curtailable Rate Program, I --
11 I only gave that benefits on -- on the generation side
12 be -- because that -- that's effectively where their -
13 - where the benefit from the curtailable rate program
14 lies.

15 MR. JAROME LESLIE: Okay. Thank you
16 for clearing that for me. Yeah.

17

18

19 (BRIEF PAUSE)

20

21 MR. JAROME LESLIE: Now, I'd like to
22 move onto my next question as relate -- it's relating
23 to the allocation of net export revenue, and it
24 touches on page 86 of your evidence.

25

1 (BRIEF PAUSE)

2

3 MR. JAROME LESLIE: I believe -- I
4 believe it might be lower down on -- right, the very
5 last -- the bolded... The bolded section. Right. So
6 you state that:

7 "Allocating the resulting export
8 revenues on a more neutral basis --"

9 You wanted that results in less
10 distortions in the pre/post and export allocation.

11 Sorry, I just lost where I was reading from:

12 "Pre -- pre versus post export
13 revenue allocation to the cost
14 ratios is reasonable and reduces the
15 future potential for recreating the
16 cost of service and perverse cost
17 causation signals that were of -- of
18 concern to the Board in its 2006
19 Order."

20 And my -- my reading on this is that
21 your position on this matter is the approach currently
22 taken is -- or it should -- is -- because in your
23 view, a more fair, a more equitable allocation of net
24 export revenue as compared to what was done
25 previously?

1 MR. WILLIAM HARPER: Yes, I think it -
2 - a reasonable approach, yes.

3 MR. JAROME LESLIE: Okay. Thank you.
4 And do you agree or disagree that the expansion of
5 consideration to include some direct costs would als -
6 - would -- to include direct costs in net export
7 revenue allocation is a step further in this
8 direction?

9 MR. WILLIAM HARPER: No, I don't
10 actually. And I think I had some discussion with the
11 people from the City of Winnipeg yesterday on that.

12 MR. JAROME LESLIE: Okay. Thank you.

13

14 (BRIEF PAUSE)

15

16 MR. JAROME LESLIE: My last couple
17 questions relate to the export class. And firstly, do
18 you believe that opportunity sales have played a role,
19 to some degree, in the advancement of generation
20 investments?

21 MR. WILLIAM HARPER: Yes, I do.

22 MR. JAROME LESLIE: And, I guess to
23 build on that, in a world where these opportunity
24 sales would not have been available, whether or not
25 these generation advancements would have taken place?

1 MR. WILLIAM HARPER: Well, I guess --
2 I think they had an influence on -- on the decision
3 whether or not, you know, and they made the decision -
4 - they made the decision. They helped tip the balance
5 more towards the question, the issue of advancing,
6 probably both Wuskwatim and Keeyask.

7 I haven't seen the analysis or seen the
8 runs that would happen. What would happen if there
9 was none of that? And how -- how would the balance --
10 how would the economic balance have tipped? Would the
11 economic balance have tipped in favour of gas or not?
12 I don't know.

13 I don't even recall if there was a
14 specific run done on that specific issue, but I -- I
15 can say that, yes, I believe they contributed to -- to
16 the overall value proposition in advancing the -- the
17 in service dates for -- for those units.

18 MR. JAROME LESLIE: Fair enough. And
19 further on that point, so page 23 of your evidence.

20 MR. WILLIAM HARPER: Right.

21 MR. JAROME LESLIE: You state that:

22 "Opportunity exports would be based
23 on the availability of generation in
24 excess of dependable supply."

25 MR. WILLIAM HARPER: Well -- well,

1 that -- that's basically a way of trying to -- we've
2 got -- trying -- trying to define. You've got a total
3 volume with exports. And how are you trying to parse
4 that between what you're going to call dependable and
5 what you're going to call opportunity exports.

6 And so to the extent you have
7 dependable energy in excess of what's required for
8 firm load, I -- I accept Hydro's approach that that's
9 a reasonable way to define what you would define as
10 being dependable exports. And to the extent there is
11 additional energy available to varying degrees
12 depending upon water conditions above that amount,
13 that's a reasonable amount to define as opportunity
14 expo -- exports.

15 MR. JAROME LESLIE: Fair enough. That
16 -- that's helpful. And on that note, can you comment
17 on how often opportunity exports are available, or
18 have been?

19 MR. WILLIAM HARPER: Well, I would
20 think to some degree opportunity exports would always
21 be available unless you got into very, very low water
22 flows. I mean, depe -- dependable exports, if they're
23 defined on dependable flows are based on sort of
24 what's the lowest -- my understanding is at least, is
25 what's sort of the lowest flow we can anticipate on

1 the system and what's the generation that would come
2 from that.

3 So any particular point in time where
4 you're at a flow that's greater than that dependable
5 or minimum amount you're -- you're going to have some
6 extra energy that -- that can be sold as opportunity
7 exports.

8 MR. JAROME LESLIE: Oh, fair enough.
9 Thank you. And that's my last question, actually, so
10 I think we're off to a quick start today.

11 THE FACILITATOR: Thanks, Jarome.
12 Thanks. And now we have the change-up where the City
13 of Winnipeg went before MIPUG yesterday. And now over
14 to MIPUG. Sorry, Reg, do you have a question?

15 BOARD MEMBER GOSSELIN: I do have a
16 few questions. Do you -- do you prefer I want until --
17 -- until we get further on the schedule or...?

18 THE FACILITATOR: Well, I think, given
19 the focus on informing the panel, I think, asking,
20 whenever is best for you guys.

21 BOARD MEMBER GOSSELIN: Mis -- Mr.
22 Harper, I guess one (1) of the -- one (1) of the --
23 the points you've made is that you're of the view that
24 DSM costs should be assigned to gen -- generation
25 transmission distribution on the basis of the -- ba --

1 based on the notion that Manitoba Hydro caused these
2 costs.

3 You know, I'm thinking back to my
4 personal situation when I was a young couple, when my
5 wife and I were newly married and, you know, were
6 living in a starter home with -- the wind was blowing
7 through the windows and so on. I mean, we made the
8 choice to -- to use a program put on by Hydro because
9 we needed to -- to address the -- the wind blowing
10 through the house as opposed to -- you know, we didn't
11 -- we didn't -- Hydro didn't cause the -- the purchase
12 of those windows. It facilitate the use -- the
13 purchase of the windows.

14 So I'm trying to -- I'm trying to
15 grasp, you know, the -- the sort -- the sort of
16 reverse thinking that you're proposing.

17 MR. WILLIAM HARPER: Well, that's
18 sort of, you know -- and I think that's a question
19 that -- you know, I'm no DSM expert, but that's a
20 question, my understanding is, people who are
21 designing DSM programs struggle with all the time in
22 terms of I'm -- I'm designing a program. But there's
23 probably people out there who are going to participate
24 any -- who -- who would do it anyways, like yourself
25 just moving into the house. You can't stand that wind

1 coming through -- coming through the window in the
2 middle of a Winnipeg window, you know, and so.

3 But I think they define those as free
4 riders, if I want to put it that way, pe -- people who
5 would have come in who would have done it, therefore.
6 And typically when they're looking at DSM programs and
7 economics of DSM programs they -- they make estimates
8 of, well, what -- what they expect the free ridership
9 to be and take that into account and determine is this
10 program still economic after I assume I have a certain
11 amount -- a certain level of free ridership in --
12 involved in the program.

13 And if you go through -- and that --
14 and that's why it comes down to the comment being that
15 you're out there trying to effect programs where the
16 participating customers wouldn't do it otherwise.
17 Well, wouldn't do it otherwise isn't an all -- you
18 know, nothing for the entire population. There's
19 people like -- like yourself.

20 But on net you're trying to find
21 programs where the bulk of the people or most of the
22 people wouldn't do it, so, therefore, it makes sense
23 for us to go out there and try and encourage them --
24 them to do it. And, yes, we understand there's people
25 like yourself that will -- that would have done it

1 anyways, but we've taken that into account in looking
2 at the economics of the program.

3 BOARD MEMBER GOSSELIN: Okay. Thank
4 you for that explanation. I -- I guess the other one
5 is National Energy Board fees which are associated
6 directly with transmission across the border.

7 And I'm trying to understand your logic
8 with respect to what you've proposed with those fees
9 as opposed to assigning them to exports?

10 MR. WILLIAM HARPER: Well, I guess
11 the -- they're involved, not only for exports, but --
12 and I think Manitoba Hydro confirmed this in an inter
13 -- Information Request we did, there -- there's --
14 also part of that fee goes because the NEB's also got
15 involvement in -- in Manitoba Hydro's purchase
16 activity when it's purchasing power, so it's no --
17 it's not -- fees not only associated with -- you know,
18 if those -- if all -- if all the ener -- National
19 Energy Board was doing was -- if all its involvement
20 was involved in just -- related to the export
21 activity, then I would agree a hundred percent it
22 should get directly assigned to exports.

23 But in the questions we put to Manitoba
24 Hydro the indication was, no, that's not the case.
25 Some of the NEB involvement's also involved in

1 oversight of our purchase activity, which is basically
2 buying power to support domestic load, as well.

3 And within the context of that
4 response, since it goes a bit to both, that was my
5 logic.

6 BOARD MEMBER GOSSELIN: But the -- the
7 scope of -- but pardon me, the -- the volume of -- of
8 exports relative to the imports is, you know, much
9 more import. And so you wouldn't -- you wouldn't
10 break up that -- those fees into two (2) portions?

11 MR. WILLIAM HARPER: Well, I -- I
12 guess if -- if the NEB was charging Manitoba Hydro a
13 hundred million dollars I might think about breaking
14 it up. But given -- given the magnitude of the
15 dollars involved, I think the first principle we
16 should allocate to both is: Is it significant enough
17 that we want to worry about trying to parse it down?

18 Because every time we say, I'm going to
19 parse something down, that makes things more com --
20 more complex, and -- and maybe you have to refresh
21 that every year. So there's time and energy involved
22 in that. And I think, with the limit -- level of
23 dollars involved here, I -- I don't think -- I think --
24 - not necessary.

25 BOARD MEMBER GOSSELIN: Something that

1 came up yesterday, and it's in your documents, is to -
2 - the idea that the capacity adder, from your
3 perspective, is not doing the job. And I -- and I
4 guess you haven't made any recommendations of what
5 should be used in lieu of the capacity adder.

6 MR. WILLIAM HARPER: Well, I guess
7 it's not really that it's not doing the job. It's
8 that I don't see there -- there -- there's a case that
9 there's a need for one yet I guess is -- is the issue
10 I was making.

11 To the extent there is a cap -- and I
12 went through a num -- I don't whether it's necessary
13 for me to go -- go through them again now, and I can
14 if you'd like. But I think it's more a matter of I
15 don't sink -- think there's been a demonstrated need
16 for it.

17 And so I think the -- and so -- but I
18 guess I'm open to -- you know, we've got historical
19 data. I'm open to -- to peo -- to people, Manitoba
20 Hydro or otherwise, coming forward and saying, Look
21 at, more recent things, yes, we can demonstrate the
22 need. But I haven't seen a demonstrated need.

23 So I don't think it's doing the job, I
24 -- I guess it's more a matter of I don't think yet
25 there's a job for it to do.

1 THE FACILITATOR: Thank you. Any
2 other questions from the panel? No.

3 Over to you then, Patrick.

4 MR. BYRON WILLIAMS: Mr. Gardner (sic)
5 -- and I apologize, it's Byron Williams at the back,
6 sir. Just -- there's a --

7 THE FACILITATOR: Still at the back,
8 Byron?

9 MR. BYRON WILLIAMS: Yeah. Where I
10 belong. There's -- just with the humming back here,
11 it is a bit hard. So if we could just remind folks to
12 speak up a little bit. It's a bit hard to heard back
13 here.

14 THE FACILITATOR: Speak into the mic.

15 MR. BYRON WILLIAMS: Speak into the
16 mics, yes.

17

18 CROSS-EXAMINATION BY MR. PATRICK BOWMAN:

19 MR. PATRICK BOWMAN: Good -- good
20 morning, Mr. Harper.

21 MR. WILLIAM HARPER: Or Bill. You can
22 -- I'm --

23 MR. PATRICK BOWMAN: Yeah. So I just
24 want to make sure that I can go through things in a
25 bit of methodical way. I don't have -- I don't think

1 I have very much, but we'll -- we'll see how this
2 unfolds. And -- and all of it is just in the context
3 of -- of discovering and understanding what you've put
4 in the evidence.

5 I take it you reviewed the minimum
6 filing requirements, and in particular there was one
7 listed as MIPUG MFR-5, which asked Hydro to compare
8 its PCOSS to what the Board last ordered.

9 MR. WILLIAM HARPER: I probably looked
10 at it briefly, but I -- I didn't spend a lot -- a lot
11 of time looking at that. I guess my -- my focus in
12 going through the Cost of Service Study was more in
13 terms of looking at Manitoba Hydro's Cost of Service
14 Study and seeing to what -- to what extent did -- did
15 it seem reasonable and appropriate from -- from my --
16 from my -- my perspective.

17 Some of the context of that -- and I
18 did go through it at the beginning of my thing and
19 talked a little bit about past -- past Board -- Board
20 orders and where the Board was coming from in the
21 past. But I don't think I particularly looked at the
22 -- you know, that wasn't something that was top of
23 mind in terms of that specific comparison.

24 MR. PATRICK BOWMAN: Okay. Maybe we
25 can bring MIPUG MFR-5. I just want to go through the

1 list. So this was a question to say: Compare -- try
2 tables of a certain type.

3 We'll go to the table next, but it
4 basically said, Compare the methodological changes
5 proposed by Hydro between the -- the existing
6 methodology and the proposed methodology, so between
7 PCOSS14 (Amended), you'll see in the first non-bolded
8 line, and PCOSS14 (Amended) that reflects Order
9 116/08, okay?

10 So this was -- was asked of Hydro, and
11 this is what they're purportedly preparing.

12 If we go to the next page now, you'll
13 see they effectively list eight (8) items that they
14 say were in PCOSS14 (Amended) and PCOSS14 that are in
15 -- in contrast to those that were ordered in 116/08
16 and Hydro's proposing to -- to change today.

17 And I know that later on you ask
18 Coalition eighty-five (85) where you point out some
19 things that this isn't complete. Hydro's also trying
20 to change some things that the Board never commented
21 on is different --

22 MR. WILLIAM HARPER: Right.

23 MR. PATRICK BOWMAN: -- than what
24 existed in -- in '08.

25 MR. WILLIAM HARPER: So yes. Now I

1 remember now. And so to some extent, I found this
2 rather confusing because there were some things that
3 were in there and some things that were out of there.
4 And that was the basis for our Information Request to
5 -- to Manitoba Hydro actually.

6 MR. PATRICK BOWMAN: Right. And
7 that's why I thought you might remember it. But just
8 to go through these eight (8), these eight (8) are
9 things that -- that Hydro has summarized that -- and -
10 - and it starts with the column called Purchase Power
11 Export and ends with the column called Actual
12 Exports/Imports. And then there's just a total
13 column, right, of the -- the impacts.

14 And just to go through these -- and --
15 and I just want to make sure I understand where your
16 evidence is in terms of where you stand. So the first
17 one listed there, Hydro is saying the -- the Board had
18 said purchase power costs should be directly assigned
19 to export. Hydro's saying, No, it should be common.

20 You're agreeing with Hydro on that?

21 MR. WILLIAM HARPER: Yes, I am.

22 MR. PATRICK BOWMAN: Okay. The second
23 is treating MISO costs. The Board had previously
24 said, Charge those direct to exports. Hydro has said,
25 No, they should be common.

1 And you're agreeing with them on that?

2 MR. WILLIAM HARPER: Yes, I am.

3 MR. PATRICK BOWMAN: Okay. And then
4 coal generation to export, natural gas generation to
5 exports. Hydro said, No, they should be common, and
6 you're agreeing with them on that?

7 MR. WILLIAM HARPER: Yes, I am.

8 MR. PATRICK BOWMAN: Okay. And then
9 coal generation to export, natural gas generation to
10 export, similarly, you're -- the -- the Board had said
11 some or all of those costs should go to export. Hydro
12 is saying they should all be common domestic -- or com
13 -- commonly shared among the -- the pool and you're
14 agreeing with them on those points, is that --

15 MR. WILLIAM HARPER: Well, I guess --
16 I guess maybe I should qualify that. Maybe on a
17 conceptual basis I don't agree with them, but in terms
18 of an implementation basis I agree it's the best thing
19 to do going forward.

20 MR. PATRICK BOWMAN: Okay. And a
21 conceptual basis you don't agree with them --

22 MR. WILLIAM HARPER: On -- on a
23 conceptual basis I think you -- you wouldn't allocate
24 coal generation to both exports and dom -- domestic
25 load. You would allocate it only to domestic load.

1 MR. PATRICK BOWMAN: So the Board had
2 taken a share of coal and a share of natural gas and
3 said to charge those directly to exports. Hydro is
4 saying, We should put those to the common pool.

5 You and I, I think, are both saying,
6 Well, with the exception of coal, which we should go
7 even further and take it entirely away from exports if
8 you were to do it, but the implementation details
9 might be a bit different?

10 MR. WILLIAM HARPER: Yeah, I -- I
11 think so. That -- that's why I wanted -- wanted to
12 qualify and say my -- with a specific proposal with --
13 you know, I agree with the fact don't assign it all --
14 all to -- all to exports.

15 The question is, should you assign any
16 of it to exports.

17 MR. PATRICK BOWMAN: Right. So you
18 agree with Hydro. You just might have gone a smidge
19 further in one (1) area?

20 MR. WILLIAM HARPER: Yes.

21 MR. PATRICK BOWMAN: Okay. So that's
22 coal/natural gas. Wind to export, which is actually
23 purchased power in other -- the wind is owned by
24 Hydro, it's bought by Hydro. So sometimes it's called
25 wind, sometimes it's called purchased power.

1 But that one (1) had been directly
2 assigned to exports by the Board. You're -- Hydro is
3 saying, No, do it common. You're agreeing with Hydro
4 on that?

5 MR. WILLIAM HARPER: Yes, I am.

6 MR. PATRICK BOWMAN: Okay. And then
7 DSM to exports had been a been a confusing topic, but
8 for sure in respect of the dollars the Board had said
9 that the cost of the DSM program should be directly
10 assigned to export. Hydro is now saying DSM costs
11 should be directly assigned to the cus --
12 participating customer. Your --

13 MR. WILLIAM HARPER: Accepting again.

14 MR. PATRICK BOWMAN: Right. You're --
15 you're agreeing with Hydro that we should not do what
16 the Board did, which is assign DSM to exports, but
17 you're saying we should assign them generally to
18 generation costs, a -- a pool?

19 MR. WILLIAM HARPER: Right. And --
20 and actually this is the flip side of coal, because in
21 my approach you would assign some of them to exports,
22 because once you put -- once you put them in the
23 generation and transmission pool a portion of it goes
24 --

25 MR. PATRICK BOWMAN: A portion goes --

1 okay. But -- but this direct assignment to exports
2 you're -- you're agreeing with Hydro the -- we should
3 -- I don't know if 'overturn' is the right word, but
4 we should go back on what the Board decided in 116/08
5 or -- or orders previous to that?

6 MR. WILLIAM HARPER: Yes.

7 MR. PATRICK BOWMAN: Okay. And then
8 the las -- the -- the one (1) export class the Board
9 had -- had said opportunity and -- and dependable
10 exports were different things, should be treated
11 differently. Hydro is proposing to say, No, no, I
12 want to go to one (1) export class.

13 You -- you're on that one (1) agreeing
14 with Hydro and -- and supporting them changing --

15 MR. WILLIAM HARPER: Well --

16 MR. PATRICK BOWMAN: Oh, sorry, did I
17 say it opposite?

18 MR. WILLIAM HARPER: Yeah.

19 MR. PATRICK BOWMAN: I apologize.

20 MR. WILLIAM HARPER: You said it
21 opposite and I was --

22 MR. PATRICK BOWMAN: It's 9:25, I
23 guess at some point I'll wake up here. So -- but
24 nonetheless the Board -- the Board had two (2) class?

25 MR. WILLIAM HARPER: Yes, the Board

1 had --

2 MR. PATRICK BOWMAN: Hydro had two
3 (2)?

4 MR. WILLIAM HARPER: Yes.

5 MR. PATRICK BOWMAN: Hydro was
6 proposing to -- again, you're supporting Hydro in
7 going to two (2)?

8 MR. WILLIAM HARPER: Yes, I am.

9 MR. PATRICK BOWMAN: Okay. And then
10 the last one (1) there, I'm not even sure I know what
11 exactly it means, actually exports/imports, but it's a
12 fairly small category, but it's -- it --

13 MR. WILLIAM HARPER: That -- that was
14 that whole issue of is -- if I can recall correctly,
15 because I -- this is somewhere where there seems to be
16 some uncertainty in terms what the Board was doing.
17 Manitoba Hydro was asking for a certain rev -- review
18 and vary issues and I'm not too sure where this one
19 (1) came out at the end of the wash, because there was
20 supposed to be ongoing discussions with the Board
21 staff and Manitoba Hydro on certain issues.

22 But I think there's an issue is whether
23 you use the exports and imports that are actually in
24 the -- what you actually use -- what -- what values
25 you use, whether it's forecast values or actual

1 values. And using actual values created some
2 disconnects just -- just like that whole DSM
3 allocation created some disconnects.

4 MR. PATRICK BOWMAN: Okay. We haven't
5 had a lot of talk on that one (1) here. I don't know
6 that it's a -- an issue of today. I think it may have
7 been a unique issue of that time. Is that -- have you
8 taken a position in terms of what the Board ordered
9 and what -- how it would apply to today? Do you --

10 MR. WILLIAM HARPER: No, I --

11 MR. PATRICK BOWMAN: Okay.

12 MR. WILLIAM HARPER: -- I didn't
13 discuss it in -- in this, because it seem -- from my
14 reading of the record it still seemed to be up -- up
15 in the air to some extent in terms of where this one
16 (1) was supposed to land.

17 MR. PATRICK BOWMAN: Okay. So in
18 terms of comparing to what the -- the Board had -- had
19 ordered in last time, these were the items where Hydro
20 is actually explicitly seeking to have a different
21 decision with the Board previous to deciding.

22 There were a few others in Coalition 85
23 where you guys had identified -- I think you came up
24 with three (3) or four (4) that were additional items
25 where Hydro is effectively changing methods that

1 existed back then that no one had specifically
2 commented on.

3 And I don't plan to go through it, but
4 if you wanted to -- I -- I don't know whether you've
5 specifically commented on support or not support on
6 those, but...

7 MR. WILLIAM HARPER: No, I think
8 probably if somebody had a list of them they could go
9 through -- through my evidence and --

10 MR. PATRICK BOWMAN: Okay.

11 MR. WILLIAM HARPER: -- and find them
12 and see what my -- my opinion is on them. I think if I
13 try and address them all off the top of the head right
14 now I'd probably miss something. It's bet -- better
15 not to try.

16 MR. PATRICK BOWMAN: Okay. Moving on
17 to this question of the net export revenue, you deal
18 with this in your submission. If I can find the spot
19 -- it starts at page 85, but you sort of dive into how
20 one should treat this thing called net export revenue.

21 But I'm wondering if you can just, in
22 your view, describe what you understand net export
23 revenue to be, or to mean. Like, what -- what -- if
24 you had to explain to someone what -- what is this
25 stuff?

1 MR. WILLIAM HARPER: Good question.
2 You know, we -- we've -- it's one (1) of those things
3 we've -- we've talked about so much, it's -- it sort
4 of same things to be commonly understood. But I -- I
5 think it go -- it -- it goes back -- it goes back to
6 the point that, you know, we've -- we've had -- we --
7 we make exports.

8 Just as -- just the city of Winnipeg
9 was talking about with you, we -- we get revenues from
10 a lot of different sources other than from customers.
11 Exports happens to be a pretty material one. Out of
12 all the one -- you know, it -- it's a pretty -- pretty
13 -- really big major one.

14 So when we decide how we're going to
15 treat it in the cost of service and who we're -- who
16 we're going to, you know, credit back that -- those
17 revenues to, like we credit back revenues from all
18 other sources back to individual customer classes, it
19 -- it has a major impact on -- on the results, unlike
20 many of those other small revenue sources.

21 So the question comes down to, then, to
22 what are we crediting back, and have we -- have we
23 recognized before we do that credit that there are
24 costs involved in actually providing those exports,
25 you know. And historically, if you go back twenty

1 (20) years, the thought was, well, yes, there's costs.
2 There's variable costs involved. We're only making
3 opportunity exports.

4 And so we subtracted from the export
5 revenues just the variable costs of meeting those, and
6 then that defined the export revenues we would credit
7 back. Because there were some costs incurred in the
8 system, and before you start crediting revenues back
9 you should -- you should account for the costs
10 involved.

11 As we -- as we moved forward and export
12 revenues got more -- got more and more material, sort
13 of they had more of an impact, and we started talking
14 about, Well, how should we allocate net export
15 revenues, at which point in time the question of, how
16 do we define net export revenues and have we
17 appropriately allocated enough cost against them so
18 that when we're talking about treating -- you want to
19 call it the profit -- it's not really the profit,
20 because it's profit only in a sense of the way the
21 Cost of Service Study calculates it, but how -- how do
22 we treat -- treat that net part.

23 We want to make sure we've accredited
24 back enough cost that we're talking -- we're truly
25 talking about -- about the net, and all the costs of

1 providing it have -- have been accounted for. And so
2 that's really the question we're talking about.

3 And I was trying to come up with a
4 reasonable definition of what -- what is the net
5 export revenue after we get -- what is the net export
6 revenue after we've credited a reasonable amount of
7 cost to -- to the exports themselves, and I'll say the
8 export class in this sense, so that I -- I'm truly
9 talking about crediting back to customers only the net
10 amount.

11 MR. PATRICK BOWMAN: Okay. So you
12 used the word "profit" but you --

13 MR. WILLIAM HARPER: Yeah, you --

14 MR. PATRICK BOWMAN: -- that's the
15 word you used, "profit." I -- I just want know, do
16 you --

17 MR. WILLIAM HARPER: I -- I --

18 MR. PATRICK BOWMAN: -- in your
19 submission, it's a profit?

20 MR. WILLIAM HARPER: No. I don't view
21 it as -- as a profit. That -- that's why I went
22 through -- through the qualification. But I -- I
23 think it's -- you know, because it -- it's sort of a -
24 - it's a net revenue where the costs have been
25 calculated using the Cost of Service Study, but the

1 problem, as we all know in this room, is that the fact
2 that exports are not -- whether we make exports or not
3 is not determined based on the accounting type costs
4 that are used in -- in a PCOSS.

5 They're determined on -- whether it's
6 opportunity exports on a day-to-day basis, or whether
7 it's advancing facilities to make increased dependable
8 exports, they're calculated on a total economic -- on
9 a totally different economic basis, which is
10 fundamentally different than the PCOSS. So we've got
11 a bit of a mismatch here.

12 We're trying to use maybe the wrong
13 tool for actually identifying the true costs while
14 we're trying to come up with a reasonable estimate of
15 cost using the PCOSS.

16 MR. PATRICK BOWMAN: So if -- we -- we
17 all accept that we're not using it to set rates for
18 export.

19 MR. WILLIAM HARPER: Yes.

20 MR. PATRICK BOWMAN: I think that part
21 is really clear. Right. But we are going to
22 calculate some number that says this is cost because
23 it's the Cost of Service Study associated with
24 exports, and -- and in any normal parlance, revenue
25 less cost -- cost is profits. But you're saying,

1 Don't circle that number and say, here's your export
2 profit or loss if it were negative. It doesn't mean
3 that.

4 Is that right?

5 MR. WILLIAM HARPER: But -- yes. I --
6 I think that's fair. And that's why I choked a little
7 bit when I even said "profit" myself.

8 MR. PATRICK BOWMAN: Okay. Is there a
9 shorter version of everything you just said? Like, if
10 you had to describe this to someone, what is this NER?

11 MR. WILLIAM HARPER: It -- it --

12 MR. PATRICK BOWMAN: It -- it's not
13 profit.

14 MR. WILLIAM HARPER: It -- it's what's
15 left over from export revenues after we've attributed
16 to exports a reasonable portion of -- of the cost in
17 the cost of service.

18 MR. PATRICK BOWMAN: Okay. Now, I'm
19 going to try to talk about it in two (2) different
20 time frames, because I think the world might look
21 different after Keeyask comes online, for example,
22 than -- than before. Okay.

23 But your conclusion in your evidence
24 is, at least for PCOSS14, having two (2) export
25 classes with opportunity only assigned variable costs

1 sufficiently tracks the costs of exports so that you
2 can -- you could have this number called NER leftover
3 that is meaningful, even if we can't describe what it
4 is?

5 MR. WILLIAM HARPER: Well, I think my
6 -- my main conclusion is it -- it tracks costs much
7 better than assigning to all exports, both dependable
8 and opportunity, a full share of fixed costs.

9 MR. PATRICK BOWMAN: Okay. So if --
10 if that's the cost of export, we have no debate about
11 the term rev -- the 'revenue of export'. That is --
12 that is in the -- there quite clearly. If that's the
13 cost of export, how is the difference not, in -- in
14 your calculation, the -- the profit, the margin?

15 MR. WILLIAM HARPER: Well, it's --
16 it's profit only in a notional sense from -- from the
17 PCOSS. But I think, as we've all -- all agreed here
18 in the room, that's not the way you evaluate exports
19 in terms of defining whether they're profitable for
20 Manitoba Hydro to engage in in the first place.

21 MR. PATRICK BOWMAN: But it's not
22 revenue in a notional sense. It really is the
23 revenue?

24 MR. WILLIAM HARPER: No, it really is
25 the revenue, but it's not --

1 MR. PATRICK BOWMAN: So the cost part

2 --

3 MR. WILLIAM HARPER: -- but it's not
4 really the costs --

5 MR. PATRICK BOWMAN: -- wasn't --

6 MR. WILLIAM HARPER: -- that we take
7 into account. But those are not really the costs that
8 we consider when we decide whether or not -- excuse
9 me, or Manitoba Hydro and whoever is sort of -- you
10 know, sort of involved in regulating their particular
11 activities in that area.

12 When they're looking at, does this make
13 sense for Manitoba Hydro to undertaking more either
14 opportunity exports or, more particularly, sort of try
15 and make investments to increase dependable sales,
16 those aren't the costs -- those aren't the specific
17 costs that they are looking at. And so that's where I
18 have -- that's where we have a problem.

19 It's sort of -- and that's why sort of
20 it -- it's costs, but in the context of how we define
21 costs in the PCOSS, not in the -- not in the context
22 of how we define costs for purposes of truly
23 determining whether or not a -- a particular activity
24 to increase exports is -- is appropriate and economic.

25 MR. PATRICK BOWMAN: Right. Okay, so

1 we -- we've already said the cost of service thing is
2 not going to set rates for export. What you've said
3 out there is, Let's be clear about one (1) other
4 thing. It's not going to be our decision-maker for
5 whether we should pursue new plans, or export sales,
6 or like a -- don't use it for that. Don't use it for
7 planning.

8 Is that -- is that -- can I summarize
9 that last bit that you've described there?

10 MR. WILLIAM HARPER: Yes, that's
11 right.

12 MR. PATRICK BOWMAN: So we've sort of
13 taken out those two (2) purposes. So what we're left
14 with is an annual statement based off of a P&L that
15 has something called the -- the revenue, which we --
16 we have a number.

17 MR. WILLIAM HARPER: Yes.

18 MR. PATRICK BOWMAN: We don't think
19 it's notional. We think it's -- it's real. It's
20 reliable. And then we're going to measure something
21 against that that we call the costs, and that you're
22 going to be left with something that is notionally the
23 profit.

24 So are we only sort of notionally
25 measuring the costs? Like, what -- what -- how is

1 that not the annual accounting statement type profit
2 for exports if -- if you've taken out all those other
3 purposes, you're just trying to measure one (1) year?

4 MR. WILLIAM HARPER: Well, I -- I
5 guess you could say, if -- if you look at Manitoba
6 Hydro's financial statements, you're going to have
7 total -- at the end of the year, you're going to have
8 total costs. And you're going to have total revenues.
9 And there are going to be actual revenues from
10 domestic customers, actual revenues from exports.

11 And when you subtract off all those
12 total costs, you're going to come up with a net income
13 for the corporation in tot -- in total. What we have
14 a problem with is saying is, can we actually determine
15 precisely what are the costs out of that total
16 operating statement that are directly attri -- that we
17 can attribute to in any -- to exports, and therefore,
18 parse this down and say, I can take that P&L and
19 divide it into two (2) pieces, the export P&L and the
20 domestic P&L.

21 I think that's where the problem starts
22 -- starts to arise. I think that's where the -- part
23 you can't do because, yes, you can parse the revenue
24 part between exports and domestic. It become -- I
25 don't think -- you know, we're having trouble talking

1 about how we would parse the cost part between
2 domestic and export. And that's where, you know,
3 because having a difficulty parsing that, I have a
4 difficulty saying I can come up with an export profit.

5 MR. PATRICK BOWMAN: So we have some
6 other examples in places like BC and Quebec, which
7 also have fairly substantial export market activities
8 and -- and sell power. And in places like Quebec, if
9 the export revenue went through the roof, the prices
10 went up or something, there -- there would be one (1)
11 effect about the way they implement their policy.

12 In BC, if the -- the subsidiary that --
13 that does power trading, Powerex makes a huge profit
14 through trading activities, there'd be a -- a
15 different they'd think about it. But in both cases,
16 you'd -- you'd accept for me that if -- if there was a
17 windfall through those export markets, and I think you
18 work in both these jurisdictions, those won't make it
19 through to domestic rates.

20 In the case of Quebec, the domestic
21 rates are fixed based on the government policy for
22 generation. And if there's profits, it goes to
23 government. In the case of BC, the Powerex benefits
24 that go back to domestic ratepayers are capped and,
25 above that, it goes to government. Is that right?

1 MR. WILLIAM HARPER: Well -- well, you
2 know, I -- I think in -- in Manitoba, here, the entire
3 activity is regulated.

4 MR. PATRICK BOWMAN: Right.

5 MR. WILLIAM HARPER: The generation,
6 transmission, distribution, it's all in one (1)
7 utility, it's all regulated. In -- in Quebec, they've
8 basically broken it up into three (3) companies. They
9 have a production company, a transmission company, a
10 distribution company. The distribution company is
11 regulated, the transmission company is regulated, the
12 generation company is not regulated. It's the
13 generation company that makes all the exports.

14 MR. PATRICK BOWMAN: Right.

15 MR. WILLIAM HARPER: And so all the
16 export revenues go back to the generation company.
17 And basically what they show up in is profit to the
18 generation company which basically is dividends back
19 to the shareholder who is the government.

20 MR. PATRICK BOWMAN: Right.

21 MR. WILLIAM HARPER: In -- in BC, the
22 -- basically it's all one (1) company, but they have
23 this separate subsidiary called Powerex which
24 basically does all of the exports, and all the
25 purchases, too, for the company.

1 And so what happens is BC Hydro, the
2 regulated part, sells the power to Powerex, which is
3 the -- you know, the tra -- the trading company at --
4 at a fixed agreement in terms of what the prices are.
5 Those prices are set. They're established market
6 prices.

7 Then Powerex takes that power and tries
8 and go out and make whatever -- whatever money it --
9 it can off of that. And to the ex -- and Powerex
10 typically makes a profit. Some of that is shared back
11 with -- with BC Hydro. If they make a loss, the loss
12 -- there's no loss going back to BC Hydro.

13 But if they make a lot of profit, as
14 Patrick said, the profit that might go back to BC
15 Hydro is capped actually and sort of -- and the rest
16 is sort of -- you know, goes somewhere, government
17 dividends or -- or whatever else.

18 So there's a very different structure
19 in each of those places as to how -- and I should
20 point out, you know, because in Quebec it's
21 unregulated, you know, the production side can go
22 ahead and they can build new generation of they want
23 to, if they think it's going to be exports.

24 On the BC side, there is no -- on BC
25 Hydro, there is no building for exports, advancing for

1 exports. All the planning is done around just
2 domestic load, and what they're selling to Powerex is
3 what surplus they may have -- because they're a large
4 hydro system as well, what surplus they may have at
5 any particular point in time.

6 MR. PATRICK BOWMAN: But in either
7 case, thank you, and it completely mixes with -- or
8 matches with my understanding of each of those. But I
9 guess in either case, a party like government have
10 come along and said, Let's fix something that goes to
11 exports or some -- some portion of -- of costs being -
12 - being allocated or built into the domestic rates.

13 And above that, we have these whatever,
14 windfalls or amounts that aren't necessary for
15 customers. And I could go through a Newfoundland
16 example if you like. I don't think you work there, so
17 -- but the -- these amounts that are these -- these
18 profits that don't need to go back to customers, so
19 the government's going to take them.

20 If -- if we were to look at some model
21 like that here, you would not, I presume, be circling
22 the NER and saying, That's the amount that's -- that's
23 gravy, that's surplus. It can go to some -- something
24 else.

25 MR. WILLIAM HARPER: Yeah. No, and I

1 think the fundamental difference would be,
2 particularly if you take the model in BC, is that what
3 we -- what we're having a real problem with here in
4 Manitoba is the fact that we can probably fairly
5 readily identify the variable costs associated with
6 export.

7 What's -- what the water rentals that
8 we had to pay in order to -- you know, for -- for the
9 kilowatt hours flowing across the border? What we
10 have a problem with is the fact that we can clearly
11 see in Manitoba that additional investment has been
12 made in fixed costs like plant in order to gain
13 additional dependable revenues.

14 In BC, that -- that does not occur. So
15 while we're here trying to -- the part we're trying to
16 tease out and having real difficulty with is: What
17 portion of the fixed costs should we attribute to
18 exports?

19 If we were to try -- try and apply that
20 view to BC Hydro, there would be no fixed exports
21 because there is no impact of that on their planning
22 perspective, if I can put it that way.

23 MR. PATRICK BOWMAN: Okay. And just
24 to put some numbers around this, you would -- you'd
25 accept that in PCOSS14 it's about 345 million of

1 export revenues, and the costs, not counting the --
2 the uniform rates, the policy items, is about 217
3 million if you -- if you go the method that you and
4 Hydro are recommending, and more like 328 million --
5 actually, yeah, about 328 million if you go the route
6 of -- of two (2) class -- or of one (1) class, sorry.
7 Got that mixed up --

8 MR. WILLIAM HARPER: You know, I'll
9 take -- you know, I'll -- I'll accept your numbers for
10 now, subject to check.

11 MR. PATRICK BOWMAN: But it's a
12 difference of about \$100 million or something. It
13 goes from an NER of about a hundred twenty-five (125)
14 to about seventeen (17) or something. Is that --

15 MR. WILLIAM HARPER: Oh, okay. Yeah.
16 I'll have to --

17 MR. PATRICK BOWMAN: Okay. Yeah. So
18 my -- my question then goes to: Now we go to 2022 and
19 the '20s, and someone's going to bring on a Keeyask.
20 And you wouldn't take any issue with the fact that
21 Keeyask is not needed under the latest Power Smart
22 Plans, not -- not starting to be dependable kilowatt
23 hours until about 2030 now.

24 Is that a --

25 MR. WILLIAM HARPER: Well, I think we

1 advanced Keeyask because we can basically -- advance
2 for Keeyask was linked -- linked to an ability to
3 increase dependable sales and have contracts
4 corresponding to that.

5 So if you're talking about not needed
6 just for domestic load, I would agree. Once we sign
7 that contract, we have to put that contract in our
8 planning numbers as well sort of thing.

9 So that may -- you know, that -- that -
10 - you know, that may -- I can't remember what the
11 demand supply tables look like, but you -- but you
12 have to sort of look at the demand supply tables --

13 MR. PATRICK BOWMAN: Yeah.

14 MR. WILLIAM HARPER: -- with that
15 contract in there, once you've signed and made -- made
16 the commitment.

17 MR. PATRICK BOWMAN: Right. Okay. We
18 could pull them out, but -- but at this point, it's
19 about ten (10) year advancement -- eight (8) to ten
20 (10) year advancement.

