



“When You Talk - We Listen!”



MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
2017/18 and 2018/19
GENERAL RATE APPLICATION
PUBLIC HEARING

Before Board Panel:

Robert Gabor	- Board Chairperson
Marilyn Kapitany	- Vice-Chairperson
Larry Ring, QC	- Board Member
Shawn McCutcheon	- Board Member
Sharon McKay	- Board Member
Hugh Grant	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
January 4th, 2018
Pages 3091 to 3351

1

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21 Corey Shefman (np)) Manitoba Chiefs
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LIST OF APPEARANCES (cont'd)

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William Gardner (np))Witnesses

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9	COLLEEN GALBRAITH, Previously Sworn	
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1 --- Upon commencing at 9:01 a.m.

2

3 THE CHAIRPERSON: Good morning,
4 everyone. Mr. Peters, if you would just be kind
5 enough to take us through today.

6 MR. BOB PETERS: Yes, leaving aside
7 the typographical errors on the screen in front of us,
8 the cross-examination this morning will commence with
9 counsel for the Manitoba Industrial Power Users Group,
10 and then that will be followed by the representatives
11 from the general service small, general service medium
12 and Keystone Agriculture Producers and that's what is
13 presently scheduled for the day.

14 THE CHAIRPERSON: Thank you.

15 MR. WILLIAM GANGE: Mr. Chair, could I
16 just interrupt. I had a discussion with Mr. Peters
17 yesterday that if -- if there is time this afternoon I
18 will be concluding my cross-examination commencing at
19 1:30. If -- if -- if that meets -- works into the
20 timeline.

21 THE CHAIRPERSON: Well, I guess that's
22 a matter for -- Mr. Monnin, is that okay with you?

23 MR. CHRISTIAN MONNIN: Certainly, Mr.
24 Chair. I -- I won't be even near the time allotted
25 for me.

1 MR. WILLIAM GANGE: It -- it -- it
2 would follow. I'm not interrupting anybody's cross-
3 examination, Mr. Chair.

4 THE CHAIRPERSON: Okay. So you would
5 be at 1:30 and Mr. Monnin --

6 MR. WILLIAM GANGE: No, I -- if Mr.
7 Monnin is finished before noon hour --

8 THE CHAIRPERSON: Okay.

9 MR. WILLIAM GANGE: -- what I -- what
10 I -- Mr. Peters and I --

11 THE CHAIRPERSON: Look at the
12 schedule, though, on the -- we've got Mr. Hacault
13 going until --

14 MR. WILLIAM GANGE: Yes, I -- I
15 recognize that. So what Mr. Peters and I discussed
16 was that if Mr. Monnin -- if Mr. Hacault and Mr.
17 Monnin finished at 12:30 --

18 THE CHAIRPERSON: Okay, sure.

19 MR. WILLIAM GANGE: -- then I would
20 start at 1:30. If -- if Mr. Monnin goes till three
21 o'clock, I will start at three o'clock.

22 THE CHAIRPERSON: Fine. That's fine.

23 MR. WILLIAM GANGE: Mr. Peters, that
24 accurately represents our discussion?

25 MR. BOB PETERS: Thank you.

1 RULING

2 THE CHAIRPERSON: Thank you. In terms
3 of the request yesterday by Green Action Centre,
4 yesterday the Green Action Centre made a request to
5 have Dr. Miller conduct discussion with the Manitoba
6 Hydro witness panel.

7 The Board ruled on this request
8 yesterday and denied it. Green Action Centre then
9 requested the opportunity to have Mr. -- Dr. Miller
10 testify as a witness next week, together with Mr.
11 Chernick and using the exhibits sought to be filed,
12 this Green Action Centre Exhibit Number 16, with Dr.
13 Miller's response to the bill affordability working
14 group report as the foundation for that testimony.

15 Manitoba Hydro objected to this request
16 on the basis of it violating the Utility's opportunity
17 for full discovery of what Dr. Miller will say because
18 the time for the filing of written evidence and asking
19 of Information Requests has long past.

20 In reply, counsel for Green Action
21 Centre indicates that Dr. Miller would be restricted
22 to documents that are already part of the proceeding.

23 Having considered the request from
24 Green Action Centre and the submissions, the Board has
25 determined that it would be procedurally unfair for

1 Dr. Miller to attend as a witness in this proceeding.
2 The process set by this Board for the receipt of
3 Intervenor evidence has not been followed such that
4 Manitoba Hydro and the other parties would be
5 prejudiced in their ability to fully discover and test
6 the evidence.

7 Therefore, the thirty-nine (39) page
8 document that was proposed to be tendered as Green
9 Action Centre Exhibit 16 will be removed from the
10 record and not receive this evidence. However, the
11 Board will permit counsel for Green Action Centre to
12 conduct cross-examination of Manitoba Hydro's
13 witnesses based on the information that is on the
14 record in these proceedings, including the materials
15 filed as part of Exhibit 9.14, which is Green Action
16 Centre's submissions on the July 6 -- July 13, 2017
17 workshop on alternative rate design and affordability
18 and Dr. Miller's post workshop submissions.

19 We understand now that this will occur
20 this afternoon. Thank you. Mr. Hacaault....?

21 MR. ANTOINE HACAULT: Good morning,
22 members of the Public Utilities Board, Mr. Chairman,
23 members of the Manitoba Hydro panel. I see Dr. Mason
24 still here. I had indicated I don't think I'll have
25 any questions of him. So I don't know, it's -- it's

1 up to him as to whether he stays.

2 MS. ODETTE FERNANDES: Just for
3 information purposes, I had canvassed Mr. Hacault and
4 Mr. Monnin with respect to whether or not they had any
5 questions for Dr. Mason but I believe considering Mr.
6 Gange may have some questions on bill affordability,
7 we requested that Mr. Mason -- Dr. Mason be brought
8 back this morning.

9 THE CHAIRPERSON: Certainly. Thank
10 you.

11

12 CROSS-EXAMINATION BY MR. ANTOINE HACAULT:

13 MR. ANTOINE HACAULT: Kristen, could
14 you start by putting page 7-13 taken from the prefiled
15 testimony of Mr. Bowman, which is marked as MIPUG-13.

16 Oh sorry, I probably have a
17 housekeeping matter. Two (2) days ago I had
18 circulated a book of documents which I had referenced
19 as MIPUG-23-3. If we could confirm with the Board
20 that it has been marked and distributed to this panel?

21 MR. KURT SIMONSEN: It has been marked
22 and I'm going to distribute it now.

23

24 CONTINUED BY MR. ANTOINE HACAULT:

25 MR. ANTOINE HACAULT: Just so the

1 panel understands a bit where I'm going to go today,
2 I'm going to canvass the issue of the revenue cost
3 coverage ratios. I'm also going to get into the issue
4 of time-of-use rates; a separate subject will be the
5 load displacement programs and a -- as and when I go
6 through those different subjects, I'll try and let you
7 know what I'm getting into and why I'm getting into it
8 so hopefully that will help people answer my
9 questions.

10 So I started with this slide this
11 morning because I understood you, Mr. Barnlund, to say
12 yesterday that the PCOSS18 represented a major shift
13 in what was happening, and specifically I'm addressing
14 your mind to the history of cost of service coverage
15 ratios for three (3) groups: The general service
16 small which is a yellow line on that slide; the
17 general service large, 30 to 100 kV, which is the blue
18 line on that slide; and finally, general service large
19 100 kV with the dash purple lines.

20 My first question is: Has Manitoba
21 Hydro had the opportunity to look at this pre-filed
22 testimony and, in particular, the slide and are there
23 any corrections to be made to the slide?

24 MR. GREG BARNLUND: Yes, we have
25 reviewed this slide and we have no corrections.

1 MR. ANTOINE HACAULT: Okay. And we
2 see on the left-hand side the revenue cost coverage
3 ratio in the form of percentages and the slide starts
4 going back to 1991.

5 Do you see that, sir?

6 MR. GREG BARNLUND: Yes, I do.

7 MR. ANTOINE HACAULT: And if we focus,
8 firstly, on the residential line which is at the
9 bottom of the graph, is it fair to suggest to you,
10 sir, that from 1991 to and including this last cost of
11 service study in 2018 residential customers have
12 always been below the 100 percent cost coverage ratio?

13 MR. GREG BARNLUND: Yes, sir.

14 MR. ANTOINE HACAULT: And with respect
15 to the general service small, is it fair to suggest
16 that that group has hovered around the 105 percent
17 coverage ratio? That's the yellow line.

18 MR. GREG BARNLUND: Yes, sir.

19 MR. ANTOINE HACAULT: And with respect
20 to the larger users being GSL 30 to 100 being the blue
21 line, it has kind of a jagged nature to it at times,
22 but is it fair to say that for most, if not all, of
23 the time period from 1991 to 2018 that class based on
24 studies by Manitoba Hydro has been covering more than
25 105 percent of the cost coverage ratio?

1 MR. GREG BARNLUND: Yes, sir.

2 MR. ANTOINE HACAULT: And the same
3 would be true with respect to general service large
4 100 kV -- or greater than 100 kV, it also during the
5 time period between 1991 and 2018 would be, in that
6 case, always over the ratio of 105 percent?

7 MR. GREG BARNLUND: Yes, that's
8 correct.

9 MR. ANTOINE HACAULT: Now, I think
10 it's part of the record that over the years Manitoba
11 Hydro has accumulated reserves of somewhere in the
12 range of \$2.7 billion. Am I about right?

13 MR. GREG BARNLUND: Subject to check,
14 I'll accept that.

15 MR. ANTOINE HACAULT: Yeah. If we
16 could go to page 28 of our book of documents filed
17 this morning. It's an extract from Manitoba Hydro,
18 the filing, and I found that slide was useful because
19 it reminds us of the steps we should be going through
20 in each and every General Rate Application.

21 Is that right, sir?

22 MR. GREG BARNLUND: Yes, that's
23 correct.

24 MR. ANTOINE HACAULT: We would,
25 firstly, be determining the revenue requirement as a

1 first step, correct?

2 MR. ANTOINE HACAULT: Yes.

3 MR. ANTOINE HACAULT: And then
4 normally we would do a cost of service analysis,
5 correct?

6 MR. GREG BARNLUND: That's correct,
7 yes.

8 MR. ANTOINE HACAULT: And finally,
9 there's a rate design which helps us determine how we
10 recover each class's revenue requirement, correct?

11 MR. GREG BARNLUND: Yes.

12 MR. ANTOINE HACAULT: Now, if we go
13 down to lines -- so we can see lines 5, 6, 7 and 8 of
14 Manitoba Hydro's evidence, these studies being the
15 cost of service studies have always been an embedded
16 cost of service study and never a marginal cost study,
17 correct?

18 MR. GREG BARNLUND: Yes, that's
19 correct.

20 MR. ANTOINE HACAULT: And in the same
21 way as we had an extensive hearing based on embedded
22 cost study approach, if we were to embark on a
23 marginal cost study approach we would have to spend
24 quite some time digging into the weeds as we did for
25 the embedded cost study for that study to be

1 meaningful for us?

2 MR. GREG BARNLUND: Well, I would even
3 suggest that it would be more onerous because there's
4 far less consensus on the design of a marginal cost
5 study in the industry than there is in terms of an
6 embedded cost study so it would be a significantly
7 larger undertaking than what we've already been
8 through.

9 MR. ANTOINE HACAULT: Now, a different
10 issue, but related to what's stated in lines 4 to 8
11 on this slide, I've gone through three (3) sectors of
12 users, being the general service small, the general
13 service large between 30 and 100 kV and the general
14 service large over 100 kV.

15 When those groups, from a cost of
16 service perspective, are covering more than 100
17 percent, they are contributing in excess to things
18 like financial reserves, which is the last item on
19 line 8, as compared to groups from a cost of service
20 study perspective that are below 100?

21 MR. GREG BARNLUND: Those classes
22 would be making a contribution in excess of cost, and
23 if you consider the net income that's included in the
24 revenue requirement then -- then that would be the
25 case.

1 MR. ANTOINE HACAULT: So from a cost
2 of service study perspective in the graph that I
3 showed to you, I would suggest to you, sir, that in
4 each and every of the years from 1991 to 2018 the
5 groups that I've identified were contributing more
6 towards the \$2.7 billion reserves that we now have as
7 compared to the residential class; is that fair, sir?

8 MR. GREG BARNLUND: Well, they
9 contributed more than cost -- embedded cost in total,
10 and so I think it's safe to say that they were
11 certainly paying more than their share of costs
12 whereas other customer classes were paying less than
13 their share of costs for that period of time.

14 MR. ANTOINE HACAULT: And am I right
15 in understanding -- and here, Kristen, could you go to
16 page 52 of our book of documents. Down to the rate
17 design page.

18 There has been an issue considered and
19 this was in 2003 as to whether the rate design was
20 fair for all parties, and I'm suggesting to you in
21 2003, although general service small and general
22 service large being over 30 kVs were bringing to this
23 Board's attention what they perceived to be
24 unfairness, Hydro had not, on its own initiative,
25 suggested at that time that the rates for those groups

1 should not go up as much as the rates for other
2 groups.

3 Is that correct?

4 MR. GREG BARNLUND: Sorry, could you
5 repeat the last part of that question, sir?

6 MR. ANTOINE HACAULT: I was trying to
7 get your corporate memory to confirm that in 2003 GRA,
8 it's not Hydro that asked that the general service
9 small and general service large over 30 kV receive
10 less of an increase than the other groups?

11 MR. GREG BARNLUND: That's correct. I
12 believe at that point in time Manitoba Hydro had
13 requested for increase to be applied to all customer
14 classes. However, the outcome of the Board's Order
15 was to order reduction to rates to a certain customer
16 class without the compensation of -- of increasing
17 rates to other customer classes and in that particular
18 instance, Manitoba Hydro is left with less net income
19 as a result versus what it had applied for in its
20 application.

21 MR. ANTOINE HACAULT: In fact, I think
22 in 2003 -- and Mr. Peters gave us a very useful table
23 at the beginning -- that Hydro didn't even ask for a
24 rate increase?

25 MR. GREG BARNLUND: That's correct

1 because that was -- if that was the status update
2 hearing, then there was no rate request being made at
3 that point in time.

4 MR. ANTOINE HACAULT: Okay. And,
5 Kristen, if you could move to page 53 in the middle of
6 the page, there should be highlighting again.

7 And the highlighting reminds us that
8 back in 1996, the zone of reasonableness was set by
9 this Board as being a target between 95 to 105 percent
10 cost coverage ratios; correct?

11 MR. GREG BARNLUND: Yes, that's
12 correct.

13 MR. ANTOINE HACAULT: And the Board
14 had concerns which it expressed in the next paragraph
15 that certain customer classes and subclasses have
16 consistently remained outside the zone of
17 reasonableness for long periods of time; in some cases
18 more than ten (10) years.

19 And we saw that on the slide that I
20 showed you first this morning, sir?

21 MR. GREG BARNLUND: Yes, sir.

22 MR. ANTOINE HACAULT: And this Board
23 taking into account those facts and concerns made the
24 Order that's set out in the following sentences, in
25 other words, that the Board ordered a decrease in

1 rates for general service small customers in the order
2 of 1 percent and a 2 percent decrease in rates for
3 general service large customers with subclasses
4 greater than 30 kV; correct?

5 MR. GREG BARNLUND: Yes, sir.

6 MR. ANTOINE HACAULT: The Board did
7 not, in doing so, say I'm going to increase the rates
8 of all other classes to compensate for the fact that
9 I'm decreasing the rates for those classes.

10 That's correct, sir?

11 MR. GREG BARNLUND: That's correct.

12 MR. ANTOINE HACAULT: And if we go to
13 the top of the next page the Board, based on the facts
14 in that particular application, described its
15 confidence that these rate adjustments would not
16 impact the overall financial strength of Hydro --
17 Hydro or its ability to achieve its financial targets;
18 correct?

19 MR. GREG BARNLUND: That was the
20 judgment that was made at the time and under the
21 circumstances at that time we were -- found ourselves
22 in an extremely -- extremely profitable export
23 environment where there's significant export earnings
24 that were being -- that were being enjoyed at that
25 point in time, and the cost structure of the Utility

1 was -- was as it was in 2002, 2003.

2 So, it was a -- it was with respect to
3 the financial conditions that the Utility found itself
4 in in that particular time period, sir.

5 MR. ANTOINE HACAULT: Thank you, sir.
6 And we've been reminded quite a few times during this
7 hearing that circumstances have changed. And even in
8 certain industries there are very challenging times;
9 correct?

10 MR. GREG BARNLUND: I would accept
11 that, sir.

12 MR. ANTOINE HACAULT: And if we go to
13 page 48 of this same book, at the second last
14 paragraph, this is a letter from the Minister Stan
15 Struthers in response to the NFAT report.

16 The Minister is noting in a separate
17 paragraph that the NFAT review also raised the unique
18 needs of large industrial power users and the Minister
19 made a specific request that Manitoba Hydro advance
20 measures such as curtailable rates and load
21 displacement programs which meet the needs of larger
22 producers like manufacturers and resource industries
23 that create jobs and grow our province's economy.

24 I'll be getting into this as to what
25 Hydro has done with the load displacement program

1 since that letter and with respect to those concerns
2 expressed both at the NFAT review and by the Minister.

3 MS. ODETTE FERNANDES: Sorry, Mr.
4 Hacault, was there a question there for the panel?

5 MR. ANTOINE HACAULT: No, I'm just
6 letting them know where I'm going now.

7

8 CONTINUED BY MR. ANTOINE HACAULT:

9 MR. ANTOINE HACAULT: With respect to
10 this particular statement, I would suggest to you that
11 this was not tied to demand-side management
12 programming specifically as a specific issue, it was
13 dealt with separately as programming for manufacturers
14 and resource industries. Do you agree?

15 MS. ODETTE FERNANDES: Sorry, Mr.
16 Hacault, I don't think we can comment with respect to
17 the intent of a letter that wasn't drafted by Manitoba
18 Hydro.

19 MR. ANTOINE HACAULT: You're right,
20 the letter will speak for itself. It's got paragraphs
21 about DSM and a new entity for DSM, so, we can look at
22 the letter ourselves.

23

24 CONTINUED BY MR. ANTOINE HACAULT:

25 MR. ANTOINE HACAULT: Now, I'll take

1 you back, sir, to page 2 of -- or, sorry, page 3 of
2 our book of documents, page 3.

3 Now, this is an extract of minimum
4 filing requirement 72 of the filing and it's the
5 Boston Consulting slides.

6 Does Manitoba Hydro agree with the
7 statement at the top of that slide, which has been
8 largely blocked out -- and I'm quoting for the record:

9 "Manitoba Hydro's nine (9) largest
10 customers comprise 12 percent of
11 revenue and are concentrating --
12 concentrated in mining and energy
13 sectors."

14 Is that an accurate statement?

15 MR. GREG BARNLUND: Well, I guess
16 without providing any commercially sensitive
17 information, I think that it's fa -- it should be
18 qualified to the extent that if I were to look at our
19 ten (10) largest customers, that there would be two
20 (2) of them that are involved in the mining sector.
21 There are also accounts related to pipelines and if
22 that's considered the energy sector, there would be
23 two -- two (2) such accounts in that -- in that group.

24 And so the other observation I would
25 make is to state that there is a wide range in terms

1 of the size of -- even within our ten (10) largest
2 customers. The largest customer is probably on a
3 revenue basis seven (7) times the revenue of the 10th
4 largest customer. And so Manitoba Hydro,
5 unfortunately, has a very small industrial base that
6 while these are important customers to us, there is
7 actually a wide range of size even amongst the ten
8 (10) largest customers.

9 MR. ANTOINE HACAULT: Thank you for
10 that clarification, sir. We've spent quite a bit of
11 time, and rightfully so, discussing another Boston
12 Consulting slide that had talked about high risk areas
13 which was the low income people; correct?

14 MR. GREG BARNLUND: Yes, sir.

15 MR. ANTOINE HACAULT: And there was
16 another high risk area that had been mentioned in
17 those slides which we'd seen at the beginning of the
18 hearing, and at least Boston Consulting had tied it
19 into these nine (9) largest customers; correct?

20 MR. GREG BARNLUND: I would say that's
21 correct, yes, sir.

22 MR. ANTOINE HACAULT: Okay. And I
23 would suggest to you, sir, that these nine (9), or if
24 we want to include ten (10), largest customers
25 generally have good paying jobs for employees?

1 MR. GREG BARNLUND: Yes, sir.

2 MR. ANTOINE HACAULT: And a lot of
3 them also generate good spinoff jobs as far as
4 subcontracts for people doing work within those
5 industries?

6 MR. GREG BARNLUND: Generally, I think
7 we would accept that, sir, yes.

8 MR. ANTOINE HACAULT: And if we go
9 back to the page 2. This is data taken from the
10 documents referenced in it. It's a document created
11 by Manitoba Industrial Power Users Group.

12 Has Manitoba Hydro had a chance to
13 verify that we haven't made any typos or transcription
14 errors?

15 MR. GREG BARNLUND: This appears to be
16 without error, yes.

17 MR. ANTOINE HACAULT: So the slide
18 compares a ten (10) year total with Manitoba Hydro's
19 proposed six (6) consecutive 7.9 percent rate
20 increases, et cetera, to the previous rate trajectory;
21 correct?

22 MR. GREG BARNLUND: Yes, sir.

23 MR. ANTOINE HACAULT: And as
24 management indicated at the very beginning of this
25 hearing, that results in over \$3 billion of this slide

1 shows \$3.616 billion of additional revenue being
2 generated between those two (2) scenarios?

3 MR. GREG BARNLUND: That's correct.

4 MR. ANTOINE HACAULT: Now accepting,
5 for the moment, that Boston Consulting Group's
6 analysis is correct, that the nine (9) largest
7 customers represent 12 percent of the revenue and
8 keeping in mind commercially sensitive information,
9 I've aggregated that into an average per largest
10 customer of what we will be taking out of those
11 businesses over ten (10) years.

12 I'm suggesting to you it would be an
13 average of \$48 million from each of those businesses
14 over a ten (10) year time year period.

15 MR. GREG BARNLUND: Well, I would
16 disagree with that because, as I had mentioned, there
17 is a significant range in -- in revenues between the
18 smallest of the ten (10) and the largest of the ten
19 (10) and, in fact, your average is only slightly
20 greater than the annual revenue -- let me divide --
21 let me put this another way.

22 If I divide this by ten (10), and you
23 have \$4.8 million per year, the smallest of the ten
24 (10) largest customers, conceivably, that's the size
25 of their bill now. So I think that to -- to average

1 this amongst ten (10) very diverse, different
2 customers is -- is not a -- a really good
3 representation of that figure.

4 But accepting the fact that we're
5 speaking of, if 12 percent of the revenue generates a
6 requirement for \$434 million over that period of time,
7 that -- that would be expected by Manitoba Hydro to be
8 made up from those customers.

9 MR. ANTOINE HACAULT: Okay. Thank you
10 for that clarification. I had stayed away from
11 particulars of our clients to avoid commercially-
12 sensitive information getting out, but I take your
13 point. One way or another, those nine (9) customers
14 are going to be digging into their pocket, and between
15 the nine (9) companies putting 4 -- .4 billion or
16 close to half a billion dollars out of their pockets,
17 into Manitoba Hydro's pockets?