21 Does that fit with your understanding?

22 MR. WILLIAM HARPER: I'll accept your
23 number.

24 MR. PATRICK BOWMAN: When Keeyask
25 comes online, again this is an annual cost of about

1 500 million. That's from a GRA filing. And -- and a
2 bump in export revenues that are associated with that
3 are about 350 million. Again does those --

4 MR. WILLIAM HARPER: Yeah. Well, you
5 know, I -- I think the fact there's -- you know,
6 there's been a -- there's always been few that there's
7 -- that, you know, when Keeyask comes online there's
8 going to be a bump -- there's going to be a bump up in
9 -- in costs, and -- yeah.

10 MR. PATRICK BOWMAN: So how would we
11 go about doing the export cost allocation under your -
12 - your suggestion when \$500 million of costs annually
13 comes into Hydro's costs in 2022. It's advanced ten
14 (10) years. It's not serving domestic customers.
15 Only 350 million is coming in revenues. And I presume
16 if we were to -- to use the -- the two (2) class
17 model, only variable costs would be assigned against a
18 good portion of that export revenue.

19 MR. WILLIAM HARPER: Well, I -- I
20 would presume that when Keeyask comes into service
21 we've -- we've materially increased above domestic
22 need both the opportunity and the dependable sales so
23 -- so that you will -- you would increase dependable
24 energy as well over and above -- you know, once
25 Keeyask comes into service from the year before till

1 the year after it comes into service you -- you've got
2 increased amounts of both.

3 And so there will be increased --
4 increased volumes of both dependable and -- and export
5 -- and opportunity sales that would be attracting
6 costs under -- under the approach that I -- you know,
7 I agreed to, the two (2) -- the two (2) export
8 approach. And on the dependable side that would pull
9 in -- that -- that would pull in a share of the fixed
10 cost.

11 MR. PATRICK BOWMAN: But if we -- if
12 we end up -- let's just -- and just to put some
13 numbers on it, we -- we export over 10 terawatt hours
14 in PCOSS14. Keeyask will add about four (4) to that
15 but there's presumed to be some load growth in
16 between, so instead of ten (10) we have -- now it will
17 be about twelve (12) after Keeyask comes in. Is that
18 -- that's the numbers that were in the last GRA. But
19 it's in that -- that order of magnitude, so 20 to 40
20 percent increase on the export side.

21 But you're -- you're not suggesting
22 then that -- that someone look at 500 million of
23 Keeyask cost during that decade and say those are
24 export cost, just directly sign it over, or something.
25 You're still talking about a two (2) -- two (2) class

1 model that all that opportunity revenue is -- even
2 those opportunity revenues that arise as a result of
3 Keeyask only need to be assigned a cost variable?

4 MR. WILLIAM HARPER: Yes. You know,
5 and -- and again I think that -- that's a perspective
6 -- that's a perspective. If I'm left -- well, the
7 problem is we're left with two (2) -- left with two
8 (2) choices unless we want to go for three (3) or four
9 (4) export classes. We can have one (1) export class,
10 or we can have two (2) export classes.

11 And it seems to me that, go to a point
12 and saying, I've got these opportunity sales and I'm
13 going to assign all those opportunity sales an
14 equivalent portion of fixed cost to what I'm assigning
15 to dependable exports, and to domestic load doesn't --
16 does -- doesn't seem appropriate to me, either from a
17 cost of service perspective or from an economic
18 perspective.

19 MR. PATRICK BOWMAN: Could someone
20 check the time? What time -- what time do we have
21 till?

22 THE FACILITATOR: Well, I think you're
23 fortunate to get the extra time --

24 MR. PATRICK BOWMAN: Okay.

25 THE FACILITATOR: -- from the general

1 service, so our break time I think was at 10:10, so
2 you're --

3 MR. PATRICK BOWMAN: Okay, we'll head
4 for that.

5 THE FACILITATOR: -- you're in good
6 shape.

7 MR. PATRICK BOWMAN: So that last
8 response -- the only reason I asked for the time is
9 because it actually gave an interesting comment which
10 you said, We effective have two (2) choices, one (1)
11 export class or two (2) -- two (2) export classes.

12 But -- but frankly we -- we probably
13 still have the choice of no export classes if we
14 wanted to go that route where that has been used here
15 before. We don't have an MTS pole connection class.
16 We -- one could -- could simplify a lot of the issues
17 we've talked about in this whole cost of service
18 hearing by not having an export class and by just
19 having exports, you know, credited back to customers
20 in a -- in a direct way paying for those assets.

21 Doesn't that --

22 MR. WILLIAM HARPER: Okay. In --

23 MR. PATRICK BOWMAN: -- still an
24 option?

25 MR. WILLIAM HARPER: -- in my mind

1 that's -- that's virtually the equivalent of having
2 one (1) -- one (1) export class and assigning it cost
3 equivalent to generation and transmission, so I'm not
4 too sure whether -- whether that's a third option or
5 whether that's just another way of dressing up the --
6 calling the one (1) export class but not using that
7 term.

8 MR. PATRICK BOWMAN: Well, when you
9 talk about one (1) export class versus two (2) export
10 classes, you're -- you're not using those terms in a
11 context where there's still an indifferent -- a yet to
12 be determined debate over what's going to happen to
13 the NER.

14 You're using those terms in a context
15 where every time you run those NER is, of course,
16 going to all -- all allocated costs, and maybe all
17 allocated assigned costs --

18 MR. WILLIAM HARPER: Well, I -- no, I
19 think when you -- when -- when we got into the export
20 class discussion you started me off in terms of what's
21 -- what's NER and why do you calculate it.

22 MR. PATRICK BOWMAN: Yeah.

23 MR. WILLIAM HARPER: And I -- I think
24 -- so I don't necessarily agree with the fact that
25 just because you defined -- used one (1) export class

1 or two (2) export classes that necessarily pre -- pre-
2 supposes or pre-assumes you -- a precise way you're
3 going to treat the -- the NER at the end. All it does
4 is mean is that the NER at the end is probably more
5 truly representative of what's left over aft -- after
6 you've attributed a reasonably amount of costs to
7 exports.

8 And going back to that nasty word we
9 were both talking about, and so it's more notionally
10 as what could be viewed as profit. What you want to
11 do with it at that point in time, it seems to me
12 you've got much more flexibility in terms of what you
13 do with it because you have attributed a reasonable
14 portion of cost exports.

15 If you haven't attributed a reasonable
16 portion of cost exports you're always left with, Well,
17 if I haven't given it back -- if I haven't -- should I
18 maybe be attributing that back to just G&T because I
19 haven't given them enough share?

20 But once you've determined you've
21 attributed a fair amount of share of -- of generation
22 and transmission to -- to exports and you've got a
23 reasonable number for net export revenues, then you're
24 left, it seems to me in my mind, with much more
25 flexibility as to what you actually do with that value

1 at the end of the day.

2 I mean, you could still at one (1)
3 point in time decide you're going to allocate it --
4 allocate it just to the -- just on the basis of G&T.
5 I don't think that -- that's as appropriate as all --
6 allocating on a broader basis.

7 Or, you know, I must admit, to be quite
8 honest, I don't understand is that's precisely what
9 some of your proposals are, but that would be another
10 way one could think -- one could think of use -- one
11 could think of -- of using it.

12 MR. PATRICK BOWMAN: So -- and let me
13 just go -- during the 2020s will Keeyask be a cost of
14 export?

15 MR. WILLIAM HARPER: Once Keeyask
16 comes into service it will go into the pool of
17 generation costs and a portion of it will -- will be
18 allocated to exports through the Cost of Service
19 Study, yes.

20 MR. PATRICK BOWMAN: But my question
21 is, should -- for the time until probably I'm no
22 longer doing this practice, Keeyask is only in its
23 advancement period where it's only put in service for
24 serving exports during that period. Isn't that a cost
25 of export in those years?

1 MR. WILLIAM HARPER: You know, and
2 then this -- this comes to some -- some of the
3 disconnect we -- we've talked about -- about using --
4 about trying to use the -- the PCOSS and use a fully
5 allocated when -- use a fully allocated approach to
6 all -- allocating those costs and you could look and
7 you could say that, Yes, we've -- we've only advance
8 PCOSS for those years.

9 Maybe it should only go to exports for
10 those years. And sub -- and subsequently it's -- you
11 know, it hasn't been advanced. It was only built for
12 domestic load. But from an allocation perspective
13 we're using a pool -- we're using a pooled approach
14 and so you -- you will get those exports.

15 It's -- it's just like saying, All --
16 all loads, new load, or all -- we don't parse between
17 saying, Well, you know, what new customers came --
18 came on board in the '20s and they're the ones that
19 should only be paying for Keeyask and we're not going
20 to give old -- we don't charge old customers for
21 Keeyask. We use -- we use a pooled approach for
22 domestic.

23 And once you decide you have an export
24 class you're using a pooled approach for both domestic
25 and exports.

1 MR. PATRICK BOWMAN: So bringing
2 Keeyask online in 2022 and not directly assigning it
3 to exports raises the average cost substantially of
4 your generation to every Manitoban even though you
5 could have put off that installation until say, 2030,
6 at this point, not advance for exports.

7 You're saying that's -- given -- given
8 an embedded approach where you average pool,
9 everything, that's a -- that's a reasonable outcome?

10 MR. WILLIAM HARPER: Well, I -- well,
11 I think, what -- what's interesting is if you reflect
12 back to the NFAT hearing, you know, what we were all
13 struggling with this fact is, you know, while
14 advancing Keeyask when we did the long-term sort of
15 totally economic evaluation made sense.

16 It was -- it was going to put upward
17 pressure on rates in -- in the earlier years to -- to
18 begin with even when we did the economic evaluation.
19 And so I'm not too sure if, you know, what you're
20 saying there happens is any different than what we
21 expected to see when we did -- when we did the NFAT.

22 MR. PATRICK BOWMAN: But is there a
23 difference between doing a -- a cost analysis versus a
24 expectations at an NFAT? Like is this analytical
25 tool, should it be reflecting expectations when we did

1 the NFAT, or should it just be reflecting in this year
2 this cost only exists because we wanted to capture
3 these exports?

4 MR. WILLIAM HARPER: Well, I...

5

6 (BRIEF PAUSE)

7

8 MR. WILLIAM HARPER: I think what --
9 what I'm struggling with here is the fact it exists in
10 this year and it's going to exist for a lot of years
11 to come sort of thing. And -- and I think if we
12 overly focus on just -- on -- on just the one (1)
13 year, I -- I don't -- I don't think that -- that's the
14 right thing to do.

15 MR. PATRICK BOWMAN: Well, I -- I
16 agree with you and that's why I was framing it in
17 terms of a decade. And I think if people who have
18 their mind on DSM potential it could be a lot longer
19 than a decade where Keeyask is only in its advancement
20 period for -- for exports before it really becomes
21 necessary in Manitoba, at least for people who talk
22 that way. So I don't think it's a one (1) year
23 snapshot debating.

24 That may -- that may not have anything
25 to do with the question. But if you have any

1 thoughts, feel free to share them.

2 MR. PATRICK BOWMAN: Well, you know, I
3 think, you know, when we were doing the 2005 cost of
4 service we went through one (1) exercise here, which
5 was a thin -- which was a vintaging servi -- which was
6 a vintaging approach and trying to say can we take
7 newer plants and allocate them to exports and older
8 plants and allocate them to domestic load.

9 And, you know, that was one (1) of the
10 considerations that was before the Board at that point
11 in time. I'm not too sure if it ever made it to the
12 final cutting table, you know, so -- you know, and so
13 I think that -- that's in part because, going back to
14 my sweater analogy, we were trying to unravel things a
15 little bit too much.

16 MR. PATRICK BOWMAN: Yeah. And I -- I
17 accept that. The vintaging is -- is unravelling too
18 much. I just wonder if Keeyask is an exception when
19 you're talking taking a billion dollar revenue
20 requirement and increasing it by 500 million for one
21 (1) plant that is that -- that, you know, decade plus
22 of -- of time period where it's not actually needed,
23 used to -- for anything but export service.

24 That -- and that -- it's just a
25 question where that's -- that one (1) is a -- is a

1 bridge too far.

2 MR. WILLIAM HARPER: Actually, I
3 remember having exactly this conversation with Mr.
4 Forest (phonetic), in 2002, actually, about what --
5 what's some of the implications when you're
6 introducing export classes and some -- if you follow
7 that through what some -- some of the logic is in sort
8 of the problem.

9 So, you know, I -- I -- you know, and
10 it was one (1) of the issues about my initial
11 reluctance to get into doing export classes at all.
12 So I -- I agree you've got an issue here.

13 I think -- I think if we look at this
14 sort of and try and say we're trying to treat this
15 within the context of how we treat cost of service,
16 we're trying to allocate the cost within the context
17 of how we do cost of service. And in cost of service,
18 we do this on an allocation on a pooled basis.

19 And if we start breaking out export
20 classes for that purposes, then where do we stop in
21 terms of how -- what else should we be breaking out
22 for that same purpose.

23 MR. PATRICK BOWMAN: Well, just to
24 hypothesize to you for a moment, my recollection of
25 the many years of debate about an export cost tended

1 to focus around two (2) issues. One (1) is there were
2 some, I think, who advocated an export class because
3 they really wanted to measure where their exports were
4 profitable. And I think you and I have already
5 concluded that's not the right way to measure where
6 it's profitable.

7 And there were others who -- oh, do you
8 -- do you want to -- you -- you chuckled, but do you
9 want to --

10 MR. WILLIAM HARPER: Oh, I said, no.
11 I just agree. You know -- no, I agree. And I think
12 it's beyond you and me. I think -- I think there's a
13 general agreement amongst, you know, other people
14 who've been participating in this process, as well, or
15 pro -- providing advice in this process, if that's the
16 case.

17 MR. PATRICK BOWMAN: And -- and the
18 other in -- incentive I think you'll find if you look
19 through that record and -- and recall was we were in
20 the period of, you know, the late '90s into about 2005
21 where -- where Hydro hadn't built anything in a lot of
22 years. Generation costs were pretty low compared to
23 the market. They were -- export revenue went up every
24 year.

25 Natural gas prices were on the incline

1 and exports were this -- this windfall. And there was
2 talk in this room about -- about piggies and slop and
3 all sorts of other concepts of, you know, gravy and --
4 and other terms that sometimes slip back in. And my
5 gosh, if we didn't do something to the export class,
6 they were going to -- pretty soon we're going to have
7 negative rates for -- for our generation system.

8 I presu -- none of us are talking that
9 way today?

10 MR. WILLIAM HARPER: Well, I think --
11 and I addressed that a bit in my ev -- in -- in part
12 of my evidence in terms of addressing the fact that
13 the -- sort of the relationships we saw between export
14 revenues and -- and domestic rates and the volume of
15 export revenues has sort of moderated somewhat from
16 the situation.

17 We talked in 2005. I think I talked
18 about the fact there still are some -- some issues and
19 that, as we look forward, the expect -- the
20 expectation is that probably export -- average export
21 revenues will increase faster, like, export prices
22 will go up faster than domestic rates in -- in
23 Manitoba so that while -- while it has moderated,
24 things -- you know, things will start to -- may well -
25 - are going to start to move back to the type of

1 situation we saw back in 2005.

2 Whether it's all the way or not, we
3 can't tell, but I think things are -- there's still an
4 issue now, not as much as there was in 2005, and that
5 -- but that my swing back towards the 2005 situation
6 as we go forward.

7 MR. PATRICK BOWMAN: But accept that
8 if -- if it did that, if export re -- revenues did go
9 up the way that -- you know, back to the levels that
10 were there, the difference in 2023 than 2005 is we'll
11 have \$500 million of Keeyask we've incurred for that.

12 So the -- the idea that there's a whole
13 bunch of slop and negative rates for domestic
14 customers is -- is not even conceivable?

15 MR. WILLIAM HARPER: Well, I don't --
16 I don't think -- I don't ever recall we getting to the
17 point of negative rates. We were all hoping maybe. I
18 don't remember -- recall realistically talking about
19 negative rates for customers.

20 MR. PATRICK BOWMAN: I -- I know it
21 was in the theory. And I -- you might check the
22 evidence of Mr. Lazar (phonetic), I think, but --

23 MR. WILLIAM HARPER: Okay.

24 MR. PATRICK BOWMAN: -- it goes back a
25 long way. Nonetheless, I -- I'm thinking of moving on

1 from that to -- that was really helpful, thank you, to
2 DSM for a moment. And I am just going to try to pull
3 up your page 47. And I will say the bottom of the
4 page is a table.

5 MR. WILLIAM HARPER: And this is where
6 I really -- oh, thank you. I'm glad we got the screen
7 here. Good. Thank you.

8 MR. PATRICK BOWMAN: And I'll say that
9 this is one (1) of the more bizarre issues I've --
10 I've had to -- I just want to make sure some of this -
11 - this is clear.

12 I'm -- I'm going to look at the column
13 called Total Cost, which is the first column which is
14 where we actually do the direct assignments and -- and
15 allocations of all of the costs before we get into any
16 net export revenue or that type of thing.

17 And it's the first column for PCOSS14
18 (Amended), and it's the -- after the blank column,
19 it's the first column after the blank column for the -
20 - the -- what you call the alternative DSM allocation.

21 MR. WILLIAM HARPER: Yes.

22 MR. PATRICK BOWMAN: And -- and just
23 to be clear again, none -- neither of these
24 allocations reflect the Board's last ordered
25 allocation, which was export pay for DSM.

1 MR. WILLIAM HARPER: That's right. As
2 labelled, the PCOSS14 (Amended) is Manitoba Hydro's
3 recommended approach. And the second set -- the
4 second set there is change in the treatment of DSM in
5 accordance with the way I've recommended in my
6 evidence.

7 MR. PATRICK BOWMAN: Now, did Hydro
8 run these numbers, or are these yours?

9 MR. WILLIAM HARPER: Well, these are -
10 - these are -- we took the Hydro model, the Daymark
11 revised model, and re -- revised it to reflect the
12 change, and then basically went through the Board-
13 designated process of having Daymark review them --
14 review the model to make sure that we -- we had done
15 it correct.

16 They confirmed it was correct, and then
17 we incorporated it in our evidence.

18 MR. PATRICK BOWMAN: Thank you for
19 that. I -- I was looking for a footnote that told me
20 where this came --

21 MR. WILLIAM HARPER: Oh, I --

22 MR. PATRICK BOWMAN: -- but that's --
23 that's --

24 MR. WILLIAM HARPER: Yeah, yeah.

25 MR. PATRICK BOWMAN: -- acceptable.

1 So I just want to now check --

2 MR. WILLIAM HARPER: I think -- just -
3 - just for your information, I think -- I think there
4 was a note came out from Manitoba Hydro just the other
5 day saying that actually the -- the model run for this
6 had been posted on their -- on -- on their site and
7 was available. The actual model itself was posted on
8 their site if you're interested in seeing it.

9 MR. PATRICK BOWMAN: So just to go
10 through the basics, bottom of the tom -- total cost
11 column we see one seven five two (1,752) -- oh -- on
12 seven five two (1,752). Bottom of the other one, we -
13 - we see one seven five two (1,752). We're only
14 changing locations, we're not changing costs?

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

17 MR. PATRICK BOWMAN: And as we go down
18 the list, we can see the impact on each customer class
19 from going from what -- what Hydro is recommending and
20 that -- and that -- that I've said has some appeal
21 principally to what you're recommending. And I
22 believe on that regard, Cher -- Mr. Chernick's the
23 same as you and -- and the -- maybe one (1) other.

24 MR. WILLIAM HARPER: Well --

25 MR. PATRICK BOWMAN: We're

1 recommending the generation approach.

2 MR. WILLIAM HARPER: -- I think you
3 have to speak to Mr. Chernick this afternoon.

4 MR. PATRICK BOWMAN: Yeah.

5 MR. WILLIAM HARPER: I think he's got
6 a slightly --

7 MR. PATRICK BOWMAN: Okay.

8 MR. WILLIAM HARPER: -- different
9 variation on that that he's proposing.

10 MR. PATRICK BOWMAN: Okay. I will do
11 that, and it may be slightly different. But in the
12 model you're proposing, when we look at the total
13 costs, you're looking for residential's costs to go
14 from 626 million to 632 million, an increase of about
15 6 million.

16 Is that right?

17 MR. WILLIAM HARPER: That's correct.

18 MR. PATRICK BOWMAN: And -- and if we
19 go down the -- the page, we see where those offsets
20 occur. And -- and again, one (1) of the odder things
21 I've seen in a hearing, the -- the method that Hydro
22 and -- and my evidence support have 204 million for
23 General Service Large, greater than 100 kV. Your
24 method has about 200 million, so down by about 5
25 million.

1 MR. WILLIAM HARPER: Yes.

2 MR. PATRICK BOWMAN: And so we're both
3 popular with our clients. Of that change that's about
4 4 -- 4 -- 4.9 or \$5 million for the General Service
5 Large, you commented that some of that is related to
6 the curtailable issue that -- that I've raised. About
7 2 1/2 million is actually related to the curtailable
8 issue, not necessarily to the other DSM.

9 MR. WILLIAM HARPER: Oh, yes, because
10 the \$8 million that's been directed assigned to the
11 curtailable portion of the GS Large is no longer
12 directly assigned. It's now allocated entirely to the
13 generation pool.

14 MR. PATRICK BOWMAN: Yeah.

15 MR. WILLIAM HARPER: And obviously, GS
16 Large will pick up a portion of that through --
17 through the allocation of -- you know, will pick up a
18 portion of the 8 million through the allocation of the
19 generation pool. But -- so -- but -- but there is an
20 offset in that, and that's part of what's accounting
21 for -- for the change here.

22 MR. PATRICK BOWMAN: Okay. And now
23 here -- here's what's really odd about this outcome
24 is, if I look in PCOSS14 -- and I -- I don't know if
25 we can -- we may not need to pull it out. You can

1 check these numbers.

2 And the total cost in Hydro's approach
3 allocated to the residential class is about 6.6
4 million. And if -- we can pull it up if you want,
5 page 29 of -- of PCOSS14 (Amended).

6

7 (BRIEF PAUSE)

8

9 MR. PATRICK BOWMAN: And so here we're
10 going to look at allocations. These are the direct
11 allocations of DSM energy. It's in the -- the bigger
12 block on that page. Starting about a third of the way
13 down the screen, you'll see DSM Direct Assignment
14 Energy. And these are the costs of the DSM programs
15 as you understand them?

16 MR. WILLIAM HARPER: Yes, yes.

17 MR. PATRICK BOWMAN: And so
18 residential is currently being allocated about \$6.6
19 million of DSM programs as you understand them?

20 MR. WILLIAM HARPER: Yes.

21 MR. PATRICK BOWMAN: Okay.

22 MR. WILLIAM HARPER: Yes.

23 MR. PATRICK BOWMAN: And so
24 residential is currently being allocated about \$6.6
25 million of DSM costs?

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

3 MR. PATRICK BOWMAN: And -- and under
4 the method you're taking about, that would increase by
5 about 6 million in the direct -- in -- in the -- in
6 the total costs before we get into the fancy export
7 adjustments.

8 MR. WILLIAM HARPER: At the end of the
9 day, yes.

10 MR. PATRICK BOWMAN: Yeah.

11 MR. WILLIAM HARPER: Yeah. Now -- now
12 -- and that's -- that's not only that. That's because
13 the way you're treating all -- all of the other -- it
14 -- it's not -- we're not just reassigning the six
15 point six (6.6) elsewhere. We're reassigning all of
16 those costs, and so it's -- it's the net effect of all
17 of those costs --

18 MR. PATRICK BOWMAN: That -- that's
19 true, but in the direct -- in that cost -- total cost
20 column, when I look at the left-hand side, this six
21 point six (6.6) is included of that -- of your -- your
22 tables previously. The -- the PCOSS14 method has this
23 6.6 million included in the six hundred and twenty-six
24 (626).

25 MR. WILLIAM HARPER: Yes.

1 MR. PATRICK BOWMAN: And you're saying
2 the six hundred and twenty-six (626) would go up to
3 about six hundred and thirty-two (632), so the net
4 effect is instead of this six point six (6.6) being
5 in, that would come out as a direct thing, but some
6 allocation would occur that would deliver about 12
7 million --

8 MR. WILLIAM HARPER: Yes.

9 MR. PATRICK BOWMAN: -- to the class,
10 or -- or thirteen (13), somewhere in that range. And
11 the residential one goes up substantially. Without
12 pulling up the other document, you'll see the small --
13 non-demand goes down about 2 million, the demand about
14 2 million, the medium about 2 million, the large zero
15 to thirty (30) down about 1 million. And of course,
16 general service large we talked about, almost 5
17 million.

18 So all of the other classes are
19 actually seeing less allocation of DSM costs under the
20 approach you're talking about, other than pretty much
21 residential and -- and then an export adjustment. Is
22 that -- is that consistent with what you understand
23 the effect to be?

24 MR. WILLIAM HARPER: Yes. You know,
25 up -- that -- that's consistent with -- with the way -

1 - with the way -- way the numbers came out when you
2 work through the method, yes.

3 MR. PATRICK BOWMAN: Okay.

4 MR. WILLIAM HARPER: You know, like I
5 said at one (1) point in time, when -- when all the
6 puts and takes come, I -- I was quite -- I was quite
7 surprised by sort of how -- how much the change was
8 when -- when I saw it, but I thought in principle, it
9 -- it was the right thing to do. But -- but I was
10 quite surprised the numbers changed as much as they
11 did, yes.

12 MR. PATRICK BOWMAN: So if you're
13 saying the right thing to do is that residential
14 should have about a 12 or \$13 million allocation, but
15 -- of -- of the DSM has occurred, but here it's saying
16 we've only spent about 6.6 million on them, and -- and
17 other classes are the other direction.

18 I'll -- I don't have a direct question,
19 but sort of a musing about what -- what is that -- why
20 do you think that's occurring? What -- what is
21 happening in the DSM spending or the DSM tracking
22 that's leading to that result?

23 MR. WILLIAM HARPER: Well, I think in
24 -- maybe it's a -- you know, I -- I don't recall off
25 the top of my head, but I believe that if you look --

1 say look at residential and look at GSS non-demand. I
2 think the GSS non-demand class is probably quite a bit
3 smaller overall in terms of its total loads than
4 residential.

5 MR. PATRICK BOWMAN: It is.

6 MR. WILLIAM HARPER: You know, now, if
7 you look at the DSM that's allocated to them, the DSM
8 that's allocated to that class is not that much less
9 than what it is for residential. And so relative to
10 the size of the loads on a -- sort of on -- on a
11 direct assignment basis, they -- they've got a --
12 they've got a lot more DSM costs being directly
13 assigned to them.

14 Then when I pull that out and allocate
15 it basically on sort of load parameters, whether it
16 be, you know, sort of weigh -- weighted energy, they -
17 - they end up pick -- picking up a -- a lot less. And
18 I think that's the flip -- the flip side that applies
19 for residential.

20 MR. PATRICK BOWMAN: Now, you used the
21 word "They have a lot less DSM costs allocated to
22 them" or assigned to them in the sheet that's on the
23 screen. But really that's saying they have a lot --
24 or -- or a lot -- a lot more to general service small.
25 Whether that's saying is there's a lot more DSM spent

1 on general service small --

2 MR. WILLIAM HARPER: Correct.

3 MR. PATRICK BOWMAN: -- because this
4 is spending, right?

5 MR. WILLIAM HARPER: Right. This is
6 spending, and I guess that that's because, I guess,
7 for whatever reason the program designers at Manitoba
8 Hydro have decided that this is an area where --
9 that's ripe for getting addition DSM savings that --
10 that are economic to -- to the system relative to
11 other -- relative to other customer classes.

12 And so it -- it's an -- it's one (1) --
13 it's one (1) of the better opportunity areas in terms
14 of finding -- finding and promoting economic DSM.

15 MR. PATRICK BOWMAN: And I presume the
16 idea is all of the classes that would see a -- a
17 negative, which, in this case, was everyone other than
18 DSM, has effectively the same conclusion. That
19 general service medium was going down by about a
20 million, I believe. There -- here -- here a six point
21 four (6.4) has been spent on them. If they were
22 getting a -- a share based on the generation system,
23 it would only be more like five point five (5.5) that
24 they would be allocated.

25 There have been some -- some higher DSM

1 spending on them than simply a share of the generating
2 system. Is that --

3 MR. WILLIAM HARPER: Because we
4 pursued -- we -- we don't pursue DSM across different
5 customer classes based on their relative loads. We
6 pursue DSM across different customer classes where we
7 think it's going to provide the most benefit to the
8 system.

9

10 (BRIEF PAUSE)

11

12 MR. PATRICK BOWMAN: We said 10:10. I
13 had one (1) other area, but I -- I don't -- it's not
14 that critical. I -- I shouldn't have said it that
15 way.

16 MR. WILLIAM HARPER: You shouldn't
17 have said that.

18 THE FACILITATOR: Okay. Anyways, I
19 think to keep on schedule, let's -- let's not do that.
20 It was a very entertaining examination, or discussion
21 between the two (2) of you as you were tenaciously
22 trying to get Bill to go someplace where you knew he
23 wasn't going to go.

24 Anyways, why don't we take the fifteen
25 (15) minute break. Oh, sorry, Reg.

1 BOARD MEMBER GOSSELIN: I do have a
2 question. I just wanted to explore one (1) topic with
3 you, and specifically one (1) major difference between
4 the -- between yourselves and Mr. Bowman, is the issue
5 of opportunity sales and how that, you know, costs
6 should be treated for those opportunity sales.

7 And, you know, the Board has ruled on
8 this matter a number of times and decided there should
9 only be one (1) class for export sales. So, I guess,
10 convince me --

11 MR. WILLIAM HARPER: It -- well --

12 BOARD MEMBER GOSSELIN: -- why -- why
13 we should vary -- this panel should vary a decision
14 that's been --

15 MR. WILLIAM HARPER: Well, I -- I --

16 BOARD MEMBER GOSSELIN: -- considered
17 before by the panel and --

18 MR. WILLIAM HARPER: That -- that's
19 fair. And I think it -- it goes to the point that if
20 I have one (1) export class, the way we're treating
21 that one (1) export class in the cost of service is we
22 are treating it equivalent to -- to domestic load.
23 We're giving it a share of -- we're going to give it a
24 share of those fixed costs equivalent to the way we
25 allocate costs to domestic load, it -- one (1) export

1 class.

2 Now -- now, the issue is that one (1)
3 export class is a combination of opportunity sales and
4 dependable sales. And -- and we -- we -- and I think
5 I've -- I've made -- made the point in my evidence
6 that opportunity sales themselves are far less
7 reliable than dependable sales.

8 So that if you're thinking from a cost
9 of service perspective, and -- and charging classes
10 based on what's the service that they -- that they
11 receive, theoretically, you know, from a cost of
12 service per -- perspective and costs, you would assign
13 opportunity cost -- sales less costs, say, per
14 kilowatt hour than you would dep -- dependable.

15 They provide less economic leverage for
16 -- on the econom -- and that's on the cost of service
17 side. On the economic side, they provoke -- they
18 provide less leverage than in terms of trying to make
19 an economic case for -- for advancing in -- in
20 investment.

21 And so even on the economic side, you
22 would say they -- they have a less role to play in
23 incurring those costs. So there's a difference
24 between those two (2).

25 But then now I turn to, what's the

1 difference between even dependable exports, which is
2 the firmest -- you know, which is the most -- you
3 know, you could say, the most one (1) that's closest
4 equivalent to domestic load, should it -- should it
5 even be attracting a share of cost equivalent to
6 domestic load?

7 And again, as the answer I -- I would
8 say is, No. From -- from a reliability perspective,
9 even dome -- even dependable sales don't have the same
10 level of reliability as -- as domestic load. So if I
11 was saying, What's -- what's the service and valuing
12 the services they get, I would assign domestic sales
13 more -- more costs per kilowatt hour than I would
14 dependable.

15 And -- and then on the economic side, I
16 say, Well, Manitoba Hydro has to build to meet
17 domestic load even if it's going to raise -- raise
18 rates. That's -- that's their all -- all --
19 obligation as -- as load increases. If it's domestic
20 load, they have to find the most economic way to do
21 it, but they'll -- they'll -- they have to do it even
22 if it raises rates.

23 On the export side for dependable
24 exports, we wouldn't introduce a -- we wouldn't go
25 into a dependable export contract unless it was going

1 to actually benefit rates. So it -- on that side, we
2 wouldn't occur as much cost. So if I come down to a
3 conclusion, I can't logically allocate either
4 dependable sales or opportunity sales and the
5 equivalent costs to a dom -- domestic load.

6 Then if I go into a cost of service
7 study and I'm -- am allocating the same amount of
8 costs, I'm giving too much cost weight. I'm
9 allocating too many costs to -- to that one (1) export
10 class. As I show you my evidence, one could try and
11 think, Well, maybe I should try and come up with a
12 factor and say that relative to domestic exports on
13 average, they're worth point six five (.65) of a
14 domestic -- apply some factor to that one (1) class.

15 Any factor we have will be a number
16 pulled -- pulled out of the air. I don't know how we
17 would come up with it. So I guess, in my mind, a more
18 reasonable way is to say, Let's parse the class in
19 half, opportunity sales and dependable sales. We know
20 there's a difference between the two (2), and depe --
21 and give dependable sales a full share of fixed costs,
22 which is probably giving them a little bit too much.

23 Give opportunity sales no fixed costs,
24 which is probably giving them a too -- a little bit
25 too little, but on balance, that answer is better than

1 giving both of them a full share of fixed costs. That
2 -- that -- I'm sorry for the long-winded answer, but
3 that's my -- that's my spiel.

4 BOARD MEMBER GOSSELIN: I think I'm
5 preventing everybody for -- from going to -- for
6 coffee, but I -- I do want to know -- understand why
7 you would suggest dependable sales are less reli --
8 reliable -- dependable export sales are less reliable
9 than sales that are made to the domestic market.

10 MR. WILLIAM HARPER: Okay. One,
11 Manitoba Hydro doesn't have to -- does -- doesn't
12 include -- doesn't include any planning reserves when
13 it's making a dependable sale. It doesn't include any
14 planning reserves in -- in its future planning for
15 that.

16 And two, we all know that dependable --
17 all those dependable export contracts have clauses in
18 them saying if -- if there's going to be a problem,
19 meaning domestic load, you go first. And so on both
20 those fronts, both in terms of the planning of
21 reserves and in terms of the contract provisions,
22 they're less reliable than domestic.

23 THE FACILITATOR: Great. Thanks,
24 everyone. Let's break till 10:30.

25

1 --- Upon recessing at 10:14 a.m.

2 --- Upon resuming at 10:33 a.m.

3

4 THE FACILITATOR: All right, everyone,
5 I think we're just about ready to go. And, Bill, it's
6 nice to see that Kelly's now within close staring
7 distance for you as we carry on with the questioning.
8 So over to you, Kelly.

9 MS. KELLY DERKSEN: Just one (1)
10 minute.

11

12 (BRIEF PAUSE)

13

14 CROSS-EXAMINATION BY MS. KELLY DERKSEN:

15 MS. KELLY DERKSEN: I have a number of
16 questions, Mr. Harper. I'm not sure if we're going to
17 get through this. And Mr. O'Sheasy has a -- a couple
18 of cla -- clarifying questions for you all, as well.

19 If I could just very quickly have
20 someone pull up MIPUG number 5, please, the -- the MFR
21 number 5.

22

23 (BRIEF PAUSE)

24

25 MS. KELLY DERKSEN: And I just wanted

1 to clarify for the record. The last column that's
2 called, "Actual exports and imports," is to reflect
3 the direction that the regulator made in Order 116/'08
4 that said that Manitoba Hydro, for cost of service
5 purposes, at least, was to reflect a more current
6 actual export prices in the determination of export
7 revenue than what was reflected in the IFF that cost
8 of service is typically underpinned.

9 So it was to abandon what was
10 forecasted in the IFF at that time for cost of service
11 purposes only, and to update it with more current
12 information. At the time, of course, when the market
13 is going up, going up, you'll -- from an export
14 revenue perspective, you will see some effect, because
15 export revenue will increase.

16 In a declining market, of course, it's
17 going to do the -- the converse. So there'll -- there
18 could be significant impacts dependent on when that
19 forecast was struck for IFF purposes compared to what
20 was reflected in cost of service.

21 And the Company's perspective is today
22 that export revenue, whatever's reflected in IFF,
23 should be con -- continued or be represented for cost
24 of service purposes. There should be no distinction.

25 So I thought that I'd provide that

1 clarification. Mr. Harper, I think, now that I
2 offered that up, that is likely what your recollection
3 was also?

4 MR. WILLIAM HARPER: Yes, I -- yes,
5 it was. Thanks.

6 MS. KELLY DERKSEN: And I'm sure if
7 there's a differing perspective on our interpretation
8 of that direction, we will -- you'll let us know?

9

10 (BRIEF PAUSE)

11

12 MS. KELLY DERKSEN: I'm going to ask a
13 -- a couple of conceptual questions just to provide
14 some context. Yesterday, we had some discussion, and
15 you had some discussion in your presentation, Mr.
16 Harper, about generation. And, in particular, I think
17 it was your experience with BC Hydro, recently having
18 completed some kind of settlement agreement or
19 negotiation process.

20 And the only one (1) thing that
21 couldn't be agreed upon was how that one handles
22 generation. Is that fair?

23 MR. WILLIAM HARPER: Yeah I -- I, you
24 know, I'm not so sure it's -- it was -- was the -- it
25 -- it was the only one. But it was the one where, if

1 you read the settlement agreement, there's -- there's
2 the starkest difference in terms of -- harshest
3 wording. Let's put it that way, yeah.

4 MS. KELLY DERKSEN: Sure. And -- and
5 the -- the reason that that happens is because, for
6 cost of service purposes, we're trying to really
7 create this fictitious line between what the utility
8 is believed to incur in terms of cost related to
9 putting demand infrastructure in place versus what
10 costs are influenced by energy. And it becomes
11 contentious because that line is very blurred. It's
12 very hard to determine that demarcation point.

13 MR. WILLIAM HARPER: I'm not too sure
14 if that was a question or --

15 MS. KELLY DERKSEN: I'm sorry. I'm --
16 I'm asking you to confirm --

17 MR. WILLIAM HARPER: Oh, okay.

18 MS. KELLY DERKSEN: -- if that's a
19 fair representation.

20 MR. WILLIAM HARPER: Well, I -- I
21 think that's fair. I think the characterization would
22 be you -- you've got a cost there, and we're not
23 incurring different costs.

24 We've got a cost there that has been
25 incurred to basically provide for the capacity needs

1 of customers over the eight thousand seven hundred and
2 sixty (8,760) hours of the year, and also provide for
3 the energy needs over those same hours.

4 And trying to tangle out what -- what
5 portion of what was capacity related versus what
6 portion of that is energy related is a -- is sort of
7 something that -- where, as I said, there's no really,
8 you know, common -- commonly viewed appropriate meth -
9 - methodology for doing it.

10 The second thing is, generation's a big
11 chunk of every utility's business. And so therefore,
12 how you do this can have a -- a fair -- a material
13 effect on the cost of service relative to how you
14 might be trying to determine some - some other things.

15 And so between the lack of agreement on
16 methodologies and the size of the numbers, it becomes
17 a contentious issue, yes.

18 MS. KELLY DERKSEN: Thank you. And so
19 -- but these things occur routinely in cost of
20 service. If we talked about transmission, I think
21 there could be argument also made that there's some
22 influence of energy, let's say, dependent on how you
23 characterize transmission, notwithstanding that
24 traditionally, transmission is classified as 100
25 percent demand.

1 And -- and again, it's trying to
2 determine whether there is some energy influence
3 versus demand influence. And it -- it can become a
4 contentious debate, perhaps a little bit lesser,
5 dependent on the magnitude of the cost.