18 MR. GREG BARNLUND: Yes, I'd agree
19 with that statement.

20

21 (BRIEF PAUSE)

22

23 MR. ANTOINE HACAULT: Now, if we go to
24 page 16, which is the report and action plan for Look
25 North. That's in -- should be in the same book, maybe

1 at my -- sorry, it's page 29. I think Ms. Morrison
2 might be able to answer some general questions. I'm
3 not looking for specific answers. As I understand,
4 although Manitoba Hydro formed part of this committee
5 generating the report, there's nobody here that
6 actually sat on that committee. Is that correct?

7 MS. LOIS MORRISON: I'm unaware of who
8 for Manitoba Hydro sat on the committee.

9 MR. ANTOINE HACAULT: Okay. So if we
10 go to page 31 of this report --

11 MS. ODETTE FERNANDES: Sorry, Mr.
12 Hacaault, maybe --

13 MS. LOIS MORRISON: -- I should also
14 clarify, we don't have confirmation of someone from
15 Manitoba Hydro actively engaged in this, so.

16 MR. ANTOINE HACAULT: Sorry, I -- I'll
17 get Mr. Bowman to look at that. My recollection when
18 I read the report, and I didn't bring the page itself,
19 so I can't give you a reference to that, Ms. Morrison,
20 but my questions don't depend on that in particular.

21 So to the extent that Hydro is able to
22 either agree or disagree with certain conclusions in
23 this report, well, I'll have your answers. You may
24 say, I don't know and I can't comment. And -- and
25 that'll be a fair answer, if that's your answer, Ms.

1 Morrison.

2 MS. ODETTE FERNANDES: I -- I think,
3 Mr. Hacault, if you can start by asking if anyone on
4 the panel is familiar with this document and familiar
5 with any of the conclusions in the document? Because
6 if no one on this panel is familiar with any of this,
7 then I -- I'd have to object to you asking any
8 questions on it.

9

10 (BRIEF PAUSE)

11

12 CONTINUED BY MR. ANTOINE HACAULT:

13 MR. ANTOINE HACAULT: Just for the
14 record, we've pulled up the report, and it -- it shows
15 that in -- in April 2017, Northern Summit Tour, there
16 were meetings with various groups, include --
17 including Manitoba Hydro. And I think there were
18 other references, too, so.

19 THE CHAIRPERSON: Mr. Hacault, whose
20 report is this, though? I mean, is this a provincial
21 government report, or? I mean, we've got a report
22 with a very nice -- very attractive cover, but I don't
23 know if it's a government report, or if it's a -- a
24 think tank report, or.

25 MR. ANTOINE HACAULT: It's a

1 government task force, Mr. Chair.

2 THE CHAIRPERSON: Okay. So it's a
3 government task force, which, as I understand it,
4 Manitoba Hydro was not on the -- do we know if
5 Manitoba Hydro was on the task force?

6 MS. ODETTE FERNANDES: I'm not aware,
7 based on what I just heard Hacault read from. There
8 may have been some meetings, but I -- are you --

9 THE CHAIRPERSON: Ms. Morrison, have
10 you seen this report before, or do you -- do you know
11 of it?

12 MS. LOIS MORRISON: It's a public
13 document.

14 THE CHAIRPERSON: Okay.

15 MS. LOIS MORRISON: It -- it was in
16 the paper that the provincial government was
17 establishing a task force to look at improving
18 economic development in the North. It's been in the
19 paper. Had I read the report prior to it being
20 tabled? No.

21 THE CHAIRPERSON: Okay. So, Mr.
22 Hacault, I think you could probably ask questions, but
23 I don't know what weight we're going to give. I mean,
24 I -- I would think that Manitoba Hydro would be able
25 to comment, if they could, on any public report. I

1 just don't know how much weight we -- we can give to
2 it. But if -- if the thrust was that they were a
3 participant in this report, that's a different matter
4 than if it's just simply a public document.

5 MR. ANTOINE HACAULT: I'll -- I'll ask
6 my questions, and we'll -- we'll see where it goes.

7 THE CHAIRPERSON: Mr. Hacault, do you
8 know what the date of this report -- I mean, I guess
9 there's a comment about April 2017, their meetings, so
10 do we know when this report --

11 MR. ANTOINE HACAULT: It was
12 introduced in October of 2017.

13 THE CHAIRPERSON: Okay.

14 MR. ANTOINE HACAULT: The link to the
15 entire report is in our index to the document.

16

17 CONTINUED BY MR. ANTOINE HACAULT:

18 MR. ANTOINE HACAULT: Keeping in mind
19 the comments of Boston Consulting Group, which I've
20 referenced, does Manitoba Hydro agree that there is a
21 natural resource potential in the mining industry and
22 that Hydro rates are cost input, which affects what
23 that industry would do?

24

25

(BRIEF PAUSE)

1 MS. LOIS MORRISON: I think I can
2 answer part of your question. In terms of the -- any
3 customer coming to Manitoba Hydro and entertaining
4 setting up our operations, we'll consider all
5 operating costs involved in that decision, and
6 Manitoba Hydro's electricity and natural gas rates
7 would be a consideration of that as part of their dec
8 -- their decision.

9 MR. ANTOINE HACAULT: Okay. And just
10 for clarification, there is no natural gas supply, for
11 example, to Thompson or the northern mining
12 communities, correct? It --

13 MS. LOIS MORRISON: That is correct.

14 MR. ANTOINE HACAULT: -- Hydro is the
15 only energy source, correct, in northern Manitoba?

16 MS. LOIS MORRISON: It's not the only
17 energy source in northern Manitoba. However, Manitoba
18 Hydro does not supply natural gas in the northern part
19 of the Province.

20 MR. ANTOINE HACAULT: And if we go to
21 the next page in this slide deck, was this part of the
22 rate-setting objectives, taking into account the
23 potential that the mining sector could have, and was
24 that taken into account in suggesting rates, or
25 setting rates?

1 MR. GREG BARNLUND: I'm sorry, Mr.
2 Hacault, could you repeat that question?

3 MR. ANTOINE HACAULT: With respect to
4 the mining industry, did Manitoba Hydro take into
5 consideration that industry in making suggestions on
6 rates and rate schedules in this proceeding?

7 MR. GREG BARNLUND: Are you referring
8 to the overall level of increase being sought by
9 Manitoba Hydro?

10 MR. ANTOINE HACAULT: It could be the
11 overall level of increase. It could be the types of
12 rates. We see economic development rates. We see a
13 whole bunch of other rate issues.

14 MR. GREG BARNLUND: Well, it would not
15 have been taken into consideration specifically in
16 terms of the level of the overall increase. With
17 regards to rate design, I think that I'll reflect back
18 on conversations that Manitoba Hydro had with the
19 MIPUG executive in January of 2017, when we -- when we
20 presented that information with regards to the
21 illustrative time of use rate potential.

22 And we also sought a commitment from
23 the MIPUG executive to be able to work directly with
24 those customers to be able to develop information and
25 understand better what type of rate offerings we could

1 create.

2 And we also recognized that as we were
3 going to be heading into this General Rate
4 Application, that our ability to actively do so over
5 the coming months would be limited, but we certainly
6 extended the offer to the MIPUG executive to be able
7 to sit down and have discussions, to be able to
8 formulate some potential options that, from those
9 customers' perspectives, would be useful in terms of
10 their business.

11 MR. ANTOINE HACAULT: And is your
12 point, sir, is that although those discussions have
13 started, nothing has materialized, and Manitoba Hydro
14 is not willing to accept the industry's request that
15 the sectors that can benefit from time of use rates
16 are allowed to benefit from those rates?

17 MR. GREG BARNLUND: I think that --
18 that the -- if I could take that out in a couple of
19 different answers, here, first of all, we would
20 certainly be interested in coming up with some rate
21 proposals with those customers that -- that clearly
22 could benefit those customers and benefit the Utility,
23 or other customers in general, in other words, in
24 terms of reducing costs.

25 The proposal that has been made in this

1 General Rate Application by -- by Mr. Bowman in terms
2 of the optional adoption of a time-of-use rate creates
3 some challenges for Manitoba Hydro, as we had
4 mentioned in previous testimony, whereby we would not
5 be kept whole on the revenue for that customer class
6 to the tune of \$1.5 million. But I think that
7 certainly, we're open to finding some solutions in
8 terms of rate design for those particular large
9 industrial customers.

10 MR. ANTOINE HACAULT: Thank you and I
11 will deal with the subject of time of use rates in
12 more detail on the impact on Manitoba Hydro so, I'm
13 not going to follow that up now, just to let the panel
14 know that I will be dealing with that a bit later.

15 If we could go, Kristen, to the next
16 page. I'll ask the same question with respect to the
17 forestry industry up north. Has Manitoba Hydro
18 specifically considered the impact on its proposed
19 rates on that industry?

20 MR. GREG BARNLUND: My answer would be
21 the same as the previous answer, sir, that we did not
22 specifically take that into consideration in the -- in
23 our decision on the overall revenue increase being
24 requested.

25 MR. ANTOINE HACAULT: Okay. And if we

1 could go to the next page in our book of documents, it
2 should be page 34, it's an extract from the Hydro
3 filing on demand-side management, and you recognize
4 that page, Ms. Morrison?

5 MS. LOIS MORRISON: Yes.

6 MR. ANTOINE HACAULT: And I'd like to
7 cover a couple of things. Firstly, the -- this chart,
8 as I understand it, shows us a couple of key pieces of
9 information with respect to different sectors.
10 Firstly, it shows us something we'd been talking about
11 yesterday, the expected capacity savings from
12 residential programs, for example, that are listed at
13 the top part of this page, correct?

14 MS. LOIS MORRISON: That is correct.

15 MR. ANTOINE HACAULT: And it also
16 shows us the projected energy savings, and finally,
17 the total investment the Utility thinks it will make
18 to achieve those savings over a fifteen (15) year time
19 period?

20 MS. LOIS MORRISON: That is correct.

21 MR. ANTOINE HACAULT: Okay. And if
22 you can bring the page up, but still keep the line
23 "residential programs" at the very top of the page,
24 Kristen, please.

25

1 (BRIEF PAUSE)

2

3 MR. ANTOINE HACAULT: Thank you. I'd
4 like to take you down to -- closer to the bottom of
5 the page, there's a bold heading that says "load
6 displacement and alternative energy." Have you
7 located that?

8 MS. LOIS MORRISON: Yes.

9 MR. ANTOINE HACAULT: Okay. And with
10 respect to those programs, Manitoba Hydro is
11 projecting over fifteen (15) years that from a
12 capacity perspective, it's going to save 117.1
13 megawatts. Am I reading that right?

14 MS. LOIS MORRISON: Yes.

15 MR. ANTOINE HACAULT: And that
16 compares to the residential programs at seventy-eight
17 point nine (78.9) on capacity savings in megawatts,
18 correct?

19 MS. LOIS MORRISON: That is correct.

20 MR. ANTOINE HACAULT: And that
21 increased savings and capacity comes at a projected
22 cost for Manitoba Hydro of \$119.4 million, correct?

23 MS. LOIS MORRISON: A hundred and
24 seventeen (117) megawatts, and the 610 gigawatt hours
25 --

1 MR. ANTOINE HACAULT: Yes.

2 MS. LOIS MORRISON: -- comes at an
3 anticipated cost -- expenditure by the Corporation
4 over the next fifteen (15) years of \$119 million, yes.
5 You're correct.

6 MR. ANTOINE HACAULT: Okay. And when
7 we compare that with the residential programs, the
8 energy savings for DSM residential programs is 194.5
9 gigawatt hours, correct?

10 MS. LOIS MORRISON: That is correct.

11 MR. ANTOINE HACAULT: Compared to
12 about three (3) times the expected savings of 610
13 gigawatt hours?

14 MS. LOIS MORRISON: That is correct.

15 MR. ANTOINE HACAULT: And this might
16 give us some idea of some programs getting more bang
17 for the buck. In other words, if you spend a hundred
18 and nineteen (119), and that's in millions -- millions
19 of dollars, you get higher capacity and energy savings
20 out of the two (2) programs listed under load
21 displacement and alternative energy when compared to
22 the residential programs, correct?

23 MS. LOIS MORRISON: So I should
24 qualify the table. The \$173.6 million that's being
25 presented for the residential programs is for all

1 residential programs, both electricity and natural
2 gas. So there are -- also included in those savings
3 that are being projected, two (2) -- sorry, 29.3
4 million -- thousand cubic metres -- million cubic
5 metres of natural gas savings that are also
6 anticipated over the fifteen (15) year period.

7 So it's not a direct apples-to-apples
8 comparison from this table, but what I will say in
9 acknowledgment is that traditionally, residential
10 programs are more expensive to deliver and to obtain
11 savings than industrial programs, or programs targeted
12 to our industrial customers. It's because of the fact
13 that when we're dealing with an indust -- with the
14 industrial customers, you're doing more one-on-one.
15 You have a different approach.

16 When we're looking at the mass market,
17 it's a different approach. It's a little more
18 expensive to obtain the same level of savings from
19 that sector. This has been on the record in previous
20 years, numerous times, but as I've said also, that
21 Manitoba Hydro attempts to have a balanced portfolio
22 when we deliver programming. And that's recognizing
23 that we need to provide all customer sectors with
24 opportunities to reduce or to manage their energy
25 bills. And so we offer programming in all sectors.

1 So coming back to this, Mr. Hacault is
2 correct in that the load mani -- load displacement
3 programs will have a lower cost per kilowatt hour as a
4 whole than the residential programs as a whole.
5 However, it's not a direct comparison to say that the
6 one point nine (1.9) -- sorry, the \$119 million is
7 directly comparable to the \$173 million in the
8 residential programs, because we're also including
9 natural gas programs in that value.

10 MR. ANTOINE HACAULT: Thank you for
11 that additional explanation. When we look at where
12 Hydro can achieve DSM savings as regards electric
13 operations, we can also look at columns just above
14 there which indicate industrial programs, and we would
15 see that the Performance Optimization Program that you
16 spoke of before also leads to fairly significant
17 demand-side management results, correct?

18 MS. LOIS MORRISON: That is correct.

19 MR. ANTOINE HACAULT: So the two (2)
20 programs being the Performance Optimization Program
21 and the Load Displacement and Alternative Energy
22 Programs together give us about five (5) times the
23 ability to save on a demand-side management
24 perspective from energy than residential programs,
25 correct?

1 MS. LOIS MORRISON: That is correct.

2 MR. ANTOINE HACAULT: Now if we go to
3 the next slide, again, it's from the demand-side
4 management report, correct?

5 MS. LOIS MORRISON: That's correct.

6 MR. ANTOINE HACAULT: And it relates
7 to electric operations?

8 MS. LOIS MORRISON: Yes.

9 MR. ANTOINE HACAULT: Okay. And if we
10 go down the slide, we'll be able to locate the Load
11 Displacement and Alternative Energy Programs, which
12 will have some highlight. Could you help us
13 understand if and to what extent those load
14 displacement objectives and programs have been
15 implemented and met in the last two (2) years?

16 MS. LOIS MORRISON: So are you asking
17 related to the 2000 -- the performance of those
18 programs related to 2016/'17 year, or are you -- I'm --
19 - I'm not sure --

20 MR. ANTOINE HACAULT: Okay.

21 MS. LOIS MORRISON: -- what you mean
22 by that.

23 MR. ANTOINE HACAULT: Maybe I'll start
24 with some -- I'll start with some more basic questions
25 to help -- help us understand. Remind us again what

1 the Bioenergy Optimization Program is when we talk
2 about industries. What are we doing in the industry
3 that falls within that description?

4

5 (BRIEF PAUSE)

6

7 MS. LOIS MORRISON: So the Bioenergy
8 Program is designed to encourage customers to install,
9 operate, and maintain customer-sited load displacement
10 generation systems that employ heat or combined heat
11 power applications fuelled by renewable energy sources
12 such as biomass. So it really is focussed on using
13 biomass to provide heat or to buy -- to provide both
14 combined heat and power specifically.

15 MR. ANTOINE HACAULT: And -- and would
16 that relate to smaller customers or would it include
17 also, like, a pulp and paper mill that might use wood
18 chips to create bioenergy?

19 MS. LOIS MORRISON: This program is
20 focussed on both, more so not small, small customers
21 not traditionally the -- the smaller customers. It is
22 more geared to your medium-sized to larger customers.
23 But it can include what would see more as
24 institutional customers participating in this also,
25 not just industrial. We might see some school

1 systems, sorry, some school boards and such using this
2 type of approach with their facilities.

3 MR. ANTOINE HACAULT: Okay. And --
4 and then could you des -- describe the next category,
5 being the customer-sited load displacement?

6 MS. LOIS MORRISON: So under the
7 customer-sited Load Displacement Program, you will see
8 customers install, operate, or maintain customer-sited
9 load displacement generation systems. So specifically
10 generating power to -- using waste stream byproducts
11 and/or locally available low-cost sources of biomass
12 and other renewable energy sources, or fuels. So it's
13 a larger -- this one (1) is more focussed on larger
14 customers. And you'll see customers participating
15 using, say, a waste stream to create -- to generate
16 power.

17 MR. ANTOINE HACAULT: I'm not sure I
18 understand the distinction between the two (2).

19 Is it just the size of it, or is it the
20 location of the displacement? One (1) is on-site and
21 one (1) is not on-site? Could you help me understand?

22 MS. LOIS MORRISON: No, they're both -
23 - both so one (1) is more focussed on waste stream or
24 using -- sorry. There was an evolution. When we
25 introduced the biomass -- the Bioenergy Program it was

1 focussed on all opportunities related to bioenergy,
2 that being wood products, being wood pellets, wood
3 products, what would be maybe plant matter that could
4 be burned and used for self generation.

5 It then evolved into the larger load
6 displacement project -- program. So that larger Load
7 Displacement Program is really focussed more so on
8 your larger customers. So the Bioenergy Program has
9 more so evolved to be -- it originally included some
10 very large customers, but that has now, as I said,
11 evolved into being the Load Displacement Program and
12 the Bioenergy Program is more focussed on your medium-
13 sized customers.

14 MR. ANTOINE HACAULT: Now, in either
15 2016 or 2017, we're now in 2018, have any of those
16 programs, or the funding for those programs been put
17 on hold?

18 MS. LOIS MORRISON: No. We have not
19 put funding for any of those programs on hold. We are
20 in negotiations and have actually continued forward
21 with a couple of projects. These projects tend to
22 have very long lead times, particularly under the Load
23 Displacement Program. So we may initiate discussions,
24 and it may take up to one (1) to two (2) years to move
25 forward with a negotiated contract on how to proceed

1 with that project, and then the customer can move
2 forward.

3 So we have not stopped finding of those
4 projects, but we are recognizing that for some very
5 significantly large projects we have to take into
6 consideration what the desire of Efficiency Manitoba
7 will be. We do anticipate that Efficiency Manitoba
8 will be interested in these types of projects, but we
9 are -- we are still moving ahead on a number of
10 projects. That's maybe how I should sum it up.

11 MR. ANTOINE HACAULT: Okay. I think
12 we need a little bit more clarification on what kind
13 of decisions are being deferred to Efficiency
14 Manitoba. I'm not going to get into specific detail,
15 but I'm aware of some specific discussions, and I
16 maybe used the word "on hold" --

17 MS. LOIS MORRISON: I think we're
18 treading into some CSI territory.

19 MR. ANTOINE HACAULT: But your -- your
20 answer wouldn't -- you don't need to describe the
21 specific project, but there are impediments in
22 proceeding with the projects because of the
23 uncertainty of what's going to happen with Efficiency
24 Manitoba, isn't there?

25 MS. LOIS MORRISON: Due to the size of

1 the project that was being discussed, or the projects,
2 there was some uncertainty. We are proceeding with
3 other projects under this program.

4 MR. ANTOINE HACAULT: Okay. Now,
5 getting to the actual projected results, is Manitoba
6 making sufficient pro -- pro -- progress so that it's
7 achieved? For example, in the first column under
8 these programs, there's a highlighted number of 22.4
9 megawatts.

10 Has that been achieved?

11 MS. LOIS MORRISON: Okay. So we tend
12 to talk more so in energy.

13 MR. ANTOINE HACAULT: Okay.

14 MS. LOIS MORRISON: So if it would be
15 -- could we move to the next page and talk more so
16 that the energy side?

17 MR. ANTOINE HACAULT: Sure.

18 MS. LOIS MORRISON: Thanks.

19 THE CHAIRPERSON: Sorry. Before --
20 before you do that, Ms. Morrison, I've got a question.
21 If you go back to the last screen to the highlighted
22 line.

23 How do you do the projections? I mean,
24 I've tried to figure --

25 MS. LOIS MORRISON: Sorry?

1 THE CHAIRPERSON: How do you do these
2 projections? You've -- you've projected this out to
3 2030/'31, and I've tried to figure out how -- what's
4 the formula used? I mean, I see a constant increase
5 until, I don't know, midway through, and then you get
6 a total of a hundred and six-point-five (106.5), which
7 I don't know if it's a placeholder or what.

8 But how do you -- how do you come up
9 with these projections?

10 MS. LOIS MORRISON: So it -- it
11 depends on the program.

12 THE CHAIRPERSON: Okay.

13 MS. LOIS MORRISON: So for
14 specifically looking at the Load Displacement Program
15 --

16 THE CHAIRPERSON: Yeah.

17 MS. LOIS MORRISON: -- we actually, in
18 the near term -- as I mentioned, a lot of these
19 projects have long lead times. So we'll be in
20 discussions and we'll have identified key projects
21 that could possibly be implemented within the next few
22 years. And -- because we know it'll take, based on
23 the feasibility studies required in that, to take
24 quite a few years.

25 So it's our -- at this point in time

1 it's our estimation of what those projects would be if
2 they mater -- sorry -- if they materialize. So Load
3 Displacement Program that's generally what we're
4 looking at. And so we've got -- and then into the
5 future years, they'll be less defined. But we
6 generally have an idea because it is tied to the
7 larger customers, and we'll have an idea as to what
8 possible waste streams or other opportunities that
9 might be available.

10 So in the near term it's based on very
11 recent discussions and then as we go into the future
12 it's more our ideas to what certain customers might
13 have available. And so that's how those projections
14 are put forward.

15 THE CHAIRPERSON: So the -- would I be
16 safe be -- sorry. Would I be safe to say that your --
17 your near term projections have a more likelihood of
18 being accurate than your long-term, and your long-term
19 depend on a whole series of factors that you're
20 essentially making your best estimates to now, but
21 could change depend on -- depending on customer
22 requirements?

23 MS. LOIS MORRISON: Yeah. And -- and
24 it -- and because a lot of this ties in with a
25 customer's planned changes to operations, or if

1 they're planning to do an update or a upgrade to a
2 system, that's where the opportunity then presents
3 itself to bring in that additional equipment or
4 changes to their operations to take advantage of a
5 waste stream for -- for creating power generation. So
6 in the near term there will be a little -- we'll have
7 a better estimate, you are correct.

8 But what also comes into play is that
9 year-to-year variation that I discussed. Because they
10 have long lead times, and as we know with -- with --
11 when you're looking at a large-scale construction
12 project or upgrade it may shift year-to-year. So
13 although we may have said that we anticipate this
14 project to come in in the first year, it may come in
15 in the second year. Or it may come in in the -- if we
16 anticipate it in the second year it may come in in the
17 third year. So there is that variation that may also
18 happen.

19 As I had mentioned to Mr. Peters
20 previously, when we're looking at our overall savings
21 we are confident that at the end of fifteen (15) years
22 we can achieve those savings. But year-to-year there
23 may be fluctuation in terms of whether or not we
24 achieve it don't -- or whether we exceed that target
25 or are below target, and then we adjust to make sure

1 that we're going to achieve it.

2 So when we look at a specific program,
3 there'll be more variation year-to-year because of
4 those potential changes. But when we look at the
5 overall portfolio we'll have some programs that are
6 exceeding targets, some programs that are below
7 target, and as a whole we generally come in close to
8 what we attempt -- what we've outlined to achieve.

9 THE CHAIRPERSON: But following -- and
10 I apologize, Mr. Hacault. But following Mr.
11 Barnlund's comment about the difference in sizes among
12 that top ten (10) group.

13 MS. LOIS MORRISON: Yeah.

14 THE CHAIRPERSON: If you have a major
15 change on one (1) of your top -- top customers those
16 numbers change.

17 MS. LOIS MORRISON: Yes, you are
18 correct.

19 THE CHAIRPERSON: And then if you lose
20 one (1) of your top customers or they reduce their
21 activity --

22 MS. LOIS MORRISON: Yes.

23 THE CHAIRPERSON: -- then your numbers
24 going out as soon as that happens, it has a ripple
25 effect throughout the entire...

1 MS. LOIS MORRISON: Well, it depends
2 because in the Load Displacement Program -- so, yes,
3 if the customer were to no longer operate in Manitoba
4 that definitely becomes a reduction to what's
5 available as an opportunity. But it also becomes a
6 reduction to our overall load forecast --

7 THE CHAIRPERSON: Right.

8 MS. LOIS MORRISON: -- and, therefore,
9 would reduce both the denominator and the numina --
10 numerator when you're looking at that DSM savings as a
11 percent of load.

12 THE CHAIRPERSON: Right.

13 MS. LOIS MORRISON: But the other
14 consideration here is that if a customer were to
15 reduce their operations in Manitoba, say reduce their
16 energy requirement, there may still be a load
17 displacement opportunity because of the remaining
18 energy that they're consuming from Manitoba Hydro's
19 grid. They could still then go and look at a DSM -- a
20 load displacement opportunity to meet that remaining
21 energy requirement.

22 So although they may reduce their
23 operations, they could still look to working on the
24 Load Dis -- with the Load Displacement Program to
25 offset a portion of it. So it may get lower because

1 if we're looking at a waste stream. So -- so there's
2 a lot of --

3 THE CHAIRPERSON: Sure.

4 MS. LOIS MORRISON: -- ups and downs
5 that have to be considered.

6 THE CHAIRPERSON: Yeah. Thank you
7 very much. Mr. Hacault.

8

9 CONTINUED BY MR. ANTOINE HACAULT:

10 MR. ANTOINE HACAULT: Yeah. And --
11 and just following up on some comments. I think it
12 might be useful for the Board to understand how many
13 customers are in each program. It's at page 23 of
14 your Power Smart report. It's appendix 7.2.

15 MS. LOIS MORRISON: Do you want to --
16 sorry. Could you give me the page number again,
17 seeing how you had it, so...

18 MR. ANTOINE HACAULT: Well, I just had
19 it in my notes and I had asked Mr. Bowman to pick it
20 up here. It's -- it's -- I had in my notes that it
21 was at page 23 of that report. Or, sorry, 7. Yeah.
22 I think, then, if we zoom in to the load displacement
23 and alternative energy we'll see that the Bioenergy
24 Optimization Program is described as incentive based.

25 And as of March 2006, you had two

1 hundred and twenty-nine (229) potential projects being
2 considered?

3 MS. LOIS MORRISON: This is the
4 projection for what we will anticipate to see as the
5 number of projects that would be completed over the
6 next fifteen (15) years. So, yes, under the Bioenergy
7 Program our estimate is two hundred and twenty-nine
8 (229) projects. And under the customer-sited Load
9 Displacement Program we are anticipating over the next
10 fifteen (15) years that there would be fifteen (15)
11 customers participating. As I mentioned, this is very
12 much focussed on the larger customers, and one (1) --
13 really that's what we're focussed on, yes.

14 MR. ANTOINE HACAULT: Okay. Now, I
15 think I misspoke when I said, "as of." I think at the
16 top of the table it shows the launch date for those
17 programs. So the Load Displacement Program launch
18 date we see it now in going back down. As of the
19 launch date Manitoba Hydro had identified fifteen (15)
20 potential customer-sited Load Displacement Programs.

21 How many of those are still active and
22 being pursued?

23 MS. LOIS MORRISON: Those are --
24 that's two (2) questions. How many of them are active
25 and being pursued? Do you mean how many have been

1 implemented?

2 MR. ANTOINE HACAULT: Okay. So start
3 with that. How many of them have been implemented out
4 of the fifteen (15)?

5

6 (BRIEF PAUSE)

7

8 MS. LOIS MORRISON: Under -- out of
9 the fifteen (15) we have one (1) customer that's up
10 and running with their low displacement project. We
11 have just recently completed negotiations with another
12 customer that will be proceeding with theirs. And we
13 are still -- and we are in discussions with another
14 customer for one (1) of their projects.

15 MR. ANTOINE HACAULT: Okay. So out of
16 the fifteen (15) projects identified in March of 2014,
17 so nearly four (4) years ago, I'm understanding you to
18 say that in that four (4) year time period one (1) has
19 implemented site load displacement; correct?

20 MS. LOIS MORRISON: One (1) is
21 implement -- one (1) is constructed and it's in
22 operation.

23 MR. ANTOINE HACAULT: And is -- does
24 it get into CSI to say a time range of when the second
25 one (1) int -- expects to be operational? Is it a

1 year from now? Two (2) years from now?

2 MS. LOIS MORRISON: It will be -- I'm
3 -- we are getting into an area where I am unsure as to
4 whether if I go into further discussion it will
5 indicate which customers we're speaking to.

6 MR. ANTOINE HACAULT: Okay. Fair
7 enough. I'm not asking that to be identified. So --

8 MS. LOIS MORRISON: So I -- I should
9 state, though, that we are in discussions. Although
10 the program was launched in April of '14, they are
11 large-scale projects. They do require commitment and
12 coordination with the customers. We are still in
13 discussions with a number of them, and those
14 discussions have to proceed at the rate the customer
15 is interested in. So although -- there -- it -- it's
16 -- there isn't a lot of activity to date, that
17 activity with those fifteen (15) customers is -- was
18 planned to go out over a number of years.

19 And one (1) of the lessons that we have
20 learned since launching the program is that we are
21 finding the lead time to move forward with these
22 projects is longer than anticipated. There are things
23 that come into consideration. One (1) of the projects
24 that we just finished negotiations with, there were
25 delays because of the customer's prior -- priorities

1 as opposed to Manitoba Hydro's priorities.

2 The -- so the other thing I do also
3 want to comment on is that this plan is from the 2016
4 plan. And so that hasn't yet been updated to reflect
5 some of the delays that we've been looking -- antic --
6 sorry -- some of the delays that we've been antic --
7 experiencing.

8 MR. ANTOINE HACAULT: Now, you --
9 before we got into this lengthy discussion and the
10 explanation to the Chair, you were going to take me to
11 the energy table and capacity table to explain what
12 you actually achieved. And we now know there's one
13 (1) project that has been implemented in the last four
14 (4) years.

15 So what has been actually achieved?
16 Could you answer that question?

17

18 (BRIEF PAUSE)

19

20 MS. LOIS MORRISON: So cumulative to
21 2016/'17, the end of March 31st, 2017, the Load
22 Displacement Program has achieved 171 gigawatt hours
23 of energy savings and 31 megawatts of capacity.

24 MR. ANTOINE HACAULT: Is that
25 cumulative to the end of that year? How am I to

1 understand those figures that you just put on the
2 record?

3 MS. LOIS MORRISON: Yes. That means
4 that as of the end year -- it's cumulative to the end
5 of that year. So what we're seeing is that through
6 the Load Displacement Program we are now saving every
7 year going forward 170 -- 171.8 gigawatt hours each
8 and every year going forward as long as those systems
9 continue to operate.

10 MR. ANTOINE HACAULT: And megawatts is
11 the same thing each and every year?

12 MS. LOIS MORRISON: Yes.

13 MR. ANTOINE HACAULT: Is it fifty-one
14 (51) you said?

15 MS. LOIS MORRISON: Thirty-one (31).

16 MR. ANTOINE HACAULT: Thirty-one (31).
17 And at page 37, from your Power Smart plan, there's a
18 slide that indicates the cost. This is in our book of
19 documents, Kristen, page 37 of our last book of
20 documents. Could you go down to the highlighting with
21 the Load Displacement Programs.

22 What's Hydro's best estimate as to
23 whether or not it's on track to spend the amounts
24 shown there to and including the time period
25 2021/2022?

1 (BRIEF PAUSE)

2

3 MS. LOIS MORRISON: In terms of what
4 will be spent this year and in the -- sorry -- in the
5 2016/'17 and 2017/'18 year? Is that what you're
6 speaking to? Because I can't comment to what will be
7 going into the future years and to where specifically
8 the dollars will go. I can state that this was the
9 plan that we put forward in 2016/'17.

10 However, as we've discussed the mandate
11 for DSM will be moving to Efficiency Manitoba. And
12 we've included our -- we continue to include our plan
13 in our financial projections, anticipating that
14 Efficiency Manitoba will be seeking to achieve savings
15 at least at the level of what we are doing, if not
16 more, based on the language under the legislation.
17 And, therefore, we'll be seeking to -- we'll be
18 spending -- investing in doing so. But we cannot -- I
19 cannot commit specifically to what we'll be -- where
20 the dollars will be spent beyond what we already have
21 in our plan today.

22 MR. ANTOINE HACAULT: Okay. So let's
23 take it in little bites. The first line at \$4.758
24 million was for the previous fiscal year.

25 Was that spent?

1 (BRIEF PAUSE)

2

3 MS. LOIS MORRISON: I don't have the
4 figures with me, but we can undertake to get those for
5 you. As to what our actual expenditures on the Load
6 Displacement Program in 2016/'17.

7 MR. ANTOINE HACAULT: Thank you. Is
8 that good enough for the court reporter? Could you
9 repeat the undertaking, Ms. Morrison?

10 MS. LOIS MORRISON: Manitoba Hydro
11 will undertake to provide the actual expenditures for
12 the 2016/'17 year for the Load Displacement Program.

13

14 --- UNDERTAKING NO. 34: Manitoba Hydro will
15 provide the actual
16 expenditures for the
17 2016/'17 year for the Load
18 Displacement Program

19

20 CONTINUED BY MR. ANTOINE HACAULT:

21 MR. ANTOINE HACAULT: And are you able
22 to come up with a reasonable estimate as to what will
23 actually be spent under load displacement and
24 alternate energy -- alternative energy subtotal for
25 the fiscal year 2017/18, which finishes in a couple

1 months?

2 MS. LOIS MORRISON: Yes, I can. But I
3 should comment that the values presented here for
4 2017/'18 will not correspond with what was part of the
5 2017/'18, one (1) year plan that was prepared in
6 consultation with the provincial government, which
7 would have been an update. As I mentioned, we did not
8 do an update for our long-term plan for 2017/'18,
9 which would be, I guess, the sister or the -- the
10 update to this was not prepared. And, therefore,
11 because we are moving and transitioning to Efficiency
12 Manitoba and they'll be taking the long-term planning
13 responsibilities.

14 So this number has been updated based
15 on what we anticipated to spend based on more updated
16 and more recent conversations. And the budget for
17 that program for that year, for '17/'18, in terms of
18 DSM investment is anticipated to be \$6.7 million, not
19 the 13.9 that's presented here. And that's based upon
20 more updated information as to the timing of projects
21 in such.

22 But, yes, I can undertake to provide
23 you with the actual expenditures for the '17/'18 year,
24 with an outlook to the end of March 31st, in
25 comparison to what is in our 2017/'18 plan.

1 MR. ANTOINE HACAULT: Thank you.

2

3 --- UNDERTAKING NO. 35: Manitoba Hydro to provide
4 actual expenditures for
5 DSM investment for
6 2017/2018 with an outlook
7 to March 31, 2018 as
8 compared to the 2017/2018
9 plan

10

11 CONTINUED BY MR. ANTOINE HACAULT:

12 MR. ANTOINE HACAULT: And if I'm
13 hearing you correctly, because of the expected
14 implementation of Efficiency Manitoba, you're not able
15 to let us know at this time whether the substantial
16 investments in the next following years will in fact
17 be made to allow this group of fifteen (15) customers
18 to reap the benefits of the Load Displacement Program.

19 MS. LOIS MORRISON: I can't say
20 specifically what Efficiency Manitoba Hydro --
21 Efficiency Manitoba will be doing or putting forward
22 in the plan that they bring forward. However, I do
23 believe that there will be opportunities, because in
24 order to provide -- in order to achieve their savings
25 projected -- projections of 1.5 percent of electricity

1 load, they will have to look to all sectors,
2 residential, commercial, and industrial, in order to
3 achieve those savings. So I do believe there will be
4 opportunities going forward, but I cannot say
5 specifically where they will come from.

6

7

(BRIEF PAUSE)

8

9 MR. ANTOINE HACAULT: Perhaps we could
10 put on the record the expected savings, both from a
11 gigawatt perspective and the energy -- the megawatts
12 perspective for the two (2) projects that are going
13 forward, so we have some idea of what can be expected
14 as savings with respect to those two (2) additionally
15 identified projects that you've talked about.

16 MS. LOIS MORRISON: We will provide
17 them, but if it's deemed to -- but what we do need to
18 check is if it would technically be CSI or in any way
19 be CSI we'll provide it to the Board. But may have to
20 provide it redacted.

21 MR. ANTOINE HACAULT: Okay.

22 MS. LOIS MORRISON: Yes.

23 MS. ODETTE FERNANDES: Maybe what
24 we'll do is we'll take it under advisement and then
25 get back to Mr. Hacault.

1

2 CONTINUED BY MR. ANTOINE HACAULT:

3

MR. ANTOINE HACAULT: The reason I
4 thought it might not be an issue is in -- actually, in
5 your one (1) year update of Power Smart or demand-side
6 management, you actually talk specifically about what
7 -- what the Corporation is going to achieve as far as
8 capacity and energy savings. We can put those numbers
9 on the record and ask you whether or not you think
10 you're still going to achieve those in the Load
11 Displacement Program.

12

MS. LOIS MORRISON: I think I -- I
13 agree with Ms. Odette -- sorry -- Ms. Fernandes that
14 we should take this under advisement and figure out
15 the best way to achieve what you want.

16

MR. ANTOINE HACAULT: But let's just
17 go to PUB MFR-61. I just want to know whether that
18 information is accurate or not, because it is on the
19 public record. I believe it's page 9 of that minimum
20 filing requirement.

21

22

(BRIEF PAUSE)

23

24

MR. ANTOINE HACAULT: While we're
25 waiting for that slide to come up, you'll see at the

1 bottom just before -- oh, we're down a bit too low.
2 Manitoba Hydro is putting on the public record that
3 for the year 2017/'18 it plans to capture --

4 MS. LOIS MORRISON: M-hm.

5 MR. ANTOINE HACAULT: -- and I have to
6 go through a couple of examples here, 16 megawatts and
7 83 gigawatts through load displacement and alternative
8 energy opportunities.

9 Is that information still accurate?

10 MS. LOIS MORRISON: That was our plan
11 at that point. We're almost to the end of the '17/'18
12 year, so I can give you a projection as to whether or
13 not we anticipate meeting that target.

14 MR. ANTOINE HACAULT: You're not able
15 to do that now?

16 MS. LOIS MORRISON: No, I can't give
17 you that number right now. I'd have to go back and
18 look at our files and see how far along we're
19 progressing on...

20 MR. ANTOINE HACAULT: Okay. You're
21 unable to give us any idea whether it's load
22 displacement or alternative energy opportunities at
23 this time either?

24 MS. LOIS MORRISON: That's through
25 both the Bioenergy and Load Displacement Program. So

1 I would have to go back -- we can provide -- we can
2 undertake to provide you the numbers broken out by
3 load displacement and alternate energy as to whether -
4 - and what we anticipate to have achieved by the end
5 of '17/'18 as to whether or not we'll be on target
6 for that program.

7 MR. ANTOINE HACAULT: Okay. Thank
8 you.

9 THE COURT REPORTER: Excuse me, the
10 undertaking under advisement is that --

11 MS. LOIS MORRISON: No, it's now an
12 undertaking. It's now an undertaking.

13

14 --- UNDERTAKING NO. 36: Manitoba Hydro to provide
15 projections for Load
16 Displacement Program and
17 alternative energy as to
18 what it anticipates to
19 achieve by the end of
20 '17/'18 and confirm it is
21 on target for that program

22

23 THE CHAIRPERSON: Mr. Hacault, I'm
24 just wondering if it would be an appropriate time to
25 take a break or --

1 MR. ANTOINE HACAULT: Absolutely.

2 THE CHAIRPERSON: So we'll -- we'll
3 break for fifteen (15) minutes. Thank you.

4

5 --- Upon recessing at 10:30 a.m.

6 --- Upon resuming at 10:55 a.m.

7

8 THE CHAIRPERSON: Ms. Fernandes, I see
9 a little present?

10 MS. ODETTE FERNANDES: Yes, I think
11 there are a few.

12 THE CHAIRPERSON: A few.

13 MS. ODETTE FERNANDES: So yesterday
14 late afternoon we forwarded electronically some
15 responses to undertakings and then we have another one
16 that we are filing right now.

17 So in terms of Undertaking Number 17,
18 we would have that marked as Exhibit Number 99.

19 THE CHAIRPERSON: Okay, do we have
20 those?

21 MR. KURT SIMONSEN: Yes, they are all
22 there, Mr. Chair.

23 THE CHAIRPERSON: Oh, yes. Okay.
24 Thank you.

25

1 --- EXHIBIT NO. MH-99: Response to Undertaking
2 Number 17.

3

4 MS. ODETTE FERNANDES: And in terms of
5 the response to Undertaking Number 27, we are now at
6 three (3) digits, so that would be Exhibit Number 100.

7

8 --- EXHIBIT NO. MH-100: Response to Undertaking
9 Number 27.

10

11 MS. ODETTE FERNANDES: The response to
12 Manitoba Hydro Undertaking transcript page 2396 would
13 be Exhibit Number 101.

14

15 --- EXHIBIT NO. MH-101: Response to Manitoba Hydro
16 Undertaking transcript
17 page 2396.

18

19 MS. ODETTE FERNANDES: And then what
20 we have done as well, one of GAC's second round IRs
21 requested some information with respect to figure 8.14
22 and since that figure has been updated in Exhibit
23 Number 101, we have also provided an update response
24 to GAC/MH round 2, 24(b) to provide the more current
25 information.

1 THE CHAIRPERSON: Thank you.

2 MS. ODETTE FERNANDES: And then we
3 also have the response to Manitoba Hydro Undertaking
4 Number 18, which would be marked as Manitoba Hydro
5 Exhibit Number 102.

6

7 --- EXHIBIT NO. MH-102: Response to Undertaking
8 Number 18.

9

10 MS. ODETTE FERNANDES: And then if I
11 might, Ms. Galbraith has done a review of the
12 transcript, and there's one correction that she'd like
13 to make to the transcript.

14 THE CHAIRPERSON: Okay.

15 MS. ODETTE FERNANDES: So with the
16 Board's permission, I'll hand the mic over to Ms.
17 Galbraith.

18 MS. COLLEEN GALBRAITH: Thank you. I
19 was having a discussion before the new year and before
20 the break with Mr. Shefman from the Assembly of
21 Manitoba Chiefs regarding working with communities --
22 First Nation communities that were flood affected, and
23 I made reference to providing the basic energy
24 efficiency measures as one (1) particular community
25 was rebuilding their homes.

1 And I noted that it was Lake St.
2 Martin. I'd like to correct that, it's actually
3 Little Saskatchewan First Nation.

4 THE CHAIRPERSON: Thank you. M.
5 Hacaault...?

6

7 CONTINUED BY MR. ANTOINE HACAULT:

8 MR. ANTOINE HACAULT: Thank you
9 members of the Board. I'm going to be going into a
10 different subject for the next ten (10) or fifteen
11 (15) minutes. It'll be the marginal cost discussion.
12 There was an exhibit filed on that and to start that
13 discussion, I would ask that Kristen please bring up
14 Public Utilities Board Order number 164/'16 at page
15 28, very bottom of that page with respect to the Board
16 findings.

17 And this is the Order of the Board
18 related to the cost of service study. So that -- this
19 is a lead-up to and a follow-up to my initial
20 questions of Mr. Barnlund. If we could go up to the
21 top of page 29.

22 We -- am I correct in understanding,
23 Mr. Barnlund, that the Coalition had previously
24 requested not only in this particular cost of service
25 hearing, that Manitoba Hydro take a marginal cost of

1 service study; that's not the first time that was
2 requested?

3 MR. GREG BARNLUND: I believe that's
4 correct, sir.

5 MR. ANTOINE HACAULT: And the Board
6 decision in this last hearing is recorded in the last
7 sentence:

8 "The Board rejects the Coalition's
9 request for the Board to direct
10 Manitoba Hydro to take further steps
11 towards preparing a marginal cost of
12 service study."

13 So I take it that Manitoba Hydro has
14 not undertaken any steps to produce a marginal cost of
15 service study; is that correct?

16 MR. GREG BARNLUND: We have not
17 undertaken any work to produce a cost of service study
18 on a marginal cost basis.

19 MR. ANTOINE HACAULT: Okay, thank you.
20 Now, I'll go back to an exhibit that launched some of
21 this discussion and I'd like to have a bit better
22 understanding. First, I'll go to some recent
23 documents that had been filed; that's the GAC/MH round
24 2, 24(b) updated.

25 The last paragraph on the first page

1 indicates that class specific marginal loss estimates
2 were not available and there has been an estimate that
3 there is a different loss factor applicable to load at
4 a transmission level.

5 Do you see that, sir? There's -- I
6 don't know who prepared this, or who is able to answer
7 this. Is this Mr. Miles, Mr. Swatek?

8 MR. GREG BARNLUND: I will start and
9 agree with that and then likely the question will move
10 to either Mr. Miles or Mr. Swatek.

11 MR. ANTOINE HACAULT: Okay. Remind us
12 again how many people are in the general service large
13 class?

14 MR. GREG BARNLUND: General service
15 large, greater than 100, they are approximate fourteen
16 (14) customers. The 30 to 100 class, there's probably
17 fifty-five (55) customers, I believe, and then in the
18 0 to 30 class there's probably a little better than a
19 hundred (100) customers; thereabouts, rough estimate.

20 MR. ANTOINE HACAULT: Thank you. This
21 didn't reference 0 to 30, but...

22 Is Manitoba Hydro saying that it is
23 unable to determine what the loss factor would be for
24 the fourteen (14) GSL greater than 100 kV?