6 MR. WILLIAM HARPER: I agree. And
7 actually, the example you brought up is interesting,
8 because while traditionally transmission was thought
9 of as being 100 percent demand related, the -- the
10 company I formerly worked for for a long time, after
11 talking to system planners and the types of
12 investments you make in transmission simply to reduce
13 energy losses, we were allocating probably roughly 2
14 percent of the transmission costs to -- to demand --
15 to -- excuse me, to energy.

16 You know, that -- that's a small
17 portion of the total. And at some point in time later
18 on, the company went back to 100 percent. So, you
19 know -- so -- and I think that's just ill --
20 illustrative of -- of the point you're making, yes.

21 MS. KELLY DERKSEN: And again, at the
22 -- at the distribution level -- and Mr. Chernick has
23 provided some evidence that, contrary to what Manitoba
24 Hydro's perspective is, and I think yours also -- and
25 that there is some distinction to be drawn for

1 distribution plant between what is driven by the
2 number of customers on the system versus -- versus
3 demand.

4 And that becomes a very subjective
5 calculation also, because, you know, we have embedded
6 distribution cost, and, from an accounting
7 perspective, we can't parse that out. So in cost of
8 service, we're trying to create that arbitrary
9 distinction, or that line in the sand.

10 MR. WILLIAM HARPER: Yeah. I -- I
11 think it's fair to say that -- that there -- there's
12 an analogy to -- to be made there as well on the
13 distribution side of areas where you're trying to
14 tease out and say, I've -- I've got a plant in
15 service.

16 How much of it has been driven by --
17 I've got more than one (1) cost driver that I believe
18 was involved in sort of having effect on what -- what
19 those costs were. And how do I tease it out between
20 the two (2), whether it's demand and energy for
21 generation or customers and demand in the terms of
22 distribution? Yes.

23 MS. KELLY DERKSEN: So when we get to
24 -- which is really where I'm going with respect to the
25 export class -- when we get to the export class in --

1 in cost of service, this notion of trying to create --
2 I called it pokery-jiggery with Mr. -- Mr. Bowman.

3 But there was a seriousness underlying
4 that comment that I think is fair, and that is we're
5 trying to create this demarcation point or establish a
6 convention like we often do in cost of service to say
7 what we believe export revenues should be returned on
8 the basis of G&T to each customer class versus how
9 much of export revenue can be returned, let's just
10 say, to simplify our discussion, on the basis of 'G',
11 'T', and 'D'.

12 And so the -- the debate in the last,
13 let's say, decade has been, how do you draw that
14 distinction so we can return some export revenue on
15 the basis of G&T and some export revenue on the basis
16 of 'G', 'T', and 'D'?

17 Would that be a fair comment?

18 MR. WILLIAM HARPER: I -- I -- at the
19 end of the day, I think it's a fair comment. I'm not
20 too sure if I would characterize exactly the way the
21 discussion I was having with Mr. Bowman was talking
22 about what are the -- what's a reasonable share of G&T
23 cost to assign to exports.

24 But since when you assign costs to
25 exports you're basically saying these are costs I'm

1 not going to assign to -- to domestic customers I
2 think it ends up with the same result as you're
3 talking about even though I may characterize it
4 slightly differently, yes.

5

6 (BRIEF PAUSE)

7

8 MS. KELLY DERKSEN: And can you
9 confirm for me, Mr. Harper, that the reason we -- we
10 went down this -- this road of an export class a
11 decade or so ago was because the perspective,
12 certainly of -- of Manitoba Hydro and I think you
13 concurred with us at the time, was that there was an
14 unfair sharing of export revenue because we returned
15 that export revenue on the basis of only G&T.

16 We didn't create this demarcation point
17 at that time to return net export revenue on both G&T
18 as -- as well as on the basis of GT&D. And -- and
19 what gave rise to that is because -- that there was
20 the potential for an unshare (sic) fairing -- sharing
21 of that export revenue when we were returning it only
22 on the basis of G&T?

23 MR. WILLIAM HARPER: I -- I'm not sure
24 -- fairness is rather a loaded word. It's in the eyes
25 of the beholder. I -- I think -- I -- I think it's

1 more appropriate, at least from my perspective, to say
2 that I think when it was returning that way the
3 results of the cost of service were giving us -- the
4 results of the cost of service -- maybe perverse is
5 too -- too strong a word.

6 But -- but they -- they were sort of --
7 when customers change their loads the -- the way that
8 cost of service changed was a way we wouldn't think it
9 would change if you're trying to link in terms of how
10 cost change when customers change their loads. And so
11 I think it -- that -- that was the problem we -- we
12 were trying to address.

13 And if you characterize that as being
14 one (1) element of fairness, I would agree with you
15 then.

16 MS. KELLY DERKSEN: Thank you. And
17 this -- this morning Mr. Bowman asked you about
18 whether that -- you would view it reasonable to assign
19 all of the revenue requirement incurred in the years
20 of advancement with respect to say Keeyask, given that
21 what drove that revenue requirement in that year is
22 the advance of plant to pursue a dependable sale
23 potentially also the -- the outcome of that could be
24 that potential opportunity sales also.

25 And my question for you is, Isn't that

1 very short-sided or certainly not talking about the
2 whole picture, and that is advancement of Keeyask is -
3 - was really only pursued or considered because
4 ultimately when you looked at the economics over the
5 period of time in which it was being evaluated that it
6 contributed more to the system than it costed. And so
7 that was the rationale for having advanced the plant
8 over that period of time.

9 Would -- would you agree with that?

10 MR. WILLIAM HARPER: Yeah. I -- I
11 think -- I think I made a similar comment to -- to Mr.
12 Bowman actually when we were having our -- when we
13 were having our discussion. And I think -- I think
14 this goes back to this point of vintaging because just
15 like we advanced Keeyask we have -- we have plants in
16 the -- on the books that were built a number of years
17 ago that equally when they came into service probably
18 had an upward pressure on rates but now, you know,
19 their depreciated costs are fairly low.

20 They are contributing a -- you know,
21 they are sort of well economic from -- from an
22 embedded cost per -- perspective. And, you know --
23 and, you know, sort of the customers back there bore
24 that because at that point in time that decision was
25 viewed as being the appropriate one to make over the

1 long term. And -- and we're -- we're going to have a
2 similar situation here.

3 MS. KELLY DERKSEN: Right. So -- so
4 what you're real -- what you're saying in my words is
5 that past customers, because of the decisions that we
6 made, may have paid for those costs that current
7 customers are now benefiting to a significant degree
8 from?

9 MR. WILLIAM HARPER: Yeah. You know,
10 and I guess that's why -- and one -- one way of trying
11 to capture that in a sort of -- maybe -- maybe
12 simplistic overall is by using this pooled approach in
13 terms of how -- how we treat the costs overall, both
14 the new ones and the old ones, yeah.

15 MS. KELLY DERKSEN: And really one (1)
16 of the issues for cost of service with respect to
17 export revenue specifically, but, you know, I think
18 there's probably other examples that we could turn to
19 that have the same issue, and that is we have really
20 two (2) fundamentally different tests.

21 We have an incremental economic test
22 that we use to evaluate our resource options. We also
23 use it to evaluate -- evaluate whether we pursue an
24 opportunity sale, for example, as long as -- in -- in
25 realtime as long as it bears its full share of

1 variable costs, we should pursue that -- that
2 opportunity sale.

3 So we've got this economic test. We've
4 got a cost of service, I'll call it a test, if you
5 will. They're vo -- they're both appropriate tests
6 for the purposes that they're intended to do, but they
7 accomplish different things. And it's not expected
8 that they should be accomplishing -- accomplishing the
9 goal of the other.

10 Would you agree with that?

11 MR. WILLIAM HARPER: I think a good
12 example of that is just -- with the conversation I was
13 having earlier with Mr. Bowman about sort of you don't
14 use cost of service results to evaluate whether an ec
15 - whether a particular export opportunity is going to
16 be profitable or not, which, I think, is -- is
17 precisely the point you're talking about.

18 MS. KELLY DERKSEN: And in terms of
19 this discussion with respect to advancement and the
20 revenue requirement associated with Keeyask in the
21 advancement years, you would also agree them, if -- if
22 you go down this path, which is where Mr. Bowman I
23 think was trying to take you, and that is you should
24 assign the revenue requirement associated with Keeyask
25 in the years of advancement solely to exports because

1 they drove those costs in those -- in those years, and
2 then we'll -- we'll further debate how many years that
3 actually is.

4 But be that as it may, wouldn't you
5 also agree then, after that advancement period if over
6 no fixed costs then would be assignable to -- to
7 exports?

8 MR. WILLIAM HARPER: Well, you would
9 have -- I -- I think you would have a cost of service
10 based on a totally different paradigm, if -- if I can
11 put it that way. And you would have -- you know, you
12 would have to be tre - treating plants -- all plants -
13 - like, you know, perhaps all plants and maybe all
14 loads because where it's assigning -- directly
15 assigning those plants to those loads, I could try and
16 go through a similar exercise for domestic -- for
17 different types of domestic loads if I wanted to.

18 But it's sort of looking at it on a
19 totally different paradigm, which is quite a bit
20 different than what -- I think what people generally
21 view as being the paradigm for looking at for cost of
22 service, which is basically either you say all
23 customers are new customers or all customers are old
24 customers, but they're all treated on a sim -- similar
25 basis.

1 And once you have an export class,
2 you're saying they're -- they're treated on a similar
3 basis, too.

4 MS. KELLY DERKSEN: And then you get
5 into this ba - debate of whether, if it's economically
6 in the long-term advantageous for the utility to
7 advance the plant that it's putting in place to serve
8 domestic customers, if it's benefiting customers, why
9 would you assign full cost responsibility of the
10 revenue requirement in the advancement years with
11 respect to Keeyask. You get into that debate.

12 You would at least agree that that is a
13 debate that would have to happen?

14 MR. WILLIAM HARPER: I'm not too sure
15 if I full -- fully understood the question. But I
16 think I can agree with the fact that if you start
17 going down the line, there's lots of debates that have
18 to occur.

19 MS. KELLY DERKSEN: So really what we
20 have here is a fairly routine kind of approach, at
21 least in the -- in the context of what we do in cost
22 of service, to say, okay, let's deci -- let's assign
23 some fixed costs to -- to exports so that we're left
24 with this net export revenue that we can use then to
25 return to customers on something other than on the

1 basis of G&T.

2 It's contentious until you get the
3 rules of the game sorted out?

4 MR. WILLIAM HARPER: You know, I'm
5 not sure if I'd say I'd go to the fact that you can --
6 you necessarily have to return that difference on
7 something other than G&T. I think what -- what I say
8 is that, once you've identified those costs and
9 matched them against net export revenues, you have
10 much more flexibility in terms of where you think is
11 the appropriate way to treat -- to assign the
12 difference.

13 MS. KELLY DERKSEN: Right. And again,
14 all -- the only reason that we're doing this is to
15 establish a -- a treatment to accommodate, in the
16 context of ex -- of cost of service, export revenue,
17 which is driven by a competitive market and which has
18 -- bears -- the revenues of which bear very little
19 relationship to the underlying costs that factor into
20 a cost of service study in embedded cost of service.
21 Is that fair?

22 MR. WILLIAM HARPER: Well, I'd say
23 much less so than domestic rates and domestic
24 revenues, yes.

25 BOARD MEMBER GOSSELIN: Could I --

1 could I ask a question for clarification? You said
2 something along the lines that -- correct me if I'm
3 wrong. I heard you say that, because Keeyask was
4 advanced, we assign fixed costs of Keeyask to that
5 advancement period on export sales.

6 You also said, Well, after the
7 advancement period is over, then there would be no
8 fixed costs assigned to it.

9 And explain that to me.

10 MS. KELLY DERKSEN: I was offering up
11 the complexity that one could get into by going down
12 this path that Mr. Bowman was taking Mr. Harper this
13 morning to say, If you did agree that you would assign
14 the full revenue requirement associated with Keeyask
15 in the advancement years to exports, then they've paid
16 for that plant.

17 And anything after that advancement
18 period, any -- that -- an argument could be made that
19 no fixed costs be assigned to exports after that
20 period because they've fully paid for that plant.

21 BOARD MEMBER GOSSELIN: My -- my
22 understanding of what he said, though, was that the --
23 you know, the -- the yearly attribution of fixed costs
24 related to Keeyask -- I mean, it spreads over a number
25 of years.

1 It doesn't spread over the first twelve
2 (12) or fifteen (15) years of Keeyask. It'd be spread
3 systematically over the life of the plant to -- to the
4 costs related -- you know, for the Keeyask costs. You
5 wouldn't be paying for the plant within fifteen (15)
6 years. I don't -- I don't follow the logic.

7 MS. KELLY DERKSEN: For cost of
8 service purposes, there -- the -- I think where Mr.
9 Bowman was going -- Mr. Harper may want to jump in
10 here -- is, if you know that you're advancing plant to
11 pursue a dependable sale, is it not reasonable then
12 that the full amount of the revenue requirement in the
13 advancement period be assigned to exports?

14 And the question then becomes: Okay,
15 what happens in that scenario after? And that was
16 what I was trying to pursue with Mr. Harper.

17 MR. WILLIAM HARPER: I think it comes
18 under one (1) paradigm where you have classes, all
19 classes, export and domestic, are going to share those
20 costs for Keeyask over the entire -- you know, if we
21 were to maintain the same methodology for the next
22 thirty (30) years, class -- both exports and domestic
23 would -- would have a share of Keeyask over -- over
24 the life of the plant.

25 One -- I guess one can think about it

1 from an economic perspective. What's really going on
2 sort of from an economic perspective, you're advancing
3 the plant, and therefore you're bringing costs in --
4 you're having costs sooner.

5 And we've decided that's -- and
6 probably from a net present value perspective, there's
7 more costs than there were before. But we've decided
8 that's -- that's reasonable because we've got more
9 revenues from exports. So we're just talking about
10 the cost side now.

11 So say if I'm going to assign all of
12 the costs to Keeyask in the earlier years, that means
13 to some extent -- and maybe it's not zero, but I
14 should be probably assigning a lesser portion in -- in
15 the later years, and -- and sort of -- but then the
16 question is: What's that lesser portion in -- in the
17 later years? How much lesser do -- do I give it?

18 And sort that's why -- as opposed to
19 the cost of service approach which looks at everything
20 on a pool basis, and I'm going to say I'm just going
21 to pool them all. It gets a lot more difficult if you
22 -- if you try and match -- match it up and say, I'm
23 going to put all here. Well, that means I should put
24 less there. Well, how much less do I do later on?

25 THE FACILITATOR: Bill, just -- just

1 so that everybody's clear on it, it seems to me that
2 you disagreed with Patrick's proposition, and equally
3 you disagree with the premise that Kelly had put
4 forward.

5 Is that not right?

6 MR. WILLIAM HARPER: Well, I guess --
7 and maybe I hadn't -- I was thinking about it. Maybe
8 I should have thought about it for a few more minutes.
9 I think I'm not I guess disagreeing in the sense I'm
10 not too sure if we wouldn't put no cost exports in the
11 future, but I think you'd put less costs, because --
12 because you've charged them.

13 You've -- you've said, Well, we
14 advanced it, we're going to put a -- you know, we're
15 going to give them the full -- the full amount up
16 front. The problem is when you -- when you try and
17 decide that you're looking at accounting costs and we
18 made this whole decision on -- on an economic paradigm
19 which has got really not -- not a lot to do with the
20 accounting costs.

21 And so as Kelly was trying to say,
22 we're trying to match up two (2) different -- two (2)
23 different methodologies that are used for two (2)
24 different purp -- purposes and that's where the
25 complexity come -- and that's where the complexity

1 comes in.

2 MS. KELLY DERKSEN: And I want to, Mr.
3 Harper, take you to how then one handles net export
4 revenues and following up on some discussion that
5 occurred yesterday. Well, maybe I'll step back.

6 One (1) of the -- the conversations you
7 had with the Chair this morning was with respect to
8 dependable sales and why that you viewed a reasonable
9 case could be made that dependable sales are less
10 reliable than a sale that Manitoba Hydro would provide
11 to a domestic customer. You had that conversation.

12 And would you also agree that a
13 dependable sale is really a take-or-pay arrangement in
14 that regardless of what happens that -- that export
15 customer is obligated to pay Manitoba Hydro for -- for
16 -- in that contract in comparison to a domestic
17 customer who could be there today and has no
18 obligation to take service tomorrow?

19 MR. WILLIAM HARPER: Actually, having
20 not seen the contracts to that degree, I -- I don't
21 know -- I don't know enough about the individual who
22 use daily contracts to be able to agree with that or
23 not. I'm sorry.

24 MS. KELLY DERKSEN: Okay. Thank you.

25

1 (BRIEF PAUSE)

2

3 MS. KELLY DERKSEN: In terms of net
4 export revenue being returned on the basis of -- of
5 'G', 'T', and 'D', which is Manitoba Hydro's proposal,
6 you heard from Mr. Bowman yesterday that he has also a
7 couple of other suggestions in -- in his evidence and
8 one (1) of his suggestions is to create, this is my
9 term, a rainy day fund.

10 I think he has a -- a more eloquent way
11 of -- of saying it. But that -- that's really in
12 effect one (1) of his proposals, based on your
13 understanding?

14 MR. WILLIAM HARPER: Well, I -- I
15 believe there's an out -- outstanding undertaking to
16 sort of perhaps clarify this, but I must admit, I -- I
17 was a little bit uncertain as to exactly what the
18 proposals were. I -- I read perhaps two (2) or three
19 (3) different variations into what I read there, but a
20 couple of them did involve, it seemed, taking that net
21 export revenue and parking it somewhere for future
22 purposes.

23 MS. KELLY DERKSEN: Okay. Thank you.
24 And I wanted to establish with you that if that was
25 one (1) of the proposals then in effect what you'd

1 have to do is for cost of service purposes, decide
2 first of all how much NER is and secondly, if you
3 accepted Manitoba Hydro's advice, or rec -- proposals
4 in terms of how you define that export revenue, and in
5 our materials today we say it's approximately \$90
6 million, that under that scenario you would pull out
7 of revenue requirement \$90 million to park it in this
8 fund for future, which means that revenue requirement
9 or rates would have to increase \$90 million, which is
10 order of magnitude of a 5 percent rate increase over
11 and above the -- the 395s that we -- that the Utility
12 has been -- has been talking about under that kind of
13 proposal.

14 Would that be your understanding, Mr.
15 Harper?

16 MR. WILLIAM HARPER: Well, I -- I
17 guess this is why I used the word 'park somewhere'
18 because it wasn't too clear to me whether we were
19 saying we're going to -- Mr. Bowman was saying we're
20 going to take that net income and park it -- if we
21 park it in retained earnings and just say we aren't
22 going to allocate it to customers, we're just going to
23 take that directly to retained earning and it stays in
24 retained earnings, then sort of -- it becomes -- it's
25 still contributing to Manitoba Hydro's overall

1 financial picture and therefore effectively we can
2 allocate \$90 million less as part of the cost of
3 service.

4 Means -- which means effectively we're
5 allocating net export revenue based on rate base to be
6 quite honest with you. Another approach would be to
7 say we're going to park it somewhere totally outside
8 of the balance sheet so that -- so that it doesn't
9 show up as part of Manitoba Hydro's financial, you
10 know, some sort of financial picture in -- in which
11 case, then, if you view we have to maintain a certain
12 level of retained earnings and a certain level of net
13 income, that -- that's gone.

14 And within that scenario, I -- I would
15 agree, you know, if you want to come back to the same
16 position, you're going to have to somehow, you know,
17 recoup that \$90 million from somewhere.

18 MS. KELLY DERKSEN: Right. And --

19 MR. WILLIAM HARPER: There's really
20 only one (1) place to get it.

21 MS. KELLY DERKSEN: Right, through
22 rate increases --

23 MR. WILLIAM HARPER: Through rate
24 increases.

25 MS. KELLY DERKSEN: -- yes. Right.

1 And I think -- I think Mr. Bowman -- my interpretation
2 of Mr. Bowman's evidence is also one (1) other way to
3 handle it is just to let -- to take net export revenue
4 out fictitiously, let's say. Let all RCCs fall by
5 that amount. Manitoba Hydro calls it \$90 million.
6 You could put it in retained earnings fictitiously or
7 not, but the effect of -- of doing that is really a
8 'G', 'T', and 'D' allocator.

9 MR. WILLIAM HARPER: I haven't thought
10 it through, because I -- I think -- and I agree there
11 -- that was sort of one (1) of my -- my third
12 interpretations was that you could then take it out
13 and you'd calculate revenue to cost ratios with --
14 without the benefit of having -- having net export
15 revenue allocated on the revenue side, which meant
16 effectively, the system-wide RCC would be less than
17 100 percent, and each of the customer classes would be
18 less than 100 percent.

19 Now -- and I guess -- so when it then
20 came to making -- your decision making about how do I
21 adjust customers' rates, if I -- if I start adjusting
22 them all so they're going to come back to 100 percent,
23 then I actually have to get more revenue from
24 somewhere, and that leads to a rate increase.

25 If I say I'm going to adjust them

1 around that new -- let's say the system-wide RCC is
2 now 95 percent, for want of a word, I'm going to
3 adjust them all within the ZOR around ninety-five
4 (95), then I think there is an implicit allocation of
5 net export revenue in that.

6 I'm not too sure if I -- I need more of
7 a whiteboard to get to whether it's exactly on the
8 base of G&T, but there is an implicit allocation of
9 net export revenue to customers inherent in -- in that
10 treatment.

11 MS. KELLY DERKSEN: Right. I -- I
12 think it would be a -- a revenue loss, and a revenue
13 loss really means -- is really akin to every
14 customer's total cost, both total allocated costs as
15 well as direct assigned costs. So implicit in that is
16 a 'G', 'T', and 'D' allocator.

17 MR. WILLIAM HARPER: I -- I haven't
18 gotten that -- that far in my thinking. I was trying
19 to do something at 6:30 this morning on a pad to work
20 it out, and my pad wasn't big enough.

21 MS. KELLY DERKSEN: It -- it gets
22 really complex --

23 MR. WILLIAM HARPER: It's --

24 MS. KELLY DERKSEN: -- I -- I agree,
25 and -- and that was why I wanted to -- to take you

1 down this path. That I think if we could sit on a
2 whiteboard for even a half an hour, we would find that
3 all of these things amount to the same thing, which is
4 very close to a 'G', 'T', and 'D' allocator. Perhaps
5 a 'G', 'T', and 'D' allocator adjusted to include
6 direct assignments, which is one (1) of the City's
7 arguments as well as the DSM's arguments.

8 But that would be the implicit effect
9 of all of those things, but just a much more
10 complicated way to get there. And that's why I wanted
11 to -- to confirm -- to confirm that, or at least put
12 that thought in your mind so you can confirm your
13 understanding of that at some point.

14 MR. WILLIAM HARPER: Yeah. I -- I
15 don't think at this point, I'm -- I'm ready to agree
16 that it -- it would end up looking like a 'G', 'T',
17 and 'D' allocator. There would be in some -- some
18 implicit allocator, which -- which would be implicit,
19 which means, like, if you're going to -- if you're
20 going to implicitly allocate net -- net export
21 revenue, why don't you think about it more explicitly?

22 MS. KELLY DERKSEN: Precisely my point
23 but, thank you.

24 BOARD MEMBER GOSSELIN: You know, I
25 find -- just -- just as an aside, I find the idea of

1 taking net export revenues, assuming you're positive,
2 and sticking them into -- into reserves, and the --
3 the opposite is also true, you know, if there's a
4 shortage -- I mean, if there's negative export
5 revenues -- net export revenues, it also would come
6 out of reserves.

7 I guess the difference is that if you -
8 - it's -- it comes out to pay now or pay later. I
9 mean, you know, I think if you're taking net export
10 revenues, positive ones, and applying them to your --
11 your cost formulas, I mean, it -- it ends up lowering
12 rates now as opposed to if you stick it in reserves,
13 you know, at some point, those reserves would have an
14 impact on the need for rates.

15 MR. WILLIAM HARPER: Well, I -- I
16 guess it depends on when you say "put it in reserves"
17 what you mean by "reserves," because at the end of the
18 day, all net income basically goes into equity, which
19 is another characterization of saying it -- it's in
20 reserves.

21 So if you say, Let's put it in
22 reserves, and all you're doing is saying, I'm putting
23 it in retained earnings, I'm putting it directly in
24 retained earnings, then that -- that's really saying -
25 - because all net income goes into retained earnings

1 at the end. That's really saying that I have \$90
2 million, and I have -- have less I have to recover
3 from customers, and so there's really no difference.

4 If you are -- if you're saying, I'm
5 going to put it in reserves and that reserve is some
6 special -- it's some special thing that, you know, is
7 sort of unique, you know, rainy day fund or something.
8 And -- and bond rating agencies, when they were
9 looking at Manitoba Hydro, aren't -- aren't going to
10 count that as part of the financial picture for
11 Manitoba Hydro, then that -- that's a very -- that's a
12 very different view of putting it in -- in reserves,
13 if I can put it that way.

14 And I think it would lead to the type
15 of situation that Kel -- Kelly was talking about in
16 terms of, you know, then you'd have to -- then you'd
17 have to bring your retained earnings up to where -- a
18 point in time where the bond rating agencies did like
19 them again, which, unfortunately, necessitates further
20 rate increases.

21

22 (BRIEF PAUSE)

23

24 CROSS-EXAMINATION BY MR. MICHAEL O'SHEASY:

25 MR. MICHAEL O'SHEASY: Good morning,

1 Mr. Harper.

2 MR. WILLIAM HARPER: Good morning.

3 MR. MICHAEL O'SHEASY: Kelly's giving
4 me the pleasure to ask you a few short, brief,
5 clarifying questions. Is my understanding correct
6 that you are in agreement with and recommending the
7 use of the weighted energy allocator for generation?

8 MR. WILLIAM HARPER: I'll say yes,
9 but -- you know, because I -- I think there's been
10 some debate around whether or not that weighted energy
11 allocator, does it appropriately affect capacity,
12 should it include a capacity adder. And I -- I think
13 you should use it as long as you feel comfortable.

14 It also reflects capacity as well as
15 energy consi -- energy considerations. And that, in
16 my evidence, I make the point I don't think the case
17 has been made that it doesn't today.

18 So with -- with that caveat, I'd say,
19 yes -- yes, to your question.

20 MR. MICHAEL O'SHEASY: Well, you have
21 anticipated a couple more questions I was going to
22 ask, so I just want to clarify what you were just
23 saying. So there's a question in your mind that the
24 current weighted energy allocator may indeed possess a
25 capacity influence such that what Manitoba Hydro had

1 proposed, which is an additional capacity all -- may
2 not be appropriate.

3 So my question to you is: Are you --
4 is it your understanding that there may indeed be
5 currently a capacity component in the weighted energy
6 allocator?

7 MR. WILLIAM HARPER: That -- that's
8 my understanding. It's predicated on the fact that,
9 you know, we're not looking at the prices here. When
10 we use the weighted energy, we're looking at, what are
11 the relative prices across the periods?

12 And when we first introduced this back
13 in 2005, we had -- we -- we -- there was a fair amount
14 of satisfaction that using the SEP prices was a
15 reasonable approximation of marg -- of -- of costs
16 that would include both capacity and -- and energy
17 considerations.

18 And when I look at the -- sort of the
19 relative weightings that are -- are developed even
20 using SEP prices post-2009 or post-2013, actually, the
21 ratios haven't gone down is what you would suspect if
22 there is a -- you know, if there's a loss of capacity
23 in there. The ratios are higher. Which seems to me,
24 by that -- which -- which that -- that's where I'm
25 having some difficulty saying I'm yet to be convinced

1 that -- that there's an issue there.

2 There's not -- nothing I'm willing to -
3 - not willing to sort of entertain that -- the ongoing
4 discussion of, you know, is -- is it in there
5 appropriately? I just haven't been convinced yet.

6 MR. MICHAEL O'SHEASY: You do a
7 wonderful job of anticipating my questions. You've
8 already answered questions I haven't asked, and I
9 appreciate that. Going back to --

10 MR. WILLIAM HARPER: I'm trying to
11 get to lunch.

12 MR. MICHAEL O'SHEASY: Well, I've
13 already had a -- a break over here. Let me think.
14 Back on '05, if that was -- maybe the early usage of
15 the weighted energy allocator, the Commission -- I --
16 I wasn't around, obviously, then. But the Commission,
17 basically, their rationale for approving and going
18 along with the weighted energy alloca -- was much like
19 you just described.

20 The SEP prices were such that it
21 appeared that there -- there was indeed an adequate
22 recognition of capacity and energy with the use of a
23 weighted energy allocator at that time?

24 MR. WILLIAM HARPER: Yes.

25 MR. MICHAEL O'SHEASY: And you've

1 articulated very well that times have changed, and
2 you're not exactly sure to what extent the capacity
3 element is surfacing in the weighted energy now. Is
4 that correct?

5 MR. WILLIAM HARPER: Well, I think
6 other people are saying it isn't, and I'm saying I'm
7 yet to be convinced.

8 MR. MICHAEL O'SHEASY: Right. But
9 you're open to the idea of examining, studying it, and
10 seeing whether indeed it is in there. And if it is in
11 there, even then, whether it's adequate or not such
12 that down the road we might indeed entertain the idea
13 of a capacity adder to what is currently the weighted
14 energy allocator?

15 MR. WILLIAM HARPER: I -- I would
16 agree with that.

17 MR. MICHAEL O'SHEASY: Very good.
18 Now, I'm going to shift gears just quickly on DSM and
19 the issue of: Do we assign DSM costs to the
20 participating classes, which is what Manitoba Hydro is
21 advancing, or do we allocate it to everyone, even non-
22 participating classes, as your evidence suggests?

23 Now, with that idea in mind, yesterday,
24 you and Mr. Chernick had a -- a good discussion, I
25 thought, where you were suggesting maybe some

1 information that might better inform which approach
2 you take. Do you assign the DSM costs to the
3 participating classes or to everyone?

4 That issue might better be informed if
5 we had a better understanding of who is receiving the
6 benefits, and how those costs would then be compared
7 to the benefits received.

8 And do you -- do you recall that --

9 MR. WILLIAM HARPER: Yes.

10 MR. MICHAEL O'SHEASY: -- discussion?

11 MR. WILLIAM HARPER: Yes.

12 MR. MICHAEL O'SHEASY: And it appears
13 to me that when it comes to DSM, that there are short-
14 term benefits and there are long-term benefits.

15 MR. WILLIAM HARPER: I -- I think, you
16 know, this is almost paralleling the conversation I
17 was having with Kelly about sort of advancing gen --
18 generation in terms of what the impacts are on rates
19 and what the impacts are on the economics over the
20 long term versus the short term, yes.

21 MR. MICHAEL O'SHEASY: There you go on
22 anticipating my question again. What I was going to
23 ask you was whether you had any thoughts or any
24 recommendations on -- if you were to go about
25 comparing, or trying to compare, the benefits that the

1 various classes obtain from DSM class -- DSM programs
2 versus their cost, and if you agree with me that there
3 are long-term issues with DSM, do you have any idea
4 how you'd do that?

5 In other words, compare the benefits
6 that a class obtains versus the cost that would --
7 would be reflected in some type of assignment or
8 allocation proceeding. Any idea how you might do
9 that?

10 MR. WILLIAM HARPER: No, I don't
11 actually, and actually, I'd -- I'd be interested in
12 having some discussion with that with Mr. Chernick
13 this afternoon, actually --

14 MR. MICHAEL O'SHEASY: M-hm.

15 MR. WILLIAM HARPER: -- because --
16 because he -- he was proposing a -- a partic -- a
17 particular approach to it. But I -- I think this gets
18 back to this part of -- maybe along the same lines as
19 the conversation we were having about Keeyask was, you
20 know, trying -- you know, trying -- if -- if the
21 fundamental reason for this is we think there's an
22 economic benefit over the long term, like, that's why
23 we're building Keeyask, then allocating it from that
24 perspective is sort of the first principle way -- way
25 to go at it.

1 And that if -- if we start to try and
2 disentang -- tangle some of this, I -- I think we may
3 get to this -- we may be going down the same sort of
4 road we were having difficulty with in terms of trying
5 to figure out short-term, long-term benefits on
6 Keeyask and what do we do with it.

7 And so I -- I don't have an idea about
8 it, and I really haven't given it a lot of thought,
9 because I think the preferred approach is the way I've
10 recommended.

11 MR. MICHAEL O'SHEASY: Well, that's
12 comforting to me, because I couldn't figure it out
13 either. You had also -- on this same subject of the
14 question of DSM relative benefits and costs, you and
15 Mr. Bowman were having a discussion this morning also
16 about the table where you compared the RCCs of
17 Manitoba Hydro's assignment approach versus your
18 recommended allocation to all approach.

19 And I -- I interpreted Mr. Bowman to
20 have the same question I did, which was: It looked
21 like, for example, that the residential groups, RCC,
22 deteriorated. And by "deteriorated," I meant it --

23 MR. WILLIAM HARPER: Went down,
24 dropped.

25 MR. MICHAEL O'SHEASY: -- it went down

1 after you allocated it versus assigned it. Now,
2 that's -- that was not intuitive to me that -- I would
3 have thought it would have been different from that.

4 And I think you went on to explain that
5 there's a lot of moving parts here, one (1) of them
6 being the allocators that are used in the Cost of
7 Service Study. And that was a -- a lightbulb going
8 off for me, which is an expression I love in this
9 business.

10 But would you agree that what I said is
11 somewhat in agreement with you, that it might appear
12 not intuitive at first glance, but once you unwind it
13 and think about the allocations that are involved in
14 cost of service, you can come to a rational
15 understanding that this is indeed correct. This is
16 what happened as opposed to we need to redo it.

17 MR. WILLIAM HARPER: Yeah, I -- you
18 know, yes -- yes, I agree, and it was a bit of a
19 surprise to me, to be quite honest with you. I wrote
20 -- I wrote a large part of the evidence before I
21 actually saw the numbers, you know, just because of
22 the timing of this process involved. And so to some
23 extent the numbers came -- came afterwards, and again
24 it's a matter of -- and sort of particularly from the
25 client's perspective, being able to explain why the

1 numbers are coming out the way they are sort of thing,
2 you know.

3 And so -- but from that perspective,
4 yes, I agree. You know, sort of -- you wonder why is
5 that coming out but -- and you have to work through a
6 number of moving parts, but at -- at the end I felt
7 comfortable that, yes, that -- that's -- the result
8 seems reasonable to me which goes back -- and I had to
9 do that because in fact I think to Mr. Bowman's
10 question had we actually done the computer programming
11 right, you know -- you know, had we actually done this
12 right, and sort of -- because -- and that's sort of
13 the litmus test.

14 Can I explain in my mind why the
15 results are coming out the way they are, and that sort
16 of satisfied me that probably we have them all
17 correctly, yeah.

18 MR. MICHAEL O'SHEASY: Very good.

19 Thank you. MS. KELLY DERKSEN: I'm sorry to --

20 THE FACILITATOR: -- four minutes.

21 MS. KELLY DERKSEN: -- yeah, I have
22 one (1) more question, I think of Mr. Harper. I'm
23 sorry to be a little bit disorganized here but the one
24 (1) that I -- that I missed on my list here that I
25 thought that I would appreciate your advice and wisdom

1 on is with respect to Mr. Bowman's perspective that
2 only the economic evaluation of a resource at a point
3 in time should be the determinate of why we should
4 allocate full -- a full share of fixed costs to
5 opportunity sales, because I think Mr. Bowman's point
6 is like you would have pursued thermal plant instead
7 of Keeyask but for opportunity sales.

8 And, you know, notwithstanding all of
9 the other either economic or non-financial benefits
10 that influenced the decision to proceed with Keeyask,
11 notwithstanding that I think his view is because
12 there's some incremental impact, or that had some
13 influence on your decision not about building Keeyask
14 but about the resource, about the technology, that
15 that then should be the determinate of assigning a
16 full fixed cost to opportunity sales.

17 Can you -- can you comment or provide
18 some advice from your perspective on that, please?

19 MR. WILLIAM HARPER: I feel awkward
20 parroting (phonetic) my answer as a comment on Mr. --
21 Mr. Bowman's perspective when I -- I can't say I fully
22 understand -- you know, I -- I have enough
23 understanding of it to say -- to respond to your
24 question as my understanding of -- of what -- of what
25 he said.

1 I think maybe -- maybe if I can make --
2 make -- sort of give -- give you a perspective and see
3 if that's sort -- sort of satisfactory. I -- I think
4 it's fair to say that -- you know, that the existence
5 of opportunity sales sort of pro -- you know, as well
6 -- influences the choice as to whether I'm going to --
7 it goes into the eco -- economic equation of whether -
8 - whether I build a hydraulic -- go ahead with a
9 hydraulic plant or whether I go ahead with a thermal
10 plant.

11 Whether or not it tips the balance or
12 not would depend on -- on a particular -- on a
13 particular situation. On a particular situation it
14 may be that simply the lower fuel costs for a
15 hydraulic plant would -- would tip the balance
16 regardless of whether or not it had opportunity sales.
17 In other cases it may be that the opportunity sales
18 are the critical determinate.

19 I -- I don't know. It would be unique
20 to each individual plant, and each indi -- individual
21 plant -- plant's evaluation. Having said that, to say
22 that even in the cases where it did tip the balance I
23 think it would be inappropriate to allocate it a full
24 share of fixed costs like you do the domestic load.

25 MS. KELLY DERKSEN: Can you tell me

1 why -- that you do that?

2 MR. WILLIAM HARPER: Well, you know,
3 simply because it -- it -- one (1) -- one (1) it -- it
4 -- and we talked about those two (2) different
5 methodologies or approaches. If I was looking at this
6 from a strictly cost of service perspective and saying
7 I've -- I've got two (2) different customers out
8 there. I'm serving them. Cost of service is about
9 charging people for the services they -- for -- for
10 the services they receive.

11 The service opportunity sales receives
12 is fundamentally different than the domestic customer
13 in terms of certainty, level of reliability, et
14 cetera.

15 So if I'm applying my cost of service
16 hat, if I want -- if I want to put it that way, I
17 would say I -- I shouldn't be allocating them
18 equivalent costs. If I put my economic analysis hat
19 on, I have to build for domestic load, regardless of
20 whether the rates are going to go up or not.

21 I'm only going to entertain that other
22 opportunity if -- if those opportunity exports tip the
23 balance. More or less they -- they low -- you know,
24 if they help lower rates. You know, I'm not going to
25 do it if they increase rates where as I have to build

1 something the thermal plant or hydro, whether --
2 regardless of whether rates are going to go up.

3 So from my economic hat, I don't think
4 it's as much of a cost driver at all. When I put
5 those two (2) together I get the same answer and the
6 same answer is, I shouldn't give it the same share of
7 fixed cost as I do a domestic load.

8 THE FACILITATOR: Thank you. Why
9 don't we move onto to Daymark now, please.

10

11 CROSS-EXAMINATION BY MR. JOHN ATHAS

12 MR. JOHN ATHAS: Thanks, Bill. In --
13 in picking up on -- on the opportunity sales question
14 and from what Manitoba Hydro is asking about and to
15 followup a little bit to what the -- what the Chairman
16 was asking about, for one (1) thing, I'm just kind of
17 intrigued, is -- is there a dif -- what do you mean by
18 'charging' when you say 'charging' a class?

19 Because when I -- when I think of
20 charging it usually affects the prices. And when --
21 and we clearly have established here that everybody --
22 nobody in the room believes we're setting prices based
23 on -- on what we allocate.

24 So your use of the word 'charging' was
25 almost as intriguing as the debate around profit.

1 MR. WILLIAM HARPER: Well, you know --
2 and perhaps it was a poor choice of words. And, you
3 know, I can't remember exactly the context in which I
4 used it, but I probably should have used the word
5 allocating as opposed to charging in the context.

6 If you could -- you know, if you could
7 remind me of the particular -- it's awkward without a
8 transcript, but I suspect I may have used 'charging' a
9 class when I meant allocating costs.