25 MR. DAVID SWATEK: If that load is

1 greater than 100 kV then that loss factor would be the
2 transmission loss factor.

3 MR. ANTOINE HACAULT: And the -- is
4 the transmission loss factor at that level always 10
5 percent then?

6 MR. TERRY MILES: For -- for the
7 aggregate case and the high level marginal costs that
8 we produce for the -- from the generation to the
9 transmission to the distribution level where we see
10 values quoted for those specific individual levels or
11 aggregate levels, the 10 percent loss factor applies
12 to that transmission level at that overall aggregate
13 level.

14 MR. ANTOINE HACAULT: And is that
15 Manitoba Hydro's best guesstimate as to what
16 transmission losses are for the GSL greater than 100?

17 MR. TERRY MILES: I -- I believe that
18 is our best estimate, if you will, for that high level
19 transmission. You're recognizing that it's a -- it's
20 sort of an average across all load conditions and all
21 -- all operations of the transmission system to
22 reflect one (1) aggregate value.

23 There may be cases where losses are
24 higher than that or lower than that, however, that is
25 meant to represent just an -- an average loss factor

1 for the calculation of this average mark -- marginal
2 cost.

3 MR. ANTOINE HACAULT: I gather from
4 your answer that Manitoba Hydro did not do a specific
5 analysis with respect to the fourteen (14) customers
6 that comprise the GSL greater than 100 class to see
7 whether the 10 percent estimate is accurate?

8

9 (BRIEF PAUSE)

10

11 MR. TERRY MILES: So I understand I
12 think Mr. Hacault, you're trying to get down to some
13 details of individual -- impacts on individual
14 customers. It's my understanding, though, that the
15 network services of those customers, and that
16 essential -- that transmission losses is spread across
17 all of those different customers.

18 I'm not sure that we can in detail
19 extract that specific customer level losses; at least
20 not at my -- my -- my understanding.

21 MR. ANTOINE HACAULT: Thank you. Now
22 if we go to the next page of this exhibit, the reason
23 why understanding the differences between loss factors
24 as applicable to classes is -- is that it has affect -
25 - an effect on the calculations shown on this -- at

1 table on page 2 of GA -- GAC/Manitoba Hydro, round 2,
2 24(b) updated; correct?

3 MR. TERRY MILES: That's correct, yes.

4 MR. ANTOINE HACAULT: And because
5 there's less line losses at a transmission level
6 compared to adding to that transmission distribution
7 losses, it means the levelized marginal value with
8 respect to GSL greater than 30 is a lower number in a
9 sense than the other categories shown on that table,
10 correct?

11 MR. TERRY MILES: I believe that's
12 correct, yes.

13 MR. ANTOINE HACAULT: Because that --
14 if we go back to the first page what the calculations
15 show us or intended to show us is the effect of a 14
16 percent loss factor for those customers who are
17 serviced up to a distribution level as compared to
18 those that are serviced at a transmission level;
19 correct?

20 MR. TERRY MILES: Could you please
21 repeat the question, Mr. Hacault?

22 MR. ANTOINE HACAULT: I'll take little
23 bites. There's a 14 percent loss factor that applies
24 to load at a distribution level, correct?

25 MR. TERRY MILES: That's correct.

1 MR. ANTOINE HACAULT: That loss factor
2 gets reduced if we go to GSL 30 to 100 and GSL greater
3 than 100 because the loss factor is applicable to load
4 at the transmission level, correct?

5 MR. TERRY MILES: That's correct.
6 That's my understanding, yes.

7 MR. ANTOINE HACAULT: And a very
8 simple way for me is, the further you're away and the
9 more lines you have to have the electricity travel
10 over, when you hit the distribution level, you're
11 getting greater distances and -- and different lines
12 so you get greater losses on that second distribution
13 level?

14

15 (BRIEF PAUSE)

16

17 MR. DAVID SWATEK: Yes, we'd say yeah,
18 we agree with your comment.

19 MR. ANTOINE HACAULT: And that's a
20 further refinement to the table that's shown on page
21 2, which didn't exist before the filings today which
22 then translates, if we go to the second page, please,
23 Kristen, that the levelized marginal value used to be
24 shown at 4.39, but it's now changed for that
25 adjustment down to 4.23; correct?

1 MR. TERRY MILES: That's correct.

2 MR. ANTOINE HACAULT: And for the
3 transmission levelized value that used to be at .57
4 and now with this further refinement it's down to .55
5 cents; correct?

6 MR. TERRY MILES: That's correct.

7 MR. ANTOINE HACAULT: And if we go
8 back to PUB/MH-2-57 revised, on the table that we had
9 seen we didn't make that distinction in this document,
10 that further refinement to deal with the loss factor
11 was not reflected on the table that's at page 2 of
12 PUB/MH, round 2, 57 revised; correct?

13 MR. TERRY MILES: No, I believe the
14 loss factor is -- is contained in these numbers.

15 MR. ANTOINE HACAULT: Yes, it is. If
16 we go to the next page, the loss factor was calculated
17 at 14 percent across-the-board. If we see in the
18 notes at the top of the table. I'll read for the
19 record:

20 "Marginal cost referred to
21 distribution level loss, a loss
22 factor of 14 percent."

23 So you applied the 14 percent, as I
24 understand it, to every category irrespective of
25 whether they were just served at the distribution

1 level, correct?

2 MR. TERRY MILES: Yeah, this table
3 applies to serving load at the residential level. So
4 the generation component includes then the losses that
5 occur from transmission to distribution to the
6 residential customer. So you're correct, Mr. Hacault,
7 yes.

8 MR. ANTOINE HACAULT: And there's
9 another note that's pretty significant if we're going
10 to try and make any sense of this table. It's the
11 first note that said, marginal cost based on a uniform
12 supply with 100 percent capacity factor.

13 Remind this Board what 100 percent
14 capacity factor means? Would it, for example, mean
15 that we would expect a customer's load to be uniform
16 every hour and every day throughout the year? That
17 would mean that there's 100 percent capacity for that
18 particular customer?

19 MR. TERRY MILES: That's, essentially,
20 how we model the -- the annual energy. So we spread
21 the load, if you will, uniformly across the entire
22 year so we don't -- we do have some monthly numbers
23 that are there, but this represents really the -- an
24 annual load across the entire years. So it will be
25 equal in every month of the year as opposed to varying

1 it throughout -- throughout the year.

2 MR. ANTOINE HACAULT: Correct. And
3 the one (1) thing we did when we went through the
4 marginal -- or the embedded cost of service study is
5 we actually considered the impact on the system for
6 those that had peaking characteristics or capacity
7 factor changes throughout the year; correct?

8 MR. TERRY MILES: Correct. That's
9 correct.

10 MR. ANTOINE HACAULT: And the reason
11 we were looking at that in the -- at that in the
12 embedded cost of service study is this Utility has to
13 have the generation and transmission facilities in
14 place to meet the peaks that are demanded of the
15 system; correct?

16 MR. GREG BARNLUND: Yes, that's
17 correct.

18 MR. ANTOINE HACAULT: And this table,
19 and the other table that we've looked at that talks
20 about the marginal costs doesn't have an adjustment as
21 it relates to each different category with respect to
22 the capacity factor and the peaking characteristics of
23 that load; correct?

24

25 (BRIEF PAUSE)

1 MR. TERRY MILES: So I think these --
2 these numbers, just to help clarify, are sort of at
3 that high level aggregate number. There is more
4 resolution provided in our marginal cost evaluations
5 that then get utilized. For example, like the DSM
6 programming and those types of things that might be
7 able to be applied then to those loads that have lower
8 capacity factors.

9 I think we've talked about energy
10 programs that are very energy intensive, say DSM, but
11 they have a capacity benefit. So, we do provide
12 marginal cost to more resolution that can be broken
13 down to provide the detail or a little more detail,
14 anyways, than that's provided on this chart.

15 MR. ANTOINE HACAULT: Thank you. And
16 that was my point, sir, that I wanted to clarify, is
17 that the tables we've been looking at in the last ten
18 (10) to fifteen (15) minutes don't provide that
19 granularity and those details.

20 So these tables, really, don't inform
21 us much about the difference in marginal value with
22 respect to a load that is really peaking as supposed
23 to a load that's 100 percent capacity factor; correct?

24 MR. TERRY MILES: I don't -- the
25 intent of these tables is not to provide that

1 resolution. It's to provide the year-on-year
2 comparison of the variation in value, if you will, of
3 the energy in the Manitoba Hydro system and the
4 capacity in the Manitoba Hydro system over time based
5 on -- on, in this case, so the generation value, the
6 transmission distribution value, that's there.
7 That's, in essence, what these tables are meant to
8 provide, not that detail of how it applies to each --
9 each customers in this -- in this form.

10 MR. ANTOINE HACAULT: Could we go to
11 Exhibit 101, which is an update, I think, to a table
12 8.14. And the...

13

14 (BRIEF PAUSE)

15

16 MR. ANTOINE HACAULT: Or the other one
17 that maybe makes more sense is the GAC/Manitoba Hydro-
18 2-24(b) updated that we've been looking at.

19

20 (BRIEF PAUSE)

21

22 MR. ANTOINE HACAULT: The -- so when
23 we look at these levelized marginal values in cents
24 per kilowatt hours, are those numbers -- what use can
25 we make of those numbers?

1 MR. TERRY MILES: Could just repeat
2 the questions? I'm -- I was thinking as you were
3 talking.

4 MR. ANTOINE HACAULT: Yeah. Let me
5 break that down. Does this table which is shown on
6 the screen, it's the second page of GAC/MH-2-24(b),
7 tell us anything about the load shape of the
8 customers?

9 MR. TERRY MILES: No, it doesn't.

10 MR. ANTOINE HACAULT: So if we were
11 trying to determine what it cost to serve a customer
12 based on its load shape, this table wouldn't help us
13 understand that, would it?

14 MR. TERRY MILES: Not this specific
15 table, no. That -- it would not.

16 MR. ANTOINE HACAULT: I have a quick
17 update with -- or question with respect to Exhibit
18 100. It's Undertaking number 27.

19 MR. DAVID SWATEK: I would like to --
20 to add something to that last res -- response. The
21 transmission and distribution elements on that table,
22 those should be based on the peak loads. So, yes, and
23 just as you pointed out yourself -- wait, I'm going to
24 hold that for a sec.

25

1 (BRIEF PAUSE)

2

3 MR. DAVID SWATEK: I do have to walk -
4 - I do have to walk back my comment. These -- these
5 numbers, even for the transmission and distribution,
6 these numbers are allocated over a -- a load shape.
7 Yeah.

8 MR. ANTOINE HACAULT: So that assumes
9 100 percent load factor?

10 MR. TERRY MILES: Basically, yes.

11 MR. ANTOINE HACAULT: I think I didn't
12 get the -- the answer wasn't recorded.

13 MR. TERRY MILES: Yes, that's correct.

14 MR. ANTOINE HACAULT: Can we go to
15 Manitoba Hydro Undertaking number 27, Exhibit 100? My
16 question is with respect to the last sentence in the
17 paragraph that the underlying price forecast tends to
18 increase in real terms over time. Am I right in
19 understanding that when we used the terms "in real
20 terms over time," that would be the increase is
21 greater than inflation?

22 MR. TERRY MILES: That's correct.

23

24 (BRIEF PAUSE)

25

1 MR. ANTOINE HACAULT: Going back to
2 PUB/MH-2-57 revised, my understanding of the testimony
3 was that it was based on a combined cycle gas
4 generator, assuming that you'd have to add that to the
5 system in 2030. Am I right so far?

6 MR. TERRY MILES: That's correct.
7 It's -- it's adding that capacity resource, or the
8 value for that out at that timeframe, yes.

9 MR. ANTOINE HACAULT: Just to confirm,
10 back in the 2003/2004 flood, although we had gas
11 turbines in reserve, Manitoba Hydro never used those
12 more expensive forms of generation? They actually
13 were able to import power to satisfy requirements,
14 correct?

15 MR. TERRY MILES: That's correct. And
16 we probably weren't necessarily in a peak load
17 situation on -- on the system. So this -- this
18 capacity resource gets added, all the capacity
19 resources, if you will, in the system, that would be
20 required to serve load. In this case, it -- it's
21 essentially a -- a -- the use of that resource is to
22 provide a capital value of cost, if you will, that we
23 can defer in the -- in the generation deferral
24 calculation. That's what the purpose of the peaker
25 is.

1 From a capacity perspective, yeah,
2 there's a number of options that can be used to serve
3 -- serve capacity, and an import might be an
4 alternative. From a planning perspective, I have to
5 plan for physical resources to serve those. If it was
6 from an import, I would have a physical contract in
7 place to do that. It doesn't mean that can't be an
8 option. So from, you know, we've had lots of
9 discussions.

10 And maybe just to clarify some
11 discussion we've had on integrated resource planning,
12 that -- that you could look at a number of different
13 options to provide that resource out in time, and one
14 (1) of them could be a market mechanism. It could be
15 some form of agreement that serves capacity instead of
16 this resource. That might be lower cost option, a
17 different option. It could be DSM out there.

18 From a planning perspective, Manitoba
19 Hydro hasn't conducted a formal integrated resource
20 plan, or hasn't prepared one since NFAT. And in part,
21 it's because of looking at the options that might be
22 available, one (1) of them being demand-side
23 management. So with the new DSM entity in shape, we
24 require some direction and clarification of how to
25 actually factor that into our analysis going forward

1 out in that timeframe, but -- and the options could be
2 numerous there.

3 The peaker, if you will, the resource
4 that's used here, is similar to what's used elsewhere
5 in the marketplace. If we were going to rely on the
6 marketplace, it would likely be from a peaking
7 resource, from a gas turbine resource. And in this
8 analysis, the combustion turbine just provides that
9 cost that allows us to do the deferral calculation for
10 the capacity column here.

11 Just -- just to provide -- there's been
12 a lot of discussion. I know it's been confusing in my
13 head. I slept on it and thought about it a little
14 bit, and I don't know if that provides clarification
15 to this, but hopefully it does.

16 MR. ANTOINE HACAULT: Okay. You've
17 spoke, sir, about capacity, but on the table that
18 we're looking at, there's lines with respect to summer
19 and winter generation energy.

20 And you wouldn't necessarily use that
21 peaker for that energy, would you, sir?

22 MR. TERRY MILES: No, that -- well,
23 you might, but not this -- not that peaker in this
24 calculation. That's a generation cost that we use.
25 And are -- we provided some information as to how we

1 determine our generation marginal value. I gave a
2 synopsis of that yesterday, but we do have an IR that
3 does talk a little bit about how we do that
4 calculation for energy, and it would be a system
5 resource overall that provides the energy in the
6 winter or the -- or the summer.

7

8

(BRIEF PAUSE)

9

10 MR. TERRY MILES: So just -- I was
11 just reminded here, that -- that generation cost,
12 there would have -- in here, the generation value in
13 here would include, if you will, a small portion of --
14 so in our system, we do have combined -- or we do have
15 gas turbines and -- and thermal generation. That
16 value would include, if you will, a small portion over
17 -- averaged over a hundred and -- a hundred and two
18 (102) flow cases. If we were in the lowest flow case
19 on year, in a -- in a year where we had a high load,
20 we likely would run some of our thermal units. I
21 think we are running some of our thermal units
22 recently in the cold snap that we -- that we had here.

23 So yes, it might be run to meet peak
24 load, but it is averaged out in these numbers, and --
25 and ends up being a small portion of the generation

1 cost, or the production cost averaged out in these
2 numbers.

3 MR. ANTOINE HACAULT: Thank you for
4 that clarification. I'll move on to a different
5 subject, time -- time of use rates.

6

7 (BRIEF PAUSE)

8

9 MR. ANTOINE HACAULT: Probably they
10 are questions that Mr. Barnlund can answer or -- or
11 deal with.

12 Would you agree, Mr. Barnlund, that
13 there would be overall system benefits in terms of
14 peak load shifting if the industrial class was able to
15 adjust production schedules, et cetera?

16 MR. GREG BARNLUND: Generally, I would
17 agree with that. I think that the important aspect to
18 consider is the degree to which load could be shifted,
19 and therefore, that would affect or influence the
20 amount of benefit that the system may receive.

21 MR. ANTOINE HACAULT: And the time of
22 use rate system allows for a recognition that some
23 customers, if they're able to shift load in the peak
24 or lower cost to serve due to load timing, correct?

25 MR. GREG BARNLUND: Yes. So it would

1 reflect that customers that could be consuming more
2 energy in the off-peak periods, that energy is
3 considered to be less costly than on peak, and to the
4 extent that they operate to be consuming more in the
5 off-peak, it would represent a lower cost, yes.

6 MR. ANTOINE HACAULT: And we've seen
7 Manitoba Hydro come to an assessment of cost of that
8 program as it relates to certain customers, correct?

9 MR. GREG BARNLUND: If I could just
10 ask you to elaborate? Are we speaking of the -- I
11 think we looked at the impact on fourteen (14)
12 customers?

13 MR. ANTOINE HACAULT: I think it came
14 to \$1.5 million or so, and in Manitoba Hydro's
15 rebuttal evidence.

16 MR. GREG BARNLUND: I think more
17 accurately, that -- that we looked at the range of
18 impacts across all those fourteen (14) customers. It
19 would be a -- the analysis that we undertook was on a
20 revenue neutral basis, and -- and expected that
21 certain customers would be paying higher rates or
22 higher bills because they were more costly to serve.
23 Those customers that were less costly to serve would
24 see lower bills as a result of it, but that the -- the
25 class in total would be revenue neutral.

1 MR. ANTOINE HACAULT: I understand
2 that's Manitoba Hydro's position. My question was
3 focused more on the optional program that Manitoba
4 Industrial Power Users group was asking for. So I'll
5 repeat my question with respect to those who might opt
6 into the program. Manitoba Hydro's assessment of the
7 cost of that -- that -- of that option is about \$1.5
8 million?

9 MR. GREG BARNLUND: Right. So based
10 on their existing usage patterns, that customers that
11 would be benefitted by that particular time of use
12 rate, and that structure was based on, I think,
13 information which is currently obsolete, I would say,
14 but for that basis of the analysis, there is the
15 potential for customers, without changing their
16 operation, for a number of those customers to see
17 lower bills as a result, and the aggregate amount of
18 that was estimated to be \$1.5 million.

19 MR. ANTOINE HACAULT: I'll try to
20 break that down. I think you said that some of the
21 information may no longer be valid?

22 MR. GREG BARNLUND: Well, because the
23 -- the rate analysis itself -- the underlying rate was
24 calculated based on rates in place in 2016 and they
25 were also determined based on the structure that we

1 had previously developed, which had a certain
2 weighting between the recovery on energy and the
3 recovery on demand charges, and the differential
4 between the on-peak and off-peak periods. And I think
5 that to be more fair we need to be reassessing each of
6 those factors before we could come up with a --
7 another rate design that -- that could be evaluated.

8 MR. ANTOINE HACAULT: Okay.

9 MR. GREG BARNLUND: So basically what
10 I'm saying is that -- that it -- it was a hypothesis
11 that was generated based on outdated rate information,
12 but it was designed to show the effect of having an
13 optional rate where certain customers would self
14 select a rate that would benefit them, whereas other
15 customers would remain on the existing rate design.

16 MR. ANTOINE HACAULT: Okay. I'll
17 break that down a little bit more.

18 Does Manitoba Hydro believe that it has
19 a reasonable estimate of the load shifting that will
20 occur?

21 MR. GREG BARNLUND: I would say we
22 don't have a good understanding of the load shifting
23 would occur. And that's probably something that would
24 require some further evaluation and some further
25 discussions with the potential customers that could

1 participate in that -- in that particular rate design.
2 And I think that would be a valuable thing to
3 understand prior to advancing any type of rate design
4 for that particular class of customers.

5 MR. ANTOINE HACAULT: Now, as -- do
6 you have any sense of the variability of the \$1.5
7 million cost? You know, is it within a plus or minus
8 30 percent range?

9 MR. GREG BARNLUND: I really can't
10 say. I mean, the factors that we're going to have to
11 deal with in terms of revisiting a time of use rate.
12 We've alluded to in the past in terms of the changes
13 in -- in cost of service that -- that we are now going
14 to have to take into consideration in rate design.

15 And I think that we looked at some
16 information in one (1) of the Information Requests
17 that showed that, for example, demand charges
18 allocated out of the embedded cost study have changed,
19 have essentially doubled for certain rate classes.
20 And that's as a result of adopting a system load
21 factor for being able to address the allocation of
22 generation cost.

23 So -- so those are factors that need to
24 be carefully examined and taken thoughtfully into
25 consideration in coming up with another rate design.

1 So I think that any numbers that we've been talking
2 about are subject to a fairly strong caveat here in
3 terms of going forward.

4

5 (BRIEF PAUSE)

6

7 MR. ANTOINE HACAULT: Could I take you
8 to MIPUG Exhibit 13, page 7-3. 3, not 13, Kristen.
9 Now, if we could focus on the last column which is GSL
10 greater than one hundred (100).

11 MR. GREG BARNLUND: Sorry, sir. Is
12 this in your book of documents?

13 MR. ANTOINE HACAULT: No, it's in the
14 prefiled testimony of Mr. Bowman.

15 MR. GREG BARNLUND: Can you just give
16 me a moment, please?

17 MR. ANTOINE HACAULT: Yeah.

18

19 (BRIEF PAUSE)

20

21 MR. GREG BARNLUND: All right, sir.

22 MR. ANTOINE HACAULT: Now, focusing on
23 the column GSL greater than one hundred (100). If we
24 go through the math, there is a difference in the way
25 InterGroup Consultants has done the math as compared

1 to Manitoba Hydro in considering the revenue to cost
2 ratio; correct? It deals with the export share at the
3 costs level.

4 MR. GREG BARNLUND: Right. So this is
5 the -- taking exports and rather than adding them to
6 revenue reducing costs prior to deriving the ratio.

7 MR. ANTOINE HACAULT: Yes. So -- and
8 I'll direct you to PUB-164/'16, which is a cost of
9 service decision. But what we see here is that
10 there's generation costs at 194.55 million,
11 transmission costs of 30.31 million. And then what
12 these consultants have done is they've subtracted from
13 those costs the share which GSL greater than one
14 hundred (100) has of the export revenues; correct?

15 MR. GREG BARNLUND: Yes, I see that
16 there. Yes.

17 MR. ANTOINE HACAULT: Yeah. And that
18 leads us to a revised expense figure of 154.82
19 million.

20 Are you following me so far?

21 MR. GREG BARNLUND: Correct. So
22 that's the reduction -- a direct reduction to cost.

23 MR. ANTOINE HACAULT: And under that
24 method of calculation, if we flow through the bottom,
25 we see that based on this study those fourteen (14)

1 customers are collectively paying \$19.81 million based
2 on this calculation; correct?

3 MR. GREG BARNLUND: I'm sorry, the
4 19.81 million is derived at which --

5 MR. ANTOINE HACAULT: At the very
6 bottom --

7 MR. GREG BARNLUND: Right.

8 MR. ANTOINE HACAULT: -- where it says
9 "shortfall compared to costs," just before the number
10 of 112.3 percent right above it.

11 MR. GREG BARNLUND: Yes, I have that.

12 MR. ANTOINE HACAULT: And there's
13 \$19.81 million -- or \$19.81 million.

14 Do you see that?

15 MR. GREG BARNLUND: Yes. Yeah.

16 MR. ANTOINE HACAULT: So based on this
17 method of calculation, what the cost of service study
18 is telling us is that there is \$19.81 million that's
19 being paid by these fourteen (14) customers over and
20 above the 100 percent point; correct? And I'll get to
21 your table after.

22 MR. GREG BARNLUND: That's correct.

23 MR. ANTOINE HACAULT: Your table and
24 method of calculating it leads us to a number of about
25 \$15 million instead of \$19 million.

1 MR. GREG BARNLUND: I will take that
2 subject to check, but...

3 MR. ANTOINE HACAULT: And with respect
4 to the \$1.5 million cost -- optional costs, because
5 that's the best number we have so far on the time of
6 use rates, am I correct in suggesting that's about .01
7 percent of total revenues? Total revenues for the
8 consumer class is about \$1.5 billion?

9 MR. GREG BARNLUND: I think that's --
10 that's a estimation that's reasonable, yes.

11 MR. ANTOINE HACAULT: So I had trouble
12 when I started these hearings several years ago
13 getting used to saying that \$1.5 million is not even a
14 rounding error. It's not worth talking about. But in
15 order of magnitude between the total revenues, we're
16 talking about \$1.5 million on \$1.5 billion of total
17 revenue; correct?

18 MR. GREG BARNLUND: Well, I mean that
19 -- that is the mathematics we're speaking to. And I
20 think, again, my -- our perspective on that is that --
21 that if there is an adjustment that needs to be made
22 to class revenues that that adjustment should be made
23 explicitly; that the adjustment should enable Manitoba
24 Hydro to recover that \$1.5 million from some other
25 customer class if it's felt that it's not owed by the

1 general service large greater than one hundred (100)
2 customers. And that in that way, then Manitoba Hydro
3 and all customers are kept whole for the total revenue
4 requirement. So again, that's Manitoba Hydro's
5 perspective with respect to how that should be
6 treated.

7

8

(BRIEF PAUSE)

9

10 MR. ANTOINE HACAULT: And in fairness,
11 so we can look at the way you've calculated that, sir.
12 It's in schedule 1.1 of appendix 8.1. I believe
13 Kristen has that available.

14 MR. GREG BARNLUND: Yes, sir. That's
15 Manitoba Hydro's cost of service study with revenue
16 cost coverage ratios presented in the manner by which
17 we have always calculated them, which is to take total
18 revenues, being domestic revenues, plus the export
19 revenues attributable to that class divided by the
20 allocated cost to each class.

21 MR. ANTOINE HACAULT: Okay. So if we
22 want to understand what you've just explained, we need
23 to go to the left-hand side that says "general service
24 large, greater than 100 kV." We have a total cost of
25 two hundred and thirty million six hundred and eighty-

1 eight (230,688,000)?

2 MR. GREG BARNLUND: That's correct,
3 yes.

4 MR. ANTOINE HACAULT: And then the
5 revenue from that class was one hundred eighty
6 thousand four hundred and fifty-eight million
7 (180,458,000); correct?

8 MR. GREG BARNLUND: A hundred and
9 eighty-point-five (180.5), roughly, million, yes.

10 MR. ANTOINE HACAULT: Yes. And those
11 numbers are the same numbers we were looking at
12 before?

13 MR. GREG BARNLUND: Yes, sir.

14 MR. ANTOINE HACAULT: The difference
15 in the way that Hydro calculates it, it adds the next
16 line of net export revenue at 70 million to the class
17 revenue of 180 million for -- it assumes that that
18 class has generated \$250.5 million.

19 MR. GREG BARNLUND: Right. So the
20 intermediate step there is if we look at class
21 revenues and total costs before we deal with net
22 export revenue there are no customer classes that are
23 covering their own costs. Revenue cost coverage
24 ratios vary from a low of 74.5 up to as much -- or
25 only as high as 91.9 percent. So all customer classes

1 are not paying their full -- their full freight.

2 We would then consider the addition of
3 the net export revenue for each customer class. And
4 that brings you to the total revenue column on the
5 second from the last column on the right. And
6 ultimately, then we would determine the revenue to
7 cost coverage ratio with the inclusion of net export
8 revenue and class revenues together, divided by total
9 cost.

10 MR. ANTOINE HACAULT: And to
11 understand how the Board has directed things be done
12 in the cost of service analysis, we need to go to PUB
13 Order 164/'16 at page 9, last paragraph. So we had
14 this same type of discussion that you're having now
15 that domestic classes are not paying their freight, so
16 to speak. We had that discussion at the cost of
17 service study, too.

18 MR. GREG BARNLUND: Yes, sir, we did.

19 MR. ANTOINE HACAULT: And there was a
20 discussion as to how we were going to have to deal
21 with that class, which had existed and which Manitoba
22 Hydro used for quite some time?

23 MR. GREG BARNLUND: Yes, that was one
24 (1) of the central topics of discussion in the cost of
25 service review.

1 MR. ANTOINE HACAULT: And the Board
2 made the findings it did at this page, starting at the
3 last paragraph, that crediting of export revenue to
4 the domestic classes should be based on the class's
5 share only of generation and transmission costs,
6 instead of also including distribution costs; correct?

7 MR. GREG BARNLUND: Yes, sir, that's
8 correct. And that's the methodology that we now
9 employ in our cost of service study.

10 MR. ANTOINE HACAULT: And if we go to
11 the top of page 10, they've explained in the decision
12 that this was based on the principle of cost causation
13 because Manitoba Hydro's generation and transmission
14 assets were the only functions they usual -- utilized
15 to affect export sales, and thus the export revenues.

16 MR. GREG BARNLUND: That's correct,
17 yes.

18 MR. ANTOINE HACAULT: So this
19 represented to change for Manitoba Hydro. What you're
20 telling me is that you haven't changed the way in
21 which you class -- you calculate your revenue to cost
22 coverage ratios?

23 MR. GREG BARNLUND: Right. So -- so
24 we would not interpret this as being a direction in
25 terms of how to calculate revenue to cost coverage

1 ratio. It was really giving the Board's direction in
2 terms of how export revenues were to be dealt with,
3 and how the -- the net export revenues were to be
4 allocated to each of the domestic customer classes.
5 The calculation of the revenue to cost coverage ratio
6 is -- is really a secondary matter, and we would not
7 interpret that as giving us direction in terms of how
8 to calculate revenue to cost coverage.

9 MR. ANTOINE HACAULT: Thank you. I'll
10 take you back, because I think I made an error in
11 suggesting something to you previously, now that I've
12 looked at appendix 8.1. So if we could go back to
13 appendix 8.1. And looking at the numbers, I appear to
14 have made a mathematical error.

15 I had suggested under InterGroup's
16 calculations the industrial customers were paying
17 about \$20 million more than the total cost. If we go
18 to the total cost and total revenue and do a
19 mathematical calculation, being 250.5 million less
20 230.688 million, we get the same number as Mr. Bowman,
21 being the \$19.81 million.

22 MR. GREG BARNLUND: Well, I won't pull
23 out my calculator. I'll take that as -- as given,
24 yes.

25 MR. ANTOINE HACAULT: Okay.

1 MR. GREG BARNLUND: Thank you.

2 MR. ANTOINE HACAULT: So under both
3 calculations this group of fourteen (14) customers, if
4 my math is correct, are paying about \$20 million more
5 than that study would suggest they need to pay?

6 MR. GREG BARNLUND: So they would be
7 paying \$20 million above unity, not above a zone of
8 reasonableness. I'll make that clarification. And so
9 it's really just the difference between the
10 calculation in Mr. Bowman's evidence and this evidence
11 is just the algebra of determining the revenue cost
12 ratio itself.

13 MR. ANTOINE HACAULT: Yeah. So your
14 way of describing the \$20 million or so, is that it's
15 a hundred and eight-point-six (108.6) revenue cost
16 coverage ratio and InterGroup's way of describing the
17 \$20 million is that it's 112.3 percent.

18 MR. GREG BARNLUND: That's right. And
19 I think, in addition to InterGroup, that the GSS/GSM
20 there is an Information Request we spoke to earlier,
21 where they had alluded to the same calculation. And I
22 just wanted to restate that the difference in using a
23 different algebra in a different way provides a wider
24 range of outcomes with customer classes that are
25 farther away from unity. So that's -- that's just an

1 effect of algebra in itself.

2 MR. ANTOINE HACAULT: Yeah. The
3 bottom line is if we look at this table that's on the
4 screen right now, being appendix 8.1, under the line
5 "general service large greater than 100 kV," under the
6 class revenue, if we were going to bring it down to
7 unity, we would have to lower the hundred and eighty
8 million four hundred and point-four-five-eight down by
9 about \$20 million. That's what we would have to do to
10 get 100 percent unity.

11 MR. GREG BARNLUND: If it was to be
12 brought to unity over time that's the adjustment that
13 would have to be made, yes.

14 MR. ANTOINE HACAULT: And the proposal
15 of MIPUG is not a \$20 million adjustment. It's a
16 optional program that the best number we have right
17 now would be about \$1.5 million; correct?

18 MR. GREG BARNLUND: Well, again, I
19 understand MIPUG's proposal, and I would suggest that
20 -- that if MIPUG is proposing to reduce the overall
21 level of class revenue by \$1.5 million, that's one (1)
22 thing that should be picked up from other customer
23 classes.

24 But on an optional basis Manitoba Hydro
25 would suggest that if there's a \$1.5 million reduction

1 to seven (7) customers then perhaps the other rate to
2 the other seven (7) customers should be increased by
3 \$1.5 million in aggregate to be able to maintain unity
4 or maintain revenue neutrality for that particular
5 class. We would not want to be getting into picking
6 and choosing between prospective customer classes in
7 terms of -- in terms of that further complication, if
8 you would, in terms of foregoing that amount of
9 revenue.

10 MR. ANTOINE HACAULT: I think I get
11 your point, sir.

12 MR. GREG BARNLUND: I don't mean to
13 belabour --

14 MR. ANTOINE HACAULT: The result that
15 Manitoba Hydro wants is it still wants to collect
16 another \$20 million from these fourteen (14) customers
17 every year, instead of doing an adjustment across the
18 board where we start to slowly migrate towards unity.

19 MR. GREG BARNLUND: Well, I wouldn't
20 go so far as to say that, sir. I think that -- that
21 if there's a desire on behalf of migrating customer
22 classes closer to the zone of reasonableness, Manitoba
23 Hydro has no objection to that provided that we're
24 able to be kept whole on the revenue. So I wouldn't
25 agree with the statement as you had -- as you had

1 described it, sir.

2 MR. ANTOINE HACAULT: Thank you. I'll
3 move on to another subject. This is going to be a
4 tedious area, it's the C-10 cost allocator, but I --
5 it is an item that's important to our client.

6 THE CHAIRPERSON: Sorry, I -- I was
7 going to make a comment that I -- I shouldn't make.
8 I'm just wondering how much longer you have, Mr.
9 Hacaault. I -- I know we took some of your time this
10 morning. You were scheduled to go till -- till 12:30.
11 I'm just wondering if we should break now and then
12 continue this afternoon. But for Mr. Monnin's benefit
13 and Mr. Gange's I'm just wondering if we broke now for
14 lunch when you think you'd be done.

15

16 (BRIEF PAUSE)

17

18 MR. ANTOINE HACAULT: I'm reluctant to
19 give a precise one on the C-10 allocator because the
20 questions -- I know what the questions are. If I get
21 a short answer I'll cruise through it pretty quickly.
22 But I'm scared that I'm going to get a three (3)
23 minute answer to a short question. I'm -- I'm hoping
24 in three-quarters of an hour.

25 MR. GREG BARNLUND: That --

1 THE CHAIRPERSON: Okay. Because I'd
2 like to finish Mr. Monnin and Mr. Gange this
3 afternoon. If we need to go late, we'll go late, but
4 okay. So we'll break for an hour for lunch right now.
5 Thank you.

6

7 --- Upon recessing at 11:52 a.m.

8 --- Upon resuming at 12:58 p.m.

9

10 THE CHAIRPERSON: I tried to explain
11 this to my wife once and she sort of shook her head.

12 Mr. Hacault...?

13

14 CONTINUED BY MR. ANTOINE HACAULT:

15 MR. ANTOINE HACAULT: Thank you,
16 members of the Board. I'm going to have maybe a
17 little bit more than five (5) minutes, just maybe
18 doing what I'm hopeful help understand a little bit
19 better the whole marginalized cost issue. And then
20 I'll move to what is going to rivet everybody to their
21 seats, the C10 allocator.

22 So if we could put up from MIPUG-13,
23 page 7-3 again, thank you. And just to get a better
24 sense of what's happening, if we look at the
25 residential customers on this table, on the left-hand

1 side of the table, there's some numbers put for
2 distribution customer service, so, together those two
3 (2) come to 3.35 cents.

4 Do you see that on the table, Mr.
5 Barnlund?

6 MR. GREG BARNLUND: Yes, sir, I do.

7 MR. ANTOINE HACAULT: And I've got
8 hydro lines to my house. There's a lot of people that
9 have them, the distribution centre; that's what
10 residential customers are paying to have that
11 distribution system serve them.

12 That's what it costs for that system,
13 correct?

14 MR. GREG BARNLUND: That's correct,
15 yes.

16 MR. ANTOINE HACAULT: Now if we
17 contrast that to Exhibit 101 on this table which
18 formed part of Manitoba Hydro evidence, we see under
19 the residential line and under the heading
20 Distribution there's .78 cents; that really doesn't
21 tell us much about what it costs to operate your
22 system and the costs that are caused by that group of
23 customers, does it?

24 MR. GREG BARNLUND: Well, it doesn't
25 reflect the embedded costs of -- of operating the

1 system. It -- it is an indication of the marginal
2 cost, in other words, the cost of adding an additional
3 customer or adding additional load to the system, but
4 it does not reflect the embedded costs that we have to
5 recover to fund the operations to the Utility.

6 MR. ANTOINE HACAULT: And so,
7 therefore, if I go to the right and there's kind of a
8 heading, REV/cost you've just indicated that this
9 table does not reflect the cost to run the system.

10 So we shouldn't read that heading as
11 reflecting a percentage as it relates to the cost to
12 run the system, should we?

13 MR. GREG BARNLUND: No, it would be --
14 I think if -- if you want to expand on the heading and
15 if we're talking about the column says revenue/cost,
16 it would be REV new to marginal cost perhaps -- or
17 marginal value.

18 MR. ANTOINE HACAULT: Sorry, it's --

19 MR. GREG BARNLUND: It would not
20 represent the embedded cost of -- of providing service
21 to that class.

22 MR. ANTOINE HACAULT: And if we, on
23 this table, struck out the .78 cents and replaced it
24 with the 3.35 that we looked at, it makes the numbers
25 look a lot different, doesn't it?

1 MR. GREG BARNLUND: Well, it does make
2 the numbers look different. Then you're mixing
3 embedded cost with marginal costs and that's a --
4 that's a more -- well, that's not a -- that's not the
5 usual way you represent that type of information, but
6 it's a mixture of marginal costs and embedded costs at
7 that point.

8 MR. ANTOINE HACAULT: But on
9 distribution, if we wanted to know what it took to run
10 the system, we'd have to put 3.35 cents there, not the
11 .78 cents; right?

12 MR. GREG BARNLUND: Well, I think the
13 point being is that this table represents marginal
14 values. It's not embedded costs. And I think what
15 you're -- what you're seeing here is that the marginal
16 value of -- for the residential customer class very
17 notionally speaking is .78 cents, but that is not the
18 embedded cost that -- that -- that's not recovering
19 the investment that has already been made or the
20 operating costs that currently exist within the
21 Corporation to provide service to that class of
22 customers.

23 MR. ANTOINE HACAULT: But to be clear,
24 when we collect .08 cents from residential customers,
25 3.35 cents relates solely to distribution?

1 MR. GREG BARNLUND: Yes, very much so.

2 MR. ANTOINE HACAULT: And if we go
3 back to page 7-3, there's another line that says "plus
4 subtransmission related;" that's a separate entry,
5 correct?

6 MR. GREG BARNLUND: Yes, that's
7 correct.

8 MR. ANTOINE HACAULT: And out of that
9 .08 cents we also need the residential customers to
10 pay .49 cents towards the subtru -- subtransmission
11 related costs; correct?

12 MR. GREG BARNLUND: Yes, that's
13 correct because all of those customers will, in some
14 way, shape or form, be provided service through the
15 subtransmission system, as well as the distribution
16 system.

17 MR. ANTOINE HACAULT: And the table we
18 looked at considers -- doesn't break it down for the
19 subtransmission, does it? That was on the marginal
20 cost?

21 MR. GREG BARNLUND: Not on marginal
22 cost, sir, no.

23 MR. ANTOINE HACAULT: And --

24 MR. GREG BARNLUND: Sir, I would
25 suggest that possibly -- so I would think that -- that

1 voltages served at 24 kV and below would be
2 distribution. I'd just have to check and see if -- if
3 those subtransmission costs were in distribution or
4 were in the transmission system.

5 MR. ANTOINE HACAULT: I was going to
6 suggest that to you but if you aren't sure --

7 MR. GREG BARNLUND: Yeah.

8 MR. ANTOINE HACAULT: -- it's okay.
9 But I -- I was going to put the subtransmission and
10 distribution costs and the table we're looking at,
11 table 7.1, as being a total of distribution costs.

12 So not only would we have to add the
13 3.35 cents, we would have to add the .49 cents to know
14 what it costs to serve residential customers at a
15 distribution level?

16 MR. GREG BARNLUND: That's correct.

17 MR. ANTOINE HACAULT: Now, to just
18 give us some sense of what happens when we consider
19 load shape and other factors, I'd ask you to look at
20 again residential, but generation costs being 5.57
21 cents.

22 Do you see that?

23 MR. GREG BARNLUND: Yes, sir.

24 MR. ANTOINE HACAULT: And if we go to
25 the extreme right for the general service large over

1 100 kV, we don't see that same number again.

2 We see 4.32; isn't that correct?

3 MR. GREG BARNLUND: That's correct,
4 sir.

5 MR. ANTOINE HACAULT: And that's
6 because there's a different load shape
7 characteristics, amongst other things, that make it
8 such that the costs caused by those larger customers
9 are lower per kilo cent -- or percent on kilowatt
10 hour; correct?

11 MR. GREG BARNLUND: Yes, sir.

12 MR. ANTOINE HACAULT: And if we look
13 at transmission costs, again, comparing residential,
14 we will see that residential transmission costs are at
15 1.28 cents; correct?

16 MR. GREG BARNLUND: That's correct,
17 yes.

18 MR. ANTOINE HACAULT: But once we take
19 into account everything that we did in the cost of
20 service study, and we look at the general service
21 large, we see that the costs related to transmission
22 that are caused by those customers are only about
23 half, in other words, .67 cents; correct?

24 MR. GREG BARNLUND: That's correct,
25 yes.

1 MR. ANTOINE HACAULT: And all of these
2 types of things aren't shown in the table that we
3 looked at at Exhibit 101 because it isn't intended to
4 help us understand those things; correct?

5 MR. GREG BARNLUND: Well, the -- the
6 marginal value table is a very simplified
7 representation of marginal value. So it -- it was not
8 calculated taking into consideration the difference in
9 load profile between customer classes.

10 MR. ANTOINE HACAULT: And if it had
11 been, and if we would be doing a proper three (3) or
12 four (4) week hearing on this, we would see, I would
13 suggest, that the residential number once you took
14 into account the load shape would be higher on
15 generation?

16 MR. GREG BARNLUND: One would assume
17 that, yes.

18 MR. ANTOINE HACAULT: And it would be
19 further lowered for general service large on
20 generation?

21 MR. GREG BARNLUND: I would assume so,
22 yes.

23 MR. ANTOINE HACAULT: And the same
24 would hold true for the transmission. We saw that
25 happen between residential customers and general

1 service large, once we took into consideration the
2 load characteristics.

3 MR. GREG BARNLUND: I may stand to
4 correct that last statement, Mr. Hacault. If I recall
5 these marginal values are calculated at close to 100
6 percent load factor. There are a large number of
7 custom -- or sorry, of the fourteen (14) customers in
8 the GSL greater than a hundred class, there are a
9 number of those customers that will operate very close
10 to 100 percent load factor.

11 So I would suggest that there are some
12 customers that could be operating at 100 percent load
13 factor, and therefore these values would be
14 representative. They wouldn't be lowered, but they
15 are representative then of the marginal cost or
16 marginal value to serve those customers.

17 MR. ANTOINE HACAULT: Except that this
18 table doesn't take into account the load lost
19 differences that we looked at earlier this morning;
20 correct? That brought the number down from 4.39 down
21 to 4.23, if I recall correctly.

22 MR. GREG BARNLUND: It does not
23 account for losses. But again, the majority of the
24 impact would be related to the load factor or the
25 shape of the load curve. Given that this was

1 calculated at simplification at 100 percent load
2 factor, as I mentioned, there are a number of -- there
3 are more than one (1) customer that are operating very
4 close to a hundred percent load factor.

5 MR. ANTOINE HACAULT: Thank you for
6 that, sir. Now, on to the exciting subject that
7 everybody's been waiting for. I'll start at page 10
8 of our book of documents 23-3. And at the bottom of
9 the page, there's the Board findings. I'll apologize
10 for going through this again, but I just want to have
11 everybody's mind refreshed on what the Board asked in
12 its cost of service report.

13 So, there were three (3) things that
14 Hydro attempted to do. Firstly, was to explain why
15 costs would apply to general service large classes;
16 correct?

17 MR. GREG BARNLUND: Correct.

18 MR. ANTOINE HACAULT: Secondly, you
19 dealt with whether the costs were or were not already
20 subsumed in the cost categorizes key accounts and
21 major accounts; correct?

22 MR. GREG BARNLUND: Yes.

23 MR. ANTOINE HACAULT: And lastly, on
24 the next page, please, Kristen, there was a request by
25 the Board to justify why customer weightings for the

1 allocator which provide greater weightings to the
2 general service large customers were appropriate.

3 And Hydro prepared materials and
4 provided its view on those things; correct?

5 MR. GREG BARNLUND: That's correct,
6 sir.

7 MR. ANTOINE HACAULT: If we go to page
8 13 of this -- sorry, 12 first of this book of
9 documents there was a response to first round IR-57
10 from the PUB that -- if you go down -- should be
11 highlights in the response area.

12 There was a request for the time period
13 of analysis used for the weighting factors; that was
14 question A. Am I to understand that the time period
15 for the analysis used to estimate the weighting
16 factors was prior to PCOSS11?

17 MR. GREG BARNLUND: If you could just
18 give me a second.

19

20 (BRIEF PAUSE)

21

22 MR. GREG BARNLUND: Right. So for the
23 cost of service study 14, that was filed in the cost
24 of service methodology review, it's a composite
25 allocator. So part of it would have been based on

1 historic weightings and the rest of it would have been
2 updated for current budget information that was
3 provided in that IFF that made up PCOSS11.