10 MR. JOHN ATHAS: Is -- and is there a
11 difference between charging and allocating in your
12 mind?

13 MR. WILLIAM HARPER: Well, I -- I --
14 in those two (2) I was using a similar -- you know, if
15 one was to say charge versus allocate, I -- I think
16 one -- one would -- one would think the difference
17 charge usually involves a bill. Allocate may not
18 involve a bill.

19 And so I -- I think there are -- there
20 probably other differences if you just take the two
21 (2) words at face. I was -- unfortunately, and I'm
22 sorry if it sort of confused things, I was probably
23 using them as somewhat more inter -- interchangeably.

24 MR. JOHN ATHAS: Okay. That -- that's
25 fine. That -- that helps clarify. The -- now, in --

1 are you familiar with the -- the terminology
2 capitalized energy?

3 MR. WILLIAM HARPER: I'm not precisely
4 familiar with that terminology. I can think of what
5 it might mean, but if --

6 MR. JOHN ATHAS: Okay. Let me give
7 you a context of what -- how I -- how I -- the context
8 I'm thinking about it, maybe it's a limited context.
9 Is in -- in allocation of base load plants and many
10 systems in -- like thermal systems, very different
11 than we have here, the -- the allocation of some of
12 the investment is -- is made as an allocation to
13 energy because that investment was justified because
14 it reduced energy costs.

15 MR. WILLIAM HARPER: Well --

16 MR. JOHN ATHAS: And they was referred
17 to as kind of capitalized energy.

18 MR. WILLIAM HARPER: Yeah. You know,
19 I -- I'm quite familiar with that in the sort of --
20 sort of -- so I guess that was sort of an evolution in
21 the cost -- cost allocation process when you went from
22 a point in time where, you know, people used to think,
23 well if it's a fixed cost it's demand related and if
24 it's a variable cost it's energy related.

25 I mean, that was probably the very --

1 the very early thinking going on. And then when
2 utilities -- you've got to be able to pick different
3 methodologies -- excuse me, different technologies for
4 meeting load, then -- then we got into the types of
5 tradeoffs that -- that you're talking about in terms
6 of when I make an investment in capital is it really
7 because I have to meet demand or is it I'm making that
8 investment in capital because it's a hydraulic station
9 and I can get low fuel -- fuel costs.

10 And so, yes, I think with -- within
11 that context I'm sort of familiar -- I spent eight (8)
12 years of my career trying to implement an idea like
13 that and never was successful in getting a method --
14 methodology accepted in it, so yes.

15 MR. JOHN ATHAS: Well, that -- that's
16 somewhat the -- the basis for using a demand allocator
17 and a peaker method.

18 MR. WILLIAM HARPER: Well, you know, I
19 -- I think it's -- it's the basis for a lot of -- for
20 most of the methods, whether it be a very crude method
21 like system load factor, which basically the premise
22 there is, Well, maybe the -- the higher your system
23 load factor the more investment you've probably made
24 for energy.

25 Or going to a peaker credit method and

1 saying, I can maybe try and put some cost parameters
2 around that or the equivalent weighted energy method
3 that Manitoba uses -- saying I can also -- I -- that
4 tries to put -- put some cost parameters around it as
5 well, yes.

6 MR. JOHN ATHAS: Okay. So -- so it's
7 -- it's -- you know, and I -- and I like your
8 characterization, there's many different methodologies
9 that -- that try to manifest that same issue that
10 you've made an investment for energy.

11 The -- so now I -- I look at the fact
12 that the -- would you agree that in the example of the
13 NFAT for Keeyask as a -- as a way that economic
14 decisions are made, first off, was -- was -- was that
15 -- was that economic analysis made solely from the
16 idea of how benefits flow to domestic customers versus
17 any export customers?

18 MR. WILLIAM HARPER: Well, I -- I
19 think the economic evaluation was done from -- well,
20 there were many evaluations done in the context of
21 look -- looking at the NFAT. You know, there -- there
22 were two (2) that I think were particularly relevant
23 when people were looking at the issue. And one (1)
24 was what is the implication on rates over the long-
25 term, which clearly is virtually say a domestic

1 customer issue and looking at say what's the net
2 present value of revenue requirement or rates to
3 customers over the long-term.

4 The other one was more of an economic
5 evaluation from Manitoba Hydro's perspective. But
6 again, with Manitoba Hydro, its prime responsibility
7 is serving do -- to domestic load. So I think in both
8 those evaluations sort of export -- there wasn't a
9 benefit to exports --

10 MR. JOHN ATHAS: Okay.

11 MR. WILLIAM HARPER: -- con --
12 considered in that.

13 MR. JOHN ATHAS: So now the -- so --
14 and the -- and the economic choice of -- of a large
15 hydro investment, like Wuskwatim, and -- and Keeyask
16 is -- is clearly dependent upon the economic
17 assumptions, the assumptions that we've put in those
18 analyses for opportunity sales as well as firm sales?

19 MR. WILLIAM HARPER: I think that's
20 correct. And I think as we were going through the
21 NFAT process and Manitoba Hydro was updating export
22 forecast prices and things like that, you know, that
23 was evident in terms of how the values of the -- of
24 the different plans were changing, yes.

25 MR. JOHN ATHAS: Did -- did anybody

1 dispute whether those opportunity sales were going to
2 show up or was there a lot of question around what the
3 price would be?

4 MR. WILLIAM HARPER: Well, there was a
5 lot of question around what the price would be. But
6 since it was all confidential, there wasn't a lot of
7 discussion, let's put it -- around whether the numbers
8 were correct or not.

9 And I think the way that issue was
10 addressed was by trying to use a sensitivity analysis
11 and looking at what would be the impact under a range
12 of export prices and try and determine sort of what
13 was -- what -- you know, like, because, again, sort of
14 an export price forecast -- kind of fore -- forecast
15 export prices, what we've learned trying to forecast
16 prices, export prices, three (3) or four (4) years
17 into the future is -- is quite difficult, let alone
18 thirty (30) years into the future.

19 MR. JOHN ATHAS: But as -- having been
20 involved in that, I don -- I don't recall whether any
21 party questioned whether opportunity sales at a much
22 higher level would arise in the cases that had hydro -
23 - large hydro investments versus the cases that
24 didn't?

25 MR. WILLIAM HARPER: Well, I -- I

1 think -- when you say, "sales," wasn't too sure
2 whether you meant kilowatt hours or dollars.

3 MR. JOHN ATHAS: Sale -- sales of the
4 opportunity. You know, then there was a question
5 about price or the sales.

6 MR. WILLIAM HARPER: Yeah, okay, the
7 volumes. Well, I think the view was, was that, on a
8 particular development plan, you know, using a range
9 of water flows, we -- we can estimate what the -- what
10 the kilowatt hours produced will be.

11 And I think the view was -- was that
12 those kilowatt hours will -- will all be sold either
13 within -- either under the dependable or the
14 opportunity, you know, hat, if -- if you want to put
15 it that way, depending upon the nature of -- of the
16 production. And I guess with the --

17 MR. JOHN ATHAS: So that -- that's
18 helpful. And I'm not trying to cut you off. But I
19 just know that I'm trying to -- I know you're heading
20 in the direction that -- that'll just reaffirm what
21 you're saying. So the -- but -- so -- so we -- so the
22 panel -- Manitoba Hydro's made the recommendation.
23 And the panel made the conclusion, and it was
24 reaffirmed by the -- by the government, that it was
25 worthwhile to spend billions of dollars on an analysis

1 that had an assumption that opportunity sales were
2 going to be made?

3 MR. WILLIAM HARPER: We're -- we're...

4 MR. JOHN ATHAS: Just that they were
5 going to be made. And then -- and everybody knew --
6 everybody saw graphically what all the risks were as
7 to how much they were going to -- how much revenue
8 we're going to get from them?

9 MR. WILLIAM HARPER: Well -- well,
10 opportunity sales were part -- were part of the
11 equation, yes.

12 MR. JOHN ATHAS: Okay. So but that
13 they were going to be made. And nobody really
14 disputed the amounts -- the amounts that were going to
15 be made based on how much water you had. There was
16 generally a dispu -- questions within uncertainty
17 analysis and a -- and sensitivity analysis as to how
18 much revenue you'd get for those different sales, firm
19 versus opportunity?

20 MR. WILLIAM HARPER: Well, you know, I
21 mean, clearly there -- there was an uncertainty
22 analysis when you get into op -- when you get into
23 opportunity sales and certainly an analysis to how
24 much water there's going to be in a particular year,
25 as well, sort of thing, but, you know.

1 MR. JOHN ATHAS: That's right. That's
2 right. But within the context of -- of -- so I'm
3 trying to understand how -- how that -- how there
4 could be a comfort to make a decision about billions
5 of dollars of investment with the opportunity sales,
6 and yet the concept that was being intro -- that's
7 being introduced in your testimony is that we really
8 don't know whether we're going to make opportunity
9 sales. So therefore, I really can't -- I really can't
10 bring -- see why I should allocate costs to them when
11 I really don't know that I'm going to make them
12 because they're really opportunistic and just
13 uncertain and the like.

14 And it seemed kind of interesting to me
15 that -- that they were -- that we -- that we could
16 make billions of dollars in investments on -- on them
17 as -- as a -- as taken for granted, and we -- and yet
18 you're reducing the -- the vari -- the lack of
19 commitment to opportunity sales as -- as being a
20 concern in making allocation decisions.

21 MR. WILLIAM HARPER: I don't think I
22 ever -- I don't think in -- and if I did, please --
23 please point to -- to my evidence where I did. I
24 don't think I ever expressed the concern that we
25 wouldn't be making opportunity sales out of -- out of

1 kilowatt hours that -- that were available over and
2 above dependable levels of -- of production.

3 I think the point I was making was that
4 those opportunity sales to some extent command -- at
5 least in the -- they sort of don't -- don't command
6 the same level of reliability, reliability in terms of
7 -- of supply, as -- as dependable sales.

8 They don't command -- and therefore,
9 they -- they don't command as much certainty in terms
10 of the revenue that Manitoba Hydro's going to get, as
11 dependable sales do, and that sort of on -- on those
12 bases, they don't -- you know, they don't have the
13 same -- they shouldn't be attracting the same level of
14 costs as dependable sales do.

15 I -- I don't think I've -- and -- and
16 you may -- like I said, please point to me where I
17 did, but I think in the evidence anywhere I've ever
18 said that, you know, one (1) of the reasons is -- is
19 they aren't going to make the sale, period.

20 MR. JOHN ATHAS: Okay. And I might
21 have read too far into that, so it's -- thank you for
22 clarity.

23 Now, the -- what I -- why it was --
24 when I put things together, I see the fact that the --
25 that an investment was made expecting to make the

1 opportunity sales.

2 MR. WILLIAM HARPER: Expecting to make
3 both dependable and opportunity sales.

4 MR. JOHN ATHAS: Right, but the -- but
5 the real question is the opportunity sales, whether
6 there is a second class of exports or not in terms of
7 this -- that I'm focusing on.

8 And so the -- and so some investment
9 was made with the expectation of making those sales
10 shen -- you -- when people have done the -- when
11 everybody looked at the Wuskwatim and when they looked
12 at the Keeyask investments.

13 Is that correct?

14 MR. WILLIAM HARPER: Well, they went
15 into the equation of -- of helping to justify the
16 economic case for -- for the plan that was approved by
17 the Board, yes.

18 MR. JOHN ATHAS: Okay. So the -- but
19 the -- the existence of the opportunity sales caused
20 the commitment to a large chunk of investment?

21 MR. WILLIAM HARPER: Well, I guess --
22 and this is where I'm having a problem because we -- I
23 don't recall there being sufficient -- sort of a whole
24 bunch of runs made.

25 Let's assume we just had dependable

1 sales and no -- no opportunity sales at all, you know,
2 so that I can't -- I can't go as far along in
3 answering your question affirmatively that it was the
4 existence of the opportunity sales that tipped the
5 balance and meant that the Board felt comfortable
6 approving the advancement and going ahead with Keeyask
7 as opposed to what it was, was the package of exports
8 that was going along with -- with that particular
9 development plan.

10 MR. JOHN ATHAS: Okay. But you -- but
11 you -- generally, you -- one (1) second. Generally,
12 you believe that the -- that no one disputed -- there
13 wasn't -- there didn't seem to be a discussion about
14 disputing whether -- whether, as you just described,
15 that the -- that, to the extent that they could -- it
16 could be delivered, that the -- that all -- as much
17 water as possible would be monetized into opportunity
18 sales rather than being spilled?

19 MR. WILLIAM HARPER: Yeah. I think
20 that -- that was part of the assumption under the --
21 you know, that everyone -- yeah, that -- that was
22 partly part of the assumption --

23 MR. JOHN ATHAS: And --

24 MR. WILLIAM HARPER: -- in terms of -

25 MR. JOHN ATHAS: -- and generally, the

1 existence of opportunity costs -- of -- I mean, the
2 existence of export sales, both opportunity and
3 dependable export sales, clearly influenced the
4 relative economics of some of the cases.

5 And without -- without saying the
6 tipping point, I'm not -- not implying the tipping
7 point, as you said that you -- that you don't know.
8 But they clearly influenced what -- what -- the
9 presentation of the economics of the different plants?

10 MR. WILLIAM HARPER: To a certain
11 point, but probably more so in -- in those early
12 years. Once -- once we get -- once we get beyond the
13 point in time where we hit the next need date, whether
14 or not we're -- you know, whether or not we've
15 advanced the plant or not, if you're talking about a
16 question of: Do I build Keeyask in 2019 or do I build
17 it in 2024 --

18 MR. JOHN ATHAS: I'm not talking about
19 that yet. And I'm -- I'm -- but this opportunity sale
20 -- I mean, at the point of -- at the point of need for
21 domestic dependable energy, the opportunity sales are
22 still a major component going forward in the economic
23 analysis.

24 MR. WILLIAM HARPER: Oh, they're a
25 major component going forward in terms of I think

1 which type of technology -- you -- you got a need.
2 Their -- their component contributed to -- to sort of
3 the economic evaluation of which particular
4 technology. Do I go with hydro or -- or do I go with
5 thermal?

6 And if I -- and, you know, and if I had
7 two (2) hydro opportunities that cost exactly the same
8 and one (1) -- because the flows had no oppor - you
9 know, it was all dependable and another because the
10 same dependable but some additional flows that were
11 going to be opportunity, clearly that last one would
12 probably have more -- would have more economic value
13 overall.

14 MR. JOHN ATHAS: Okay. So there's --
15 so that's why -- I mean, you -- you mentioned
16 technology choice, and I kind of -- and when -- when I
17 -- when I look at my finance hat I -- I say -- I don't
18 say technology cho -- engineer hat I talk about
19 technology choice. Finance hat I said how much money
20 are they going to invest to reliably serve domestic
21 load. And what we're really talking about here is the
22 -- how much money should be allocated based on its
23 functionality that that investment created.

24 So I just -- so I -- I guess is there a
25 parallel between reducing energy costs in the

1 capitalized energy debate that we were talking about,
2 or that process, then as to reducing energy cost by
3 creating a sale?

4 I mean, the way the Manitoba Hydro
5 system creates -- lowers energy cost with baseload
6 plants is it brings in export revenues. To -- to
7 lower its cost the way a baseload - the way a thermal
8 system lowers its costs when it makes a big investment
9 is it uses lower cost generation rather than high cost
10 generation to lower costs.

11 MR. WILLIAM HARPER: I -- I'd say on -
12 - on a first -- yeah, I can -- I can see there's a --
13 there's a parallel there --

14 MR. JOHN ATHAS: Okay. And that --
15 and that's fine. The -- and I'll kind of move along
16 to another area. And -- and because this is just
17 trying to make sure I understand your arguments and
18 other stuff, they made -- it may be perplexing because
19 this could sound like it's a counterpoint -- counter
20 issues to what we were just talking about.

21 But I wanted to understand your concept
22 of -- of Manitoba Hydro caused the -- the DSM cost not
23 the classes of customers, and the -- and with the
24 chairman's viewpoint that, you know, is there that
25 said, I voluntarily participated in their programs and

1 that -- and thus they spent money on me, as -- as, you
2 know, you're getting -- your question of, Isn't that
3 kind of causing?

4 So I understood our answer to say that,
5 but because you are enticed into doing that it's still
6 being caused by Manitoba Hydro. Is that correct?

7 MR. WILLIAM HARPER: Right. And --
8 and then maybe the fundamental reason was Manitoba
9 Hydro offered the program. Manitoba Hydro didn't have
10 to offer the program.

11 MR. JOHN ATHAS: Okay. So now -- now
12 let's go to the export customer. And in -- in that
13 type -- if you take that type of logic I could say --
14 I would say it's jumping to the chase that no export
15 customer causes cost because all they were was given a
16 price to entice them to buy the -- buy power, just
17 like in -- in the chairman's example he was enticed
18 into participating into a program.

19

20 (BRIEF PAUSE)

21

22 MR. WILLIAM HARPER: I -- I think -- I
23 think the issue is that the -- there is sort of the --
24 the -- there -- there were additional costs that we
25 incurred, you know, in order to create the situation

1 where -- where we could get those exports. And the
2 exports were premised on the fact that they would
3 cover those costs and -- and that that's -- that's the
4 premise on which -- which we're saying.

5 And again, it -- it's a matter -- it
6 goes back to -- it goes back to the question we were
7 debating in terms of -- in terms of, you know, we're
8 putting exports in the cost of service, you know, in -
9 - in order to come up with -- not because we wanted to
10 identify the costs of exports or we want to price
11 exports, or anything like that, but because we
12 effectively want to come up with what's a reasonable
13 estimation of what sort of -- and I -- you know, Mr.
14 Bowman and I were sort of debating over the use of the
15 word 'profit' but maybe it's the best -- you know
16 what, it's the cleanest way to -- what's the profit
17 that I've got that I can then decide how best -- you
18 know, I've got a lot of flexibility and I can decide
19 how -- how best to -- how best to all -- allocate
20 that.

21 And so I -- I think when we're talking
22 about -- you know, we're using it in the cost of
23 service in a fairly different way, I guess is what --
24 is what I'd say to you. And so --

25 MR. JOHN ATHAS: I'll still come back

1 to the that issue that the -- that the -- the
2 participation in a DSM program is voluntary and the
3 participation of -- by an export customer is
4 voluntary. And both of those are enticed based on
5 some presentation of incentive by the -- by Manitoba
6 Hydro.

7 And -- and in one (1) -- in one (1)
8 we're having this big debate about cost causation and
9 then in another one (1) we're having -- you're
10 suggesting that that -- that customer is -- did not
11 cause the cost of the DSM program.

12 So I -- I don't understand the -- the
13 inconsistency there and the voluntary nature of a
14 customer participation between the export and the DSM?

15 MR. WILLIAM HARPER: I -- I -- I guess
16 it has to go -- because like I said, there were a
17 number of reasons why I felt that -- that -- you know,
18 that wasn't the only reason.

19 There were a number of reasons why --
20 why I felt -- and the primary objective in offering
21 those programs is because it's the least cost option
22 for the utility for -- for supplying it. And
23 therefore, from that perspective it's considered --
24 you know, from an integrated resource planning
25 perspective where Manitoba Hydro is pursuing it

1 because it's -- it's the most cost effective way to
2 supply the -- because you're -- otherwise we would
3 have -- otherwise we would have had to build new plant
4 and new transmission lines, something else.

5 And I think that's the fundamental
6 difference between --

7 MR. JOHN ATHAS: And the export class
8 is -- but the export sales are -- are a fundamental
9 part of the least cost planning exercise?

10 MR. WILLIAM HARPER: Yeah, but we
11 aren't making the same choice about -- about them, you
12 know, we -- we have a -- we -- we have a choice of
13 options between doing DSM or not DSM. Export sales
14 just happens to be one (1) of the extern -- one (1) of
15 the external factors that -- that's sort of floating
16 around us as opposed to a point where -- one (1) of
17 the choices that we have to make.

18 I think that -- that's where I see us
19 as being the difference.

20 MR. JOHN ATHAS: Okay. Well, I'm -- I
21 just wanted to get your position clarified on those
22 and -- and if there was a difference there. So now
23 I'm going to go move to the -- to the issue of -- of -
24 - that Mr. Bowman was talking about and Manitoba Hydro
25 picked up on a little bit and -- to get your opinion

1 on this.

2 This is not obviously -- I just wanted
3 to under -- understand. It -- it struck me that
4 during the discussion with Mr. Bowman that we were
5 talking about building early to serve the export class
6 and -- versus -- and -- and I -- I disagree with that
7 characterization.

8 And I'm not sure it's a direct quote,
9 but I know that that was generally the feeling that
10 was there, because the result of that logic was, Gee,
11 maybe you should have all the Keeyask costs be -- be
12 allocated to exports in the beginning, because it was
13 not necessary for domestic.

14 And do you -- do you believe that the
15 early year -- that it's appropriate to say in the pre-
16 domestic need years that we are building Keeyask to
17 serve exports?

18 MR. WILLIAM HARPER: I guess we're
19 building Keeyask to capitalize on the opportunity to
20 make additional dependable export sales. I -- I think
21 that's my understanding as to what was the fundamental
22 economic logic behind the advancement.

23 MR. JOHN ATHAS: And that -- that --
24 in my mind that's an important distinction, so I'm
25 glad that -- that you've made that, because what --

1 what I was hearing in that discussion that was missing
2 was there was a temporal nature to the -- to the
3 investment.

4 The investment was made early to the
5 benefit over time of domestic customers by
6 capitalizing on those sales to be made, is -- is what
7 -- is what -- how I viewed it.

8 MR. WILLIAM HARPER: Yes.

9 MR. JOHN ATHAS: So that the -- the
10 concept that it was being built early to serve a
11 customer class seemed off base to me.

12 MR. WILLIAM HARPER: You know, --

13 MR. JOHN ATHAS: Do you --

14 MR. WILLIAM HARPER: You know, I mean,
15 you know, you get -- because I -- I know there's been
16 -- there was some discussions, you know, because if --
17 if you follow that -- that line of thinking and you're
18 saying, Am I building a merchant plant, which -- which
19 is designated strictly to a -- a particular sale,
20 which -- which is not -- which is not the circumstance
21 that -- that's going on here at all sort of thing.

22 So I think, you know, it was advanced,
23 you know, and you can say it -- it was advanced to
24 make export sales, but -- but that's because it was
25 export sales that helped -- that helped the economic

1 case that it was better for customers of Manitoba
2 Hydro over the long-term to -- to do so.

3 MR. JOHN ATHAS: Okay. That -- that's
4 fine. Now, in the -- in the economic analysis that --
5 and at least cost planning that involves different
6 levels of export sales depending on the technology
7 inves -- choices that are being made, is there any
8 differentiation between net export revenue and gross
9 export revenues?

10 MR. WILLIAM HARPER: Well, I don't
11 think in an economic evaluation net -- net export
12 revenue and gross -- well, gross export revenue
13 probably is the same definition. Net export revenue
14 in an economic evaluation has a -- probably has a
15 totally different definition and context to it than it
16 does in a cost of service study.

17 I would think if I was talking about
18 net export revenue in a economic evaluation I'd be
19 talking about what's the increase in net present value
20 be -- because I've undertaken a plan that provides for
21 more -- that -- that allow -- allows me the
22 opportunity for more exports.

23 MR. JOHN ATHAS: So -- so the -- so if
24 -- if we look at the concept of -- what we're really
25 doing then is taking that economic curve -- economic

1 analysis over time and imparting that to different
2 classes?

3 MR. WILLIAM HARPER: And trying to
4 infuse it somehow into a cost of service study.

5 MR. JOHN ATHAS: No, no, we're going
6 to -- we're going to share that -- that benefit of
7 that -- of -- of Keeyask over time to amongst the
8 classes.

9 And -- and I guess the thing that --
10 that kind of sounds a little interesting is when the -
11 - when we go through the cost allocation exercise and
12 say that we're -- that we are going to give the --
13 instead of each class getting a curve that looks the
14 same from a standpoint of the cost of -- of satisfying
15 their dependable energy needs via the least cost
16 manner, they're go -- the -- some classes are going to
17 get a little chunk of it differently, of the export
18 revenues, than others so that my curve, if I'm in
19 class A, and I won't even worry about what the names
20 of those classes are, class A versus class B, I'm
21 going to get my -- my share of the gross export
22 revenues that I allocate cost to and I'm going to get
23 a little less than my share of -- a little less of a
24 share of the net export revenues and class B is going
25 to get the same proportionate share of the gross kind

1 of revenues that get allocated on -- allocated some
2 costs, but class -- but that class B is going to get
3 more of that little piece called the net export
4 revenues?

5 MR. WILLIAM HARPER: Well, I don't
6 know if I agree with the characterization because the
7 part you're talking about, which is the gross and
8 allocated, that's allocated just -- you say they're
9 going to get the same -- the same share. They're only
10 going to get the same share if I'm talking about
11 versus just generation and transmission costs.

12 If I was talking about what's the total
13 cost to serve the customer and how his export revenues
14 get apportioned that way, it wouldn't be the same --
15 it wouldn't be the same share.

16 So I think when you're saying different
17 shares, I think you -- I think the important thing is
18 share based on what -- on what denominator, if I can
19 put it that way.

20 MR. JOHN ATHAS: No, so -- so -- no,
21 that's -- that's a good clarification. So I was
22 thinking the shares, I say we go through in -- before
23 we get into the export class we go through and say how
24 much -- how -- what's the fair share of someone is
25 based on there -- in -- however you decide to allocate

1 the generation costs for that -- for that Keeyask
2 investment.

3 And it could be weighted energy. It
4 could be demand and weighted energy. It could be
5 demand and energy. Whatever it is, that gets
6 determined as -- as its fair -- as its fair share.
7 And -- and that -- and when we take away some costs
8 from that group to allocate it to the export class
9 we're taking it away based on that kind of sharing
10 arrangement?

11 MR. WILLIAM HARPER: Right. And, you
12 know -- and tha - but that's one (1) -- you know, but
13 whether or not -- whether not customers at the end of
14 the day view that, you know, relative to my total
15 costs, they can maybe understand the allocation.

16 But if I'm looking relative to my --
17 relative to the total cost of each customer, that
18 share will be different, it won't -- it won't be the
19 same --

20 MR. JOHN ATHAS: Right, but -- but --

21 MR. WILLIAM HARPER: -- but it'll be
22 the same on G&T basis, yeah.

23 MR. JOHN ATHAS: With the share on the
24 G&T basis, right. That's -- that's what I'm talking
25 about. So they've -- that's been established. And

1 then you take a piece of that away because you now
2 have a customer -- you now have an export class. And
3 you put the money in the export class.

4 And if it evens out and it comes down
5 to exactly to zero, so there's NER, you -- you say --
6 and you don't put -- and I didn't put any other
7 extraneous costs in there, you'd say, okay, great,
8 they -- they took -- they gave me full credit for the
9 revenue that they -- proportion of the revenue.

10 Now, if I put it in there and I have
11 some leftover, like NER, if I was sitting -- sitting
12 there as one (1) of the classes, I'd say, good, give
13 me my share back based on the G&T because I'm paying
14 G&T.

15 And -- and in -- in the proposals that
16 -- that -- the mechanism that's in place now and the
17 proposal to continue is -- is, Hold on, we're going to
18 allocate it in a different way, that net piece. We're
19 going to allocated that dif -- the net piece based on
20 total allocated costs, rate base, whatever, total
21 costs, total bill, other things like that. But it's
22 going to be different.

23 And I'm trying to understand why it
24 should be different.

25 MR. WILLIAM HARPER: Well, I guess to

1 some extent it's different for any -- for any other
2 miscellaneous revenues that we're taking in. You
3 know, there -- now, they aren't to the same sort --
4 sort of order of magnitude, but there's other
5 activities that Manitoba Hydro undertakes.

6 They assign costs to them that come out
7 of -- you know, they -- they assign costs to them out
8 of their operating costs, which re -- which reduces
9 the costs that go into the functions.

10 But in the end, you've got a net amount
11 for each of those that gets allocated back to
12 customers based -- well, their basis is based on
13 revenues sort of thing. So there's a different
14 treatment.

15 The -- the -- there's a different --
16 different -- there's a different treatment going on
17 between how you -- from a cost perspective versus from
18 a sort of profit perspective again for -- for any of
19 those -- any of those revenue centres where there are
20 also costs involved with Manitoba Hydro.

21 I guess the issue we came up to with
22 the export revenues, you know, was -- was the fact
23 that: What's the -- what's -- what's the overall
24 result and -- and implications for the cost of service
25 when you -- when you look at it at the end of the day?

1 And what -- you know, you could say,
2 Once I've attributed the costs which I've pulled out,
3 what's a fair way to -- to allocate the difference?
4 And I guess maybe -- maybe that's the distinction.
5 I'm allocating costs in a way that attracts costs to
6 the extent the Cost of Service Study manages and
7 attracts costs.

8 What I've got left over is something
9 that is not cost, that is sort of after costs, and
10 therefore I'm not -- I'm not constrained to the same
11 extent in terms of how I should think of allocating
12 it.

13 MR. JOHN ATHAS: Is the -- is the best
14 -- would it be a signal of a good allocation process
15 to export if NER is zero?

16 MR. WILLIAM HARPER: No, I don't think
17 so. You know, if -- you know, if -- if NER was zero
18 over time, then probably what you've done is you've
19 probably allocated too much -- too many dollars to
20 exports because over time, in theory, you undertook
21 this whole plan because -- because it's beneficial to
22 customers to undertake exports.

23 And if somehow your NER was zero every
24 year, then that's -- that's suggesting to you that --
25 that the costs for exports are exactly equal to the

1 revenues. Well, in principle, we only undertake
2 exports when it makes economic sense and benefit and
3 there's a net value left over at the end of the day to
4 -- to do so.

5 MR. JOHN ATHAS: Okay. No, no.
6 That's -- that's good.

7 MR. WILLIAM HARPER: So -- so that,
8 you know --

9 MR. JOHN ATHAS: That's actually
10 pretty -- that's a good concept to build on.

11 MR. WILLIAM HARPER: In individual
12 years it might be negative, just like we know that,
13 you know, when you first build a -- put a plant in
14 place, you know, the -- the -- there's a bit of a rate
15 shock goes up. But over the long term, I think you'd
16 have to revisit your cost allocation if -- if over the
17 long term it was negative or it was zero.

18 MR. JOHN ATHAS: Okay. So if -- if
19 it's -- if there's an expectation on your part that
20 hopefully that is, you know, long term and maybe even
21 every year, which would be really good, but in the
22 long term, that that -- that NER is a positive number
23 because it's been beneficial.

24 Has -- has -- have distribution costs -
25 - were distribution costs relevant in the NFAT

1 discussion?

2 MR. WILLIAM HARPER: No, no. I guess
3 when you say an NFAT discussion, no. No, no, they
4 weren't in terms of the economic evaluation, no.

5 MR. JOHN ATHAS: So -- so this is --
6 so much like when you talk about the fact that, you
7 know, if you were talking about pole rental credits
8 and -- and other stuff, you'd give -- try to give the
9 pole rental money back to the people that are paying
10 for the poles.

11 You -- you don't think that it's -- you
12 wouldn't want to bring in G&T allocation to the
13 classes on -- on poles so that transmission-only
14 customers get some credit for the pole revenue, would
15 you?

16 MR. WILLIAM HARPER: But I think the
17 distinction there is we've got -- we've talking about
18 the gross or -- or the net. You know, you want to
19 make sure that, when you're looking at how I treat
20 pole attachment revenues and who I give those to, have
21 I actually accounted for -- in that determination,
22 have I -- am I actually dealing with the net revenue?

23 Because there are some costs involved
24 sort of to Manitoba Hydro in terms of allowing those
25 additional attachments on -- on their poles.

1 MR. JOHN ATHAS: Okay.

2 MR. WILLIAM HARPER: And you would
3 want to net those out, and you'd be going in and you'd
4 be netting those out against probably certain
5 distribution subfunctions where the costs of doing
6 that were, and then you're left at -- at the end of
7 the day with a net -- with -- with the net amount.

8 MR. JOHN ATHAS: Okay. So you --
9 because it wouldn't -- you wouldn't expect that the
10 pole revenues would have to pay for all the poles.
11 Right. The -- the pole -- the --

12 MR. WILLIAM HARPER: No, no, be --

13 MR. JOHN ATHAS: Right.

14 MR. WILLIAM HARPER: -- because --
15 because that -- that's much more of a cost sharing --

16 MR. JOHN ATHAS: Okay.

17 MR. WILLIAM HARPER: -- you know,
18 basically -- basically -- you know, again because
19 you're looking at -- at the incremental cost, if -- if
20 I'm going to have somebody else attach a wire to my
21 pole, as long as I can get more money back from them
22 then what it would have cost them to allow me to
23 attach it, why wouldn't I do it.

24 MR. JOHN ATHAS: Right. And -- and
25 that -- and so the -- so whether or not the -- the

1 revenue -- whether or not you started trying to
2 allocate revenue or anything -- allocate the pole cost
3 to those -- to the -- to that rental fee is totally
4 irrelevant.

5 Because you -- you just said the only
6 thing that's rel -- the only that -- the only relevant
7 cost to determine whether or not to enter into -- to
8 start pole sharing is the incremental cost of
9 attaching the wires if you have to send an inspector
10 out to watch it to make sure they don't screw up the
11 electrical work.

12 MR. WILLIAM HARPER: Well, that's the
13 -- that's the minimum you want to recover. I -- I
14 don't want to get into the whole issue of how you --
15 of how the CRTC gets into setting pole rental rates.
16 That's --

17 MR. JOHN ATHAS: And I -- and I -- I
18 don't either because -- but -- but I just wanted to
19 understand that. And -- and you mentioned that the --
20 hopefully the -- the allocation results in -- in NER
21 being positive because there should be beni -- it
22 should be something that -- it should be beneficial
23 going forward to -- you know, that -- should be
24 benefits created to doing all these exports.

25 So but the -- I thought I heard -- and

1 I'm not trying to -- I'm just trying to make sure I'm
2 not confused about things, is I thought I heard that
3 you agreed with -- with prior questioning that the --
4 the NER is not an indication at all as to whether to
5 do this or not in terms of exports.

6 MR. WILLIAM HARPER: No, the -- the --
7 that's right, I agree. It's -- it's not -- you -- you
8 can't do the NER -- calculate the NER in one (1) year
9 and say, the NER is negative, that was a bad decision
10 to make those exports.

11 MR. JOHN ATHAS: Right. So -- so you
12 -- so you -- so the issue about hoping that it's
13 positive is -- has nothing to do with that it
14 demonstrates whether it was beneficial or not.

15 MR. WILLIAM HARPER: No. All -- all I
16 was commenting on was -- was the fact that just from a
17 general -- if I'm assigning -- if I'm trying to assign
18 a reasonable cost responsibility to exports over the
19 long term, you know, within my cost of service study,
20 you know, it's a different economic paradigm but one
21 would -- one -- one would hope, at least over the long
22 term, that -- that NER is -- is positive.

23 MR. JOHN ATHAS: Okay. So if -- if
24 you didn't have an export class, how would you
25 allocate revenue from -- from the exports?

1 MR. WILLIAM HARPER: Well, I guess we
2 could have a debate around that. You know, I -- I
3 guess the problem is -- is I would say just -- just
4 like in -- in the pole attachment, I would have to try
5 -- I -- I wouldn't -- I wouldn't first say I'm going
6 to allocate revenue. I would say I'm going to have to
7 figure out have I incurred any cost to generate that
8 revenue. Take that -- take those costs out and reduce
9 the revenues, and then figure out how I'm going to
10 allocate that -- that -- the amount that's left over.

11 And that's what got us into this whole
12 debate about export classes because --

13 MR. JOHN ATHAS: But -- but in -- the
14 debate about export classes was allocation -- was
15 whether allocation was relevant, and the debate about
16 the -- and the -- the question about the pole going
17 forward you said that allocation was -- was a whole
18 other debate of setting those prices but it really was
19 irrelevant because the only thing that was important
20 was the incremental costs associated by -- incurred by
21 the electric utility to watch the other -- to let
22 people share.

23 MR. WILLIAM HARPER: Well, that's --
24 that's the difference between the economic decision
25 you're making, and how you're wanting to treat it in

1 the cost of service study. You know, there -- there's
2 a whole interesting regulatory debate that -- that's
3 gone on in jurisdictions in terms of utilities can get
4 into incremental businesses, such as renting water
5 heaters.

6 And, you know, on -- and on a economic
7 basis the question is -- is, you know, you would look
8 at that just like you would look at anything else on
9 an economic -- on an incremental basis. But if you're
10 into that, how do you allocate -- from -- from a
11 costing perspective how do you allocate cost to that
12 in terms of defining what costs should be allocated to
13 that business and not allocated to domestic customers.

14 And many utilities, in spite of many --
15 many -- the regulatory regime that I come from in
16 Ontario, despite the fact that you might make that
17 decision on an economic basis it -- you -- you do the
18 cost assignment on an embedded cost basis because it's
19 a fully allocated embedded cost basis, even though
20 that isn't the way the economic decision was -- was
21 made.

22 And that took -- to come to that
23 conclusion was a number of years of reg -- regulatory
24 discussions to be quite honest with you.

25 MR. JOHN ATHAS: So -- so even though

1 there --

2 THE FACILITATOR: John, just to warn
3 you, about five (5) minutes.

4 MR. JOHN ATHAS: Oh, okay. I started
5 late. No problem.

6 MR. WILLIAM HARPER: We -- we all
7 suffer from the hook.

8 MR. JOHN ATHAS: I understand. A
9 quick question in a lightning round here. The -- the
10 DSM categorization for allocation on generation,
11 transmission, and -- and distribution is some --
12 somewhat functionalising the cost of DSM?

13 MR. WILLIAM HARPER: Yes.

14 MR. JOHN ATHAS: Functionalizing it
15 based on where they benefit, right?

16 MR. WILLIAM HARPER: Based on the
17 relative benefits that -- that are generated for -- by
18 each particular program, yes.

19 MR. JOHN ATHAS: So -- so -- but the
20 question comes up as to whether to do it
21 functionalising on the benefits of that way versus the
22 benefits that flow to classes, because the benefits
23 that flow to classes have a -- the implication of the
24 allocation issues that I was speaking with Mr. Bowman
25 about yesterday?

1 MR. WILLIAM HARPER: I'm sorry, when
2 you say the -

3 MR. JOHN ATHAS: The -- the benefits
4 of the cla -- a class net benefit that is determined
5 by its implications on cost allocation and its
6 implication on -- on its -- what happens to 'G', 'T',
7 and 'D' costs and also its implication on where the
8 DSM costs are being placed, correct?

9 MR. WILLIAM HARPER: Yeah, I guess, if
10 what you're -- I guess by the line of thinking of what
11 you're saying is by doing the DSM theoretically there
12 are less 'G', 'T' -- 'G', 'T', and 'D' costs on -- on
13 the books --

14 MR. JOHN ATHAS: Right.

15 MR. WILLIAM HARPER: -- on -- on the
16 books than there are DSM costs instead, so you're
17 pulling -- you're pulling some costs out, you're
18 putting other costs in instead. You know --

19 MR. JOHN ATHAS: But you -- but you --
20 what to do with the distribution -- the DSM cost is
21 different than that. So I just -- I want to make sure
22 I understand that the -- that there's two (2)
23 dimensions to functionalise on, to -- to figure out --
24 to functionalise on where the benefits are.

25 You've chosen the dimension that says

1 based on these service issues of 'G', 'T', and 'D'
2 that's the fun -- that's how you functionally make the
3 equivalent of benefits for the DSM.

4 Is the -- there's another dimension
5 that says where -- which classes benefit from the DSM
6 money or not and to what degree?

7 MR. WILLIAM HARPER: Well, there --
8 there's another approach, I guess, is what --

9 MR. JOHN ATHAS: Another approach,
10 okay. And -- and that -- just -- I just want to make
11 sure that that -- that you -- that you agree that
12 there is another approach that could be -- okay.

13 Now, the -- the simple question of --
14 of things is when -- and this is -- this is a yes or
15 no question, hopefully, to save time for my colleague
16 Brady. Is -- would -- is Bipole III, in your mind,
17 generation related transmission asset?

18 MR. WILLIAM HARPER: I think in -- in
19 the evidence I've indicated that it's a generation
20 related transmission asset.

21 MR. JOHN ATHAS: Okay.

22

23 CROSS-EXAMINATION BY MR. BRADY RYALL

24 MR. BRADY RYALL: I should be able to
25 be very quick here. Yesterday you will have heard me

1 ask Mr. Bowman about a -- a rate design issue with
2 respect to, I'm going to call it the split between
3 recovery of cost through a -- the basic monthly
4 charge, the demand charge, and a energy charge.

5 And I'll frame the question this way,
6 is there merit to adjusting the rate design such that
7 the -- that each of those components more closely
8 recovers the costs they're allocated -- or sorry,
9 classified in those manners? For --

10 MR. WILLIAM HARPER: I -- I guess one,
11 sort of the -- the -- sort of my -- my sort of shall I
12 say instructions from my client was to do a review of
13 -- of the Cost of Service Study. That -- that was not
14 part of my overall mandate.

15 So in terms of the specifics of
16 Manitoba Hydro I -- I think -- think the issue is that
17 when it comes to rate design there is more than one
18 (1) consi -- one (1) consideration that -- that goes
19 into it.

20 You could -- you know, there are
21 questions about the fairness of the rates from a cost
22 allocation perspective. And on that perspective you
23 could say, Well, maybe we should be trying to align
24 those unit costs for -- on the -- on the residential
25 side it's just customer versus energy outlined with

1 how the allocation comes out.

2 There are other issues such as what --
3 what does that result in terms of what are the price
4 signals that residential customers are seeing for --
5 for energy and how -- how does that align with what
6 sort of -- what -- what sort of price signals are we
7 sending them relative to what -- what it's going to
8 cost us to provide that energy.

9 And you have tradeoffs to make bet --
10 between those two (2). And unless you can -- and
11 until you look at the results of both and try and make
12 -- make -- and sort of decide to what extent you want
13 to make those tradeoffs and different regulators may
14 actually make different tradeoffs in terms of where
15 they want to put their emphasis between the two (2).

16 So that there's merits in looking at
17 that. I don't think that should be the only guide in
18 terms of how you design your rates at the end of the
19 day.

20 MR. BRADY RYALL: Yeah. Thank you.
21 And if I may just have one (1) quick more question.
22 With -- you raised the concept that the dependable --
23 or the firm sales contracts that Manitoba Hydro has
24 with its US or its external counter parties have a
25 lower level of reliability or lower level of service

1 than domestic -- domestic load.

2 That was --

3 MR. WILLIAM HARPER: Yes.

4 MR. BRADY RYALL: -- one (1) of your
5 points? Okay. Would -- would those counter parties
6 take the same view as -- as that? Would they think
7 that they're getting a lower level of service than
8 Manitoba's domestic customers?

9 MR. WILLIAM HARPER: Actually, I -- I
10 really can't speak for -- for the counter parties.
11 But if I'm looking at a contract and the contract says
12 that I get cut before Manitoba Hydro load get -- gets
13 cut, the amount I'm going to be willing to pay for
14 that -- to ta -- pay for that service might -- might
15 be less than if I was signing a contract that said
16 domestic load gets cut first, and then I'm the last
17 one served or we mo -- basically, we share the pain
18 equally depending upon what my view was as to what the
19 risk that is actually -- what the risk is -- is that
20 actually going -- going to ha -- happen.

21 If the -- if I think the risk is very
22 small, there may not be a lot of difference in terms
23 of what I'm willing to pay. If the risk is higher,
24 there may -- may be a material difference in terms of
25 what I'm willing to pay for those two (2) different

1 terms in the contract.

2 MR. BRADY RYALL: And would Manitoba
3 Hydro's past experience in serving their -- their firm
4 contracts have any impact on -- on how you would see
5 the reliability? And the example used is the -- the
6 drought year of 2003, 2004, where Manitoba Hydro did
7 in fact deliver on -- as far as I'm aware, delivered
8 on all of its dependable firm contracts?

9 MR. WILLIAM HARPER: Well, you know, I
10 think it's fair to say Manitoba Hydro's sort of
11 history in terms of how it's -- how it's managed those
12 situations, the number of times those situations have
13 arisen is something that could go in -- that -- that
14 go into the equation again to the extent sort of
15 Manitoba Hydro's done its -- done it's upmost best to
16 sort of meet -- meet those requirements might lessen
17 the -- lessen the differential.

18 The -- the other issue that goes on is,
19 at the end of the term of the contract I have no
20 ongoing obligation Manitoba Hy -- Hydro has to -- to
21 extend that contract. Once a customer connects to the
22 system I have an ongoing obligation to connect them
23 until he decides to disconnect.

24 MR. BRADY RYALL: Okay. Thank you.

25 THE FACILITATOR: Thank you, Brady.

1 We've fallen a bit behind on the time lines again.
2 How about if we take a fifty (50) minute lunchbreak
3 and come back at one o'clock? Thank you.

4

5 (PANEL RETIRES)

6

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

8 --- Upon resuming at 1:03 p.m.

9

10 THE FACILITATOR: MPUG is not going to
11 ask questions at this time. And so we're moving on to
12 Bill Harper, who's had such a long break over the
13 lunch hour, can now get going again. Over to you,
14 Bill.

15

16 GREEN ACTION CENTRE PANEL:

17 PAUL CHERNICK, Sworn

18

19 THE FACILITATOR: I apologize, Paul.
20 I -- you know, this morning people were claiming it
21 was a little bit earlier, but apparently for me even
22 after lunch is a little early to get it right. Over
23 to you.

24 MR. PAUL CHERNICK: Perhaps you've
25 just heard enough from me.

1 MR. DAVID CORDINGLEY: I'm going to
2 jump in with my fifteen (15) words then and turn off
3 my mic. Facilitator Grant, Board Members, Mr.
4 Chernick's substantive submission has already been
5 filed. It's Exhibit GAC-13, I understand.

6 We've also provided to you a slide show
7 presentation. It should be received electronically
8 this morning and there were hard copies on the side
9 table. I propose that we have that filed as an
10 Exhibit. I believe we're at GAC-14 for that one.
11 That's my understanding. Yes. Okay. Thank you.

12

13 --- EXHIBIT NO. GAC-14: Slide show presentation

14

15 MR. DAVID CORDINGLEY: And although I
16 know we're -- we're dispensing with the formalities of
17 -- of going through all the credentials of all the
18 speakers.

19 I just note that Mr. Chernick's CV is
20 attached as an appendix to GAC-13, being his
21 substantive evidence. With that I'll turn off my mic
22 and sit quiet.

23 THE FACILITATOR: Paul, I don't think
24 I've ever seen a CV that went one hundred (100) pages
25 before.

1 MR. PAUL CHERNICK: I don't think it's
2 quite that long, but it is often than the testimony
3 it's attached to. I -- if I don't attach it then the
4 first question I get is, Give us a list of all your
5 testimony, so.

6

7 PRESENTATION BY GAC:

8 MR. PAUL CHERNICK: Good morning,
9 everybody. See, it's early. It must be early,
10 because Mr. Grant is not really getting with it yet,
11 so. On the -- I'm going to start on -- on page 3 of
12 my presentation.

13 The -- the first couple of pages are
14 just introduction, because people like to have a
15 little something on the cover. The -- for the
16 principles of -- of a Cost of Service Study I lay out
17 seven (7) year, not exactly a parallel structure, but
18 in the interest of terseness, I think everybody agrees
19 that cost causation is sort of the central touch stone
20 for cost allocation.

21 We've also, I think, reached agreement
22 that cost causation can be interpreted in a bunch of
23 different ways depending upon the time frame that
24 you're looking at and perhaps the angle you're looking
25 at the issue from.

1 You want to use the best available
2 data. You don't want to use data that's twenty (20)
3 years old or unnecessarily vague or borrowed from
4 someplace else if you can get -- come up with
5 something better at a reasonable level of effort.

6 You want to be consistent across
7 classes in terms of your approaches. You don't want
8 to do something for one (1) class you're not willing
9 to do for others. The -- the Cost of Service Study
10 should be reviewable. And we've been making some
11 progress towards that and there's still some pieces to
12 -- to improve on in that process.

13 It's important to recognize that the
14 Cost of Service Study informs the allocation of
15 revenue to classes, the amount that you're going to
16 expect each class to contribute, but it doesn't
17 determine that revenue allocation. And you should not
18 feel like you have to change the Cost of Service Study
19 to protect a class from rate shock or to preserve
20 gradualism or any other consideration that you may
21 have, because you can do that once you've done the
22 Cost of Service Study and the Cost of Service Study
23 tells you something about what under some set of
24 assumptions a fair allocation of costs would be.

25 And then you have to start looking at

1 other considerations other than the ones that went
2 into the Cost of Service Study before you decide what
3 the revenue increase for each of the classes will be.

4 The Cost of Service Study should not
5 drive rate design at all. And I won't say anything
6 else about that, because I think I'll be getting a
7 question at the end from staff about it.

8 And finally, it's important to
9 distinguish between complementary costs where you have
10 two (2) ways of doing things and customers who are
11 served one (1) way versus the other are not adding to
12 your costs. From additive costs where a customer who
13 needs to be served in a particular way has to pay for
14 what everybody else gets plus their special costs, and
15 we'll get back to that in a -- a moment.

16 Okay.

17 BOARD MEMBER KAPITANY: Mr. Chernick,
18 just before you go on.

19 MR. PAUL CHERNICK: Sure.

20 BOARD MEMBER KAPITANY: Could you -- a
21 couple of things on there, make the PCOSS reviewable,
22 if you could say what you mean by that and if you
23 could give an example of complementary costs and
24 additive costs in this context?

25 MR. PAUL CHERNICK: I'd be happy to.

1 In terms of reviewability, you should be able to walk
2 through from the company's accounting data and pretty
3 much raw input data about class loads, for example,
4 and walk through from those inputs through the series
5 of decisions about how costs are going to be
6 functionalised between generation and transmission,
7 for example, classified, allocated, any special
8 adjustments that are being made.

9 You should be able to walk through all
10 of those either because they're laid out very
11 carefully in words, or because you've got a
12 spreadsheet that links everything together. And if
13 you want to know how this number came to be at the
14 end, you can walk back through the steps and see
15 everything that went into it.

16 Preferably both, but I you can only
17 have one (1) it would probably be better to have the
18 spreadsheet with a few words than a lot of words, and
19 try and figure out what those mean in numbers.

20 In terms of the complimentary and
21 additive costs, one (1) issue that arises here is the
22 issue of subtransmission. In my evidence, I explain
23 why I don't think that subtransmission adds anything
24 to the costs for customer served at subtransmission.
25 That if they needed -- if the load in the area

1 required a trans -- a higher voltage transmission
2 line, it would not be saving Manitoba Hydro any money.
3 It would be increasing the cost.

4 So the idea that customers charge --
5 who are served at over 100 kV don't pay for the
6 subtransmission system, but the customer served at any
7 lower voltage pay for the subtransmission system in
8 addition to their load share of the transmission
9 system, the higher voltage transmission. That strikes
10 me as being inappropriate because you've basically got
11 two (2) ways of getting the power from one (1) place
12 to the substation out there where it's going to feed
13 the distribution system, or feed a particular
14 customer, and there's -- there's no indication that
15 it's more expensive to do it for the subtransmission
16 customers than -- than the transmission customers.

17 An additive cost would be something
18 like serving a customer secondary as opposed to
19 primary. If all customers took power from off the
20 street at primary voltage, Manitoba Hydro wouldn't
21 have to own any line transformers. And you wouldn't
22 have -- right now you've got a primary line running
23 into a line transformer, and then you may have
24 secondary lines running back for a couple of poles
25 back to customers so that one (1) transformer can

1 serve a whole group of customers down the street.

2 Those are extra costs of serving
3 secondary customers, and it makes sense to charge that
4 as an additive cost because it's not a substitute for
5 the primary. You still need the primary getting to
6 the transformer, and then the secondary parallels the
7 -- the primary line.

8 Was that a -- were those helpful
9 examples?

10 BOARD MEMBER KAPITANY: Yes.

11 MR. PAUL CHERNICK: I love that topic.
12 Thank you for asking about it.

13

14 (BRIEF PAUSE)

15

16 MR. PAUL CHERNICK: Another topic that
17 -- that I like, and that is even perhaps more
18 complicated, is the allocation of DSM cost. And the
19 problem arises because DSM has two (2) very different
20 kinds of effects on cost. First of all, it benefits
21 the participating class by reducing all of the
22 allocator -- not all of the allocator -- allocators
23 but it reduces their energy allocation, it reduces
24 their demand allocation, and shifts costs to other
25 classes.

1 But it also benefits the system
2 reducing the total cost. So it's making the pie of
3 costs that you have to split up smaller, and it's
4 making the share of that one (1) class -- the -- the
5 share of the pie that it pays, smaller as well. So
6 other people are paying a larger share, but a larger
7 share of a smaller pie.

8 So selecting a cost allocation method
9 for DSM should be -- should be guided by the -- the
10 intention to not make anybody worse off because any
11 particular class is engaging in DSM. You certainly
12 don't want to wind up in a situation where a class is
13 paying for its own DSM and receiving a little of the
14 benefits, and most of the benefits are going to other
15 classes in the cost of service study, and the
16 participating class actually winds up worse off for
17 having delivered a bunch of DSM savings that are
18 useful to the system.

19 You also don't want the -- the inverse
20 situation where that class's allocation of cost goes
21 way down, and everybody else's goes up. And I -- I
22 think it was Mr. Bowman who -- who suggested that that
23 encouraged class warfare.

24 And I've certainly seen that kind of --
25 of suspicion in -- in negotiations among parties in

1 DSM cases where the industrials are sure that you're
2 spending too much on the residential, and they're
3 going pay for it. And the residential are sure that
4 you're spending too much on the large commercial, and
5 they're going to pay for it.

6 So you want to wind up in a situation
7 where everybody can see that they're -- they're better
8 off if Manitoba Hydro is doing the right thing. And
9 the discussion of these deep principles, that it's a -
10 - a system resource and it should be treated that way,
11 or these customers are getting specific benefits and
12 they should pay for them, I don't think that's useful.
13 I think this is really a matter of -- of what produces
14 an -- an outcome that's equitable.

15 The next slide. And in generation, we
16 have two (2) sets of issues. One (1) is the
17 classification. I agree with Manitoba Hydro that the
18 amount and cost of generation that they install is
19 driven by energy requirements. That same generation
20 does serve peak demand as a secondary function, but
21 those resources are required first for energy.

22 And there are many ways that you can
23 identify costs of the generation system that are
24 driven by energy demand, like the fact that, instead
25 of having a -- a peaker on the outskirts of Winnipeg,

1 you have a -- a dam way up north at -- at many times
2 the cost.

3 I haven't been able to find any
4 examples of Manitoba Hydro generation cost that's
5 driven by demand that wouldn't be needed for the
6 energy loads, anyway.

7 In terms of the allocation of the costs
8 among classes, weighting the value of energy seems
9 reasonable, especially in, like -- in this --
10 Manitoba's situation where you've got the -- the
11 export market driving the value of -- of the energy.
12 And the classes that use energy at high value times
13 are -- are taking away potential export earnings that
14 otherwise could go to everybody.

15 And I just raise the issue in my
16 testimony as to whether MISO prices might be a better
17 proxy for those weights than the SEP prices. I don't
18 reach a conclusion, but it's something that I would
19 like Manitoba Hydro to continue looking at.

20 And I don't see any justification for
21 Hydro's innovation of -- of including the value of
22 capacity in the energy allocator, and certainly not a
23 cost based on the cost of a long-run -- long-range
24 peaker, a long-term investment in peaker unit, the --
25 since the -- the market -- if you're going to use

1 market value for energy, then you really have to use
2 market value for capacity. And market value for
3 capacity is very low.

4 So even if you did want to include some
5 capacity value, it would be much, much smaller than
6 Hydro has suggested.

7 The next slide on transmission. The --
8 there -- the two (2) big issues are how much of the
9 transmission system is generation related. And I
10 agree with -- with Hydro that Bipole III and the DC
11 converters are -- are generation related. They're --
12 they exist only because you have those big generators
13 up north. And you have to bring the power basically
14 down to the Winnipeg area.

15 And that DC converter, essentially, and
16 -- and the line bring the -- essentially bring the
17 hydro plant right to Winnipeg's doorstep. And it's
18 really part of -- of the generation project.

19 But the Company also functionalizes and
20 classifies a lot of -- of generation-related
21 transmission as if it were driven by load. I discuss
22 in most detail, the Wuskwatim lines.

23 And there's been some discussion about
24 how large the fraction of transmission assets that are
25 physically transmission facilities -- are classified

1 as -- as generation related and in -- in the system.

2 And just to give another example, Nova
3 Scotia Power classifies about 65 percent of the
4 transmission as energy related, which is the same
5 thing that -- same allocation that they use -- or
6 classification that they use for their fixed-
7 generation costs. And so basically, they're --
8 they're treating their transmission system very much
9 like generation.

10 And while that's a much smaller
11 province, they have the bulk of their generation far
12 to the -- the east in Cape Breton, and they have these
13 long transmission corridors, AC transmission
14 corridors, that serve the load centre of -- of Halifax
15 and -- and the rest of the province. So it's somewhat
16 analogous to Manitoba's situation.

17 Gee, I think we've talked about sub-
18 transmission issues. Other than the other issue I
19 raised -- other than that it's not -- it really --
20 really shouldn't be seen as a -- an additive cost --
21 is that the sub-transmission system is driven by
22 coincident peak as much as the transmission system is,
23 not by the non-coincident peaks of the various
24 classes. Each sub-transmission line serves multiple
25 classes.

1 The distribution -- next slide. The --
2 the first issue is -- is how you split the
3 distribution system between demand and customer.

4 Manitoba Hydro doesn't really have a --
5 a basis that it can point to for its estimates of the
6 customer-related portion of the costs. The -- the
7 values that they use are assumed to be based on some
8 kind of minimum system analysis that somebody borrowed
9 from someplace a long time ago.

10 And those approaches don't reflect the
11 real reasons for extending the distribution system.

12 And -- and I described that in some detail in my
13 evidence. And most distribution facilities should
14 simply be classified as demand related.

15 And again, the substations and feeders,
16 the bulk of the -- the distribution system, should be
17 allocated on the coincident loads on the equipment,
18 not on class non-coincident peak, because again, each
19 substation and almost all feeders are going to be
20 serving more than one (1) class.

21 Next, just -- yeah, there we go.
22 Again, on secondary costs, Manitoba Hydro doesn't have
23 a -- a real basis for its estimates of the secondary
24 portion of poles or overhead lines. I don't think
25 that -- that poles that hold only secondary should be

1 thought of as being an additive cost. I think they're
2 complementary.

3 If you had a customer at the end of the
4 road and they wanted primary service, you'd have to
5 have a taller, sturdier primary pole to get the power
6 to them. If they take it at secondary, and you only
7 need to run a secondary line from a transpor -- former
8 someplace up the block, then you can put in a -- a
9 shorter, lighter pole. It probably saves you money on
10 poles, and there's -- there's really no reason to even
11 split up the pole account between primary and
12 secondary.

13 In terms of service drops, it's not --
14 again, not clear where Manitoba Hydro got their
15 weightings for the relative costs of serving different
16 kinds of customers, different sizes, whether bigger
17 customers tend to take three (3) phase service as
18 opposed to single phase.

19 And that's something that Hydro should
20 be working on improving. And it should also recognize
21 that multi-family residential customers have one (1)
22 service to a building that may have four (4)
23 customers, or forty (40) customers, or four hundred
24 (400) customers. And that reduces the cost of -- the
25 service costs for the residential class.

1 Finally, the lessons learned.
2 Transparency is important, and we've run into a lot of
3 places in this process where it was hard to -- to
4 figure out where -- where numbers came from, and as
5 those get resolved, sometimes the -- the concerns go
6 away, and sometimes they get much more focussed so
7 that we can actually deal with them.

8 In several areas, Manitoba Hydro needs
9 better data. The Board really should develop a non-
10 disclosure agreement so that documents that Hydro
11 wants to keep confidential for some reason, such as
12 its construction standards, can be shared with the
13 parties under some kind of confidentiality protection.
14 I list here some of the -- the things that I think
15 Hydro still needs to -- to work on to get right.

16 And finally, the cost of service
17 review, I -- I don't think that the commission -- the
18 Board should think of this as being the end of the
19 line, that we're not going to wrap everything up, and
20 then put the cost of service methodology on the shelf
21 for ten (10) years. Or at least I hope we don't do
22 that, because there are a lot of issues that -- that
23 are -- remain to be resolved, or resolved well. And
24 there are -- there are changes coming in the system,
25 and as Keeyask comes online, for example, there may be

1 issues that Manitoba Hydro, and the parties, and the -
2 - the Board will want to rethink.

3 That's my presentation. Did I actually
4 stay on time?

5 THE FACILITATOR: Yeah, you're even
6 four (4) minutes early.

7 MR. PAUL CHERNICK: All right.

8 THE FACILITATOR: Perfect. My
9 understanding is MIPUG does not have questions at this
10 time but, Antoine?

11 MR. ANTOINE HACAULT: At this time, we
12 will stand down and leave other parties -- and I've
13 had some discussions with Mr. Williams as to whether
14 the time that we're able to save at this point, that
15 we can have ten (10) or fifteen (15) minutes at the
16 end of the day with Bill Harper to complete our
17 questioning at that time. I guess we'll see how the
18 day evolves, Mr. Grant.

19 THE FACILITATOR: Good, thank you.
20 And I understand you're okay with that, Bill?

21 MR. WILLIAM HARPER: I'm okay with
22 that. That's fine.

23 THE FACILITATOR: It -- it must be
24 nice to know you're like Garth Brooks. You sign on
25 for one (1) show and that they want you back.

1 MR. WILLIAM HARPER: Encore.

2 MS. ODETTE FERNANDES: And, Mr. Grant,
3 sorry. It's Odette Fernandes back here. Mr. Williams
4 approached me and asked me if we had -- I believe Ms.
5 Derksen had said she had some additional questions of
6 Mr. Harper as well, so time permitting, we would make
7 the same request of Mr. Harper.

8 THE FACILITATOR: Perfect. Then over
9 to you, Bill, for questions on behalf of the Consumers
10 Coalition.

11 MR. WILLIAM HARPER: If I talk slow,
12 maybe there won't be any time left at the end of the
13 day.

14 THE FACILITATOR: Yeah. It's one (1)
15 thing to be asked. It's the other thing to have to do
16 it.

17 MR. PAUL CHERNICK: Yeah. And -- and,
18 please, you know, I've already been -- been rejected
19 by -- by one (1) party, you know, you -- you can have
20 at least a few questions for me.

21

22 CROSS-EXAMINATION BY MR. WILLIAM HARPER:

23 MR. WILLIAM HARPER: Well, I do.
24 Don't worry about that. Can we go to page 7 of your
25 evidence? And you -- you touched on this a bit in

1 your presentation, and I -- I apologize if it's a bit
2 repetitive, but I was -- sort of went through your
3 evidence, and I was coming up with the questions.

4 And if we look at -- at line 7 and 8
5 you state that:

6 "The study should serve only as a
7 guide to cost allocation, not as a
8 determinate."

9 And I thought -- and I think you've
10 indicated this in -- yes?

11 MR. PAUL CHERNICK: Yeah. That
12 actually should probably say 'revenue' allocation.

13 MR. WILLIAM HARPER: Okay.

14 MR. PAUL CHERNICK: But, yes, that --
15 I -- I think you know what I was --

16 MR. WILLIAM HARPER: Yes.

17 MR. PAUL CHERNICK: -- saying there.

18 MR. WILLIAM HARPER: Yeah. It's like
19 chargeable versus allocated. I know what you were
20 saying.

21 Would I be correct in saying that under
22 your -- and I think you've said this already, under
23 your approach, we don't have to worry about rate-
24 making objectives such as efficient pricing or
25 stability in determining our cost allocation

1 methodology, because we can modify the allocation of
2 revenues after -- from what might be suggested by the
3 Cost of Service Study to address such circumstances
4 when we get to the rate design stage?

5 MR. PAUL CHERNICK: There are two (2)
6 steps after the Cost of Service Study. The first is
7 figuring out how much you want each class to pay, and
8 then the rate design within the class. How much of
9 it's is going to be energy, and how much is going to
10 be in the fixed charge, or demand charge, and so on.

11 So, yes, those -- those things are not
12 necessary -- that are either independent in -- of the
13 Cost of Service Study as in the case of the -- of rate
14 design, or are informed by, but not controlled by the
15 Cost of Service Study.

16 So if you run the Cost of Sterve --
17 Service Study, and it says you should double the GSS
18 rate, then that doesn't mean that you need to then
19 double the rate in the next GRA. It may indicate that
20 that class is underpaying, and that it will be fairer
21 if it were paying more, but it also is not fair in
22 some sense to suddenly hit those customers with a big
23 increase --

24 MR. WILLIAM HARPER: And I agree. And
25 that issue around stability is something that Mr.

1 Bowman and I had -- had a similar conversation about.
2 So what I was interested in, actually, was footnote 8
3 on your page where you say:

4 "Occasionally cost allocation may
5 constrain rate design by limiting
6 the revenue requirements available
7 to design rates. When those
8 situations are identified, the
9 allocation of revenues among
10 customer classes may be modified to
11 allow for efficient and effective
12 rate design."

13 So it sounded to me like you were --
14 and you almost talked about this two (2) stage
15 process, figuring out the cost to be all -- to be
16 recovered from each class and then designing rates.
17 And it sounded like two (2) separate steps.

18 But when I read this footnote, it
19 sounds like there could be situations where when I
20 come to the rate design, I have to think about what
21 I'm doing in rate design from an efficient pricing
22 perspective in order to inform how much cost I should
23 be allocating to the customer.

24 And I was wondering if that's what you
25 intended here?

1 MR. PAUL CHERNICK: Not -- not to the
2 customer, but to the class.

3 MR. WILLIAM HARPER: To the class.
4 Yes, I'm sorry.

5 MR. PAUL CHERNICK: And this would
6 arise -- unfortunately, I'm -- I'm afraid that
7 Manitoba is moving out of the period when this would
8 be an issue, but it would arise if you had very low
9 revenue requirements, very low costs compared to the
10 marginal cost.

11 And if you do the Cost of Service Study
12 for some classes such as large industrial, you might
13 find that what you've allocated to them is so low that
14 no matter how you move that around, you're not giving
15 them a signal that's commensurate with the cost
16 they're imposing on the system by using more power.

17 And therefore, in something like the
18 energy intensive industrial rate proceeding that the
19 Board went through partway before it basically was
20 withdrawn, we -- we face that -- that kind of -- of
21 issue where rates were not high enough to give a
22 signal to a -- a server farm that you don't want to
23 settle here for the -- for the cheap imbedded power.

24 If you're going to move in and take
25 some of our power, we're going to charge you something

1 closer to marginal cost. I don't know that you have
2 that problem much anymore. And I always put this
3 footnote in just to preserve that -- that point, but
4 it -- it doesn't arise very often.

5 MR. WILLIAM HARPER: No, and I was
6 interested in proceeding because, you know, when we --
7 when we talk about sort of the distinction between
8 rate design and cost allocation, there's -- anyway
9 there's a clear understanding about -- amongst
10 everybody that was about issues of stability, and how
11 they have to be taken into account, and gradualism in
12 terms of returning to any.

13 But sort of this idea of sort of around
14 efficiency is -- is something that, in principle,
15 people talk about, but I don't see being sort of done
16 very often. And I was interested in getting --

17 MR. PAUL CHERNICK: It's not done very
18 often.

19 MR. WILLIAM HARPER: -- I was
20 interested in getting an example from you, and sort of
21 you -- you've given me one (1) sort of illustrated
22 example --

23 MR. PAUL CHERNICK: Right.

24 MR. WILLIAM HARPER: -- to work with.
25 So that -- that's fine. Thank -- thank you very much.

1 Can we go over the page to page 8. And
2 at lines 11 to 14, you -- you're referring to:

3 "Allocations that should strive for
4 geographic equity trading classes
5 similarly regardless of historical
6 accidents of the vintage and design
7 of -- of the system across the
8 service -- service territory. This
9 principle is the cost allocation
10 corollary of postage stamp rates."

11 So I guess when you were talking about
12 accidents of history, would -- would you include
13 customer density within that perspective as well?

14 MR. PAUL CHERNICK: Yes. Yeah, and --
15 and whether an area was built out sixty (60) years
16 ago, or five (5) years ago --

17 MR. WILLIAM HARPER: Tho -- Tho --

18 MR. PAUL CHERNICK: -- and those --
19 those kinds of -- of issues.

20 MR. WILLIAM HARPER: But whether it
21 was built out sixty (60) years ago or five (5) years
22 ago is more of a vintage issue in my mind, whether --
23 whether I have to -- whether within a particular
24 service area or a geographic area, I'm serving five
25 (5) customers over 3 square kilometres, or I'm serving

1 fifty (50) customers over 3 square kilometres, in my
2 mind, is a density issue.

3 Is -- is that something that falls in -
4 - into the same --

5 MR. PAUL CHERNICK: It -- it would
6 fall into that. I was thinking in terms of -- of, you
7 know, geographically, you might have one (1) -- for
8 example, your -- your large industrials might be in a
9 -- an -- an area that was built out many years ago.
10 And so, therefore, the -- the feeders that serve it
11 are -- serve most of your industrial customers are
12 heavily depreciated and you may have a bunch of large
13 commercial that is much more recent and -- and has
14 more expensive distribution system because of vintage,
15 because of location, for all kinds of reasons.

16 And if it's that this kind of customer
17 demands underground service, then charging them more
18 for that makes sense. But if it's just that this --
19 this area was developed at a different time or there
20 are more customers per mile or whatever it is, that we
21 generally don't take that into account.

22 And so rather than direct assigning
23 pieces of equipment to the customers who use them, we
24 say, There's this kind of equipment, what -- what does
25 it cost in total across the province, divide it up

1 among everybody who uses it in some fair way.

2 MR. WILLIAM HARPER: Okay. Okay, can
3 we go to page 14 of -- of your end starting at line 9?
4 And here -- I just want to clarify because here --
5 here you're talking about the DSM. And here -- here
6 you stated that:

7 "The costs of DSM are incurred when
8 the programs are designed and
9 implemented while the benefits
10 stretch over many years."

11 And I guess I -- I was just wanting to
12 make sure. Are you aware that Manitoba Hydro actually
13 capitalizes and amortizes most -- most of its DSM
14 costs so they actually aren't incurred by customers in
15 the --- in the years that the money's --

16 MR. PAUL CHERNICK: Right. Yes. And
17 --

18 MR. WILLIAM HARPER: And so that --
19 that seemed to be -- so the statement seemed to be
20 somewhat at odds with -- with that -- with that
21 amortization practice. And I just -- since that sort
22 of was prefaced to sort of your discussion on how you
23 thought DSM should be treated, I wanted to make sure
24 that you were aware that Manitoba Hydro amortizes
25 these costs over a period that is supposed to match

1 the benefit period?

2 MR. PAUL CHERNICK: Yes. But in -- in
3 many cases, the -- the benefits are going up over time
4 and the amortization is either staying the same or
5 going down, depending on --

6 MR. WILLIAM HARPER: Typically staying
7 the same, yeah.

8 MR. PAUL CHERNICK: So it's -- it's a
9 -- there -- there still can be a mismatch in the --
10 the numbers. And the general caution is just to don't
11 pay too much attention to the -- to the one (1) year.
12 Try and make the thing work -- make the allocation
13 work in terms of the -- the longer term.

14 MR. WILLIAM HARPER: Okay. I'd like
15 to go to page 18 and 19 of your evidence, and it
16 starts probably about line 10 on page 18. And now in
17 -- in your presentation you've talked about how you
18 propose that a portion of DSM costs should be directly
19 assigned and a portion should be allocated to system
20 benefits.

21 And here -- here on this page you've
22 suggested a methodology for how -- how to tangle out
23 and distinguish the difference between the two (2).
24 And I -- I was just wondering. First, are you aware
25 of anybody who actually has done and applied this

1 particular meth -- methodology?

2 MR. PAUL CHERNICK: I -- I have seen
3 rate and bill impact analyses which look at, generally
4 given, the way we're planning on allocating the costs,
5 this is the effect on -- on the various classes and
6 see everybody's better off over the next couple years
7 with the DSM than without it. We're not piling costs
8 onto one (1) class and reducing the -- the bills for
9 another.

10 MR. WILLIAM HARPER: But -- but that's
11 a little bit different than the methodology you
12 proposed here, which --

13 MR. PAUL CHERNICK: Well --

14 MR. WILLIAM HARPER: -- which is
15 basically -- like, I looked at this. And it seemed to
16 me we were talking about almost developing three (3)
17 preferred development plans under three (3) different
18 scenarios, working out the revenue requirements for
19 those three (3), and then trying to somehow use those
20 results to disentangle benefits to the system versus
21 benefits to participating customers.

22 And I was just -- like I said, at that
23 point in time, I was --

24 MR. PAUL CHERNICK: No, my -- I
25 certainly wasn't talking about working at a whole --

1 whole different development plan. In general, this
2 kind of analysis would just assume that without the
3 DSM you would pay the avoided costs. You know,
4 there's a certain amount of avoided costs that you're
5 attributing to the DSM. You don't get those avoided
6 costs if you didn't have the DSM.

7 So it's perhaps a bit of a
8 simplification, but it gives you a sense that the
9 savings from the DSM, which you have in cases 1 and 2,
10 and the -- the -- those are built in already, right?
11 And the costs of the DSM, which -- which you've also
12 got in cases 1 and 2, those are -- are relatively well
13 balanced across classes.

14 So I'm not talking about a very
15 complicated -- we're talking about a spreadsheet here
16 that -- that just distributes the costs in two (2)
17 different ways. Case number 1 and case number 2 are
18 both with your actual costs and just allocating the
19 DSM differently. Case number 3 is, Well, what if we
20 didn't have the DSM?

21 MR. WILLIAM HARPER: Well, and that's
22 what I was getting into, the thought of are we talking
23 here about a different Preferred Development Plan?
24 Because we have different options we now have to think
25 about.

1 MR. PAUL CHERNICK: No. Generally,
2 you just use the avoided costs that you've -- you've
3 used in screening the DSM, and then you -- you can
4 then say, Okay, so this class saved this much because
5 of the avoided costs.

6 And it saved this much -- it's -- it's
7 allocators changed in the following ways. Maybe they
8 went up compared to -- to their neighbours, compared
9 to -- maybe they went down. And how does that work
10 out for them?

11 MR. WILLIAM HARPER: When I first read
12 this -- and maybe your -- maybe your explanation was a
13 bit different -- when I first read this, it sounded
14 like we were doing three (3) analyses. And on the
15 basis of these three (3) results, I could combine them
16 in some way to come up with two (2) percentages, one
17 that said, you know --

18 MR. PAUL CHERNICK: Oops.

19 MR. WILLIAM HARPER: -- 20/80, 30/70.
20 And I wasn't too sure exactly how you used the results
21 to come up with those percentages.

22 It sounds like it isn't quite that sort
23 of methodological --

24 MR. PAUL CHERNICK: No, no.

25 MR. WILLIAM HARPER: -- and that

1 you're looking at this to get a sense of and then make
2 some judgment about.

3 Is -- is that a fair comment?

4 MR. PAUL CHERNICK: Yes. And you
5 might find that in bo -- basically, what you're
6 looking at is case 1 versus case 3. If we allocate
7 costs to the participating classes compared to having
8 no DSM, how did the various classes work out?

9 And then we do two (2) versus three
10 (3). And then you look at those and you may say, Oh,
11 everybody's fine under both of them, and the Board
12 likes the idea of calling this a system benefit, so
13 that's what we're going to do. Or the Board likes the
14 idea that the participants pay, and so that's the way
15 we're going to do it.

16 And either way, everybody's better off
17 and nobody has any reason to complain.

18 Or you say, Well, you know, if you put
19 100 percent of costs on the participating classes,
20 these two (2) classes actually wind up paying more
21 than the benefits they get. So we can't do that. But
22 when we put half on the participating classes and half
23 on the system, and then it should work out okay.

24 So you can -- you can do a number of
25 things once you see the results. But you've got to

1 have some idea of whether you're accidentally making
2 somebody suffer as a result of DSM. There's no reason
3 to do that.

4 MR. WILLIAM HARPER: And are you aware
5 of any utilities that actually do this approach of
6 making the split between DSM and participating and
7 assigning the -- excuse me, splitting DSM between
8 participating and system benefits and allocating a
9 portion on one way and a portion the other way?

10 MR. PAUL CHERNICK: Nova Scotia
11 explicitly does that with a 75 percent direct
12 assignment, 25 percent system benefits.

13 MR. WILLIAM HARPER: I see. That was
14 the only one I was aware of as well, and I was just
15 curious.

16 MR. PAUL CHERNICK: That's the only
17 one I'm aware of, but I haven't looked to see whether
18 there's a -- a -- there are other examples. I haven't
19 tried to -- to do a survey.

20 MR. WILLIAM HARPER: Well, and I guess
21 the final thing within the -- within the sort of
22 paradigm we've been talking about here where exports
23 is a customer class, if you want to put it that way,
24 would you see when we're out -- the portion that we're
25 treating as a system benefit, would you see

1 apportioning part of that to the export class within
2 this?

3 You know, this is rather unique to
4 Manitoba Hydro, this idea of an export class. And I
5 was just wondering how that export -- that class
6 paradigm fit within the context of this particular
7 approach.

8 And if you haven't given a lot of
9 thought --

10 MR. PAUL CHERNICK: I have not given
11 any thought to how you deal with the export class in
12 this case, and it becomes complicated because, without
13 the DSM, you wouldn't have as much energy to sell.

14 MR. WILLIAM HARPER: Yeah.

15 MR. PAUL CHERNICK: And -- and what --
16 what you -- so that would -- that would change the --
17 the calculation a bit. And you might want to
18 introduce that complication at -- at some point if you
19 think it's worthwhile.

20 I mean, I would hope that you would
21 find that either, you know, number 1 or number 2 would
22 be fine and you -- you didn't have to -- to look any
23 further. But if you have to -- to model the effect of
24 the export class, so be it.

25 MR. WILLIAM HARPER: Okay. Fine.

1 Thank you. Can we go to page 33 then? Thanks.

2

3

(BRIEF PAUSE)

4

5 MR. WILLIAM HARPER: This is about
6 line 9. You're talking about this issue of how to
7 determine whether lines are generation or load
8 related, or tran -- transmission is, you know, load --
9 load related. And I guess here you state that:

10 "If -- if a line was built to
11 connect generation but is now
12 essential for connecting customers,
13 it -- its cost may be reasonably
14 treated as load related or a mix of
15 generation and load."

16 And I guess I was wondering when you
17 say "essential" is that the same as Manitoba Hydro's
18 used and useful test? You -- you know --

19 MR. PAUL CHERNICK: No.

20 MR. WILLIAM HARPER: No? And -- and I
21 guess -- I assumed it wasn't, and I guess then I was
22 wanting you to go on and perhaps explain if not how
23 this test of yours differs from Manitoba Hydro's use
24 and usefulness test, and at the end of the day whether
25 you have a general feel as to whether that would put

1 more lines in generation or less lines in generation
2 be -- because of the difference in -- in the test?

3 MR. PAUL CHERNICK: Okay. If I
4 understand Manitoba Hydro's test, it's basically sort
5 of a one (1) electron test. If the generator were
6 shut down, is there any reason that power would ever
7 flow on this line? And if so, not -- not that it
8 would have to flow on the line but would it flow on
9 the line, and if so then it's a -- it's a transmission
10 asset.

11 What I meant by essential was if you
12 run a line to pick up a hydro station, you did that in
13 1955, and then over the subsequent years you've built
14 distribution substations along there to serve
15 communities that have grown up or were not per --
16 previously served. And looking back now, it might be
17 very hard to untangle would we have -- basically had to
18 build the same line to serve those communities anyway,
19 and we just built it a little earlier to -- to connect
20 the hydro facility.