4 MR. ANTOINE HACAULT: Okay. And was
5 there any additional work done by Manitoba Hydro since
6 PCOSS11?

7 MR. GREG BARNLUND: Well, in fact,
8 since Board Order 164-16, there's been additional work
9 that's been done. Basically, there's an update that
10 was provided to that in our cost of service study 18.

11 MR. ANTOINE HACAULT: Now on page 13
12 there should be highlighted in the response, there's
13 an explanation by Hydro when this weighted allocator
14 was introduced, being 2001, and explaining that prior
15 to that time there was an allocation on an unweighted
16 customer account basis.

17 So that would mean you would just go on
18 your system and if you have, for example, 500,000
19 residential customers and I don't know what the number
20 of balances, you would just look at those numbers and
21 you wouldn't weight any of them, and you would just do
22 it on a percentage basis applied to the customers?

23 MR. GREG BARNLUND: That's correct.
24 So an unweighted customer account, if he had -- let's
25 simplify the analysis. Let's say you had 99 -- or a

1 hundred customers in one class and one customer in
2 another class, you'd -- you'd allocate on the basis of
3 1 percent.

4 MR. ANTOINE HACAULT: So now I'd like
5 to flip to the issues which I specifically want to
6 address. It's at page 21 of our book of documents.

7 And before we get into these specific
8 categories, can you remind me how many customers there
9 are in the residential class?

10 MR. GREG BARNLUND: If you could just
11 give me a moment.

12

13 (BRIEF PAUSE)

14

15 MR. GREG BARNLUND: So for residential
16 customers we would have 508,242, so, 508,000
17 residential customers.

18 MR. ANTOINE HACAULT: It's a little
19 bit over half a million. And what about for general
20 service large?

21 MR. GREG BARNLUND: General service
22 large, we count sixteen (16) customers, 1-6.

23 MR. ANTOINE HACAULT: That's for over
24 100 kV?

25 MR. GREG BARNLUND: That's correct,

1 sir.

2 MR. ANTOINE HACAULT: Well, let's keep
3 that in mind; sixteen (16) for the general service
4 large over 100 kV and what about the number of com --
5 customers in GSL 30 to 100?

6 MR. GREG BARNLUND: So the accurate
7 number -- I estimated this morning, but the 3100s are
8 4-0, there are forty (40) customers and general
9 service large 0 to 30, we have three hundred and
10 twenty-one (321) customers.

11 MR. ANTOINE HACAULT: Okay. Now, I'll
12 be focusing on the items that are highlighted on the
13 page before us. Firstly, the contact centre outages
14 at -- for general service large, there's a highlighted
15 number which I would understand to be \$150,000?

16 MR. GREG BARNLUND: Yes, sir.

17 MR. ANTOINE HACAULT: And then for
18 marketing, R&D, I would understand that there'd be
19 \$170,000 accounted there?

20 MR. GREG BARNLUND: Yes, sir.

21 MR. ANTOINE HACAULT: And for long
22 locates nearly half a million dollars, .51?

23 MR. GREG BARNLUND: Yes, \$510,000,
24 sir.

25 MR. ANTOINE HACAULT: And for the

1 building moves and safety watches, 380,000?

2 MR. GREG BARNLUND: That's correct,
3 yes.

4 MR. ANTOINE HACAULT: And this would
5 only be the operating cost portion of it; correct?

6 MR. GREG BARNLUND: Yes.

7 MR. ANTOINE HACAULT: But in the final
8 analysis there would also be a proportion of
9 depreciation costs, if any, related to any of those
10 items?

11 MR. GREG BARNLUND: Yes, there would
12 be other common costs like depreciation, finance
13 expense.

14 MR. ANTOINE HACAULT: So this only
15 represents part of what gets hit by this C10
16 allocator?

17 MR. GREG BARNLUND: Well, this
18 represents the class share of the operating costs.

19 MR. ANTOINE HACAULT: What I'm saying
20 we shouldn't think that if we deal with this it's only
21 \$150,000 ratio and contact centre outages if there's
22 other costs on that, it -- the number will be higher.
23 It's just the principal gets applied throughout the
24 costs that fall in -- into that category?

25 MR. GREG BARNLUND: Well, and I think

1 we've responded to other information for us to talk
2 about how we functionalized common costs throughout --
3 throughout the system, building expense and so on and
4 so forth. And so that is handled -- indeed, that's
5 handled. And that's handled separately from the data
6 we're speaking of in this table here.

7 MR. ANTOINE HACAULT: Okay. And if we
8 could go to page 22. I'll deal firstly with con --
9 contact centre outages.

10 Firstly, with respect to contact centre
11 outages, does Manitoba Hydro ask its employees to
12 track what type of customer is calling the contact
13 centre?

14 MR. PAUL CHARD: I don't believe so,
15 no.

16 MR. ANTOINE HACAULT: So sitting here
17 today, Manitoba Hydro can't prove whether 100 percent
18 of the calls is made by one (1) class or that there
19 are certain percentages made by different classes?

20 MR. GREG BARNLUND: Well, I think that
21 if I could just back that up slightly. The purpose of
22 the contact centre and when we're talking about
23 contact centre and outages and outage reporting,
24 outage management, that is a function that -- that is
25 important overall to the overall operation of the

1 system, and so it's not necessarily that you can be
2 attributing it to specific customers as it is a -- a
3 more general function that serves the -- all customers
4 across the system.

5 MR. ANTOINE HACAULT: I understand
6 that's Manitoba Hydro's view. But I'm trying to
7 determine what the cause of this expense is. Who's
8 calling.

9 MR. GREG BARNLUND: Right.

10 MR. ANTOINE HACAULT: And we know that
11 there's \$150,000 allocated to sixteen (16) customers
12 purportedly with respect to outage calls?

13 MR. GREG BARNLUND: Yes, sir. that's
14 correct.

15 MR. ANTOINE HACAULT: Do we have any
16 idea whether there was even one (1) call from one (1)
17 of those sixteen (16) customers to lead to that
18 \$150,000 expense that's being allocated to them?

19 MR. GREG BARNLUND: I'm -- I don't
20 have that information, no, sir.

21

22 (BRIEF PAUSE)

23

24 MR. ANTOINE HACAULT: Now with respect
25 to marketing, R&D, that's \$170,000 operating cost?

1 MR. GREG BARNLUND: That's correct,
2 yes.

3 MR. ANTOINE HACAULT: And my question
4 is the same: Does Manitoba Hydro track mark --
5 marketing costs as it relates to general service large
6 over 100? What marketing activities and R&D are
7 specifically targeted at that group?

8 MR. GREG BARNLUND: Again, that's a
9 general category and -- and if I could have the
10 Information Request MIPUG/MH, round 2, 21 put on the
11 screen that specifically address -- addresses contact
12 centre outages and marketing, R&D, and it provides
13 further rationale that I'd like to speak to.

14 MR. ANTOINE HACAULT: But dealing with
15 my question, I'll let you answer that, do you have any
16 data to show that there is a marketing exercise that's
17 focused to the general service large over 100?

18 MR. GREG BARNLUND: I'm not aware of
19 any. But in terms of the treatment of marketing, R&D,
20 and it's identified in this Information Request, we
21 referred to the NARUC cost allocation manual for some
22 guidance in that respect.

23 And the National Association of
24 Regulatory Utility Commissioners have identified sales
25 expenses which includes marketing, R&D and these other

1 general type of expenses and -- and concluded that --
2 that although these costs are incurred to either
3 influence the usage decisions of customers, for
4 example, in terms of marketing, R&D, they cannot be
5 said to vary with the number of customers. So they
6 should either be directly assigned to each customer
7 class when the data is available, or else allocated
8 based on the overall revenue responsibility of each
9 class.

10 And in assessing these particular C10
11 allocator's Manitoba Hydro came to the conclusion that
12 it was reasonable to utilize an -- an allocation to
13 customer classes based on their class share of revenue
14 responsibility, similar to as described in the NARUC
15 manual.

16 MR. ANTOINE HACAULT: Sir, do you know
17 if in the NARUC manual there's actually a subcategory
18 of industrial and commercial solutions where -- and
19 where that's allocated?

20 MR. GREG BARNLUND: I wouldn't -- I
21 would say that I'm not aware of -- of any such entry
22 in -- in the NARUC manual.

23 MR. ANTOINE HACAULT: And that's the
24 subject of a separate allocator, the C-23 allocator if
25 we go back to page 21?

1 MR. GREG BARNLUND: Yes, sir, that's
2 correct.

3 MR. ANTOINE HACAULT: Which is
4 allocated only to the general service large customers
5 because those are matters that are directly
6 benefitting those particular groups of customers;
7 correct?

8 MR. GREG BARNLUND: Correct. So that
9 the Industrial and Commercial Solutions Group perform
10 functions directly with the general service large
11 customers. So, that is our customer sales force or
12 our marketing force that we have dealing directly with
13 large volume customers in terms of the normal conduct
14 of business operations between Manitoba Hydro and
15 those customers.

16 And so given that those staff are
17 dealing directly with customers in those three (3)
18 classes and, essentially, those three (3) classes
19 exclusively, those costs are then allocated to those
20 classes.

21 MR. ANTOINE HACAULT: And for example,
22 when there are new companies that are interested in
23 com -- coming, that marketing towards a new company is
24 dealt with and paid for in that C-23 allocator;
25 correct?

1 MR. GREG BARNLUND: Well, to a certain
2 extent. I mean there is other marketing activity I
3 suppose that may be conducted even at the executive
4 level for that matter that I'm -- that would not be
5 captured in industrial and commercial solutions. When
6 we're talking about the attraction of business to the
7 province, that's a fairly broad -- broad subject to be
8 dealing with.

9 But certainly any involvement that
10 would be -- and we would be assuming those customers
11 would eventually fall into one (1) of the general
12 service large classifications and so any staff that
13 would be involved out of the Industrial and Commercial
14 Solutions area are appropriately dealing with those
15 particular business development opportunities.

16 MR. ANTOINE HACAULT: And if we look
17 on this page at the C10 allocator for marketing, R&D
18 and the general service small non-demand.

19 How many general service small non-
20 demand customers would we have?

21 MR. GREG BARNLUND: We have 42,707
22 general service small non-demand customers.

23 MR. ANTOINE HACAULT: So the way
24 Manitoba Hydro is allocating expenses, that group of
25 over 40,000 customers is paying less than sixteen (16)

1 customers?

2 MR. GREG BARNLUND: They are, but
3 that's because their revenues are lower. This is --
4 if this is done on the basis of --

5 MR. ANTOINE HACAULT: I understand the
6 math, but that's the effect?

7 MR. GREG BARNLUND: That is the
8 effect, sir, it is.

9 MR. ANTOINE HACAULT: I'd like to move
10 next to line locates so if we could go to page 22.

11 Line locates was \$510,000?

12 MR. GREG BARNLUND: That's correct.

13 MR. ANTOINE HACAULT: And the
14 description here indicates that the service primarily
15 relates to distribution? Do you see that?

16 MR. GREG BARNLUND: Yes, sir.

17 MR. ANTOINE HACAULT: That's an
18 interesting adjective. What does "primarily" mean; 90
19 percent, 95 percent?

20 MR. GREG BARNLUND: Well, it's a
21 generalization, because the nature of line locate
22 activity varies with the level of construction
23 activity in the province and -- and is dependent upon
24 that, so.

25 But I think it's safe to say that the

1 majority of that work is related to distribution
2 facilities.

3 MR. ANTOINE HACAULT: Now, we've used
4 a different word, the "majority." Does Manitoba Hydro
5 track whether there is any transmission lines
6 underground for general service large that need to be
7 line located in any particular year?

8 MR. GREG BARNLUND: It would be a
9 very, very, very small occurrence if it were. I think
10 that, typically speaking, I think that this is -- this
11 particular cost category is one (1) that Manitoba
12 Hydro is clear that is largely related to
13 distribution.

14 And if a decision is made that -- that
15 those costs should be borne only by customers that are
16 utilizing the distribution system, then -- then that
17 adjustment can be made in the cost of service study.
18 I don't think that we're -- certainly not a hill to
19 die on for Manitoba Hydro in that regard, Mr. Hacault.

20 MR. ANTOINE HACAULT: Would you know
21 if there are any transmission or subtransmission lines
22 serving the sixteen (16) general service large
23 customers over 100 kV that are underground?

24 MR. GREG BARNLUND: I would doubt
25 there are any.

1 MR. ANTOINE HACAULT: So the practical
2 impact is that this class of general service large
3 over 100, under this analysis, is being asked to pay
4 \$510,000 to locate lines that don't exist in the sense
5 that there is none underground, they're all
6 aboveground?

7 MR. GREG BARNLUND: Well, that's
8 correct. I mean, I think that -- that that's the
9 effect of what we're seeing here.

10 MR. ANTOINE HACAULT: I'd like to move
11 to the next category, building moves and watches;
12 that's a \$380,000 item --

13 MR. GREG BARNLUND: Yes, sir.

14 MR. ANTOINE HACAULT: -- to the
15 general service large over 100 kV?

16 MR. GREG BARNLUND: Yes, sir, it is.

17 MR. ANTOINE HACAULT: Of the sixteen
18 (16) customers in the general service large over 100
19 kV, how many buildings did they move which required
20 these services?

21 MR. GREG BARNLUND: Sorry, could you
22 repeat that question again?

23 MR. ANTOINE HACAULT: Out of the
24 sixteen (16) general service large over 100 kV
25 customers, how many of them have moved buildings which

1 required the services described here?

2 MR. GREG BARNLUND: I would say none
3 of them. Let me explain what building moves are.
4 Building moves are -- if you look at in Manitoba we
5 have the ready-to-move building market. In other
6 words, housing is built on -- off-site and it is
7 transported down the highway to a customer's location
8 where the new home is -- is basically built or put on
9 a new foundation.

10 In order to facilitate those moves
11 safely, Manitoba Hydro needs to undertake certain
12 activities to raise the lines that cross the highways;
13 in other words, our crews will go out and essentially
14 lift power lines in certain locations to facilitate
15 the transfer of these buildings as they're being
16 trucked from one (1) location to another.

17 There is no particularly one (1)
18 customer class, if you would, that is causing them.
19 It's the general activity associated with the economy
20 that occurs and so it is a -- a general activity that
21 Manitoba Hydro needs to undertake -- needs to
22 undertake to ensure that there is no contact with
23 Manitoba Hydro's plant; that buildings are moved
24 safely; that there is no outages that result from --
25 from any kind of an incident.

1 And so, it's a more general category of
2 activity and it is, you know, in that regard then
3 deemed to be allocated on the basis of revenue across
4 all customer classes.

5 And safety watches is -- is a separate
6 item but included in this category. Safety watches
7 are where we need to be monitoring equipment as it is
8 working underneath of our plant. And certainly when
9 you think of highway interchanges that are being built
10 in the province of Manitoba, they are not attributed
11 to any particular customer class but it is the
12 Department of Manitoba Infrastructure and
13 Transportation that is requiring us to monitor
14 activity underneath of these transmission lines.

15 If a excavator is working underneath a
16 transmission line and comes in -- too close of
17 proximity to the conductor, there can be a flashover
18 and there can be a serious incident. And so that's --
19 safety watching is our staff that is -- that is
20 situated on site to be able to monitor the progress of
21 construction and ensure that -- that construction is
22 being conducted in a safe manner.

23 And so those costs are also captured in
24 this category, and they are then determined to be
25 allocated to all customer classes and the basis we've

1 used is -- is by customer class revenue.

2 MR. ANTOINE HACAULT: Thank you. I'll
3 ask the same question as I did with respect to the
4 previous categories.

5 Can Manitoba Hydro identify any
6 building moves by the sixteen (16) GSL over 100 kV
7 customers which caused an expense in this category
8 either building moves or safety watches?

9 MR. GREG BARNLUND: Well, I doubt
10 there were any building moves but I know that from
11 time to time, there have been safety watches because
12 there will be construction activity that certain of
13 these sixteen (16) customers will be undertaking at
14 their facilities that require excavation equipment to
15 be working in the proximity of a transmission line or
16 in the proximity of a line that's serving their
17 facility and definitely those situations occur. And
18 those require Manitoba Hydro's staff to be on site to
19 be able to monitor those activities.

20 MR. ANTOINE HACAULT: Okay. Let's --
21 could we go to page 23. I think it would help
22 understand a little bit of this discussion on the
23 building moves.

24 So the highlighted portion explains
25 some of what you explained, sir, on accompanying the

1 movers for things like RTMs, ready to move homes. It
2 indicates that Hydro recovers the costs for work
3 performed such as raising and lowering the lines and
4 rerouting the lines.

5 Why is it if the people who are causing
6 these costs are supposed to pay for them, that the GSL
7 large over 100 are being asked to pay \$380,000 to help
8 people move RTMs, amongst other buildings?

9 MR. GREG BARNLUND: Right. Well,
10 there's a -- there's a cost share arrangement. It's
11 not the -- that the Corporation is -- is recovered --
12 recovering those costs in its entirety.

13 Generally speaking, we conduct these
14 activities on a cost share arrangement where 50
15 percent of the cost is borne by the corporate -- by
16 the customer that's requiring that work to be done.

17

18 (BRIEF PAUSE)

19

20 MR. ANTOINE HACAULT: Just to better
21 understand your view that it's a 50:50 shared basis
22 cost recovery, maybe we can go -- would you be able to
23 bring up MIPUG, round 2, 8(a)(c). I wasn't
24 anticipating this answer, but I think we need to see
25 that document to better understand page 2.

1 Mr. Barnlund, we've brought up a
2 response of Manitoba Hydro which shows on the left-
3 hand side how -- what the total cost is at \$1.834
4 million; correct?

5 MR. GREG BARNLUND: Yes, sir.

6 MR. ANTOINE HACAULT: And then it
7 shows how Hydro is allocating that cost to each of the
8 customer classes; correct?

9 MR. GREG BARNLUND: That's correct,
10 sir.

11 MR. ANTOINE HACAULT: The table
12 doesn't reflect what is actually occurring as far as
13 billings to classes, it's the way Hydro is allocating
14 the costs and recoveries to the classes; correct?

15 MR. GREG BARNLUND: That's correct
16 because the billings may not occur to a customer in a
17 class itself. It may be a billing that's being made
18 to a contractor or a billing being made to a building
19 mover.

20 MR. ANTOINE HACAULT: Now, you
21 indicated that Hydro tries to recover 50 percent of
22 the costs. Am I reading this table right when I look
23 at the bottom of the table and see that out of the
24 \$1.8 million, Hydro has only been able to recover
25 \$300,000 of those total costs, as it relates to

1 building move?

2 MR. GREG BARNLUND: I'd have to check
3 a little bit further into that. The 50:50 cost share
4 is -- is a part of our customer policy. I'm not sure
5 if -- if to the extent that there is other -- there's
6 probably some additional labour that's provided free
7 of charge up to a certain point and then a 50:50 cost
8 share that -- that is undertaken. But that -- that --
9 that's a detail I'd have to look at. So it's not
10 entirely 50:50.

11 MR. ANTOINE HACAULT: And that impacts
12 how much gets allocated to the general service large
13 100. If you were recovering 50 percent of \$1.8
14 million by the people who caused the problem, then we
15 wouldn't have to pay so much; correct?

16 MR. GREG BARNLUND: Well -- that's
17 true, sir, yes.

18 MR. ANTOINE HACAULT: And if we go
19 back to our book of documents at page 23, and under
20 the highlighting that we've looked at in building
21 moves, the last sentence, reads:

22 "For buildings or structures
23 originating outside of Manitoba and
24 being moved into or through the
25 province of Manitoba -- or the

1 province of Manitoba, Hydro recovers
2 full cost."

3 Is -- is that correct?

4 MR. GREG BARNLUND: That's our policy,
5 sir.

6 MR. ANTOINE HACAULT: So what you're
7 saying it's a policy, but you're not telling me that
8 that statement is correct?

9 MR. GREG BARNLUND: It is -- it is
10 correct because it's the policy that we apply to
11 buildings that are originating from outside of the
12 province.

13 MR. ANTOINE HACAULT: So for the
14 buildings outside the province, the people that cause
15 the expense pay 100 percent of the expense, but not so
16 internally?

17 MR. GREG BARNLUND: That's correct
18 because I think that -- that if I remember the
19 deliberations that occurred in customer policy some
20 years ago when we were dealing with this, there was
21 some consideration that, you know, a contractor that
22 was building homes within Manitoba was providing an
23 economic benefit and there was a desire at that time
24 to only do a 50:50 cost share with that particular
25 entity's -- or those entities, I should say.

1 MR. ANTOINE HACAULT: Thank you. And
2 I'm nearly finished the subject. We see that
3 overseeing work near electric plant, Manitoba Hydro
4 had explains that this cost was incurred to provide
5 residential customers and their contractors safety
6 watching services.

7 And you've clarified that to say that
8 there might be occasions where that happens for one
9 (1) of the sixteen (16) big users under the GSL 100?

10 MR. GREG BARNLUND: Well, I would like
11 to probably address this statement and it requires a
12 correction, because it's not the majority of it
13 towards residential homeowners, a lot of this work is
14 driven by infrastructure work within the province by
15 municipalities and by the provincial government itself
16 in terms of the Ministry of Infrastructure and
17 Transportation.

18 So the majority of that work likely
19 occurs as a result of highway construction, or other
20 activity in that regard. There will be some that will
21 occur from time to time with specific customers in the
22 general service large category without doubt when
23 there's work that is being done on their plant as
24 well.

25 MR. ANTOINE HACAULT: And would it be

1 fair to say, sir, that most of that work is done under
2 distribution lines which are lower levels, not the
3 high transmission lines?

4 MR. GREG BARNLUND: It's hard to say.
5 A lot of rural infrastructure work could be occurring
6 in the vicinity of transmission or subtransmission
7 facilities.

8 MR. ANTOINE HACAULT: And the point of
9 this answer is, again, that you're not recovering the
10 full cost from those who caused this expense --

11 MR. GREG BARNLUND: That's correct.

12 MR. ANTOINE HACAULT: -- you're only
13 recovering part of the cost that's caused by these
14 people?

15 MR. GREG BARNLUND: There is the 50:50
16 cost share, yes.

17 MR. ANTOINE HACAULT: Thank you. I've
18 got a couple, just very short questions and I think in
19 the next five (5) minutes I'll be finished if that's
20 acceptable to the Board.

21

22 (BRIEF PAUSE)

23

24 MR. ANTOINE HACAULT: If we could go
25 to page 61 of our book of documents. Sorry, I'd like

1 to start at page 58.

2 Just to confirm that as early as
3 decisions in 2008 this Board was doing differential
4 rate adjustments, and specifically in this Order
5 related to area and roadway lighting, which was above
6 the zone of reasonableness in the cost of service
7 study, correct?

8 MR. GREG BARNLUND: Yes, sir, I
9 believe that for a period of time in the decade of the
10 2000's there was likely four (4) and possibly five (5)
11 rate changes that occurred where there was no increase
12 applied to the area in roadway lighting class, any of
13 the revenue requirement was being recovered from the
14 other classes and the rates for area and roadway
15 lighting were left unchanged and that enabled them to
16 drop into -- back into the zone of reasonableness over
17 a period of four (4) to five (5) years.