21 At -- at that point I'm saying, well,
22 you know, you throw up your hands and you -- you're
23 saying, fine. It's load related, or maybe if it's,
24 you know, a large line with just a few customers
25 served off of it you'd say, well, it's -- you know,

1 it's 80 percent generation 20 percent load, or
2 something like that.

3 I haven't tried to do that with -- with
4 any of my examples. I've tried to just stick to
5 facilities that look like they would not have -- they
6 would not have been built and would not be needed now
7 but for the generation facilities they're connecting.

8 MR. WILLIAM HARPER: And turning to
9 the last part of my question then, if I -- if I
10 understand --

11 MR. PAUL CHERNICK: Do I have to
12 answer the whole question? Keep going.

13 MR. WILLIAM HARPER: So the last part
14 of my question, which was in general -- so if -- if I
15 understand this --

16 MR. PAUL CHERNICK: Right

17 MR. WILLIAM HARPER: -- if I
18 understand the distinction correctly, that -- you
19 would end up having more line -- more line or more
20 line cost in the generation side than Manitoba Hydro's
21 def --

22 MR. PAUL CHERNICK: Yes.

23 MR. WILLIAM HARPER: -- definition
24 would. I just --

25 MR. PAUL CHERNICK: Yes, and -- and my

1 apologies. I forgot the last part of your question.

2 MR. WILLIAM HARPER: That's fine. And
3 actually I was going to ask you, you brought up a
4 little bit, and secondly if we were going to -- you
5 talked about this idea of splitting between load and
6 generation, and it's just -- I guess, and I was trying
7 to figure out -- maybe -- and I think you answered
8 already but if you want to add anything to it, under
9 what situations would we be splitting the cost of a
10 line between load and generation?

11 MR. PAUL CHERNICK: And -- and one (1)
12 would be, look, there is a community there. We're
13 serving it now. We probably don't want to say, you'd
14 still be using kerosene lamps but for the fact that we
15 built this transmission line. But, you know, you
16 probably could have reached it with a distribution
17 feeder, and if not you would have built like a 33 kV
18 line out there. You wouldn't have built this hundred
19 and fifteen (115) or whatever, so it -- it would have
20 been cheaper.

21 And if there's enough money involved to
22 even make it worth thinking about then you might say,
23 you know, if you had a number of those, or one (1) of
24 them was really quite an expensive line, if you had
25 Wuskwatim, one (1) of the Wuskwatim lines had a

1 distribution substation off of it, then it would be
2 worth looking and saying, well, so maybe you would
3 have built something out there but it probably would
4 have been a lower voltage line. Might even have been
5 able to reach it with distribution. Let's put half of
6 that line on -- on load and the rest on generation.

7 MR. WILLIAM HARPER: Then making that
8 distinction you'd be looking at sort of what would
9 have been in that lower -- the lower cost of what
10 would have been that alternative --

11 MR. PAUL CHERNICK: Yeah. And you
12 could either do that, you know, with an engineering
13 estimate or you can just look at it and say, you
14 certainly didn't need this level of capacity. And in
15 general, you know, a 34 kV line is half the cost at
16 this two-thirty (230) and so therefore we'll put half
17 of it on load.

18 MR. WILLIAM HARPER: Okay.

19 MR. PAUL CHERNICK: And as I said,
20 none of those situations really arose in my analysis.

21 MR. WILLIAM HARPER: Okay. Can we go
22 to page 36 of your evidence. Then it's about line 17
23 to 19. Let me just make sure I got this correct here.

24

25

(BRIEF PAUSE)

1 MR. WILLIAM HARPER: No. No, I've --
2 I've got the wrong reference here. No, that's -- no,
3 no, it's here. Reading this, you talk in your
4 presentation about the treatment of -- of Bipole III
5 and the Dorsey convertor.

6 And if I read this correctly you're
7 also saying here that the AC portion of Dorsey should
8 also be included in general -- I just want to make
9 sure I've -- I've got -- I understand your evidence
10 correctly, that the AC portion of Dorsey should also
11 be included in the generation related transmission
12 assets as well as the -- as well as the convertor?

13 MR. PAUL CHERNICK: Well, if you go to
14 the previous sentence I say that the switching
15 stations for some additional generation and plants
16 appear to have some generally -- generation related
17 functions or portions that probably wouldn't have been
18 needed without the power plant. But I don't have
19 enough information to -- to sort that out.

20 And also in that category would be some
21 stations that receive power from remote generation,
22 bring you into Winnipeg, Rover (phonetic) or Rossier
23 (phonetic), the AC portions of -- of Dorsey. So
24 there's probably something there --

25 MR. WILLIAM HARPER: Okay.

1 MR. PAUL CHERNICK: -- but I didn't -

2 MR. WILLIAM HARPER: So it probably
3 isn't 100 percent. It's probably something less than
4 100 percent, but you --

5 MR. PAUL CHERNICK: Yeah, if it looks
6 like you need something there, but probably not as
7 much -- if -- if you didn't have that big DC converter
8 feeding in at that point you wouldn't need that much
9 of Dorsey, but I haven't tried to go through and
10 figure out --

11 MR. WILLIAM HARPER: No, I'm just
12 trying to understand whether there was 100 percent or,
13 you know, some portion of it or not. I was just
14 trying to understand what -- what your evidence was
15 and that's useful. That --

16 MR. PAUL CHERNICK: I'm -- I'm sorry,
17 I use phrases like 'the same is true' sometimes. And
18 in a way that makes it hard to figure out what -- what
19 is the same as what.

20 MR. WILLIAM HARPER: Okay. Could --
21 could we go to the bottom of page 42 of your evidence
22 then? And -- and at the bottom here you talk about
23 how subtransmissions should be allocated to all
24 domestic customers using a 2CP allocator.

25 And then on the next page there's a

1 reference to an allocation based on the 2CP allocator,
2 but with a reduced summer weighting. And I was
3 wondering whether overall you meant 2CP allocator in
4 the same way Manitoba Hydro uses it, which is
5 basically as an equal weighting to winter or summer,
6 or whether you were thinking of it would be a 2CP
7 allocator we'd apply for subtransmission, which would
8 be somewhat different where the weighting on summer
9 would be less than 50 percent and the weighting on
10 winter would be more than 50 percent, which wouldn't
11 be precisely the same.

12 MR. PAUL CHERNICK: Right.

13 MR. WILLIAM HARPER: And -- so I was
14 trying to just clarify what -- what you were saying
15 here in terms of what the allocator would be?

16 MR. PAUL CHERNICK: Yes, you're right.
17 That sentence did wind -- paragraph did -- did wind up
18 being a little awkward. What I was reflecting in that
19 last sentence is that there is an argument, I think,
20 for saying that the subtransmission isn't likely to be
21 as heavily loaded in the summer as the transmission
22 system.

23 And so maybe it makes sense to -- to
24 more heavily weight the winter. And if we had data on
25 the -- the loads on -- on those lines then we'd be in

1 a better position to -- to say, Oh, look at that. All
2 of the peaks on the subtransmission system are in the
3 -- the winter, or 80 percent of them are, or you have
4 to get down to 80 percent of the peak before you start
5 hitting a -- a summer hour.

6 So it really looks like they're mos --
7 they're mostly winter-driven or entirely winter-
8 driven. At this point I can't tell you how much, but
9 it's probably more than the 50/50 for the transmission
10 system.

11 MR. WILLIAM HARPER: Probably more
12 than -- more than fifty (50) on -- on the winter side
13 and less than fifty (50) on the summer side, yeah.

14 MR. PAUL CHERNICK: Yes, it's probably
15 more than 50 percent on the -- the winter based upon
16 load patterns in the province in general. But again,
17 you'd really want to know something about the loads on
18 these particular lines and substations.

19 MR. WILLIAM HARPER: Okay. And -- and
20 if we go -- if we go sort of 41 and 42 pages, and I
21 was trying -- maybe I'll just explain what I
22 understand is, because at page 41 you indicate that
23 all transmission from 30 kV up should be allocated
24 consistently either as generation-related or as
25 transmission using the 2CP allocator.

1 Then on page 42 you go on to recommend
2 that subtransmission, the allocation should include
3 dom -- domestic, but not export loads.

4 And so to clar -- so to clarify your
5 proposal, you'd first remove -- take transmission.
6 You'd first remove gen -- generation-related
7 transmission assets, put them in generation. And
8 then, for the remaining transmission costs, those
9 above a hundred kV would be allocated to all domestic
10 and exports?

11 MR. PAUL CHERNICK: Yeah, I think that
12 makes sense.

13 MR. WILLIAM HARPER: And those at the
14 sub-transmission level would be just allocated to just
15 domestic --

16 MR. PAUL CHERNICK: Right.

17 MR. WILLIAM HARPER: -- using this
18 allocator we've -- we've talked about?

19 MR. PAUL CHERNICK: Yeah. I -- I
20 don't think any line under a hundred kV serves
21 exports.

22 MR. WILLIAM HARPER: Okay. No. Maybe
23 -- that was my question as to, if we were talking here
24 about complementary services, but there we -- you
25 know, like, they're complimentary, but sub-

1 transmission, we -- we were going to recognize that
2 point in view, exports aren't -- aren't using it,
3 exports maybe something like a hundred kV customer.
4 But they aren't this, so we aren't going to --

5 MR. PAUL CHERNICK: I -- I think
6 that's a reasonable approach here.

7 MR. WILLIAM HARPER: And, finally, I
8 guess, you know, you have -- have some discussion in
9 here about how it would be nice to basically able to
10 subfunctionalize everything and understand what assets
11 are serving.

12 So is -- is thi -- would it be fair to
13 say that whether this was your preferred approach or
14 whether, you know -- if we were in a perfect world and
15 you could subfunctionalize everything and sort of
16 understand who was using what, that would have been
17 your preferred approach as -- as to how to allocate
18 transmission and sub-transmission?

19 MR. PAUL CHERNICK: You said two (2)
20 things. You said, "subfunctionalize everything." And
21 then you said, "know who was using what."

22 MR. WILLIAM HARPER: Well -- well, you
23 said, was -- you know, you were talking here about --
24 you know, you've talked at one point in time, and I'm
25 sorry I don't have the -- the page reference, about --

1 about full subfunctionalization. I think you -- you
2 used that term here in terms of, you know, we -- we
3 talk about how some...

4 MR. PAUL CHERNICK: Well, at one point
5 I said, Look, if you're going to give the -- the
6 transmission level industrial customers a break
7 because they don't use the sub-transmission system,
8 you should also give all the distribution customers a
9 partial break because only a fraction of their
10 substations use subtransmission.

11 MR. WILLIAM HARPER: And I guess I was
12 wondering whether that was your preferred approach,
13 but you realized going through that level of data
14 manipulation was -- was maybe impractical and thi --
15 and this is your sort of --

16 MR. PAUL CHERNICK: No.

17 MR. WILLIAM HARPER: -- next best
18 solution or whether you were just using that as an
19 illustration?

20 MR. PAUL CHERNICK: No, I -- that's
21 not my preferred approach. That would be a fallback.
22 It's not a complicated calculation because we know the
23 loads of the distribution classes. And it would be --
24 it would be -- and we know what percentage of the --
25 of the distribution substation capacity is served off

1 of -- directly off the -- the higher voltage
2 transmission line, so we can do the calcu -- I think I
3 came up with a percentage.

4 I just don't think that's appropriate
5 because I really think sub-transmission is doing the
6 same thing as transmission.

7 MR. WILLIAM HARPER: No, that's good.
8 I was just -- you talked about these two (2) different
9 -- almost two (2) different concepts. And I just
10 wanted to make sure at the end of the day which one
11 was your preferred approach, and I -- and I understand
12 that now.

13 If we could go to page 47 then, please.

14 MR. PAUL CHERNICK: I -- I often do
15 present alternatives because I -- I'm not used to
16 getting everything I suggest being adopted.

17 MR. WILLIAM HARPER: And at -- at the
18 bottom of the page here you note a number of
19 jurisdictions that classify distribution lines is a
20 hundred percent in demand. And, finally, can you
21 clarify? When you're talking here about distribution
22 lines, is that both primary and secondary? And maybe
23 for the benefit of -- not everybody in the room
24 understands, we're talking about distribution, what
25 the difference is between primary and secondary lines

1 and whether this --

2 MR. PAUL CHERNICK: Okay.

3 MR. WILLIAM HARPER: -- this -- this
4 hundred percent you're talking about here is to both
5 or just to primary lines?

6 MR. PAUL CHERNICK: I believe that
7 these examples, all the distribution lines, poles and
8 wires, conductors, cable, whatever you call it, are
9 allocated on demand. Different jurisdictions do
10 different things with transformers, but... So that's
11 what I meant by distribution lines there.

12 For the -- the definition of primary
13 versus secondary, primary service is over a thousand
14 volts in -- in Manitoba I think it's 4,000 volts. And
15 depending upon your definition, it can go up to 30,000
16 volts.

17 But, basically, it's the -- the
18 distribution lines, the distribution feeders -- excuse
19 me, the -- the primary distribution lines or -- or the
20 feeders are the lines that run from the distribution
21 substation down the streets, and they run for miles,
22 and they're fairly high voltage because they have to
23 be to not have excessive losses.

24 But even for the 4,000 kV primary
25 system, that voltage is too high for most customers to

1 utilize. As a matter of fact, almost all end uses,
2 even for customers that buy their power at a higher
3 voltage, almost all end uses are at under 1,000 volts.

4 So for our houses, for example, that
5 the line will run down the poles, down the street,
6 connect to transformers, probably a couple on each
7 block. The transformers transform the power down to
8 the 122 40 volt that -- that we can use in our houses.

9 And then there are secondary lines that
10 run up and down the street to connect the transformer
11 to the customers. And once the -- that secondary line
12 leaves the pole and heads for the house, it's called a
13 service drop.

14 MR. WILLIAM HARPER: Okay.

15 MR. PAUL CHERNICK: Anything else
16 you'd like me to --

17 MR. WILLIAM HARPER: No. Well,
18 actually, just the final question I had is: You talk
19 here about 100 percent demand, I guess.

20 MR. PAUL CHERNICK: M-hm.

21 MR. WILLIAM HARPER: But is it fair to
22 say there are -- there are also companies that do not
23 allocate -- that do not classify at a hundred (100) --
24 their distribution lines as 100 percent demand?

25 MR. PAUL CHERNICK: Oh, yes. I was

1 responding to -- to the -- the claim that basically
2 there are two (2) ways of -- of doing the
3 classification, which is either the minimum system or
4 the zero intercept. And, no, that's not true. It's -
5 - it's fairly common to just say, Look, we know why
6 these are built. They're built for demand, and that's
7 how we're going to allocate it.

8 MR. WILLIAM HARPER: And is it your
9 experience that, when you're looking at sort of the
10 range of practice, the percentage of demand versus
11 percentage of customer, if you looked at a totem of
12 utilities, that would be a very wide range in terms of
13 the percent that's -- that's demand?

14 So you could find some at a hundred
15 (100), you might find considerably below a hun --
16 below a hundred (100) as well?

17 MR. PAUL CHERNICK: Yes. I -- I cite
18 the Ernst & Young survey from 1990 which said that
19 somebody uses a 70 percent customer classification.
20 That's probably a rural electric coop someplace.

21 MR. WILLIAM HARPER: Okay. Fine.
22 Then could we -- let's see. Maybe if we could go to
23 page 49 of your evidence. And here at page 7 (sic),
24 you make a -- you reference --

25 MR. PAUL CHERNICK: No, line 7, right?

1 MR. WILLIAM HARPER: Beg your pardon?

2 MR. PAUL CHERNICK: Line 7?

3 MR. WILLIAM HARPER: Line 7, right.

4 MR. PAUL CHERNICK: Yeah.

5 MR. WILLIAM HARPER: Here -- here you
6 quote a number of -- you -- you draw a number of
7 quotes from Bonbright with -- with respect to minimum
8 system and the -- what we've been just talking about,
9 the classification of distribution lines.

10 And I guess you -- this is taken from
11 pages 491 and 492 of Bonbright's book, if I'm not
12 mistaken.

13 MR. PAUL CHERNICK: Yes, the -- from
14 the -- the latest edition, yes.

15 MR. WILLIAM HARPER: Right. And I
16 guess -- and so you're familiar with -- with those two
17 (2) pages that you've --

18 MR. PAUL CHERNICK: Yes.

19 MR. WILLIAM HARPER: -- given us here.
20 And -- and I just want to put -- as well as these
21 quotes which indicate he has some concerns about the -
22 - sort of using the minimum system to identify
23 customer-related costs, would I be correct in saying
24 that as well, maybe later down on the same page, he
25 also says, and I'll quote:

1 "While for the reason just suggested
2 the inclusion of the costs of a
3 minimum-size distribution system
4 among customer-related costs seems
5 clearly indefensible, its exclusion
6 from demand-related costs stands on
7 much firmer ground."

8 MR. PAUL CHERNICK: Yes, I do see that
9 statement. I -- there isn't really an explanation of
10 --

11 MR. WILLIAM HARPER: No. You know, so
12 -- you know, so that at the end of the day, you know,
13 I was curious when I -- you know, because this has
14 come up, and I'm curious. Because even in Bonbright,
15 as you properly quoted, it says it should be demand
16 related.

17 Later on he says it shouldn't be
18 customer -- it shouldn't be -- it should be customer
19 related and it shouldn't be demand related, you know,
20 which -- which leads you to -- the question is: What
21 should it be? And he -- he himself never comes to
22 that answer sort of thing.

23 But I -- I just -- I just wanted to
24 point out that it isn't like -- I just wanted to
25 clarify. He wasn't expressing a preference for

1 treating it as demand. He was saying, I don't believe
2 it should be either at the end of the day, if I'm not
3 mistaken.

4 MR. PAUL CHERNICK: Right.

5 MR. WILLIAM HARPER: That's correct.
6 Okay.

7 MR. PAUL CHERNICK: Yeah. That's --
8 that -- that was their -- their conclusion. There's
9 really no explanation for why they think -- they don't
10 think it's demand related. And I -- I explain why I
11 do think it's demand related, but --

12 MR. WILLIAM HARPER: Yeah. Well,
13 okay. No, I -- I just wanted to clar --

14 MR. PAUL CHERNICK: M-hm.

15 MR. WILLIAM HARPER: -- clarify that
16 is what I'm saying. Okay. Right. Okay. Just let me
17 see.

18 MR. PAUL CHERNICK: But this is such
19 fun.

20 MR. WILLIAM HARPER: Okay. And maybe
21 -- just -- I had some questions about -- maybe if we
22 go to page -- let's see if I can find it here. You --
23 you have a chart in your evidence where you break down
24 dis -- distribution lines, poles and wires, between
25 primary and -- and secondary, and I'm afraid I had a

1 reference to it but I can't quite find it here. Oh,
2 yes, it's on page 60.

3

4 (BRIEF PAUSE)

5

6 MR. WILLIAM HARPER: And -- and as I
7 understand it sort of this is -- you're trying to go
8 through and break -- break -- as I understand it, sort
9 of at the end of the day you've taken these five (5)
10 cat -- these -- these five (5) -- these four (4) cast
11 -- cost categories and broken them down between the --
12 the share that's -- that you view as secondary which -
13 - which is in the last column, which means the balance
14 of it would actually be primary, correct?

15 MR. PAUL CHERNICK: That's correct.

16 MR. WILLIAM HARPER: And that zero you
17 have there under poles and attachments, basically it
18 goes to the recommendation you have made that all
19 secondary poles should be considered as primary and
20 therefore there should be no -- no primary poles --

21 MR. PAUL CHERNICK: That they're all
22 just --

23 MR. WILLIAM HARPER: Right, yeah. And
24 -- and with that particular treat -- treatment instead
25 of Manitoba Hydro's 70:30 split you're basically

1 coming up with an 80:20 split between what would be
2 primary and what would be secondary?

3 MR. PAUL CHERNICK: Right. And again,
4 based on, you know, some -- having to make a bunch of
5 --

6 MR. WILLIAM HARPER: Right --

7 MR. PAUL CHERNICK: -- assumptions --

8 MR. WILLIAM HARPER: Sort -- sort of -
9 - base -- based on some assumptions, and given the
10 data -- data that you had you tried --

11 MR. PAUL CHERNICK: Right.

12 MR. WILLIAM HARPER: -- you tried to
13 make -- make the best estimate that you can. And
14 you've talked in the evidence here about how you would
15 allocate primary as 100 percent demand. I want to
16 just understand that you -- if I clarify, the
17 secondary portion of this you would also allocate as
18 100 percent demand? Because I couldn't find that part
19 of the discussion anywhere in -- in your evidence
20 here. I just wanted to clarify whether that was the
21 case.

22 MR. PAUL CHERNICK: Yes, I -- I would.
23 And I -- I think given the -- the conundrum of how it
24 should be allocated, I -- I think that -- that doing
25 the whole thing on demand makes sense. And there --

1 the -- the real relevance of this number for Manitoba
2 Hydro is the size of the discount for the GSL less
3 than 30k --

4 MR. WILLIAM HARPER: Yes.

5 MR. PAUL CHERNICK: -- classes.

6 MR. WILLIAM HARPER: But not only the
7 GSL less than 30k but this actually works its way into
8 the allocation for the ARL class as well actually.

9 MR. PAUL CHERNICK: Okay. I'll take
10 your -- I -- I mean, because we're changing their
11 allocation I guess we change everybody's allocation.

12 MR. WILLIAM HARPER: Well, I -- I
13 mean, it works in -- into the allocation factors, I
14 think. That -- that -- actually I'm sorry, that's a
15 piece I discussed in my evidence as well, so --

16 MR. PAUL CHERNICK: Okay.

17 MR. WILLIAM HARPER: -- so I just want
18 to make sure it just wasn't that one (1) class. Okay.
19 Those are all of my -- my questions, Bill. Thank you
20 very much.

21 THE FACILITATOR: Thank you both. I
22 think now we're onto the General Service questions.

23

24 CROSS-EXAMINATION BY MR. JAROME LESLIE:

25 MR. JAROME LESLIE: Oh, thank you,

1 Bill. We have a few questions prepared for this
2 segment. A few -- most of them are related to DSM,
3 but overall I expect that this segment should be
4 pretty brief. And it touches on some of the areas Mr.
5 Harper was just asking about.

6 If we pull up page 18 of your evidence
7 regarding the section on DSM?

8

9

(BRIEF PAUSE)

10

11 MR. JAROME LESLIE: Right. And you
12 state that you recommend Hydro estimate the effects of
13 recent or planned DSM on revenue requirements for each
14 class for alternative allocations. And I just had a
15 clarifying question.

16 Are you saying that these estimates
17 should be based on a specific test year, for example
18 PCOSS amended, or a point in the future, or are you
19 saying over a series of years?

20 MR. PAUL CHERNICK: My recommendation
21 would be that it be done for -- for recent or
22 projected costs. That is for the -- the current DSM
23 plan for the near future, or the data that's actually
24 come in from the most recent years available. I don't
25 expect that these numbers would swing around a lot

1 from year to year unless the -- the program designs
2 are changing drama -- dramatically.

3 So I don't think it's critical which
4 year you're using. And you want to run it -- look at
5 -- at the effect on the cost allocation in the context
6 of the PCOSS that you were using in a GRA as you are
7 actually applying it. Doing this -- doing this
8 exercise for PCOSS14 is -- might be somewhat
9 enlightening. But the important thing is what happens
10 with PCOSS17 presumably would be the -- the cost of
11 service study used in the GRA filed in 2016.

12 MR. JAROME LESLIE: Thank you. That
13 was helpful. And you go on to mention the three (3)
14 cases that you should look to evaluate, and you were
15 providing a description of them earlier.

16 So my question is: With respect to the
17 case 3 which has no DSM, and how would you recommend
18 this test be done?

19 MR. PAUL CHERNICK: Well, the no DSM
20 case, I think, as I said to Mr. Harper, that the
21 easiest thing to do is usually just to add in the
22 avoided costs. Or DSM has avoided costs. If you
23 didn't have the DSM, presumably you would have those
24 avoided costs.

25 And then you can take the difference

1 between case 1 and case 3 and say thi -- this is the
2 change from the DSM savings to the individual class
3 and to the -- to the participating cla -- classes and
4 -- and to the system as a whole from having the DSM,
5 reducing the total cost, changing the allocators, and
6 -- and also of allocating the cost of the DSM, and in
7 the case of the comparison of -- of one (1) to three
8 (3), allocating them to the participating classes.

9 So the -- the objective here is to see
10 -- we -- we've got the DSM, so we're going to be in
11 either case 1 or case 2 or somewhere in-between, and
12 how much did the -- the cost change, the benefits
13 change, for -- for each class from having the DSM, but
14 then having the costs distributed in a particular way.

15 MR. JAROME LESLIE: I agree to the
16 extent where we can compare cases 1 and 2. In regards
17 to the case 3, given that some of the ben --
18 associated benefits that DSM relate to the -- you
19 would essentially delay the need for new generation or
20 transmission investments, for example, as rela -- of
21 having these programs.

22 My question relates to how you could
23 capture that component in -- when you're trying to
24 evaluate for case 3 in -- in what you're proposing?

25 MR. PAUL CHERNICK: Well, I hope you

1 can capture those benefits because that's what your
2 avoided costs consist of. So if you -- the -- the
3 point is to compare the -- the reduction in costs due
4 to DSM with the allocation of the DSM program costs
5 and do that for both case 1 and case 2.

6 So in each case you're -- you're -- in
7 each situation you're -- or each example you're
8 comparing an allocation having the DSM and allocating
9 the costs in some particular way to a case in which
10 you didn't have the DSM. And my hope is that you will
11 find that at least one (1) of those alternatives will
12 give you a situation where nobody's worse off because
13 of the DSM.

14 And that's the kind of -- of comparison
15 that I'm proposing here.

16 MR. JAROME LESLIE: Okay. Thank you.
17 And in relation to the methods of allocation, you note
18 that you should make this comparison. But do you have
19 an opinion on what you believe would be the most
20 reasonable approach to take as relates to direct
21 assignment or allocation through cost of service?

22 MR. PAUL CHERNICK: I don't think that
23 there's a fundamental reason for preferring one over
24 the other or perhaps that there are fundamental
25 reasons for preferring both of them.

1 On the one hand, DSM is a system
2 resource that provides system benefits, so allocating
3 it based on those benefits -- allocating the costs
4 based on those benefits makes sense.

5 On the other hand, it's reducing the
6 allocation of costs to various classes, reducing their
7 bills so they can afford to pay for some of the costs
8 of the program. And you -- you avoid some of the
9 class warfare issues if you put at least some of the
10 costs onto the participating class.

11 So there are good reasons for liking
12 both approaches, and you just want to make sure that
13 you can say with a straight faith to the clients and -
14 - and the customers in each of the -- the classes, You
15 are not paying for somebody else's benefits and not
16 getting benefits yourself.

17 So GSS is paying for the residential
18 class program in part. The residentials are getting a
19 lot of benefits from that in terms of reduced bills.
20 GSS should be getting enough of a reduction in its
21 costs to cover what it's paying as well.

22 And you don't want GSS resenting
23 residential or residential resenting the industrials,
24 so that's our -- that's my objective here is to work
25 out a system -- identify a system where we can say in

1 good faith, Looks like everybody's going to be better
2 off, or at least each class will be better off. If
3 you don't participate, you may not be better off.

4 MR. JAROME LESLIE: Okay. Fair
5 enough. And, well, that's essentially all the
6 questions we had related to DSM, so it's a rather
7 short segment from us, but I'll take -- pass it over
8 to you, Mr. Facilitator.

9 THE FACILITATOR: Thanks very much.
10 Actually, I have a question that's been bothering me
11 all along with respect to the DSM, and -- and maybe
12 you know the answer to it, Paul --

13 MR. PAUL CHERNICK: Okay.

14 THE FACILITATOR: -- from the analysis
15 you've done. And it -- and it's a "does it matter"
16 question.

17 Patrick brought up earlier today the
18 idea that maybe this issue between whether one should
19 be directly allocating at this point in time the DSM
20 costs, as Manitoba Hydro has proposed, or whether one
21 followed the approach that Bill Harper has approached
22 (sic) in terms of it being a resource and allocating
23 it that way.

24 Do we have a sense that each class is -
25 - is getting about the same amount of incentive money,

1 if I can call it that, for DSM? And if that was the
2 case, then -- then is it the case that it -- it may be
3 a point of principle and a point that may be more
4 important in the future, but it may not be important
5 for this particular rate -- or cost of service review.

6 Do you know the answer to that, or --

7 MR. PAUL CHERNICK: Well, yeah.

8 Actually, the -- the question perhaps could be more
9 complicated because you -- you want to know who the
10 money's being spent on, and also how much savings
11 they're getting --

12 THE FACILITATOR: Great.

13 MR. PAUL CHERNICK: -- out of it in
14 terms of -- of their reduction in -- in -- ultimately,
15 the reduction in the costs allocated to that class.

16 And I don't think that the -- that the
17 program is divided up evenly enough that you can say,
18 It doesn't matter because, no matter how you split it
19 up, everybody's got about the same amount of -- of
20 benefit, so it's -- it's going to be a wash.

21 If that were true, then I think when
22 Mr. Harper did his run with the -- the change in the
23 allocation, then the residential RCC wouldn't have
24 changed by 1.3 percent. So that indicates to me that
25 they're getting less of the -- of the direct benefits

1 of the DSM than their load share. And they're being
2 allocated more costs than they're getting benefits.

3 Now, that -- that minus 1.3 percent
4 that he got was between two (2) different allocations,
5 sort of like between my case 1 and case 2. They might
6 still be better off than they would have been with no
7 DSM, but that's something that you want to look at and
8 say, Are we winding up in a reasonable place or are
9 the residentials paying more so that small and medium
10 commercial can -- can have lower bills.

11 THE FACILITATOR: Right. Thank you.

12 BOARD MEMBER GOSSELIN: Sorry, Bill,
13 could I ask a question, please, just a very clarifying
14 question? It relates to the recommendation you've
15 made that Manitoba Hydro should reexamine the prices
16 it uses to develop the energy weighting.

17

18 And you indicated that -- that you felt
19 that they should be looking at MISO locational prices.
20 And could you -- could you comment on why you believe
21 that would be a better metric than the set price?

22 MR. PAUL CHERNICK: Well, it's my
23 understanding -- understanding the SEP is set based on
24 Hydro's forecast a week or so in advance and that --
25 and I'm just not sure how well it tracks the actual

1 value of the energy.

2 There may be reasons why the MISO
3 published prices als -- also are not a perfect
4 measure, but they are reflecting what MISO says it's
5 worth to have more power delivered at the Manitoba
6 border hour by hour. So that seems to me to be
7 interesting information and I'm certainly willing to
8 be convinced that there's some reason why the SEP
9 projections of prices actually turn out to be a -- a
10 better measure.

11 But I think -- I think it's an
12 interesting divergence that ought to be explored.

13 THE FACILITATOR: Thank you. City of
14 Winnipeg...?

15 MS. DENISE PAMBRUN: The City has no
16 questions of this witness. Thank you.

17 THE FACILITATOR: Thank you. Over to
18 you then, Kelly.

19

20 CROSS-EXAMINATION BY MS. KELLY DERKSEN:

21 MS. KELLY DERKSEN: I hadn't intended
22 to start. I was going to turn it over to Mr.
23 O'Sheasy, but I wanted to followup on the Chairman's
24 question, because I had a similar question of Mr.
25 Chernick also.

1 And I wanted just to get your wisdom,
2 or advice with respect to this -- this issue that MISO
3 prices may be a better proxy than what we currently
4 use today, which are SEP prices, which to a large
5 degree are -- are what is reflected in -- in MISO.

6 But would it be your understanding, Mr.
7 Chernick, that our SEP prices are intended to reflect
8 the marginal value of a kilowatt hour for Manitoba
9 Hydro by time frame?

10 MR. PAUL CHERNICK: Yes, I -- I
11 thought that they were -- the prices that were being
12 set -- I don't think it's hourly, but on some kind of
13 time of use basis, a week or so in advance based on
14 Manitoba Hydro's projection of -- of MISO prices and
15 so there -- they should be fairly closely linked, but
16 there may be reasons why the SEP -- I mean, obviously,
17 there's some reason why the SEP differs from the
18 prices being reported by MISO, but those may indicate
19 -- they -- those may be for reasons that make the SEP
20 prices a better measure, or a -- a less accurate
21 measure.

22 And, you know, with MISO there's a big
23 market there. And as long as there's room in the
24 transmission lines you can sell at -- at the prices
25 that are -- that are posted. At the -- for the SEP, I

1 believe that your market is somewhat smaller, so
2 you're -- you're not necessarily -- you don't
3 necessarily have -- have the ability to sell as much
4 or maybe it's less representative.

5 But again, I -- you know, this is
6 something that I think Hydro should think about and
7 I'd be happy to talk to you about.

8 MS. KELLY DERKSEN: That's exactly
9 where I -- where I was going with my first question.
10 And this is my understanding of our discussion when
11 this was being contemplated ten (10) years ago. My
12 understanding -- and I want to understand if this is a
13 fair comment or -- appose -- I'll pose to you my
14 understanding and I'll let you comment on it.

15 That we implemented a number of years
16 ago the use of SEP prices which, to a large degree,
17 represent Manitoba Hydro's short-run marginal cost of
18 energy, the opportunity cost of that as reflected in
19 MISO, but that it doesn't always -- the -- the value
20 of energy in MISO doesn't always represent the short-
21 run marginal cost of energy to Manitoba Hydro.

22 So I'll give you an for an -- for an
23 example case. So let's suppose that Manitoba Hydro's
24 -- the interface is constrained and Manitoba Hydro is
25 spilling. In that case, Ma -- the opportunity cost or

1 the short-run value for Manitoba Hydro would be --
2 well, I'm not sure what it'd be, maybe close to zero.

3 MR. PAUL CHERNICK: Right.

4 MS. KELLY DERKSEN: If it -- if we
5 were in a drought circumstance, the marginal value --
6 the short-run marginal value to Manitoba Hydro could
7 be, let's say, the cost of its -- to generate energy
8 from its thermal facility.

9 And so what SEP was trying to represent
10 is, yes, in most cases, the value of energy from a
11 short-run --

12 MR. PAUL CHERNICK: M-hm.

13 MS. KELLY DERKSEN: -- perspective is
14 indeed what is represented in MISO but not always.
15 And that's why Manitoba Hydro went down the path to
16 use SEP rates to underpin its weighted energy
17 allocator?

18 MR. PAUL CHERNICK: Yes. And -- and
19 I'm -- I understand that there are reasons why the
20 prices would differ in a -- but in a drought I don't
21 think that the -- the interconnection heading south
22 would be fully loaded. Perhaps it would be fully
23 loaded heading north.

24 I don't know that you've had that kind
25 of situation in -- in the period for which I have

1 data. And -- but there can also be situations where
2 in the -- you just have more water than you can use
3 and you've loaded up the -- the interconnection and
4 the prices goes to zero in -- from MISO's perspective,
5 for that hour because another megawatt hour in -- in
6 Manitoba does MISO no good at all because it can't get
7 in but that there's still some small water rental
8 charge on your side.

9 So I cer - when I did this I didn't
10 expect the numbers to exactly match. And I also
11 recognize that if the SEP's values were being set in
12 advance, then there would be -- even if you were
13 trying to match the MISO values, you wouldn't match
14 them exactly, the numbers were a little further off
15 than I would have expected from those factors.

16 It's possible that your -- your
17 traders, the people who set the SEP prices, would --
18 you know, would immediately understand what was going
19 on here and -- and why things were -- why the numbers
20 were different and why the SEP was or wasn't a better
21 estimator.

22 I -- I don't express a strong opinion
23 one way or the other, but I do think it's something
24 that's worth looking at.

25

1 (BRIEF PAUSE)

2

3 MS. KELLY DERKSEN: Bill, I think
4 Patrick has a question or two (2) for Mr. Chernick.
5 And I'm prepared to let him proceed. And then I'd
6 like to turn it back to Mr. O'Sheasy if you don't
7 mind.

8 THE FACILITATOR: Lovely to see
9 everybody collaborating together.

10 MR. PAUL CHERNICK: As long as you all
11 sit on one (1) side of me instead of circling me while
12 you're asking questions.

13 MR. PATRICK BOWMAN: Proximity brings
14 familiarity and collegiality.

15

16 CROSS-EXAMINATION BY MR. PATRICK BOWMAN:

17 MR. PATRICK BOWMAN: The only thing I
18 wanted to ask about was something new you said this
19 morning about Nova Scotia which hadn't previously been
20 there and -- and I had to quickly remind myself what -
21 - what we had learned about Nova Scotia, but I'll
22 admit we weren't in the proceedings in cost of service
23 there, and I -- I believe a few people in this room
24 may have been so I just want to make sure we have it
25 clear.

1 This is in regards to transmission, and
2 when we're talking about the concept of generation
3 related transmission, what we're saying is -- is you
4 would take some assets that look like wires and
5 substations but say a component of them is linked to
6 the generation, we'll treat them the same as
7 generation. A different component is linked to a
8 different function, and we'll treat it by a different
9 method, whatever is suitable for it.

10 You -- you -- we're -- we're clear on
11 that part of the --

12 MR. PAUL CHERNICK: Yes.

13 MR. PATRICK BOWMAN: Okay. As I read
14 the Board's decision in 2014 in Nova Scotia, it uses a
15 classification system for generation that is SLF,
16 system load factor, based on a 3CP peak. Does that
17 sound familiar to you?

18 MR. PAUL CHERNICK: Yes.

19 MR. PATRICK BOWMAN: And it also uses a
20 method of system load factor based on a 3CP peak for
21 transmission in its entirety. Is that the same
22 understanding you have?

23 MR. PAUL CHERNICK: Did you just -- it
24 sounded to me like you said the same thing twice.
25 That they --

1 MR. PATRICK BOWMAN: I did.

2 MR. PAUL CHERNICK: -- that they do
3 the same thing for generation as for transmission?

4 MR. PATRICK BOWMAN: Yes.

5 MR. PAUL CHERNICK: Yes.

6 MR. PATRICK BOWMAN: So -- so in their
7 sense it's -- it's not like you have to take a
8 transmission and carve it up --

9 MR. PAUL CHERNICK: Right.

10 MR. PATRICK BOWMAN: -- part of it
11 treated like generation, part of it treated like
12 transmission. In their case, all of it's treated the
13 same in one (1) bundle effectively, or -- or in the
14 same method at least. They don't have a generation
15 component unless you want to consider all of it
16 generation related.

17 MR. PAUL CHERNICK: Yeah, I suppose
18 you could because they're -- they're allocating it
19 just the same way that they do fixed generation costs.
20 But you could -- as I say in my testimony in -- in the
21 introduction at some place, the functionalization and
22 classification and allocation decisions aren't
23 independent, and you don't -- Manitoba Hydro could get
24 to the same place either by functionalizing a bunch of
25 transmission as being generation or classifying trans

1 -- a chunk of transmission as being energy related and
2 hence treated like generation, or using a -- an
3 allocator for -- for, quote, "demand related,"
4 unquote, transmission that actually has an energy
5 component to recognize the general -- generation
6 related portion of -- of the system.

7 And which of those you use is perhaps
8 partly a matter of taste, and partly a matter of the
9 ease or lack thereof of untangling the system. I
10 think for Manitoba Hydro it's relatively easy to go
11 through and identify transmission facilities that are
12 there because of generation.

13 In the case of Nova Scotia, you do have
14 a city and some -- and towns and -- and other
15 facilities in the eastern part of the Province in a
16 way that you don't have up in around Wuskwatim or
17 around the northern generation but you still know that
18 those transmission lines that run from Cape Breton to
19 Halifax are there to get the generation to the load
20 centre. And so you -- it's much easier in Nova Scotia
21 to say, well, there are all these considerations and
22 we're going to classify it this way, or they could
23 have called it all demand related and then just
24 allocated it on an allocator that was -- had a lot of
25 energy in it.

1 And it's earlier in Manitoba, I think,
2 to just look at specific facilities. But you can get
3 to the same place either through functionalization,
4 classification, or allocation.

5 MR. PATRICK BOWMAN: Okay. And the
6 last bit, and perhaps another similarity I have with
7 My Friends next to me is that at the risk of giving
8 evidence embedded in the question, I don't know
9 whether you would be aware or -- or would you be aware
10 that before moving to the marginal cost weighted
11 energy in Manitoba, there was a time where Manitoba
12 Hydro did the same thing Nova Scotia Power is talking
13 about.

14 It took all of its generation, all of
15 its transmission, treated it together, class --
16 classified it on the basis of system load factor,
17 treated the demand one (1) way and the energy another,
18 and didn't go down the way of generation wire
19 transmission. Didn't have to carve it up in that way.
20 Didn't have to -- as you say, didn't have to think
21 about each asset separately. Thought of that entirely
22 as working as one (1) system. And in that regard it
23 would parallel -- I think it's almost exactly what
24 Nova Scotia is talking about here.

25 And -- and that was what was sort of

1 moved away from, if you like. But I -- I'm just
2 wondering if you had any comments on that, or you were
3 aware of that, or you thought there was a better
4 method.

5 MR. PAUL CHERNICK: I'm aware of that.
6 I -- I don't really like the -- the system load factor
7 method, because it suggests that the -- it -- it might
8 give you a reasonable result in some cases, but it's
9 not the system load factor that determines how much
10 you spent for energy-related generation and how much
11 more you spent to get low-cost energy out of your
12 generation.

13 And so that approach would -- would
14 allocate costs the same way, regardless of whether you
15 had 100 percent hydro, or 90 percent nuclear, or an
16 entirely gas-fired system. And the amount of fixed
17 costs that you've -- that you've committed to reducing
18 energy use is very different depending upon your kind
19 of system.

20 And the same thing is true for
21 transmission, that there are -- there are systems
22 where load and generation are sited close to one
23 another, and the transmission exists just to allow
24 sharing among the areas, and to -- to get to load.
25 It's sort of in between the generators.

1 And there may be very little
2 generation-related transmission in those systems, and
3 there are others, like Manitoba, that have long lines
4 that -- that just connect the generators.

5 So to the extent that you can pull
6 apart the pieces and look at them, I -- I like that
7 better. There are places where it's a mess, and it's
8 -- it's certainly easier to -- to use some rule of
9 thumb to say, Well, we know this is important, but
10 it's hard to say exactly how much. This seems like a
11 reasonable percentage.

12 MR. PATRICK BOWMAN: So if --

13 MR. PAUL CHERNICK: And that's what
14 Nova Scotia has done.

15 MR. PATRICK BOWMAN: -- if -- if
16 anything, my -- my question's a bit more about the
17 functionalization step than the classification. There
18 may be differences about system load factor versus
19 other methods, but what Nova Scotia is doing is
20 saying, I'm not going to distinguish effectively
21 between generation and transmission. They're going to
22 all flow through the same way.

23 That's what we used to do. Now we
24 carve them up, and if anything, slice and dice them a
25 little further. You're saying the slice and dice has

1 appeal to you.

2 Is that -- is that fair?

3 MR. PAUL CHERNICK: You -- you're
4 talking about on the functionalization level?

5 MR. PATRICK BOWMAN: Well, and -- and
6 as you said, the -- maybe one (1) step and the other
7 are a bit artificially distinct, if you're --

8 MR. PAUL CHERNICK: Right.

9 MR. PATRICK BOWMAN: -- going to later
10 pick up a -- a concept in an allocation step that you
11 -- you went one (1) direction in the --

12 MR. PAUL CHERNICK: Right.

13 MR. PATRICK BOWMAN: --
14 functionalization step.

15 MR. PAUL CHERNICK: And that -- that
16 it doesn't -- if it's easy to functionalize, then you
17 might as well just say what you're doing and
18 functionalize it. If it's easier to do it in
19 classification for some reason, then you can do it
20 there.

21 But, yes, to the extent that you can
22 look at the pieces and say, This plant is 100 percent
23 energy, this plant is 75 percent energy, this plant is
24 just for demand, that it's better to do that than say,
25 The whole thing is -- is 50 percent, because we -- we

1 picked that number out of someplace.

2

3

(BRIEF PAUSE)

4

5

MR. PATRICK BOWMAN: Okay. And I
6 think that answers it. I was just mostly looking to
7 confirm. I -- I had thought you had said that Nova
8 Scotia uses a particular percentage for generation-
9 related transmission.

10

And as I understand it now, it's --
11 it's effectively a distinction without a difference in
12 Nova Scotia because of the way classification works.
13 It's not that they have a generation-related
14 transmission category.

15

MR. PAUL CHERNICK: Right. You --

16

MR. PATRICK BOWMAN: They just happen
17 to do it in the same way.

18

MR. PAUL CHERNICK: They -- it's
19 because of the way they classify rather than
20 functionalize.

21

22 CROSS-EXAMINATION BY MR. MICHAEL O'SHEASY:

23

MR. MICHAEL O'SHEASY: Good afternoon,
24 Mr. Chernick.

25

MR. PAUL CHERNICK: Good afternoon.

1 MR. MICHAEL O'SHEASY: I --

2 MR. PAUL CHERNICK: It is afternoon,
3 isn't it?

4 MR. MICHAEL O'SHEASY: Yes, it is.
5 I've got some clarifying questions, and unfortunately,
6 I put my questions together before your presentation.
7 So if I'm redundant, I apologize up front.

8 I'm trying to understand your position
9 on a capacity adder in the weighted energy allocator.
10 And obviously, your position is what Manitoba --
11 Manitoba Hydro put forth is not recommended, in your
12 opinion.

13 And so my question to you is: Do you
14 believe that a generation allocator should be entirely
15 influenced by energy without any influence for demand?

16 MR. PAUL CHERNICK: Well, it depends
17 on what's driving investment in your system. In this
18 case we're talking about the -- the fixed costs of a
19 hydro-dominated system. And if you were building
20 capacity -- building new plants because of your peak
21 demand, and you chose to build hydro rather than some
22 less expensive technology to get the energy savings,
23 then part of the hydro would be energy related,
24 because you could have gotten it for a dollar. You're
25 spending five dollars (\$5), so 80 percent of it is --

1 is energy related.

2 That's one (1) way of looking at it,
3 anyway. If you're building because you're running
4 short on energy, which seems to be the case in
5 Manitoba, then it looks like it's just an energy-
6 related decision about how much capa -- how -- how
7 much you need to build and then, Oh, by the way, that
8 brings along with it the capacity.

9 And, you know, there are multiple ways
10 of looking at -- at fairness of equity, and you can go
11 beyond the cost causation and say, Well, you know, you
12 really shouldn't have anybody getting a free ride, so
13 -- and since we're providing capacity, the people who
14 use more capacity should pay something for that, even
15 though that's not why we built it.

16 That's not usually the way I would
17 approach these issues, but some people find that a
18 compelling equity argument.

19 MR. MICHAEL O'SHEASY: So if I
20 understood you correctly, one (1) of your first
21 concepts on how you can approach something like this
22 is that generation can serve two (2) purpose -- so it
23 does serve two (2) purposes. It is satisfying the
24 peak demand, and it's also minimizing the energy cost
25 as best feasible.

1 And therefore, I think I heard you say
2 to some extent, one could argue that there is a demand
3 element, as well as a generation element, and it
4 probably varies by system. And as you indicate,
5 Manitoba Hydro being predominantly a hydro system, it
6 possibly has a much higher energy relevance than it
7 does a demand relevance.

8 Is that fair?

9 MR. PAUL CHERNICK: Well, yes, and --
10 and not only does it have a higher energy component to
11 what you spend on the fixed cost of generation, but it
12 seems to be energy that drives building the plants,
13 when the plants are built.

14 So in terms of causation for Manitoba,
15 there seems to be very little or no demand-related
16 generation cost. What I said was the -- the Board
17 could decide as a matter of equity that, you know,
18 even though you're -- you're not incurring any costs
19 to meet peak demands, because you -- but you are able
20 to meet the peak demands, and that's sort of another
21 service in addition to the energy, that it somehow --
22 it -- it would be fair to allocate some costs on -- on
23 peak demand.

24 I -- I think there's a -- not my
25 preferred way of -- of looking at the -- the

1 allocation issue, because I'd prefer to look at
2 causality, but these -- the idea that even though it's
3 a byproduct, you get the capacity for free when you're
4 building for the energy, you could certainly say that
5 cut classes that use a disproportionate amount of
6 capacity and -- and very little energy should pay
7 something for that.

8 MR. MICHAEL O'SHEASY: Just one (1)
9 quick follow-up question. Do you know of any
10 utilities that do classify generation as 100 percent
11 energy related?

12 MR. PAUL CHERNICK: I don't know of
13 any -- any others, but then I don't know of any others
14 that -- that are ener -- so heavily energy driven in
15 their planning.

16 MR. MICHAEL O'SHEASY: Okay. I'm
17 going to move on to a different subject now. This has
18 to do with -- with a well-discussed topic, DSM. And
19 in your testimony, you state that there are short-term
20 and long-term avoided costs with DSM.

21 And I think on page 13 you also
22 indicate there are three (3) impacts to DSM. And it's
23 possible that the non-participating classes may share
24 in the cost of DSM more than it benefits, or vice
25 versa.

1 MR. PAUL CHERNICK: Right.

2 MR. MICHAEL O'SHEASY: And you also
3 indicate that -- well, you've proposed three (3) cost
4 tests that might be helpful in determining the cost
5 assignment versus the benefit assignment.

6 Did I interpret that right?

7 MR. PAUL CHERNICK: Well, are -- are
8 you talking about my -- my 1, 2, and 3 on page 18?

9 MR. MICHAEL O'SHEASY: Let's see.

10 MR. PAUL CHERNICK: The three (3)
11 cases?

12 MR. MICHAEL O'SHEASY: Yeah. Yes,
13 that is what I'm --

14 MR. PAUL CHERNICK: They're not really
15 three (3) tests. They're --

16 MR. MICHAEL O'SHEASY: That -- that's
17 what I'm talking about, the three (3) cases.

18 MR. PAUL CHERNICK: Yeah. And they're
19 -- they're really two (2) tests. It's case 1, you
20 have the DSM, and you allocate it this way. Case 2,
21 you have the dal -- the DSM, and you allocate it
22 another way. And case 3, which is if you didn't have
23 the DSM.

24 MR. MICHAEL O'SHEASY: Right.

25 MR. PAUL CHERNICK: So you can then

1 say, oh, well, the DSM saved this class this much, and
2 this allocation put this much cost on it. They're
3 better off, or they're worse off.

4 MR. MICHAEL O'SHEASY: Right. So
5 there were theoretical techniques to try to ascertain
6 who's benefiting more versus their cost?

7 MR. PAUL CHERNICK: Right, with the
8 recognition that they could go either way, could -- if
9 -- if you pick any -- either of these methodologies,
10 you could be making somebody worse off without even
11 knowing you're doing it.

12 MR. MICHAEL O'SHEASY: But your cost
13 of service treatment could do likewise ,whether --

14 MR. PAUL CHERNICK: That -- that's
15 what I meant. The cost of service treatment could --
16 could -- either of the cost of service treatment --

17 MR. MICHAEL O'SHEASY: Very good.

18 MR. PAUL CHERNICK: -- that could hurt
19 somebody inadvertently.

20 MR. MICHAEL O'SHEASY: Right. Thank
21 you. Now I'm going to ask you a few questions about
22 the classification of distribution accounts and
23 customer demand. Now, on -- on page 48, lines 5 and
24 9, you state the following.

25 "Distribution equipment should be

1 classified entirely as demand
2 related unless Manitoba Hydro can
3 identify specific portions of the
4 demand (sic) system that vary with
5 customer number rather than load."

6 Okay. Now, here's my question. And,
7 unfortunately, Mr. Chernick, it's -- it's a -- a long
8 question, so --

9 MR. PAUL CHERNICK: Okay.

10 MR. MICHAEL O'SHEASY: -- bear with
11 me. Now, isn't the idea of a minimum distribution
12 system not that distribution equipment necessarily
13 varies directly with the number of customers, but that
14 the equipment itself has a certain intrinsic cost
15 makeup for a portion of those total costs, which is
16 necessary simply for the customer to be hooked up and
17 available to receive service regardless of the load
18 amount?

19 Now, I apologize for that long
20 question, but --

21 MR. PAUL CHERNICK: I think I managed
22 to follow it.

23 MR. MICHAEL O'SHEASY: Okay.

24 MR. PAUL CHERNICK: Well, for the
25 customer to receive service, if the customer is small

1 enough and the -- the line extension is large enough,
2 then -- then Manitoba Hydro will not pay for that line
3 extension. So the system isn't built just because
4 there are potential customers. The system is built
5 because there's a load out there that justifies
6 building it.

7 And if you have a small enough
8 customer, you -- you give them some batteries and a PV
9 system, you give them a little diesel generator, or in
10 the case -- you serve a whole community off of diesel.
11 You don't run the distribution system just because
12 there's somebody there to be served at the end.

13 MR. MICHAEL O'SHEASY: Right. And I
14 may have constructed my question poorly. But I'm
15 talking about the distribution network, its secondary
16 line transformer and primary level, those pieces right
17 there. I'm just asking you -- and I know you don't
18 prefer the minimum distribution system.

19 But I'm just trying to ask you
20 conceptually, is the idea with the minimum
21 distribution system that within that -- those dollars
22 --

23 MR. PAUL CHERNICK: M-hm.

24 MR. MICHAEL O'SHEASY: -- like, for
25 example, secondary lines, one could conceive that a

1 portion of that cost is necessary just to enable a
2 customer to receive service, regardless of the amount.
3 And -- and let me give you an analogy here.

4 My wife and I are planning a vacation.
5 Had to put down a deposit for that. That deposit is
6 irrelevant of whether I actually go on vacation or
7 not. This enabled me to go down there.

8 Another one is a -- a retainer fee for
9 a consultant. That has nothing to do necessarily with
10 actually doing -- conducting the work, it -- it
11 retains your services so that they can call upon you
12 as a consultant when appropriate, and then you bill
13 them for that time, as would I, by the way.

14 And so I'm just asking conceptually,
15 could -- could one construe that a mamim -- minimum
16 distribution system concept is similar, it is -- it
17 has components to it that just identify the ability of
18 the customer to be hooked up to the utility?

19 MR. PAUL CHERNICK: Well, that doesn't
20 have anything to do with causality, so -- one (1), and
21 2) The minimum system wouldn't provide just the
22 ability to provide -- you know, provide something like
23 triple charge to the customer. It would provide them
24 with a -- a non-negligible amount of -- of capacity.
25 Even the smallest transformers that are used, the

1 minimum system analyses are in the range of 10 kVA, or
2 more.

3 So I -- I don't think the minimum
4 system really breaks things out that way, and -- and,
5 you know, I think your example of the retainer for a
6 consultant, and I don't believe I've ever had one, but
7 it would be more like a -- a capacity charge to -- to
8 reserve some capacity in the system so that you can
9 call on -- call on it when you want it.

10 So I -- I don't -- your -- your
11 analogies don't really strike me as being very
12 pertinent in the minimum system. It doesn't really
13 seem to me to do what you're saying it does. I mean,
14 that's sort of the claim for it, that some how it
15 identifies -- the -- the system is built out for the
16 customers, period. And we have to reach each
17 customer.

18 And in order to do that, we need
19 exactly the number of poles we have and we need
20 exactly the feet of wire that we have, but they could
21 be maybe thinner poles, because they don't have to
22 carry as much weight. Maybe they could be thinner
23 wires. They would be -- you know, you -- you need a -
24 - a transformer, and generally a minimum system uses
25 not the smallest possible transformer, not the kind of

1 transformers that -- that you'd -- you know, you'd use
2 on a -- you know, to -- to power a phone, but a -- the
3 transformer that's large enough to power a house.

4 And so you're talking about putting in
5 this -- you know, a -- a lot of equipment on the
6 fiction that you would do it to serve customers alone
7 without any real load, and -- and also generally on
8 the fiction that the number of feet of wire that you
9 install is determined only by the number of customers,
10 when that also isn't true.

11 MR. MICHAEL O'SHEASY: I -- I
12 understand your position. Let me just ask you a quick
13 follow up. Do you -- do -- do you agree -- are you
14 aware that a lot of utilities do use the minimum
15 distribution system, even though you don't --

16 MR. PAUL CHERNICK: Oh, yes.

17 MR. MICHAEL O'SHEASY: -- favour it?

18 MR. PAUL CHERNICK: Oh, yes. And --
19 and I think Hydro did a good job of putting that on
20 the record.

21 MR. MICHAEL O'SHEASY: Okay. Now, you
22 also said, I think in a discussion with Mr. Harper,
23 that you recommend that distribution lines and poles
24 be classified entirely as demand?

25 MR. PAUL CHERNICK: Yes.

1 MR. MICHAEL O'SHEASY: Okay. And we
2 also talked about a survey. I can't remember the
3 exact one, but it -- in my research I -- I want to ask
4 if you came across this survey, too. I came across a
5 survey by Elenchus, co-conducted by John Todd,
6 including many major utilities in Canada were in this,
7 and it -- it appeared to me that eight (8) of the
8 eleven (11) respondents split the classification of
9 distribution poles and wires in the customer demand.

10 Have you -- have you seen that survey?

11 MR. PAUL CHERNICK: It -- it doesn't
12 ring a bell, but I have seen a lot of -- of documents
13 from Mr. Todd, so it's certainly possible I've seen
14 it. And if -- if the question is: Is it likely the
15 majority of utilities in -- include some customer-
16 related portion in their allocation? I would say that
17 is probably correct as a -- it's factually correct.
18 It's not the right way to do it, but it's factually
19 correct.

20 MR. MICHAEL O'SHEASY: Okay. Thank
21 you. I want to follow up also on Mr. Harper's
22 completion of the Bonbright quote, and which he added
23 to -- to your quote, it said that Mr. Bonbright says:

24 "Its in -- its exclusive -- it's
25 exclusion from the demand related

1 costs stand on much firmer ground."

2 And then Mr. Harper, I think, went on
3 to say, and you agreed, that -- that Professor
4 Bonbright is really not clear, and to therefore what
5 he recommends to be done. In fact, he goes on to say
6 -- and if -- I'll ask you to accept this subject to
7 check. He goes on to say, "Neither of these
8 procedures" -- and by "procedures," he means whether
9 it's classified as customer or demand.

10 "Neither of these procedures can be
11 justified as a cost allocation in
12 the sense of directly assignable
13 costs, for they are, in fact, non-
14 assignable."

15 All right. Now, I presume -- what --
16 my interpretation of what he means is it's really not
17 clearly distinguishable as to whether these costs
18 should be classified as customer related or demand
19 related. That's my interpretation.

20 And the -- the add-on that Mr. Harper
21 was adding there was:

22 "Its exclusion from the demand-
23 related costs stand on much firmer
24 ground."

25 So could I tell Professor Bonbright, if

1 he were still alive, If you've got to do one or the
2 other, if you've got to classify these costs as either
3 customer demand, your point that its exclusion from
4 the demand-related costs stand on much firmer ground,
5 wouldn't that infer that, Professor Bonbright, you
6 should do it in the customer component?

7 MR. PAUL CHERNICK: No. I -- you're
8 the one who said that it has to be demand or customer.
9 Another interpretation would be: Why did you build
10 this line? You built it because of the revenues. You
11 built it to serve the -- the loads to provide energy.
12 And you would have built this line that -- whether you
13 had fifty (50) large customers or five thousand
14 (5,000) small customers based on the revenues that you
15 would get.

16 So why would you think that it had to
17 be either demand or -- or customer related? Perhaps
18 it's mostly energy related. So it's -- it's not a --
19 there -- you don't have a binary choice.

20 And the other thing is, since both of
21 you have quoted that -- that somewhat mysterious
22 clause about "Exclusion from the demand-related
23 costs stands on much firmer ground."

24 His next sentence says:

25 "For this exclusion of minimum-size

1 distribution system costs
2 rejecting the customer component]
3 makes more plausible the assumption
4 that the remaining cost of the
5 secondary distribution system is a
6 cost that varies continuously with
7 the maximum demand imposed on the
8 system as measured by peak load."

9 So on the one (1) hand, he seems to be
10 saying that there's a good reason not to -- to treat
11 it as demand-related. That's what that clause says.
12 But then the next sentence says throwing out the
13 customer-related portion means that -- that it's more
14 reasonable to treat it as -- as demand related.

15 And the -- the reference is to
16 continuously, and perhaps even -- even more or less
17 directly. I'm not quite sure how that's relevant,
18 because obviously, in utility practice, almost
19 everything is discontinuous, and almost nothing varies
20 directly with -- with any driver, you know, that --
21 that there are economies of scale, and of density and
22 of all kinds of things.

23 MR. MICHAEL O'SHEASY: Well, maybe
24 we've fleshed out Professor Bonbright enough. Let me
25 move on to another subject.

1 MR. PAUL CHERNICK: Okay.

2 MR. MICHAEL O'SHEASY: You state or
3 recommend that poles -- all poles should be considered
4 at the primary subfunction.

5 MR. PAUL CHERNICK: Yes.

6 MR. MICHAEL O'SHEASY: Do you know of
7 any utilities that do that, that -- in other words,
8 they don't place any poles as secondary?

9

10 (BRIEF PAUSE)

11

12 MR. PAUL CHERNICK: I'm just thinking
13 about whether I -- I know of any -- whether I've -- I
14 can pin down how poles are treated specifically. And
15 I think the answer is that I really haven't looked at
16 that level of detail.

17 MR. MICHAEL O'SHEASY: Okay. We -- we
18 can move on.

19 MR. PAUL CHERNICK: Yeah.

20 MR. MICHAEL O'SHEASY: Let's see, you
21 also suggested that the allocator for distribution
22 substations and theatres should be a CP type allocator
23 as opposed to an NCP?

24 MR. PAUL CHERNICK: Yes.

25 MR. MICHAEL O'SHEASY: And I just

1 wanted to ask you, to your knowledge, does -- does
2 NERUC accept the NCP that Manitoba Hydro uses, and if
3 so, can you comment that that's not uncommon for
4 utilities to use an --

5 MR. PAUL CHERNICK: Oh, definitely
6 it's -- it's quite common, and it's basically as -- as
7 I understand it, the result of throwing up one's hands
8 from back when data was expensive and saying, Well, we
9 don't -- we just don't know what causes all of these
10 substations to -- and special theatres to be built.

11 And it's not just one (1) peak. It's
12 many peaks. It could be an afternoon peak for the
13 large commercial, and an evening peak for residential.
14 And we know that the various pieces of our system peak
15 at different times, and we don't have a way of really
16 dealing with that in a consistent fashion, so we'll
17 use NCP to kind of spread it around.

18 That's my impression. And it's -- it's
19 a very old technique. And at this point, I -- the
20 NERUC manual is also showing its age, although it's
21 younger than we are.

22 MR. MICHAEL O'SHEASY: Speak for
23 yourself. Since the -- there's an industry acceptance
24 of --

25 MR. PAUL CHERNICK: It -- it does say

1 a date from 1990 here, so. So --

2 MR. MICHAEL O'SHEASY: Actually, 1992.

3 MR. PAUL CHERNICK: Two (2), right.

4 Yeah.

5 MR. MICHAEL O'SHEASY: Yeah, I'd be
6 glad to help them update it if they needed it. Since
7 the -- there's the industry acceptance of Manitoba
8 Hydro's NCP class allocator, and since Manitoba Hydro
9 has stated that it will update the NCP allocator where
10 it's, "Cost effective and resources permit," and I'm
11 quoting that, would -- would you consider this to be a
12 reasonable approach or way to answer the question of
13 the selection of an allocator for substations and
14 theatres?

15 MR. PAUL CHERNICK: No.

16 MR. MICHAEL O'SHEASY: Okay. I've got
17 a couple questions here about your -- your handout.

18

19 (BRIEF PAUSE)

20

21 MR. MICHAEL O'SHEASY: On -- on your
22 page 3 of your presentation, what threw me was the
23 word "revenue allocation." And can I understand that
24 to maybe mean you -- you don't -- you don't have to
25 have 100 percent RCC for every rate?

1 MR. PAUL CHERNICK: That's correct.
2 That -- that's a decision that the Board makes as to
3 how the revenue requirement will be allocated among
4 the classes.

5 MR. MICHAEL O'SHEASY: All right.

6 MR. PAUL CHERNICK: Between the -- the
7 consultants in this room, we could probably come up
8 with six (6) or eight (8) ways that different
9 utilities refer to that step.

10 MR. MICHAEL O'SHEASY: M-hm. Okay.
11 Let me see here.

12

13 (BRIEF PAUSE)

14

15 MR. MICHAEL O'SHEASY: Let's see, on
16 page 7, you -- you say -- and this has to do with the
17 customer demand split:

18 "Manitoba Hydro has no basis for its
19 estimates of customer-related cost."

20 Do you have any idea -- if it -- if it
21 has no basis, if it did want to investigate and
22 provide a basis, do you have any idea how much
23 materiality there would be there? In other words,
24 what I mean by material, how much it would move the
25 needle, move costs around and what the cost of

1 obtaining that materiality might be?

2 MR. PAUL CHERNICK: I -- I haven't
3 done the -- the calculation of the -- the change in
4 the RCCs --

5 MR. MICHAEL O'SHEASY: M-hm.

6 MR. PAUL CHERNICK: -- if you change
7 the -- the customer classification for distribution.
8 And as for the... Well, then, I guess the cost
9 depends on -- on how you were to do it.

10 I would -- I would think that we'd be
11 talking maybe in the tens of thousands of dollars.

12 MR. MICHAEL O'SHEASY: Okay. I -- I
13 just wanted a general idea. Thank you.

14 That's all the questions I have. I'm
15 going to turn it over to Kelly now.

16 THE FACILITATOR: Which would you
17 prefer, that we take a break first or that you finish
18 up your questions, and then take a break before day
19 mark?

20 MR. PAUL CHERNICK: The witness would
21 like a break.

22 THE FACILITATOR: Why don't we -- why
23 don't we take a break now for fifteen (15) minutes?

24

25 --- Upon recessing at 3:05 p.m.

1 --- Upon resuming at 3:27 p.m.

2

3 THE FACILITATOR: All right, everyone,
4 I think we're ready to get going again. If Patrick's
5 ready, then the rest of us could be ready. Kelly,
6 over to you.

7

8 CONTINUED CROSS-EXAMINATION BY MS. KELLY DERKSEN:

9 MS. KELLY DERKSEN: I only have one
10 (1) brief question more for Mr. Chernick, please, I
11 think. Mr. Chernick, I no -- noted that your evidence
12 does not provide any advice or guidance or your
13 perspectives with respect to the handling of exports,
14 which has -- has been a material highly contentious
15 issue, as you know.

16 Does that mean that you concur with
17 Manitoba Hydro's evidence or can you -- can you
18 provide the rationale --

19 MR. PAUL CHERNICK: Right.

20 MS. KELLY DERKSEN: -- for that,
21 please?

22 MR. PAUL CHERNICK: Okay. I mean,
23 other than the fact that there were a lot of issues to
24 cover and I didn't get to everything. The -- the
25 treatment of the exports strikes me as -- as being a

1 little -- once (1) step removed from what we're
2 basically doing here, which is dividing costs among
3 the -- the retail classes, and it can have important
4 effects depending on how you do it.

5 I didn't see anything that was
6 objectionable about the way that Hydro is approaching
7 it. I think that the Board should keep an open mind
8 about how it wants to deal with allocations to exports
9 and the allocation of net energy revenues, net export
10 revenues in the GRA, especially in GRAs in which costs
11 change dramatically, as they will when Keeyask comes
12 on, and to look at how the -- how that piece of the --
13 the cost of service study is redistributing costs
14 among classes and whether it's causing any obvious
15 problems.

16 But I don't -- I don't know that
17 there's the same kind of fundamental issue of
18 causality and fairness with respect to the export
19 class because Manitoba Hydro's operations exist for
20 the retail customers. And anything that was built or
21 committed in part because of the export class was
22 still being undertaken to get those next export
23 revenues to flow back to the -- to the retail
24 customers.

25 So I -- I haven't looked in as much

1 detail at the export treatment as obviously some other
2 parties have. And my analysis of it didn't -- I
3 didn't find anything that was clearly implausible.

4 So I -- I don't have any objectives at
5 this point to the way Hydro has handled things, but
6 other people have suggested changes that also seem
7 fairly plausible, but it's really a matter of what
8 does it do in terms of the flowing through to the
9 retail classes.

10 MS. KELLY DERKSEN: Thank you. That
11 was it.

12 THE FACILITATOR: Thank you. Just
13 before we move over to John, I understand that Bill's
14 chastised me for -- I cut him off and he's got one
15 more question. So, Bill, if you can shout your one
16 out. And then we'll move on to Daymark.

17

18 CONTINUED CROSS-EXAMINATION BY MR. WILLIAM HARPER:

19 MR. WILLIAM HARPER: Sure, thank you.
20 And -- and it was at the very end because it was more
21 of a conceptual question and I just wanted to get your
22 take on it.

23 Because you talked in your evidence
24 about how sub-transmission was complementary with
25 transmission and, therefore -- you've talked in your

1 evidence to a large extent about primary and secondary
2 in terms, at least, on the poles, they're
3 complimentary. And I was curious to get your take
4 about when it comes to say sub-transmission versus pri
5 -- versus pri -- primary, which is the only piece of
6 the chain that you really hadn't talked about is
7 whether primary is just a cheaper way of getting power
8 -- get -- you know, a cheaper way of getting power
9 down the streets than subtransmission, and therefore
10 it's really a comp -- complementary or whether --
11 whether in your view it's sort of an -- an -- you
12 know, in -- in your paradigm, the way you break things
13 up, is it incremental?

14 That -- but that was my only question.
15 I just wanted to get your take because it was the one
16 (1) piece you hadn't covered.

17 MR. PAUL CHERNICK: I -- I don't think
18 about subtransmission and primary as being
19 complementary in the same way as subtransmission and
20 the higher voltage transmission are, for -- for
21 example. And that's partly because I've seen
22 situations where you have a subtransmission line
23 that's running from one (1) substation to another
24 where it's then going to be stepped down. And you
25 then have the primary line running back along the same

1 pole sometimes to serve transformers and customers
2 along the same route.

3 So customers who are willing to
4 undertake the -- the effort to be served at
5 subtransmission are -- it seems to me are really
6 saving Manitoba Hydro something in a way that -- you
7 know, that same customer, if they happen to be next to
8 a transmission line they take the -- the power at 100
9 kV. If they're next to a subtransmission line, they
10 take it at 30 kV. They might be able to be served
11 through a primary line, or you extend the
12 subtransmission to them because they just need so much
13 power.

14 And you would never be -- you're --
15 you're saving that -- that extra step of transforming
16 it down, and then running the line sometimes literally
17 along the same route.

18 MR. WILLIAM HARPER: Thank you. I
19 just wanted to complete -- complete the picture. So
20 thank you very much.

21 MR. PAUL CHERNICK: That -- you're
22 very thorough.

23 THE FACILITATOR: All right. John,
24 we're over to you.

25

1 CROSS-EXAMINATION BY MR. JOHN ATHAS:

2 MR. JOHN ATHAS: Great, thank you.

3 But taking up on that -- that last point, is -- do you
4 know of -- in jurisdictions that have -- that have
5 adopted the -- the complimentary incremental kind of
6 thought process that you report?

7 MR. PAUL CHERNICK: I -- you know, I
8 don't know of anybody who's really addressed it in a
9 formal way. The equivalent arises -- well, for
10 example in Nova Scotia. The discussion there was
11 whether the subtransmission was a separate function,
12 or whether it was part of an integrated system. And
13 the discussion back and forth among the -- the parties
14 used a lot of the same arguments that I -- I use here,
15 but we -- the terminology was, Is it integral or is it
16 separate. And -- and I just got a little bit more
17 specific.

18 It's -- obviously physically it's a
19 separate kind of -- of equipment but just trying to
20 focus on the -- the cause of that --

21 MR. JOHN ATHAS: Okay.

22 MR. PAUL CHERNICK: -- that cost item,
23 and how it functions.

24 MR. JOHN ATHAS: Would -- from what
25 you know, do you think that -- that in other

1 jurisdictions there's more -- more direct assignment
2 then -- or separate classification like you -- because
3 they are not addressing it head on?

4 MR. PAUL CHERNICK: I would suspect
5 that that's the case but I -- I haven't -- I haven't
6 really tried to -- to look at how that works for --
7 for juris -- various jurisdictions. I think it may
8 have been actually my involved in the -- the Nova
9 Scotia process that -- that really helped this gel for
10 me as to how subtransmission interacts with
11 transmission.

12 MR. JOHN ATHAS: Okay. And -- but
13 here you're thinking that without -- without kind of
14 directly putting that into the thought process, that
15 it'd probably be an over allocation for direct
16 assignment?

17 MR. PAUL CHERNICK: Well, it's not a
18 direct assignment. It's the -- the --

19 MR. JOHN ATHAS: Class --
20 classification --

21 MR. PAUL CHERNICK: -- allocation to
22 the -- to the high voltage industrial customers is
23 understated and everybody else's is overstated,
24 because the -- the subtransmission is split out.

25 MR. JOHN ATHAS: Okay. Sorry, yeah,

1 assignment to those -- to classes and non-assignment
2 to others is what you -- is that -- is that relatively
3 a function of the -- of a uniqueness about the
4 Manitoba Hydro distribution system?

5 MR. PAUL CHERNICK: I don't think so.
6 I -- I think that it's probably pretty common to have
7 subtransmission, which really is just an extension of
8 the transmission system. I -- I believe that many
9 jurisdictions don't make a distinction between
10 transmission and subtransmission and I'm sure that
11 many do.

12 But I -- I would guess that most -- in
13 most cases it functions the same way and that you
14 wouldn't have a customer who could be served off of
15 the transmission system instead ins -- insisting that
16 they need to have a subtransmission line --

17 MR. JOHN ATHAS: Okay.

18 MR. PAUL CHERNICK: -- run to the same
19 location.

20 MR. JOHN ATHAS: Okay. And just to --
21 to -- just to make sure I understood your questions on
22 the -- the very end to -- on the export class, you
23 have -- you're okay with two (2) export classes being
24 used by Manitoba Hydro?

25 MR. PAUL CHERNICK: Yes, and -- and

1 that's actually one (1) -- one (1) point in which I --
2 I do have a fairly strong opinion that -- that if
3 you're going to have an export class then you really
4 have to -- to distinguish between firm and -- and
5 opportunity exports.

6 And you don't necessarily call tho --
7 call it a separate class, but then you'd have to do
8 something to determine how much was going to be
9 allocated based on the firm load. You know, some --
10 some utilities will break out the firm and non-firm
11 industrial loads, firm and interruptible and count
12 those as two (2) classes in the cost of service.

13 Some will just use only a portion of
14 the total load because some of it is -- is
15 interruptible and call it a single class. You could
16 probably do it either way. But certainly the simplest
17 thing to do is just to say, Look, these are our firm
18 sales and these are our interruptible sales.

19 MR. JOHN ATHAS: Have you done any
20 cost of service work in places that have a -- an
21 export class?

22 MR. PAUL CHERNICK: Not an export
23 class, but -- but certainly a -- a wholesale class of
24 -- in -- in the States it would be a jurisdictional
25 class. That's pretty common.

1 MR. JOHN ATHAS: And is that -- in
2 that -- for a jurisdictional class is that a -- is
3 that like a -- a -- having a smaller utility as a
4 customer with a full -- that they take -- the larger
5 utilities taking on full requirement service
6 obligations for -- over a period of time?

7 MR. PAUL CHERNICK: It can be that.
8 It can be a -- a contract to provide a certain amount
9 of -- provide 100 megawatts of base load power for the
10 next six (6) years to another utility.

11 MR. JOHN ATHAS: On a cost of service
12 basis?

13 MR. PAUL CHERNICK: May or may not be
14 cost of service, but I think it usually is if it was a
15 contract that was based on -- on cost -- on cost of
16 service con -- concepts. And then sometimes, you
17 know, you build a plant and then rather than having
18 joint ownership a -- a smaller utility will say, you
19 know, Can we just sign up for a life of unit purchase
20 for a piece of your plant, and --

21 MR. JOHN ATHAS: Okay. So it's -- it
22 -- and -- and when -- absent the full requirements
23 kind of examples it's a -- it's a proxy for that --
24 for a cost of -- for a -- an ownership or entitlement
25 kind of thing?

1 MR. PAUL CHERNICK: Well, it can -- it
2 can be, or it can -- it can be -- I'm also trying to
3 remember what I've seen recently with the 21st century
4 transmission pricing as opposed to what I'm
5 remembering from the 1980s, but I've certainly seen
6 examples where contracts for various unit specific or
7 system power purchases were just treated as part of a
8 -- a wholesale class.

9 MR. JOHN ATHAS: And -- and you --
10 obviously, I mean, I know the answer to this, but just
11 to -- you've been involved in the NFAT proceedings
12 that we had for Keeyask, right?

13 MR. PAUL CHERNICK: That's right.

14 MR. JOHN ATHAS: And do you know of
15 any consideration there that was -- involved -- that
16 had to be included on issues of distribution costs in
17 that -- in that, you know, rather lengthy review of
18 the economic analysis?

19 MR. PAUL CHERNICK: No. We -- we
20 covered a lot of things in that proceeding, but I
21 don't believe that -- that the distribution system was
22 involved.

23 MR. JOHN ATHAS: Okay. And are you
24 familiar with the -- with the cost allocation and --
25 of DSM costs within Nova Scotia?

1 MR. PAUL CHERNICK: Yes. I think I
2 testified on it earlier.

3 MR. JOHN ATHAS: And with the --

4 MR. PAUL CHERNICK: So I hope I'm
5 familiar with it.

6 MR. JOHN ATHAS: -- with the -- I
7 believe that they do 75 percent direct assignment and
8 25 percent of the cost's assigned to -- because it's a
9 separate -- it was a separate clause, they got the --
10 the cost -- separate line item on the bill, that 25
11 percent was allocated between the classes based on --
12 for total benefits based --

13 MR. PAUL CHERNICK: It's either total
14 benefits or generation benefits or some -- something
15 along those lines. I -- I'm not sure what the 25
16 percent is allocated on, but it's mostly generation.

17 MR. JOHN ATHAS: So the -- so is that
18 kind of something where it kind of sounds like it's
19 gotten that there was no clear direction provided in
20 your kind of -- is that the kind of thing that could
21 arise out of not having a -- a clear answer out of
22 your two (2) -- your two (2) tests with the three (3)
23 cases process?

24 MR. PAUL CHERNICK: Yes. If you found
25 that -- that -- if you looked at -- at the allocation

1 to participating classes, if that winds up being a bad
2 deal for let's say GSS, which has a disproportionately
3 large program, at least in -- in -- let's suppose that
4 that's the case, and they're producing a lot of
5 benefits but they're paying more than -- more costs
6 than they're -- they're getting benefits back for, and
7 that in the -- the other allocation, the one where
8 it's distributed on benefits, the residential class is
9 worse off than it would be without a DSM, both of
10 those are -- are bad outcomes, unfair outcomes. And
11 so therefore picking a 50/50 or 75/25 might be
12 warranted.

13 I don't think Nova Scotia did that kind
14 of analysis. I think it was more a judgmental
15 reflection of the fact that we know that there are
16 benefits to the system, we know that there are
17 benefits to parti -- participating classes, so let's
18 divide things up in a way that seems like it's likely
19 to be fair.

20 MR. JOHN ATHAS: And are -- in most
21 areas where you've looked at DSM programs by a utility
22 or a third party, are they -- are they generally
23 proportionate to the -- the class usage or as they're
24 spread out, just the -- just the programs themselves?
25 Or do they tend to be overly concentrated within a

1 particular type of class?