18 MR. ANTOINE HACAULT: Okay. And if we
19 go to page 60 there's another example of where the
20 Board ordered this and it's in highlighting.

21 Again in the Order in 2012, this time
22 it was in Manitoba Hydro's own rate application, it
23 did not call for area and roadway light rate
24 increases; correct?

25 MR. GREG BARNLUND: Well, to be clear,

1 that was also the situation in those previous rate
2 applications, Manitoba Hydro applied for the increase
3 to be attributed to all other rate class other than
4 area roadway lighting. So that was Manitoba Hydro's
5 proposal, sir.

6 MR. ANTOINE HACAULT: Thank you. And
7 page 61. I don't intend to do the same exercise as
8 Mr. Gange, but time-of-use rates, this is a 2012
9 Order, like, five (5) years ago, was a live issue five
10 (5) years ago too?

11 MR. GREG BARNLUND: Well and, in fact,
12 we had actually applied for a time-of-use rate in the
13 2012 GRA and that matter was set aside by the Public
14 Utilities Board to be dealt with at a future date,
15 sir.

16 MR. ANTOINE HACAULT: Yes. And with
17 respect to the issue of rates and the uncertainties
18 and reviews of that, I direct your attention to page
19 66 of this book.

20 It's not the first time, sir, that
21 there's a lot of uncertainty in the future and the
22 Board has repeatedly indicated to Manitoba Hydro that
23 it wants regular applications and reporting by
24 Manitoba Hydro; is that correct?

25 MR. GREG BARNLUND: Yes, sir.

1 MR. ANTOINE HACAULT: And we'll see
2 that again at page 68 of this book of documents, in
3 the last paragraph, where the Board is repeating again
4 in 2016 interim decision that it considered it
5 important that rate applications are heard on a
6 regular basis.

7 And what it also did in that hearing to
8 deal with rate smoothing was to avoid two (2)
9 significant increases in one year, correct? That's
10 higher up in the page.

11 MR. GREG BARNLUND: So at that point
12 in time, I believe that Manitoba had applied for an
13 April -- sorry, was that April 1 or May 1, 2016 rate
14 increase, but it was not given approval until August 1
15 of 2016, and that would have been coincident with the
16 date of the prior rate approval.

17 MR. ANTOINE HACAULT: And this was the
18 Order where the Board asked Manitoba Hydro to start
19 planning its affairs to come with regular rate
20 applications and avoid interim rate applications,
21 correct?

22 MR. GREG BARNLUND: The Board has made
23 that -- made that point very clear, yes.

24 MR. ANTOINE HACAULT: And going to
25 page 73, and this is the last series of small

1 questions that I had, sir, as I understand this
2 particular page, it's the updated rate schedule that
3 applies to consumers, including the general service
4 large, and in all the 30 kV up to 100 kV? Sorry, it's
5 general service large period.

6 MR. GREG BARNLUND: Yes, sir.

7 MR. ANTOINE HACAULT: And those is --
8 those are the rates that are proposed to be effective
9 as of April 1?

10 MR. GREG BARNLUND: Yes, sir. That's
11 correct.

12 MR. ANTOINE HACAULT: And that is an
13 updated one, which takes into account the interim
14 decision, correct?

15 MR. GREG BARNLUND: Yes. So that
16 would have been calculated with consideration of the
17 3.36 percent increase that had been approved on an
18 interim basis for August 1, 2017 rates.

19 MR. ANTOINE HACAULT: Would you
20 acknowledge, sir, that industrial and commercial
21 customers have expressed concern that they -- they
22 need certainty to sell their products?

23 MR. GREG BARNLUND: I've heard that
24 mentioned, yes, sir.

25 MR. ANTOINE HACAULT: And for that

1 certainty to occur, these rates being locked in as of
2 the date of the interim order provides that certainty
3 to those customers?

4 MR. GREG BARNLUND: I'm sorry, could
5 you repeat the question, sir?

6 MR. ANTOINE HACAULT: Keeping this
7 rate schedule would provide certainty to those
8 customers?

9 MS. ODETTE FERNANDES: Mr. Hacault, I
10 don't think Mr. Barnlund can speak on behalf of what
11 the industrial customers would consider certainty.

12

13 CONTINUED BY MR. ANTOINE HACAULT:

14 MR. ANTOINE HACAULT: I think, sir, if
15 -- if it went back up to the other one in a
16 retroactive number, that wouldn't constitute
17 certainty, would it, sir?

18 MR. GREG BARNLUND: Well,
19 retroactivity is definitely not -- it -- it is not
20 very well accepted, that's for sure.

21 MR. ANTOINE HACAULT: Because if we go
22 to the next page for the larger customers, we see that
23 instead of being at -- keep going. We'll see that
24 customers under large exceeding 100 kV were previously
25 being asked to budget for three point seven-six-four

1 (3.764) cents per kilowatt on energy and seven dollars
2 and thirty-six cents (\$7.36) per kilovolt on demand?

3 MR. GREG BARNLUND: Yes. So this
4 Appendix 9.4 was the -- was filed with the original
5 application, and that would have assumed receiving a
6 7.9 percent increase on August 1, instead of a 3.36,
7 and that's why these rates would be, then, 7.9 percent
8 higher than that.

9 MR. ANTOINE HACAULT: And if we go
10 back to the previous schedule, as I understand, Hydro
11 is saying to those customers -- we're accepting for
12 purposes of this hearing that your charge as of April
13 1 will be three point six-zero-six (3.606) cents per
14 kilowatt hour?

15 MR. GREG BARNLUND: That's correct,
16 sir. We're not requesting to vary the level of the
17 increase that was granted on August 1 of 2017, sir.

18 MR. ANTOINE HACAULT: Thank you very
19 much to the panel for enduring my C-10 torture, I'll
20 call it. That completes my questioning. Thank you
21 very much for the Board's attention also.

22 THE CHAIRPERSON: Thank you, Mr.
23 Hacaault. Mr. Monnin...?

24

25 CROSS-EXAMINATION BY MR. CHRISTIAN MONNIN:

1 MR. CHRISTIAN MONNIN: Thank you, Mr.
2 Chair, members of the panel of the Public Utilities
3 Board. And good afternoon, members of the panel of
4 the Manitoba Hydro Board.

5 I'd like to thank some of my friends
6 from the intervenors for their cross-examinations,
7 because it's gone a long way to whittle mine down. So
8 I don't expect to be all that long this afternoon, and
9 I expect to be around thirty (30) minutes.

10 Kristen, if you could please take us to
11 PUB-MFR-72 attachment, page 208, thereof, please. I'm
12 sure Mr. Barnlund is thrilled to hear this. I suspect
13 most of my questions will be directed towards him, but
14 of course, if anyone else wishes to jump in and -- and
15 answer, please proceed to do so.

16 What we're looking at here is a slide
17 from the slide deck prepared from Boston Consulting
18 Group. Is that correct?

19 MR. GREG BARNLUND: Yes, sir.

20 MR. CHRISTIAN MONNIN: And I just want
21 to understand and make sure I properly understand. On
22 it -- that -- this document is -- I'll say split in
23 two (2) sections; on the left-hand side, one (1)
24 table, on the right-hand side, another table.

25 On the left-hand side, we have a table

1 showing an assessment of the relative ability to raise
2 the rates. Is that correct?

3 MR. GREG BARNLUND: That's what it
4 says, sir, yes.

5 MR. CHRISTIAN MONNIN: And beneath
6 that table, we have factors impacting ability and
7 factors impacting feasibility. Would I understand
8 that correctly to be factors negatively affecting
9 ability negatively impacting feasibility to do so?

10 MR. CHRISTIAN MONNIN: If you could
11 just give me a second and let me review this and let--

12 MR. CHRISTIAN MONNIN: Sure,
13 absolutely.

14

15 (BRIEF PAUSE)

16

17 MR. GREG BARNLUND: Yes, sir. Now,
18 your question again, please?

19 MR. CHRISTIAN MONNIN: So under the
20 table -- and still on the left-hand side of page 208,
21 at the bottom, we have factors impacting ability in
22 one column, and factors impacting feasibility. And
23 are those factors that would negatively impact ability
24 and negatively impact feasibility to proceed?

25 MR. GREG BARNLUND: I think that if I

1 -- if I -- if I'm reading this properly, and again,
2 this is Boston Consulting's document, so I'm really --
3 I'm providing my interpretation of that, Mr. Monnin.
4 I don't really -- much -- can go much farther than
5 that.

6 But it seems to me that they're saying
7 that the factors and -- impacting the feasibility of -
8 - or the ability to raise rates would be the -- the
9 factors that would be constraining rate increases, I
10 believe. And then the factors impacting the ability
11 seems to speak to the customers' acceptability or
12 ability to deal with higher rate increases. I --
13 that's how I would interpret that, sir, but I -- I'm
14 afraid I'm at the limit of how I can speak to that.

15 MR. CHRISTIAN MONNIN: Okay. Is there
16 anyone else on the panel who can speak to this with a
17 -- with a bit more certainty than -- than Mr. Barnlund
18 -- or Barnlund -- and -- are -- are -- am I stuck with
19 you this afternoon on this -- on this document?

20 MR. GREG BARNLUND: Well, I spoke to
21 it with certainty, sir.

22 MR. CHRISTIAN MONNIN: Okay.

23 MS. ODETTE FERNANDES: And Mr. Monnin,
24 I think the difficulty is that we were requested to
25 file the documents prepared by Boston Consulting

1 Group, but they weren't prepared by Hydro, so I think
2 that's the difficulty we're facing that this is Boston
3 Consulting --

4 MR. CHRISTIAN MONNIN: Certainly, but
5 my understanding is that -- that -- hopefully I have a
6 grasp of the obvious, here, that Boston Consulting was
7 a consultant, or an expert retained by Hydro for their
8 expertise, and that expertise was -- was obtained.
9 That consulting expertise was obtained, and that
10 information and consulting work was -- was transferred
11 and absorbed by Manitoba Hydro is therefore, to a
12 certain extent, able to speak to Boston Consulting's
13 Group works -- work product with some certainty.

14 MR. GREG BARNLUND: M. Monnin, if I
15 may, this is one (1) slide of -- of perhaps a hundred
16 or more that Boston Consulting provided to the
17 Manitoba Hydro Electric Board. This was clearly not
18 the central focus of the Boston Consulting Group's
19 assignment, and I would suggest that this was provided
20 in the -- probably in the summer of 2016.

21 Ultimately, Manitoba Hydro made a
22 decision in terms of the level of increases to be
23 sought in the early part of 2017, but I'm not aware
24 that this particular slide had any particular bearing
25 on the decision that was made with respect to the

1 formation of the rate increases that are before this
2 Board today.

3

4 CONTINUED BY MR. CHRISTIAN MONNIN:

5 MR. CHRISTIAN MONNIN: Is -- is anyone
6 at Hydro able to advise whether it had any particular
7 bearing on the decision-making at Manitoba Hydro?

8 MR. GREG BARNLUND: Well, I -- I would
9 put it to you this way, sir, is that management
10 generated an -- an integrated financial forecast which
11 reflected a series of 7.9 percent increases, brought
12 that before the Manitoba Hydro Electric Board. It was
13 reviewed by the Manitoba Hydro Electric Board and
14 accepted, and that formed the basis of our initial
15 filing for the General Rate Application, of which
16 we're hearing.

17 And so I think that that's, you know,
18 management prepared the -- the integrated financial
19 forecast and -- and the required rate increases. The
20 Board reviewed and approved that, and would -- had
21 proceeded to this point, sir.

22 MR. CHRISTIAN MONNIN: Okay. And so
23 still on this one page, one (1) document prepared by
24 Boston Consulting Group for the benefit of Manitoba
25 Hydro, on the right-hand side, we have another table,

1 residential small and medium-sized businesses can
2 sustain increases. We have a table with on the
3 extreme right-hand side, the grade, coloured red,
4 yellow and green.

5 Is it safe for me to assume that that's
6 similar to a -- a traffic light? Red means stop,
7 yellow would mean proceed with caution, and -- and
8 green means go ahead?

9 MR. GREG BARNLUND: I would -- I would
10 assume that, sir.

11 MR. CHRISTIAN MONNIN: Okay. And with
12 respect to small -- on -- on the extreme left-hand
13 side, we have segment column small GS, which is
14 general service, and medium GS; under feasibility, we
15 have weak Intervenors, poor optics of increase on SMEs
16 would be small/medium enterprises?

17 MR. GREG BARNLUND: I see that, yes.

18 MR. CHRISTIAN MONNIN: And weak
19 Intervenors, you don't need to answer this question
20 per se, but that wouldn't refer to the council they
21 have in this hearing. It would refer to the fact
22 that, historically, they've just not had a voice at --
23 at these rate applications. Is that fair to say?

24 MS. ODETTE FERNANDES: I don't think
25 we can --

1 MR. GREG BARNLUND: I -- no.

2 MS. ODETTE FERNANDES: -- respond to
3 that, Mr. Monnin.

4

5 CONTINUED BY MR. CHRISTIAN MONNIN:

6 MR. CHRISTIAN MONNIN: You -- you're
7 not able to provide any understanding of what Hydro
8 would be -- the take-away for Hydro with regards to --
9 referring to general service small or gen -- mediums,
10 general service as weak Intervenors?

11 MR. GREG BARNLUND: Mr. Monnin, the
12 information you're seeing here is from Boston
13 Consulting Group. It is not reflective of the views
14 of Manitoba Hydro's management. I can guarantee that.

15 MR. CHRISTIAN MONNIN: So the answer
16 is no, you're not able to provide with any answer what
17 was the take-away from Manitoba Hydro with respect to
18 this particular language used regarding general
19 service small and general service medium? Is that
20 correct?

21 MR. GREG BARNLUND: Well, this has no
22 bearing on -- on this particular slide, and the -- and
23 the language that a consultant used in their slide, I
24 can assure you that this is not reflective of the
25 perspective of the management Manitoba Hydro with

1 regards to our customers.

2 MR. CHRISTIAN MONNIN: Mr. Barnlund,
3 I'd like to have a discussion with you with regards to
4 what I'll coin as other policy considerations -- or
5 policy considerations that the PUB can take into
6 account when proceeding with the rate-setting process.
7 You'll agree with me that in its filing, Manitoba
8 Hydro has stated that in addition to considering the
9 cost of service, the Public Utilities Board may
10 consider other compelling -- compelling policy
11 considerations and other factors that it may determine
12 to be relevant. Is that correct?

13 MR. GREG BARNLUND: That's correct,
14 sir.

15 MR. CHRISTIAN MONNIN: And certainly,
16 some of those considerations would be the rate design
17 goals and the rate-making objection -- objectives,
18 rather, as espoused by the great and late Dr. James
19 Bonbright. Is that correct?

20 MR. GREG BARNLUND: Yes, sir.

21 MR. CHRISTIAN MONNIN: And among those
22 rate-making objectives, seeking fairness and
23 apportioning cost of service among different consumers
24 so as to avoid arbitrariness or capricious --
25 capriciousness is one (1) of those, correct?

1 MR. GREG BARNLUND: It sounds like a
2 direct quote, yes, sir.

3 MR. CHRISTIAN MONNIN: Right. And I
4 think that we're going to go along swimming this
5 afternoon if we're going down this vein. And to
6 obtain -- another one is to obtain equity in three (3)
7 dimensions, horizontal, vertical and anonymously,
8 correct?

9 MR. GREG BARNLUND: Correct.

10 MR. CHRISTIAN MONNIN: With respect to
11 vertical, essential -- my understanding of this is
12 essentially what this means is that it's -- isn't
13 discriminatory -- discriminatory to change at different
14 -- to charge a different rate to different ratepayers
15 or ratepayer classes provided as representative of the
16 cost of serving those particular ratepayers, correct?

17 MR. GREG BARNLUND: That's correct,
18 sir.

19 MR. CHRISTIAN MONNIN: Another
20 principle is avoidance of undue discrimination?

21 MR. GREG BARNLUND: Correct.

22 MR. CHRISTIAN MONNIN: And the goal of
23 that is to avoi -- is avoidance of undue
24 discrimination in rate relationships, correct?

25 MR. GREG BARNLUND: Correct.

1 MR. CHRISTIAN MONNIN: And once again,
2 the words of Dr. Bonbright, it's to be subsidy free,
3 correct?

4 MR. GREG BARNLUND: That's correct to
5 the extent possible, sir, yes.

6 MR. CHRISTIAN MONNIN: Right. So it's
7 stri -- striving to ensure that there's no interclass
8 burdens or no cross-class customer subsidies, right?

9 MR. GREG BARNLUND: Yes, sir.

10 MR. CHRISTIAN MONNIN: And beyond the
11 cost of service and beyond the good Dr. Bonbright,
12 would you agree with me, Mr. Barnlund, that the Public
13 Utilities Board has the ability to take into
14 consideration things that are not only beyond the cost
15 of service, but also beyond Bonbright's principles of
16 fairness and equity, correct?

17 MR. GREG BARNLUND: Yes, sir.

18 MR. CHRISTIAN MONNIN: And in that
19 regard, would you agree with me that this Board could
20 consider -- or certainly consider whether the proposed
21 rates would cause harm or impact on ratepayers and the
22 nature of a rate shock?

23 MR. GREG BARNLUND: That is one (1)
24 factor that they could take into consideration, sir,
25 it is.

1 MR. CHRISTIAN MONNIN: And you would
2 also agree with me that it -- that this Board deemed
3 it relevant in the rate-making process. It could also
4 consider whether the proposed rate increases would
5 have an impact on Manitoba's competitive advantage
6 with other jurisdictions. Would you agree with that?

7 MR. GREG BARNLUND: If they so choose
8 to take that into consideration, they would be able
9 to, yes.

10 MR. CHRISTIAN MONNIN: And again, the
11 Board, if it deemed it relevant in the rate-making
12 process, it could give consideration to the impact of
13 the proposed rate increases on the overall economy of
14 Manitoba. Is that correct?

15 MR. GREG BARNLUND: Yes, they could
16 take that into consideration, sir.

17 MR. CHRISTIAN MONNIN: Another thing
18 they could take into consi -- consideration would be
19 the introduction of the proposed carbon tax, correct?

20 MR. GREG BARNLUND: I assume they
21 could. I'm not exactly sure how that would directly
22 relate to electricity rates, except for the potential
23 of -- of the competitive respective of natural gas
24 versus electricity for heating costs, but it's -- it
25 is a factor they certainly could take into

1 consideration. They have broad discretion.

2 MR. CHRISTIAN MONNIN: And continued
3 on that vein, if the Board deemed it relevant in the
4 rate-making process, it could also give consideration
5 to whether the proposed rate increases should be
6 slowed or reduced, correct?

7 MR. GREG BARNLUND: They have that
8 ability, yes, sir.

9 MR. CHRISTIAN MONNIN: Thank you. I'd
10 like to have a discussion with you with respect to the
11 question -- or the issue of unity and -- and zone of
12 reasonableness. Now Kristen, you might want to take
13 us to pages -- starting at 2,351 of the transcripts,
14 please.

15

16 (BRIEF PAUSE)

17

18 MR. CHRISTIAN MONNIN: And starting
19 down at line 11. And to the benefit of our discussion
20 this afternoon, Mr. Barnlund, it might be best if you
21 actually read starting at line 11, and then the next
22 page over, reading 1 to 25. And once you've had the
23 opportunity to review those, please let me know, and
24 I'll have a few questions for you.

25

1 (BRIEF PAUSE)

2

3 MR. GREG BARNLUND: Okay. If we could
4 scroll down there, Kristen. Thank you. And to the
5 next page.

6

7 (BRIEF PAUSE)

8

9 MR. GREG BARNLUND: Okay, Mr. Monnin.

10 MR. CHRISTIAN MONNIN: You read quite
11 quickly. Thank you. Mr. Barnlund, here, do you
12 recall the exchange between yourself and -- and Board
13 counsel regarding moving to unity, or at least within
14 the zone of reasonableness?

15 MR. GREG BARNLUND: I do, sir.

16 MR. CHRISTIAN MONNIN: And here, your
17 answer was at page 2,351, and I'm paraphrasing, but
18 it's -- it's consistently been a long-term goal of
19 Manitoba Hydro and desirable to move classes towards
20 unity. Is that correct?

21 MR. GREG BARNLUND: Yes, sir.

22 MR. CHRISTIAN MONNIN: And on the next
23 page over, Kristen, please, you'll recall counsel put
24 to you and said -- particularly if you're starting at
25 lines 9 to 11, that Manitoba Hydro wasn't talking

1 towards moving the classes towards unity -- unity
2 until some seven (7) or eight (8) years. Do you
3 recall that question?

4 MR. GREG BARNLUND: Yes. And I think
5 that I was also referring to the fact that while unity
6 was a long-term goal, probably the more near-term
7 objective would be to begin to bring customers into a
8 zone of reasonableness, that we're sitting outside of
9 a zone of reasonableness currently.

10 MR. CHRISTIAN MONNIN: And -- and
11 that's what I wanted to clear up with you a little
12 bit, because now -- your evidence just now is it --
13 it's a near-term objective, and as I read this answer
14 here at page 2,352, the -- the point is this, that
15 working towards unity transcends becoming a long-term
16 goal, and in your words, becomes the Holy Grail.

17 And, you know, it's been a while since
18 I've been in my catechism courses, but the Holy Grail
19 -- I digress, here, it's supposedly the cup of Christ
20 used at the Last Supper, but it's mythical, not really
21 accepted by any church. And what I mean by that is --
22 is it -- it seems that your answer with respect to
23 actually moving towards unity is -- has become a
24 little mythical as well.

25 And really, we get to the point where

1 once we're within -- we're within the zone of
2 reasonableness, you have to look at the objectives of
3 actually why moving towards unity, meaning once you're
4 in the -- the zone of reasonableness, there's really
5 no upside to -- to going to the end and -- and
6 reaching unity. Is that fair to say?

7 MR. GREG BARNLUND: I -- I think
8 that's a fair characterization, yes.

9 MR. CHRISTIAN MONNIN: And -- and in
10 that regard, I've read that transcript -- this piece
11 of the transcript a few times, and is a fair to say
12 that you don't really respond to the question of
13 moving towards unity in seven (7) or eight (8) years,
14 and in fact, you kind of stop short and say, Once
15 we're in the zone of reasonableness, that's -- that's
16 the sweet spot we should be in. Is that fair?

17 MR. GREG BARNLUND: Well, I -- I think
18 that that would be a better place to be. I think
19 that, you know, I think that with respect to once you
20 have classes that are residing within -- within a zone
21 of reasonableness, that the, you know, you have to
22 really assess whether there is any further benefit to
23 be migrating any other -- anything further closer to
24 unity at that point in time.

25 MR. CHRISTIAN MONNIN: And -- and

1 therefore, would you agree with me that it's more
2 realistic and more practical to -- to move towards --
3 to move the classes all within the zone of
4 reasonableness than towards unity?

5 MR. GREG BARNLUND: Well, I think
6 that's a -- a room -- more -- a -- a fair assessment
7 of a more realistic goal, definitely.

8 MR. CHRISTIAN MONNIN: And would you
9 say that it -- it's a more important goal to be within
10 the zone of reasonableness then unity?