2 MR. PAUL CHERNICK: There's -- there's
3 a range, and it depends in part on the regulatory
4 direction to the program administrator or the utility.
5 Sometimes there's a strong mandate to make the -- the
6 distribution quite fair or quite even within very --
7 very limited bounds. I think Vermont has that kind of
8 -- of requirement.

9 Other times, there certainly have been
10 in the past situations where you have a lot of money
11 being spent and a lot of savings occurring for
12 something like large commercial back when it was real
13 easy to change out inefficient fluorescent for
14 efficient fluorescent lighting. And utilities were
15 doing that hand over fist.

16 So -- and -- and the residential
17 programs were moving much more slowly and were in many
18 cases much harder to get -- get rolling. And in some
19 cases also, industrial has -- has had relatively
20 little savings because the -- their needs are often
21 quite specialized. And some utilities program
22 administrators do a good job of addre -- addressing
23 that and some don't.

24 MR. JOHN ATHAS: So --

25 MR. PAUL CHERNICK: So it can be ver -

1 - it can -- it can be really quite disparate.

2 MR. JOHN ATHAS: So in the -- in the
3 case where there's been direction provided to the
4 program administrator, whether utility or otherwise,
5 to even out the expenditures or make sure that there's
6 expenditures in some -- of some degree into all
7 classes, does that change your viewpoint on direct
8 assignment?

9 MR. PAUL CHERNICK: Well, it probably
10 means that -- that direct assignment or assignment on
11 the benefits would be -- would produce about the same
12 results, and so it's -- it may be primarily a matter
13 of -- of optics. Do you want to say, look, every
14 class is paying for its own DSM, which has
15 attractions? Or do you want to say this is a system
16 resource and we're all paying for it?

17 And, in some cases, you have something
18 like a system benefits charge where everybody's paying
19 in and it's being set in one (1) way, and to their --
20 the allocation evenly across the classes is more --
21 more or less forced on you. It'd be hard to -- to
22 work around it.

23 In other cases, there's no problem at
24 all with allocating separately to different classes.
25 So you see all kinds of combinations, in my

1 experience.

2 MR. JOHN ATHAS: But in -- but in
3 general, from the standpoint of you're -- you're
4 starting from scratch, putting pen to paper on how you
5 would allocate. And -- and, I mean, you're reviewing
6 and you see that it says explicitly to -- to try to
7 address programs across all customer classes.

8 Does that make you start with direct
9 assignment or does that -- or does that leave you
10 still where you were in -- in your test?

11 MR. PAUL CHERNICK: Well, it may make
12 you feel like it's not going to make a lot of
13 difference. And then you just wind up with how do we
14 want to phrase this. It's going to have about the
15 same effects on the ra -- rate classes regardless of
16 whe -- whether we do it as direct assignment or we do
17 in proportion to benefits, and so what's easier for --
18 for us administratively, what easier in terms of cost
19 collection.

20 Is there going to be an annual true-up
21 and reconciliation in the DSM fund and does it work a
22 lot better to -- to have a uniform rate or a uniform
23 percentage or to do it class by class. So you wind up
24 in the practical issues where you really don't think
25 it's going to matter a whole lot in terms of the

1 dollar impact.

2 Yeah, I'm trying to answer your
3 question. The --

4 MR. JOHN ATHAS: No, no, you are --
5 you are -- you are answering my question. My -- my
6 only thing -- I just wanted to ask the followup, the
7 last question. And this is that: Do you have a way
8 of being able to articulate what -- at what point it
9 matters?

10 MR. PAUL CHERNICK: Well, I would it
11 matters when customers feel like it matters. When --
12 if --

13 MR. JOHN ATHAS: -- feel like in the
14 extent that they'll individually get involved in a
15 cost of service proceeding like this? Because I think
16 then it -- then it never matters. But the -- okay,
17 that's -- that's fine.

18 MR. PAUL CHERNICK: And the --

19 MR. JOHN ATHAS: If the -- if the
20 answer is you don't have a way of articulating that,
21 that's okay.

22 MR. PAUL CHERNICK: No. And I -- I
23 don't know that it's really numerical answer. And it
24 -- and it obviously depends upon how big your DSM
25 program is compared to other costs.

1 MR. JOHN ATHAS: M-hm.

2 MR. PAUL CHERNICK: If it's a small
3 part of your total revenue requirement, then maybe
4 it's not going to move the -- the cost allocation very
5 much proportionately anyway. But, I mean, to some
6 extent, it's a political issue.

7 MR. JOHN ATHAS: M-hm.

8 MR. PAUL CHERNICK: I mean, to -- you
9 don't want to be in a position where a legislator
10 comes to the commission and says, my -- you know, the
11 -- the Chamber of Commerce is telling me that -- that
12 their members are subsidizing this other group, is
13 that true, that they're paying for a lot of DSM that
14 somebody else is getting.

15 You want to be able to say, no, it's
16 working out pretty fairly and here's why, and send it
17 back to do its job.

18 MR. JOHN ATHAS: Okay. Last question
19 from -- from my area. You -- you -- a starting point.
20 You -- you're comfortable with the -- with generation
21 allocation on weighted energy?

22 MR. PAUL CHERNICK: Yes.

23 MR. JOHN ATHAS: And -- and one (1) of
24 the reasons I -- I heard you -- I thought I heard you
25 say that you're comfortable is that the -- that the

1 ability of the generation fleet to cover peak demand
2 is a byproduct.

3 MR. PAUL CHERNICK: Right. In -- in
4 Manitoba.

5 MR. JOHN ATHAS: In Manitoba.

6 MR. PAUL CHERNICK: Right.

7 MR. JOHN ATHAS: Does -- does that
8 change based on the generation mix that evolves over
9 time?

10 MR. PAUL CHERNICK: It could change
11 some day.

12 MR. JOHN ATHAS: Okay. Does it --
13 does it matter to you as to how close a capacity need
14 would be to a dependable energy need from the
15 standpoint of, if I put together two (2) different
16 surplus shortfall kind of graphs from -- for Mani --
17 for Manitoba, one (1) when -- when do they need
18 dependable energy, and one (1) when do they need
19 capacity? If it...

20 MR. PAUL CHERNICK: Yes, it -- it
21 would. And if -- if the uncertainties in the load
22 forecast are greater than the -- the difference in the
23 timing of the capacity need and the -- and the energy
24 need for, say, the next major addition after Keeyask,
25 then you might have an argument that, well, they're --

1 they're both figuring into our decision to go ahead
2 with Conawapa, or whatever it is we do.

3 So you -- you -- the conclusion that
4 I've reached based on the information available to me
5 now might change in the future based on information
6 available then.

7 MR. JOHN ATHAS: So if -- if the -- if
8 Keeyask is -- if Keeyask capacity was needed five (5)
9 years after its dependable energy was needed, does --
10 does that make -- the cover -- its generation's
11 ability to cover peak demand important in the cost of
12 service process, or still irrelevant?

13 MR. PAUL CHERNICK: I -- I would say
14 that you're -- you're building Keeyask, and it's my
15 understanding you've -- that you've built your system
16 over the last several decades to provide enough
17 energy, and demand has just come along with it, and
18 five (5) years seems like a -- more than -- than the
19 margin of error.

20 MR. JOHN ATHAS: Okay.

21 MR. PAUL CHERNICK: So it's not like,
22 oh, we're just barely -- you know, we -- we need
23 energy in -- in 2020, but we wouldn't need capacity
24 until the winter of 2020/'21. You know, that -- that
25 strikes me as being essentially the same timing, and

1 then you might say, all right, capacity is -- is
2 affecting this decision.

3 MR. JOHN ATHAS: I'm all set for
4 questions.

5

6 CROSS-EXAMINATION BY MR. BRADY RYALL:

7 MR. BRADY RYALL: Good afternoon. I
8 think you've probably anticipated what -- the question
9 that I'm going to ask, because you put it in your --
10 page 3 of your presentation this morning.

11 And that's -- we don't need to put it
12 up, but it's, "The PCOSS does not drive rate design,"
13 is -- is --

14 MR. PAUL CHERNICK: Well, I actually
15 put that in my testimony.

16 MR. BRADY RYALL: Okay.

17 MR. PAUL CHERNICK: So I -- it wasn't
18 that I knew you were going to ask me the question.

19 MR. BRADY RYALL: I'm going to ask --

20 MR. PAUL CHERNICK: It's that these
21 principles are all laid out in introduction to my
22 testimony, but --

23 MR. BRADY RYALL: It's just --

24 MR. PAUL CHERNICK: -- yes, you do
25 seem to be a creature of habit about that.

1 MR. BRADY RYALL: Yes. True. Diet
2 Coke habit.

3 When you said, "Does not drive the rate
4 design," is it -- would the -- would the PCOSS
5 results, though, would they -- when you say "Don't
6 drive it," does that mean that they're not a factor to
7 be considered in the rate design?

8 MR. PAUL CHERNICK: In general, no.
9 It's -- the costs that you allocate to, say, the
10 residential class that you say are customer related,
11 they aren't necessarily really the costs of your --
12 that -- that the -- every customer incrementally imp -
13 - imposes. For example, with the case of a service
14 drop, your smallest customers are probably in multi-
15 family buildings, you know, apartments, condos, and
16 you don't need an extra service drop for them.

17 Whether you have fifty (50) or seventy
18 (70) customers in a particular building does not
19 increase the service drop cost. So even though you've
20 allocated a cost based on customer number to the class
21 does not mean that that cost necessarily should show
22 up in a customer charge or a fixed monthly charge.

23 In some cases, we used the same word.
24 We call it a customer cost and a customer charge, but
25 a -- a customer cost at the class level does not

1 necessarily mean it's a customer cost appropriate to
2 charge even the smallest of customers.

3 And on the demand side, there are a
4 bunch of costs that are being allocated on various
5 kinds of CP -- of and NCP costs, and then on the
6 customer demand charge, that's not either a CP charge
7 or a class non-coincident peak charge. It's based on
8 the customer's peak, whenever that occurs.

9 And that's not a good measure of
10 customer's contribution to -- to either the
11 transmission costs, or to distribution costs, because
12 they may be peaking at nine o'clock at night, or the -
13 - or noon, or on Saturday, and all the other equipment
14 may be peaking a two o'clock in the afternoon on a
15 Wednesday.

16 So in general, rate design should not
17 be following the -- the Cost of Service Study.

18 MR. BRADY RYALL: Okay. Thank you.

19 BOARD MEMBER GOSSELIN: Mr. -- Mr.
20 Chernick, as I understand it, you didn't attempt to
21 determine the outcome of your recommendations on the
22 RCC of each individual class?

23 MR. PAUL CHERNICK: I didn't. And --
24 and in part, that was because I see this as being a --
25 this particular proceeding as -- as being a policy

1 proceeding, a -- a methodology proceeding. The PCOSS
2 that we're working with, PCOSS14, will never affect
3 anybody's rates, anybody -- any -- the cost allocation
4 to any classes, because there'll be a new one in the
5 GRA, or maybe two (2), one (1) for 2017, one (1) for
6 2018.

7 And I just didn't see the point of
8 doing the calculations, and presenting them, and
9 focussing on that for the kinds of issues I was
10 raising.

11 THE FACILITATOR: Are there any other
12 questions from the panel? All right. Thank you very
13 much, Paul.

14 MR. PAUL CHERNICK: Thank you.

15 THE FACILITATOR: And -- and group.

16

17 (PANEL STANDS DOWN)

18

19 THE FACILITATOR: I can almost hear
20 the -- the ground swell starting up of, We want Bill.
21 We want Bill. But why don't we take just five (5)
22 minutes for him to get up there.

23

24 --- Upon recessing at 4:00 p.m.

25 --- Upon resuming at 4:11 p.m.

1 THE FACILITATOR: All right, everyone.
2 It looks like we're ready to go. I would propose the
3 -- the following, that we have questions to come from
4 Patrick, and from Kelly, and from John. Why don't we
5 allot twenty (20) minutes at this point to each, and
6 see how that goes.

7 And so starting with Patrick, who asked
8 first, followed by Kelly, and then finally over to
9 John for his questions. Over to you, then, Patrick.

10

11 GAC PANEL RESUMED:

12 WILLIAM HARPER, Resumed

13

14 CONTINUED CROSS-EXAMINATION BY MR. PATRICK BOWMAN:

15 MR. PATRICK BOWMAN: Thank you. Time
16 is tight, so I'll try to talk fast this time.

17

18 (BRIEF PAUSE)

19

20 MR. PATRICK BOWMAN: The -- the
21 question -- the only area I wanted to talk about a bit
22 is in regards to capacity and peak demand. And these
23 concepts have come up a number of times, and they're
24 in regard to the generation classification and
25 allocation and the -- the marginal cost weighting, if

1 you like.

2 And I understand part of your evidence
3 is that if you look at the marginal cost weightings,
4 what Hydro produces is twelve (12) values that are
5 used to value twelve (12) different energy periods.
6 And you've -- you've cited those twelve (12) values
7 and looked at them over time.

8 Is that --

9 MR. WILLIAM HARPER: Yes. You know,
10 they're -- they're twelve (12) relative values. So
11 the summer peak is one (1).

12 MR. PATRICK BOWMAN: It's always one
13 (1).

14 MR. WILLIAM HARPER: Like they aren't
15 prices. They're -- they're relative values, that's
16 right.

17 MR. PATRICK BOWMAN: Right. And --
18 and you've looked at how -- how big a gap they are,
19 how -- how premium the on-peak is versus the off-peak.
20 But again, they're -- because they're always relative
21 values, that relative value could mean the on-peak got
22 more expensive, or it could mean the summer off-peak
23 prices dropped significantly, right?

24 MR. WILLIAM HARPER: Right, because --
25 that's right, because they're all just relativities of

1 each other.

2 MR. PATRICK BOWMAN: And have you
3 looked at whether the summer off-peak prices have
4 dropped significantly more than the on-peak or -- or
5 the -- because you say that the -- the spikes have
6 gotten higher, the peaks have gotten higher, but -- on
7 a relative basis.

8 But did you look at why?

9 MR. WILLIAM HARPER: I did not look at
10 why to -- to any specific extent. I think, if -- if I
11 understand what's gone on in the market and natural
12 gas prices have gone down, which means the on-peak
13 prices have gone down.

14 If -- if the gap has increased, you
15 know, that must mean to some extent that off-peak
16 prices went down --

17 MR. PATRICK BOWMAN: Even more.

18 MR. WILLIAM HARPER: -- even more,
19 which -- which probably means they responded fully to
20 the nat -- you know, and there's something that's
21 holding the peak prices up besides the drop in natural
22 gas prices, which could well be this capacity premium
23 we're -- we're talking about.

24 MR. PATRICK BOWMAN: Right.

25 MR. WILLIAM HARPER: I -- I don't

1 know.

2 MR. PATRICK BOWMAN: Right. And --
3 and we've heard some talk about things like wind
4 saturation in -- in the northern US which drives into
5 some negative prices and a lot of hours and things.
6 And that would affect low-load hours like off-peak.

7 MR. WILLIAM HARPER: Yes, it would, I
8 guess, to -- to the extent that, I don't know,
9 depending upon where, you know, there's congestion on
10 different interply - interties to exactly how -- how
11 much that ties into the price that works with -- that
12 affects the market that Manitoba Hydro works within,
13 which is only a portion of the overall MISO service
14 area.

15 MR. PATRICK BOWMAN: Okay. And -- and
16 comparing this marginal cost-weighted energy to a -- a
17 non-weighted energy, a non-weighted energy would be
18 like all those periods are one.

19 MR. WILLIAM HARPER: Right. You know
20 -- right. That's exactly it. You'd be giving a
21 similar weighting to energy in every -- in every
22 period.

23 MR. PATRICK BOWMAN: And -- and if I
24 understand the evidence, and it may not be yours, but
25 certainly it's been some others -- that by putting

1 that weighting on, we have taken something from the
2 cost of a pure energy product to something that has an
3 additional consideration that's not just pure energy.

4 Is that fair?

5 MR. WILLIAM HARPER: And I think it's
6 -- it's fair, but it's because -- because the SEP
7 prices -- because there is an understanding or a
8 belief that the -- and I -- and then that was sort of
9 something that was confirmed when we went through it
10 in 2005.

11 There's a belief that the SEP prices
12 reflect more than just energy. They reflect capacity
13 premiums. You can well find a variation in the
14 periods if you're -- if you could come up with prices
15 that were strictly energy, like they were nothing but
16 energy.

17 And they were just like, What's the
18 relative cost of producing energy in each of those
19 twelve (12) periods in the MISO area? I -- I don't
20 think the numbers would be one across the board
21 exactly for the same -- exactly for the reasons you
22 raised in terms of maybe there's -- maybe there's zero
23 in some of the off-peak hours.

24 But I -- but the view is that the
25 prices -- the -- these prices we're using reflect more

1 than just energy considerations. They -- they reflect
2 capacity -- capacity considerations in the peak period
3 as well.

4 MR. PATRICK BOWMAN: And so that's
5 where I want to go to now. There's -- there's sort of
6 a -- a language that's being used or an implication
7 that there's really only two (2) things. There's
8 something called energy and there's something called
9 capacity, and it's really -- and anything that is in
10 between is just a mix of those two (2) things. It's
11 not capturing any -- any third concept, that -- that
12 peak, you know, consumption.

13 And is that an oversimplification?

14 MR. WILLIAM HARPER: Well, I think
15 there's really three (3) things going on here --

16 MR. PATRICK BOWMAN: Okay.

17 MR. WILLIAM HARPER: -- to tell you
18 the honest truth. And I think that's why, if we step
19 back a minute, that's why this particular -- that's
20 why I have some support for this particular method
21 because if we think of -- if we think of -- again,
22 fundamentally, at the end of the day, what we're
23 trying to do, we're trying to generate allocation
24 costs.

25 And we've got a pot of dollars we call

1 generation, and part of the problem with allocating
2 that is there's a view that there's a -- that
3 generation provides both -- those generation costs
4 provide both capacity and they provide energy to
5 customers.

6 And -- and they provide the capacity
7 that customers require over the eight thousand seven
8 hundred and sixty (8,760) of the year, and they
9 provide the energy that they provide over the year.

10 And -- and the one way, the more
11 traditional way you could think of is like the peak --
12 the -- the peak equivalent method. We're going to
13 say, Well, let's start off, break the costs down
14 between capacity and energy using some meth --
15 methodology, and then figure out how we're going to
16 allocate those capacity costs over the eight thou --
17 to customer's usage over the eight thousand seven
18 hundred and sixty (8,760) hours of the year based on
19 their load profiles and go on the other side of the
20 equation and say how are we going to allocate those
21 energy costs over the eight thousand seven hundred and
22 sixty (8,760) hours of the year.

23 And you wouldn't use a one-one-one
24 (111) weighting for every hour of the year in either
25 case sort of thing. By the end of the day, in both

1 sides, you're trying to allocate cost to customers
2 based on sort of usage over -- over eight thousand
3 seven hundred and sixty (8,760) hours or over a number
4 of periods if you -- you want to simplify it.

5 If you -- if you can come up with a
6 value that -- sort of for each hour encap -
7 encapsulates both the price -- both the energy price
8 and the capacity price, you don't have to go through
9 that three (3) step process. You can say, okay, I've
10 got energy use in each period by customers and I have
11 a value for each hour or period that encapsulates both
12 capacity and energy together, and I can allocate that.

13 And I guess that's where in my
14 presentation I was talking this as being a more
15 holistic method than having to go through those three
16 (3) steps and ma -- make assumptions and judge --
17 judgments in all three (3). There's judgments
18 involved here, but it looks, in my mind, on a more
19 holistic basis, so there's three (3).

20 There's capacity, there's energy, and
21 there's the combination of the two (2).

22 MR. PATRICK BOWMAN: So is your -- I
23 think when you say the combination of the two (2),
24 it's not energy with -- with -- energy with some peak
25 consideration. Like, I -- I think it's -- it's

1 capacity versus peak. Are -- are we using those terms
2 interchangeably?

3 MR. WILLIAM HARPER: Well, let --
4 let's look at it this way. You could think of a --
5 you know, and maybe this -- this was in the MISO area,
6 where you're using coal in the off-peak periods to
7 generate electricity, and you're also using natural
8 gas in the peak periods but not in the off-peak
9 periods.

10 You're going to find a difference in
11 the price -- in the -- in the price -- in the cost of
12 just producing energy in those two (2) periods because
13 typically coal is cheaper on a kilowatt hour basis
14 that gas, you know, the coal, which is changing,
15 but...

16 So that you were there even on an
17 energy basis, I think, agreeing with the point you're
18 making, there would be a difference even strictly on
19 an energy basis in terms of the -- the cost of energy
20 per hour even before you start taking into account
21 considerations of capacity.

22 MR. PATRICK BOWMAN: Right. So if I -
23 - if I -- if a utility was marketing a product or had
24 a new customer class or a client come to it and say I
25 want to buy a thousand megawatt hours, I'm going to

1 use it for whatever, pumping out my pond, I don't care
2 when in the year I do it and deliver me a thousand --
3 a thousand megawatt hours any time -- any time you got
4 surplus and -- and, you know, charge me the -- the --
5 a rate reasonable for that, we would probably look at
6 it and say that's all about energy.

7 There's no peak associated with that,
8 no capacity. They can just do -- deliver those
9 kilowatt during the lowest cost hours, the lowest load
10 hours. That -- that would probably -- that would
11 probably -- that would be a fairly classic type of
12 energy product.

13 MR. WILLIAM HARPER: Yeah, that --
14 that would be. I guess -- I guess I'm struggling
15 with, you know, for -- for a utility to -- to agree to
16 accept those energy on that sort of case, it -- it
17 would have to be a fairly small amount of energy
18 relative to their operations. Otherwise, it seems to
19 me, you -- you know, because they're having to take
20 this into their system of regardless of -- regardless
21 of when.

22 And --

23 MR. PATRICK BOWMAN: Sure.

24 MR. WILLIAM HARPER: -- you know, so
25 for me -- maybe -- maybe the equivalent of that is

1 what you talked -- talked about in your presentation,
2 would be small amounts of contracts for -- for wind
3 when you don't know when it's coming.

4 But even in that case, probably after a
5 few years you're probably developing a good idea of
6 when they're going to start asking for or when it's
7 going to start coming so it's maybe not totally sort
8 of random, if you can put it that.

9 MR. PATRICK BOWMAN: No, but I'm --
10 I'm talking about an example where the customer is
11 indifferent to when you deliver. The utility can
12 decide when to deliver.

13 MR. WILLIAM HARPER: Okay.

14 MR. PATRICK BOWMAN: So the cu -- at
15 any peak hour the utility would cut them off. It --
16 it's kind of like interruptible rates or the like.
17 You wouldn't --

18 MR. WILLIAM HARPER: I'm sorry,
19 because I was trying to understand whether we were
20 talking about the utility as the customer -- or -- or
21 the cu -- or --

22 MR. PATRICK BOWMAN: A customer -- a
23 customer buying services from the utility, buying pure
24 -- buying kilowatt hours indifferent of time. The
25 utility can pick the -- the hour. That -- that would

1 be an energy type of cost. And if enough customers
2 came on -- you said small. But if enough customers
3 came on that system, eventually the utility would
4 start incurring costs to supply that customer, but
5 those costs could be things like turning on the CTs
6 and running fuel through the CTs.

7 MR. WILLIAM HARPER: Well, and maybe
8 I'll go back because maybe -- I'm -- I'm sorry,
9 Patrick. I'm sorry to take up the time. But I -- I'm
10 trying to -- maybe I didn't understand what you were
11 suggesting. What you're suggesting is the -- the
12 utility can develop -- can send the energy to the
13 customer whenever they want, that's the idea, or the
14 cus --

15 MR. PATRICK BOWMAN: Whenever the
16 utility likes.

17 MR. WILLIAM HARPER: Oh, when --
18 whenever the utility likes.

19 MR. PATRICK BOWMAN: Right.

20 MR. WILLIAM HARPER: So it would be
21 like whenever surplus to -- to --

22 MR. PATRICK BOWMAN: Sure. And they
23 can shut them off anytime they want.

24 MR. WILLIAM HARPER: -- to the
25 utility. Yeah, then, I gu -- you know, I don't know

1 how much a customer would -- would -- the customer
2 would have to have a pretty unique operation before
3 they'd find a lot of value in that, but...

4 MR. PATRICK BOWMAN: We actually have
5 that with cases like dual fuel heating here, for
6 example, where a customer has a propane heat and an
7 electric heat and they can switch back and forth.
8 Utility can supply when they want to, shut it off when
9 they want to. And I think that's part of the surplus
10 energy program.

11 That -- that is a non-capacity type of
12 service, right?

13 MR. WILLIAM HARPER: Yeah.

14 MR. PATRICK BOWMAN: And -- and we can
15 go to the other extreme where the customer could come
16 up and say to the Utility, I only want to buy -- I
17 want to buy some electricity off you but I only want
18 to buy it when it's minus forty (40) or below. God
19 willing it's not very many hours for us that are minus
20 forty (4) and below, but that is absolutely a capacity
21 type of cost.

22 That if that -- very many customer sign
23 onto that, the Utility is going to have to pretty soon
24 be building CTs or something to ensure they can supply
25 it.

1 MR. WILLIAM HARPER: Okay. If -- if
2 you're a weather normal -- if you're a winter peaking
3 utility the first customer is probably causing you a
4 problem. If you aren't a winter peaking utility at
5 some point in time customers are going to start
6 causing you problems, yeah.

7 MR. PATRICK BOWMAN: Right. And this
8 -- so that's a peak type of consideration. And -- but
9 -- and it's -- it's capacity but it's -- it's capacity
10 at peak hours, right. The issue arises, I think, when
11 you get into something like a customer would -- who --
12 to -- to use a combined product now where you say a
13 customer wants to buy energy in spring on-peak hours,
14 not -- not during a time when your system is
15 constrained, you're not running up your winter peaks,
16 but they need it delivered during on-peak hours in the
17 spring.

18 All of sudden, that -- that isn't quite
19 energy because they want to constrain the time that
20 you deliver it, but it's also not peak because they're
21 not delivering at peak.

22 MR. WILLIAM HARPER: No, it -- it --
23 you know, it's -- it's not as much because perhaps
24 other hours of the year which -- which are more --
25 more concern to you --you're right. And I guess, you

1 know, that's -- you know, that -- that -- if -- if you
2 look at -- if you look at, well -- I think there was a
3 reference earlier here to sort of, you know, MISO
4 prices, and they -- they vary by hour by -- for -- for
5 some of these just reasons you're talking about, yeah.

6 MR. PATRICK BOWMAN: But if enough
7 customers came along and said, I want to buy power for
8 the purposes of pumping out my pond when the snow is
9 melting. So it's spring, on-peak hours because that's
10 when my staff are working, and that's the only time
11 I'm going to buy it. I don't care what day it comes
12 as long as it's in spring and it's during on-peak.

13 It's a time when your -- your load is
14 3,000 megawatts compared to your -- your winter peak
15 of 5,000 megawatts, so you're never going to have to
16 build capacity for this. You always got CTs and
17 things you could run. That is not driving investment
18 in bricks and mortar plant. It might drive you to run
19 your CTs or something, but it's never going to drive
20 you have to build something.

21 MR. WILLIAM HARPER: Well, I -- I
22 guess -- you have to talk about build versus value
23 because if -- if you're in an interconnected market
24 like Manitoba Hydro is, you -- you've got an issue.
25 It's not just the implications for your building.

1 There -- there is value to you in terms of when that
2 customer come -- comes along, you know, what's the
3 equivalent -- what -- what am I losing if I could have
4 taken that kilowatt hour and -- and sold it elsewhere
5 for a higher price, but now because of the hierarchy I
6 have -- I have to serve this -- I have to serve my --
7 my domestic customers first.

8 So I -- I think there's financial
9 implications and drivers and costs there beyond just
10 what you're talking about.

11 MR. PATRICK BOWMAN: Right. So the --
12 the first one (1) I gave where it's energy anytime of
13 the year is going to have the lowest cost to Hydro.
14 They're just going to give -- they -- they can pick
15 the hour where they can buy -- heck, they can take
16 winded -- negative prices, and deliver that energy to
17 the customer. That's going to be the absolute lowest
18 one. That's a pure energy product.

19 MR. WILLIAM HARPER: And -- and in
20 that case, they may already well be look -- look -- if
21 they've signed a contract for two (2) cents they may
22 well be looking to MISO, where can I buy from MISO for
23 less than two (2) cents and sell to this guy --

24 MR. PATRICK BOWMAN: Exactly.

25 MR. WILLIAM HARPER: -- and -- and

1 then, you know --

2 MR. PATRICK BOWMAN: And make a --
3 make a margin, yeah. And -- but this other one (1)
4 that we've talked about now in spring, it's -- it's
5 not peak but it does have a capacity component. But
6 it's not -- not about the peak. It's got a capacity
7 component because there's a time component. I want it
8 to be delivered on an on-peak hour but I don't -- but
9 it doesn't -- but not an hour in which my system is --
10 is really constrained.

11 So you're saying that, yes, that's
12 still energy but it could be a higher value of energy
13 --

14 MR. WILLIAM HARPER: And -- and --

15 MR. PATRICK BOWMAN: -- because you're
16 constraining it to a period when the markets might be
17 better.

18 MR. WILLIAM HARPER: And -- and in the
19 broad scheme of things, there -- there may be a
20 capacity consideration in -- in there as well. If --
21 it depends. If I happen to have -- it may be spring
22 but in spring I probably have a number of my plants
23 out on maintenance, and maybe depending upon how the
24 loads are actually -- loads are actually perceived at
25 that point in time there may be a situation where --

1 whereby -- you know, it may not always be that spring
2 is cheap.

3 MR. PATRICK BOWMAN: It may not always
4 be, but in general you -- you'd be much less
5 favourable to that customer that's just interested in
6 serving that sale, or doing it a price if they came
7 along and said, I want it at minus forty (40)

8 MR. WILLIAM HARPER: Yeah, you know,
9 if -- if that same cust - if you're talking about
10 those two (2) contracts in terms of your committing to
11 a customer. The customer in the winter you'd probably
12 want a higher price for him than the customer you're
13 committing in the spring, yes.

14 MR. PATRICK BOWMAN: So in a cost of
15 service context, when we say we're going to classify
16 some class to capacity at -- at a generation to
17 transmission level have you ever seen it go to
18 anything other than a type of coincident peak? Not --
19 not just a generally high level but whether that's one
20 (1), three (3), twelve (12), it would only go to a
21 system coincident peak.

22 MR. WILLIAM HARPER: You know, and to
23 some extent that's because people follow this other
24 paradigm that I talked about in terms of first
25 splitting the cost between capacity and -- and energy,

1 and then trying to treat each of those two (2)
2 differently, and whether you apply a system load
3 factor method, or average an excess, there's a whole
4 list of methods you can talk about for how you want to
5 make -- make that split.

6 The -- at the end of the day, you've --
7 you've got -- you -- you've got costs you define as
8 capacity, and then there's the matter of how -- what -
9 - what hours of the year are you going to allocate the
10 -- that capacity over, and is it 12CP? Is it 2CP? Is
11 it fifty (50) hours? Is it three -- three -- three
12 hundred (300) -- hund -- hundred hours?

13 You -- you know, I don't think they --
14 they don't end up allocating over eight thousand seven
15 hundred and sixty (8,760) hours a year. I -- I --

16 MR. PATRICK BOWMAN: I've certainly
17 never seen 8,760CP --

18 MR. WILLIAM HARPER: No.

19 MR. PATRICK BOWMAN: -- allocated.

20 MR. WILLIAM HARPER: No.

21 MR. PATRICK BOWMAN: I can't recall
22 ever seeing a 300CP allocator, though, either. Hydro
23 goes to a -- about a -- a one hundred (100) when they
24 do 2CP over fifty (50) hours each season, and that's
25 probably the highest I've ever run across.

1 THE FACILITATOR: Patrick, four (4)
2 minutes to pull it together here.

3 MR. PATRICK BOWMAN: This is the last
4 question.

5

6 (BRIEF PAUSE)

7

8 MR. WILLIAM HARPER: Sure. Like Mr.
9 Chernick, I'm trying to go back in time. And I can't
10 say for certain that I've -- that that's -- that
11 that's the case. You know, I'll -- I'll agree with
12 you that if there's cases, they're very limited. I
13 think that -- that's what I -- I'd like to say at this
14 point in time.

15 MR. PATRICK BOWMAN: I -- I think
16 that's -- that was it. That was the area.

17 THE FACILITATOR: Thank you, Patrick.
18 I think, Bill, at our age, we all wish that we could
19 go back in time, don't you think? Over to you, Kelly.

20

21 CONTINUED CROSS-EXAMINATION BY MS. KELLY DERKSEN:

22 MS. KELLY DERKSEN: I'm shooting from
23 the hip here, so it's a bit of a risk. I have, I
24 think, just one (1) clarifying question. And the line
25 of questioning that Mr. Bowman was just taking you

1 down, and I think you alluded to it, or stated it, and
2 maybe you could just expand on it a little bit more,
3 and that is Manitoba Hydro is interconnected to -- to
4 a large US market.

5 And so its value of energy, it's value
6 of capacity at any given time is influenced to a
7 significant degree by -- by virtue of being
8 interconnected. And so it's not just looking at that
9 one (1) customer who's looking to get energy on an
10 off-peak period, but it's what you have to give up in
11 order to deliver that energy at that period, or to
12 deliver the energy at the shoulder period, or in the
13 winter period.

14 It's -- it's the opportunity cost of
15 doing that, because it has implications to what
16 revenue you bring in also from exports. And so it's -
17 - it's an important discussion to have in terms of, do
18 you view yourself isolated, and therefore look at
19 yourself as, Yes, we're largely winter peaking, and
20 you should allocate your generation-related costs in
21 recognition of that solely, or should you look at
22 yourself as interconnected?

23 Would that -- would that be fair? Can
24 you expand on that, please?

25 MR. WILLIAM HARPER: Well -- well, I

1 think that -- that was the qualifier I was trying to
2 add when we're -- we're talking about a utility and --
3 and the customer, and saying, Can you look at the cost
4 of the utility? And I'm saying -- and I guess I was
5 saying probably somewhat similar to what you were
6 saying, it isn't just the cost of the utility.

7 The utility has got opportunities else
8 -- elsewhere, through -- through this interconnected
9 market, and they're going to either be able -- either
10 make sales, or not make sales elsewhere, or make more
11 sales if a customer reduces load in a particular point
12 in time.

13 And so that -- that actually has --
14 that -- that actually has -- has to come -- that can
15 come into consideration too. And if what we're trying
16 to do here, I guess, at the end of the day, in my
17 mind, if I go back to my sort of -- sort of what we're
18 trying to do is we're -- we're trying to come up with
19 a way of -- a reasonable way of allocating those --
20 those generation costs to -- to customers recognized
21 as a capacity component and an energy component, and
22 trying to come up with a value for -- for each of
23 those, relative values, because the one thing -- the
24 only one thing we know for sure in is: What's the pot
25 of dollars we have to allocate?

1 I mean, everything else, whether it be
2 What's the cost of a peaker plant? Or, you know, What
3 -- everything else is sort of -- are -- are
4 assumptions. The one thing we know for sure is we
5 have to allocate a fixed amount of generation costs.

6 And so if you're coming -- trying to
7 come up with some way of valuing that, and, as I said,
8 at the end of the day you're trying to value -- put a
9 time value to that on both the energy side and the
10 capacity side in some fashion, and you can look at
11 that a number of ways.

12 One way of look -- looking at that is
13 to look at what's -- what's the value, either
14 incremental revenues or lost value in -- in this
15 interconnected market. And that provides you one (1)
16 -- one (1) measure of it. It provides you a nice
17 measure that's got both energy and capacity
18 considerations to it.

19 And I guess -- and so that's -- that's
20 some of the attraction of what I find to -- to the
21 weighted energy method.

22 MS. KELLY DERKSEN: Would you agree,
23 Mr. Harper, it's not just the revenue requirement in
24 that year -- the generation costs I think that your
25 last comment was -- but it's the price signal and it's

1 the decision that -- to consume that's driven out of
2 that -- that cost allocation ultimately that impacts
3 that revenue requirement let's say the -- the next
4 year because of export revenue and -- and ability to
5 generate that?

6 So could you comment on that?

7 MR. WILLIAM HARPER: Well, I -- I
8 think, let me say, that what you're using are relative
9 values that are reflective of what -- what are the
10 cost implications? And to this extent, it's a large
11 extent, to some extent built in with the revenue
12 implications to the Company in -- in different periods
13 of people using electricity in those different
14 periods.

15 And, like I said, in -- in the
16 interconnected market, a lot of that ties in with what
17 -- what's the opportunity we can either make or lose
18 elsewhere?

19 MS. KELLY DERKSEN: Thank you. That
20 was it for me. Thank you.

21 THE FACILITATOR: Thank you, Kelly.
22 John...?

23

24 CONTINUED CROSS-EXAMINATION BY MR. JOHN ATHAS:

25 MR. JOHN ATHAS: Hi, Bill. Just very

1 simple questions. None of my crazy, thought-provoking
2 kind of questions. The -- the allocation of the DSM
3 on the mostly 86 percent generation and the rest, is -
4 - would the investments be made on -- be it amortized
5 over time, over a few years, is that a number that you
6 would -- that we would recalculate -- we would
7 recalculate those numbers?

8 I'm trying to understand the process of
9 implement -- implementing what you're recommending.
10 Would we -- would we recalculate the numbers for --
11 for every year for whatever investments of DSM there
12 are? Would we -- based on new avoided costs? And are
13 those avoided costs levelized over a life cycle?

14 MR. WILLIAM HARPER: I think what you
15 do is, in the context of each IFF and DSM spending
16 that's going into it, it's based on a DSM plan. And
17 that DSM plan has a defined set of avoided costs that
18 were used to screen the pro -- programs in the plan.

19 And I think that's the most current
20 view of what the avoided costs for -- for the utility
21 are, in this case Manitoba Hydro, in terms of for DSM.
22 And so I think while we're -- I think that would be an
23 appropriate number to use.

24 I don't know if the DS -- I don't know
25 if the -- I don't -- maybe -- I don't -- I don't know

1 if the DSM -- DSM plan is actually updated every year
2 or whether it's updated every couple of years, but I -
3 - I think it would be appropriate to reflect -- to
4 reflect in your Cost of Service Study what's -- what's
5 the values out of the most recent DSM plan that --
6 that has actually been approved for -- for Manitoba
7 Hydro.

8 And then you would apply that to --
9 we've got the costs. We -- we've got the amortization
10 of the costs. We know what programs they're
11 associated with, and so you would go through the same
12 exercise that I went through in my evidence.

13 MR. JOHN ATHAS: Okay. And -- and
14 you'd -- and that's -- that's -- and you used a -- a
15 levelized or life cycle kind of avoided costs for
16 that?

17 MR. WILLIAM HARPER: Well, I'm using
18 the -- exactly the same avoided costs that Manitoba
19 Hydro uses to -- to screen those programs and test
20 whether or not they are economic, I think. And so
21 that's -- that's the consistency I'm trying to make
22 with my -- with -- with my view that we're -- we're
23 talking about this as a resource option.

24 But my understanding is that those --
25 my understanding is that those -- those avoided costs

1 are based on some levelized calculation over a certain
2 per -- period of time. We don't probably have as much
3 information on those levelized costs as we might have
4 in other jurisdictions because a lot of it's tied up
5 with export -- export prices, which are a confidential
6 issue.

7 And so I can't go -- I can't -- I can't
8 go much -- much further than that, to be quite honest
9 with you --

10 MR. JOHN ATHAS: Okay.

11 MR. WILLIAM HARPER: -- in terms of
12 explaining how they're calculated.

13 MR. JOHN ATHAS: That's -- that's all
14 I wanted.

15 THE FACILITATOR: Are there other
16 further questions from anyone? No. Then thankfully
17 we're finished early today. And see everybody at nine
18 o'clock tomorrow. Thanks.

19

20 (PANEL STANDS DOWN)

21

22 --- Upon adjourning at 4:37 p.m.

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1 Certified correct,

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5 _____

6 Sean Coleman, Mr.

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