11 MR. GREG BARNLUND: I would agree with
12 that, yes.

13 MR. CHRISTIAN MONNIN: Mr. Barnlund,
14 I'd like to ask you some questions about the -- the 2
15 percent guideline that Manitoba Hydro has. And --

16 MR. GREG BARNLUND: Yes?

17 MR. CHRISTIAN MONNIN: -- during your
18 presentation on December 19th, you provided Manitoba
19 Hydro has a guideline that if adjustments are made for
20 the movement of revenues as a result of adjusting
21 revenue to cost coverage ratios, that should be no
22 greater than 2 percent impact over and above the
23 overall level of the rate increase for each customer
24 class, correct?

25 MR. GREG BARNLUND: That's correct,

1 sir.

2 MR. CHRISTIAN MONNIN: And indeed,
3 that's found in number 3 of Manitoba Hydro general --
4 Manitoba Hydro's general rate-making objectives,
5 correct?

6 MR. GREG BARNLUND: Yes, sir.

7 MR. CHRISTIAN MONNIN: And you -- do
8 you recall the conversation you had with Board counsel
9 where she discussed with you the proposal from the
10 expert from the Manitoba Power Industrials -- or
11 Industrial Power Users Group where he's recommending a
12 differentiated rate, not on an across-the-board basis,
13 where the classes -- for the classes currently above
14 would see increases of about 1 -- 1 to 2 percent
15 below?

16 MR. GREG BARNLUND: Sorry, sir, I'm --

17 MR. CHRISTIAN MONNIN: Yeah, that's
18 fair. I -- I completely understand that that's a
19 difficult question to follow based on the way that I
20 put it to you.

21 Do you recall a discussion that you had
22 with Board counsel regarding a proposal that was being
23 put forward by the expert for the Manitoba Industrial
24 Power Users Group, essentially recommending that there
25 shouldn't -- didn't -- there shouldn't be an across-

1 the-board increase where the industrial class -- or --
2 or the industrial classes are currently above the zone
3 of reasonableness, and therefore they should see an
4 increase of 1 to 2 percent below the average. Do you
5 recall that?

6 MS. ODETTTE FERNANDES: Mr. Monnin,
7 maybe if you could provide a transcript reference that
8 might assist --

9

10 CONTINUED BY MR. CHRISTIAN MONNIN:

11 MR. CHRISTIAN MONNIN: Sure, 2,407 to
12 2,406.

13

14 (BRIEF PAUSE)

15

16 MR. GREG BARNLUND: Could you just
17 give me a moment, here, Mr. Monnin?

18 MR. CHRISTIAN MONNIN: Sorry, if you
19 go to 2,406, rather.

20

21 (BRIEF PAUSE)

22

23 MR. GREG BARNLUND: Yes, sir, I have
24 that.

25 MR. CHRISTIAN MONNIN: And Kristen, if

1 you can just scroll down a little bit, please, on
2 2,406. And continue a little bit for -- more, please.

3

4 (BRIEF PAUSE)

5

6 MR. CHRISTIAN MONNIN: And essentially
7 what I was trying to get at here is that there is --
8 there's a proposal made by Manitoba Industrial Power
9 Users Group where you wouldn't see a -- an across-the-
10 board increase, but certain classes that were above
11 the zone of reasonableness would -- would have an
12 increase that was 1 or 2 percent less. Than what's
13 being proposed. Is that fair? And if that was the
14 case, then that would be with --

15 MS. ODETTE FERNANDES: Sorry, Mr.
16 Monnin. If you can allow Mr. Barnlund to respond --

17 MR. CHRISTIAN MONNIN: Sure.

18 MS. ODETTE FERNANDES: -- to your
19 first question.

20 MR. GREG BARNLUND: So as I read this,
21 I recall from Mr. Bowman's evidence that he was
22 suggesting that -- that there should be some
23 consideration given to sheltering the GSL classes by 1
24 or 2 percent in terms of the overall application of --
25 of the rate increase. So I do recall that, yes, sir.

1 CONTINUED BY MR. CHRISTIAN MONNIN:

2 MR. CHRISTIAN MONNIN: And per --
3 perhaps I can short-circuit this. If you scroll down
4 to the next page, please. And really, at page 20 --
5 at line 22 to 25, it's really at this what I was
6 getting at is that your evidence was that this would
7 be consistent with the 2 percent guideline and
8 although --

9 MR. GREG BARNLUND: So -- so let me
10 elaborate on that to an extent.

11 MR. CHRISTIAN MONNIN: The revenue
12 neutral.

13 MR. GREG BARNLUND: The 2 percent that
14 we're speaking to is the amount of increase that other
15 customer classes would see when we shift revenues
16 between them. So if we -- we're moving revenues away
17 from the general service large customer class, and
18 let's use the example of 1 percent. What -- it's 1
19 percent of the total amount of revenue for general
20 service large, which would be approximately, if we
21 have a -- reflecting back on earlier conversations,
22 \$250.5 million of revenue, 1 percent of that would be
23 twenty-five (25) -- or two point five (2.5), sorry.

24 One percent of that would generate a
25 certain amount of revenue that would have to be picked

1 up by other customer classes. And so if that revenue
2 is then required to be borne by the residential class,
3 you'd want to ensure that it didn't increase their
4 rate by more than 2 percent.

5 So the 2 percent is not with respect to
6 the class that is benefitting from the revenue
7 reduction. It is reflective of the impact to the
8 customer classes that are bearing the increased
9 responsibility for those revenues.

10 Does that make sense, Mr. Monnin?

11 MR. CHRISTIAN MONNIN: I believe it
12 does for the purposes of this afternoon. Thank you.
13 And Kristen, if you can go to slide 15 of Manitoba
14 Hydro 88, I believe. And here we have a -- a table,
15 which was part of your presentation, Mr. Barnlund.
16 It's still on -- on the guideline.

17 So if you're looking at the five (5)
18 years, and you have the -- the -- for example, GSS
19 non-demand is one point seven (1.7), that's the
20 highest decrease, here, is this proposal within the
21 guidelines of Manitoba Hydro, or -- or this, the --
22 this illustration that we've just discussed?

23 MR. GREG BARNLUND: It would be
24 because for -- for the sake of presentation purposes,
25 here, it's assumed that the residential customer class

1 is bearing that impact now. So if you look at -- it -
2 - it would violate our guideline to do it in year 1 --
3 to do in one (1) year, I should say, because it would
4 be requiring the residential customer class to take on
5 an additional 3.6 percent of revenue responsibility,
6 and so that exceeds the 2 percent that we have in our
7 guideline.

8 To do it over five (5) years mitigates
9 that impact, and therefore, that would fall within our
10 criteria, because if we are just assuming that we're
11 going to apply that all to the residential class, it
12 would require that the residential customers see an
13 additional point -- 0.7 percent increase per year for
14 each of the five (5) years. And so similarly, to take
15 it out over ten (10) years, it mitigates that impact
16 even -- even more so.

17 MR. CHRISTIAN MONNIN: Okay. So year
18 1 is -- is outside of Manitoba Hydro's guidelines?

19 MR. GREG BARNLUND: That's correct.

20 MR. CHRISTIAN MONNIN: Year 5 is
21 within the guidelines, and year 10 is obviously -- or
22 should --

23 MR. GREG BARNLUND: Yes, sir.

24 MR. CHRISTIAN MONNIN: -- be within
25 the guidelines? Have -- have you done that -- "you"

1 being Manitoba Hydro, has that exercise done -- been
2 done for years 2, 3, and 4 to see whether any of this
3 would -- would fall within the guidelines in those
4 years?

5 MR. GREG BARNLUND: Well, sir, we have
6 not done that, and -- and I think that I want to
7 reflect a little bit on the other revenue to cost
8 coverage information that we provided in this filing,
9 where we notionally indicate the impact of bringing
10 the Bipole III investment online, and the influence
11 that that plant coming into service has on the revenue
12 to cost coverage ratios for customer classes.

13 This table here was provided in
14 response to a specific question asked, I believe, by
15 the Public Utilities Board in an Information Request
16 to look at it over a one (1), five (5), and ten (10)
17 year period, but we have not looked at it in the two
18 (2), three (3), or four (4) year period at this point.

19 MR. CHRISTIAN MONNIN: I'm sorry, I --
20 I believe it's PUB/Manitoba Hydro-1188-(a) -- and 8-
21 (c) where that IR was. What -- preparing a response
22 for years 2, 3, and 4, would -- would that be
23 something that would be monumental for Manitoba Hydro
24 to do with regards to this table?

25 MR. GREG BARNLUND: I think we could

1 undertake to do that, sir.

2 MR. CHRISTIAN MONNIN: And with that,
3 I believe we're -- we're closing off on a high note,
4 Mr. Barnlund. That's the end of my questions. Thank
5 you, members of the panel of the Board, and members of
6 the panel Manitoba Hydro.

7 THE CHAIRPERSON: I just want to make
8 sure -- does the reporter have that undertaking?

9

10 (BRIEF PAUSE)

11

12 MR. CHRISTIAN MONNIN: All right. So
13 the undertaking is for Manitoba Hydro to update slide
14 -- the information on slide 15 of -- what's their
15 exhibit number?

16 MR. GREG BARNLUND: Manitoba Hydro-88.

17 MR. CHRISTIAN MONNIN: Manitoba Hydro-
18 88 to reflect the information for years 2, years 3,
19 and years 4.

20

21 --- UNDERTAKING NO. 37: Manitoba Hydro to update
22 the information on slide
23 15 of Manitoba Hydro-88 to
24 reflect the information
25 for years 2, years 3, and

1 years 4

2

3 THE CHAIRPERSON: Thank you. I think
4 we'll take a ten (10) minute break before Mr. Gange
5 starts. Thank you.

6

7 --- Upon recessing at 2:21 p.m.

8 --- Upon resuming at 2:40 p.m.

9

10 THE CHAIRPERSON: Mr. Gange...?

11 MR. WILLIAM GANGE: Thank you, Mr.
12 Chair.

13

14 CONTINUED CROSS-EXAMINATION BY MR. WILLIAM GANGE:

15 MR. WILLIAM GANGE: Ms. Morrison, with
16 respect to affordability, if we could go to volume 5,
17 page 105 of the PUB book of documents. This was a --
18 is a -- a chart that was prepared by Manitoba Hydro
19 comparing different energy sources; is that correct?

20 MS. LOIS MORRISON: Yes. This chart
21 was comparing the annual space heating costs for
22 different energy sources, both with and without
23 consideration of the future carbon levy.

24 MR. WILLIAM GANGE: And -- and if we
25 were to summarize this, it shows that the high-

1 efficiency natural gas furnace without a carbon levy
2 is less than one-third the cost of an electric
3 furnace.

4 Is that -- is that a fair reading of
5 that?

6 MS. LOIS MORRISON: In which year
7 would you be referencing?

8 MR. WILLIAM GANGE: I'm looking at --
9 at -- in -- in 19 -- or pardon me, 2000 -- yeah, 19 --
10 2027. At the end of the -- the time period the
11 estimate is.

12 MS. LOIS MORRISON: From an operating
13 cost perspective, the high-efficiency natural gas
14 furnace, without the carbon levy, is anticipated to be
15 under six hundred dollars (\$600) for the year whereas
16 the electric furnace would be closer to the twenty-two
17 hundred dollars (\$2200).

18 MR. WILLIAM GANGE: And then --

19 MS. LOIS MORRISON: At the end of
20 August 20 -- 2027.

21 MR. WILLIAM GANGE: Thank you. And
22 still looking at the same line, in -- in 2027 with the
23 carbon levy, it's -- what -- what's the cost of that
24 high-efficiency natural gas furnace?

25 MS. LOIS MORRISON: It's just under

1 eight hundred dollars (\$800) on an annual basis,
2 anticipated forecast to be.

3 MR. WILLIAM GANGE: Right. And -- and
4 the carbon levy, what's that -- what -- what is your
5 estimate based on to -- to establish that?

6

7 (BRIEF PAUSE)

8

9 MS. LOIS MORRISON: I believe it was
10 based upon what the federal government had anticipate
11 -- was announcing as part of their carbon strategy
12 beginning at ten dollars (\$10) a ton moving up to
13 fifty (\$50) a tone.

14 MR. WILLIAM GANGE: Okay, through --
15 and -- and so the -- going from 2018 to 2027, there
16 are a number of -- on -- on this high-efficiency
17 natural gas furnace with the carbon levy there are a
18 number of -- of bumps.

19 Is that because of the increase of the
20 carbon levy that was expected from the federal
21 government?

22 MS. LOIS MORRISON: Yes, those notches
23 that you're referencing would be as a result of the
24 impact of the carbon levy.

25 MR. WILLIAM GANGE: And -- and it

1 assumes that the cost of natural gas remains
2 relatively flat during that time period?

3 MS. LOIS MORRISON: There are some
4 fluctuations that are anticipated but, yes, overall
5 natural gas is assumed to be relatively flat in terms
6 of its overall cost.

7 MR. WILLIAM GANGE: Right. And -- and
8 I just say that from -- because it -- it would appear
9 to me that if I look at the blue line and the red
10 line, if -- if my sense of colour is of any value or
11 trustworthiness, that in -- in both the bottom line of
12 the chart and then the third line from the bottom, the
13 -- those lines are pretty flat, which represents the
14 fact that -- that your modelling shows natural gas
15 prices to -- to stay relatively stable?

16 MS. LOIS MORRISON: Yes, that is
17 correct.

18 MR. WILLIAM GANGE: Okay. Dr. Miller
19 raised with your counsel the question of how would
20 geothermal fit into this chart; is that correct?

21 MS. LOIS MORRISON: That is correct.

22 MR. WILLIAM GANGE: And as a result of
23 that you were -- or your -- your -- you and your staff
24 were kind enough to prepare a -- a revised chart which
25 would show how geothermal would compare to these

1 numbers; is that correct?

2 MS. LOIS MORRISON: That is correct.

3 MR. WILLIAM GANGE: And on the -- the
4 screen right now we have a chart that was prepared in
5 -- in response to a request made of your counsel by
6 Dr. Miller; is that correct?

7 MS. LOIS MORRISON: That is correct.

8 MR. WILLIAM GANGE: And Mr. Simonsen,
9 I think that it would be appropriate if we have that
10 marked as -- as a GIC exhibit. Yes, okay, thank you.

11 So the -- there's two (2) lines that
12 are added, geothermal SCOP -- I don't know what that
13 means -- 2 and SCOP 3. Could -- could you tell the
14 Board what that acronym is?

15 MS. LOIS MORRISON: CO -- SCOP of 2
16 represents a seasonal coefficient of performance of
17 two (2) which means, essentially, for every unit of
18 energy input to the system, you get two (2) units of -
19 - equivalent units of heat back. So, it's how we
20 measure the performance of a geothermal system and,
21 essentially, we provide two (2) ranges -- typically we
22 provide two (2) ranges on all of our heating education
23 information sheets related to geothermal systems.

24 Geothermal systems are -- their
25 performance is based on how they are designed, how

1 they're installed and to what size they are designed
2 in terms of the house. So depending on how well the
3 loop is designed, what type of soil conditions you've
4 got your loop in, there's a lot of complexity with the
5 system and not all systems will perform exactly the
6 same. It depends upon the design and so to provide
7 customers with an understanding of what the overall
8 performance may be, we give them a range of what it
9 could be depending on how their system is designed and
10 what type of soil conditions their -- their loops are
11 installed in.

12 And so what you see here is that you
13 could have a -- as I mentioned, a seasonal coefficient
14 performance of 2 or you can have a higher performance
15 which would mean -- which would be a seasonal
16 coefficient of performance of 3, which means for every
17 unit of electricity you are putting in, you're getting
18 back the equivalent of three (3) units of heat for --
19 that you would normally get under, say, an electric
20 furnace scenario.

21 And so that's what those two (2) lines
22 represent.

23 MR. WILLIAM GANGE: Is -- is there a
24 difference in cost of -- of installation between the
25 SCOP 2 and SCOP 3?

1 MS. LOIS MORRISON: Not -- the cost is
2 tied to the design of the system and the length of the
3 loop you're putting in. So there will be some
4 influences that may, if you spend more money, you'll
5 put in a system that may accommodate more of your heat
6 requirements and that made -- that would drive up the
7 cost of your system but we can have systems that cost
8 the exact same amount that provide similar levels of
9 performance, it really comes down to how well the
10 system was designed, the prices that were quoted by
11 the installers and the type of soil conditions that
12 the customer is working with.

13 MR. WILLIAM GANGE: So if -- if we
14 look at the line for August 2017, the -- the bottom
15 line, and I would call that purple would you -- will
16 you go with me on that?

17 MS. LOIS MORRISON: Most definitely.

18 MR. WILLIAM GANGE: So remember, I'm a
19 boy so there are very few words for colours in my
20 vocabulary.

21 So but the bottom line, the purple line
22 in 2018, is -- is the lowest line on here. So -- or
23 in 2017, pardon me. So that as of this past summer
24 the -- the lowest cost for space heating would be the
25 geothermal SCOP 3; is that correct?

1 MS. LOIS MORRISON: The lowest
2 operating cost, assuming that the unit installed was
3 performing and achieving a seasonal coefficient of 3
4 would have the lowest operating cost, annual operating
5 cost.

6 MR. WILLIAM GANGE: Okay.

7 MS. LOIS MORRISON: I should qualify
8 that there's two (2) -- when we're looking at
9 different options for heating, we encourage customers
10 to look at all the costs that are involved in that
11 decision; both the upfront capital cost and the
12 ongoing annual operating costs.

13 And that's why I'm emphasizing that
14 we're only looking at one (1) component here, we're
15 only looking at the operating costs.

16 MR. WILLIAM GANGE: Yes and I'll get
17 to the -- the -- the other part of that -- of those
18 components in a second.

19 But it's expected, though, that the
20 annual operating cost of the geothermal will increase
21 during the period of 2017 to 2027 so that its cost
22 will be higher than the cost of the high-efficiency
23 natural gas furnace; is that correct?

24 MS. LOIS MORRISON: That is correct.

25 MR. WILLIAM GANGE: And -- and -- and

1 that's directly related to the cost of the electricity
2 to run the -- the -- the geothermal?

3 MS. LOIS MORRISON: That is correct.

4 MR. WILLIAM GANGE: Okay. You also
5 mentioned the -- the installation costs and my
6 understanding is that the installation cost for a
7 geothermal unit is -- is somewhere in the range of
8 \$15-\$20,000.

9 MS. LOIS MORRISON: It can depend on
10 the system. We see very few installed at \$15,000.
11 Typically, what we're seeing through our Earth Energy
12 loan is more in the range of about \$22,000 installed.
13 So around the \$20-\$22,000 installed.

14 MR. WILLIAM GANGE: I'm sorry, the
15 Earth Energy...?

16 MS. LOIS MORRISON: Our Earth Power
17 loan.

18 MR. WILLIAM GANGE: Earth Power, okay,
19 sorry.

20 MS. LOIS MORRISON: Yeah, so we have a
21 residential earth power loan where we -- where
22 customers can finance the cost of their geothermal
23 system or their solar installation or other systems
24 such as cold climate air source heat pumps through --
25 on their -- on their monthly energy bill.

1 MR. WILLIAM GANGE: So if I understood
2 that, the -- the -- did you say that you think the
3 average cost is about \$22,000?

4 MS. LOIS MORRISON: 22,500 is our
5 average cost.

6 MR. WILLIAM GANGE: Okay, thank you.
7 And -- and do I understand that the cost of a high-
8 efficiency natural gas furnace ranges between
9 approximately \$3500 to \$5500?

10 MS. LOIS MORRISON: Yes, that would be
11 a reasonable range. We see -- through our Power Smart
12 Residential Loan, we see a number of the installations
13 for furnaces coming in within those ranges, probably
14 closer to the 4000 to \$5500 range.

15 MR. WILLIAM GANGE: So at present if a
16 person has the ability to install a -- a high-
17 efficiency gas furnace, lives in -- in one of the
18 areas of Manitoba that -- where -- where natural gas
19 is supplies, on -- on these values you could never
20 recapture the cost of a geothermal; is that correct?

21 MS. LOIS MORRISON: We would -- on a
22 cost perspective, we would encourage cust -- we would
23 provide customers with the information, and we would
24 expect that given this information they would choose
25 the high-efficiency natural gas furnace.

1 MR. WILLIAM GANGE: So -- so -- and
2 Professor Miller points out to me that there is by
3 2000 -- well, during the period of -- until 2027,
4 there is if -- if carbon -- the carbon levy is taken
5 into account, the geothermal SCOP 3 unit is somewhat
6 less costly to operate, but it's not -- it's not a
7 significant difference, is it?

8 MS. LOIS MORRISON: No.

9 MR. WILLIAM GANGE: But then in
10 comparison to the cost of an electric furnace
11 throughout this time period, there is quite a
12 significant difference between the cost of operating a
13 geothermal furnace versus an electric furnace; is that
14 correct?

15 MS. LOIS MORRISON: That is correct.

16 MR. WILLIAM GANGE: And -- and -- and
17 the cost to install an electric furnace or baseboards
18 is -- is estimated by Manitoba Hydro to be between
19 2000 and \$3000?

20 MS. LOIS MORRISON: That would be
21 reasonable.

22 MR. WILLIAM GANGE: So you'd have to
23 capture \$20,000 over a period of time to make the
24 geothermal cost-effective?

25 MS. LOIS MORRISON: That would be a

1 reasonable assumption, yes.

2 MR. WILLIAM GANGE: Okay. And -- and
3 in terms of the programs that Manitoba Hydro has for
4 assisting the installation of geothermal furnaces, you
5 mentioned the Earth Power Loan, is that --

6 MS. LOIS MORRISON: Yes.

7 MR. WILLIAM GANGE: -- did I get it
8 right this time?

9 MS. LOIS MORRISON: Yes.

10 MR. WILLIAM GANGE: Thank you. And --
11 and -- and can you advise the Board what that entails?

12 MS. LOIS MORRISON: It's -- as I
13 mentioned, it's an on-bill financing program where
14 customers can finance the upfront cost of installing a
15 geothermal system, up to a maximum of \$20,000 over a
16 fifteen (15) year period.

17 MR. WILLIAM GANGE: Is there also a
18 subsidy for installations on First Nations reserves of
19 approximately five thousand dollars (\$5000)?

20 MS. LOIS MORRISON: Yes, that's our
21 community geothermal program. That program is
22 specifically targeted working with First Nation
23 communities.

24 Under that program because of the
25 approach we are -- we work with the community. The

1 community does bulk purchases of the actual geothermal
2 heat pump boxes. So what would be the compressor
3 furnace unit and are able to -- they also work with --
4 we have a -- an indigenous nonprofit social enterprise
5 that we work with called Aki Energy that helps
6 coordinate these projects. Works with the community.
7 The community members identify people to be trained in
8 the installation and because we have people in the
9 community that have been trained to install the
10 geothermal systems, and we've been -- done a bulk
11 purchase of the actual units we're able to bring the
12 average price of the units down to seventeen thousand
13 five hundred (17,500).

14 We then take -- what we do is working
15 with the community we identify all the highest energy
16 users and -- or the highest consuming houses, and we
17 focus on those houses to begin with. And we --
18 because those are the houses where you're going to see
19 the greatest benefit of installing a geothermal heat
20 pump system.

21 And so we also then finance the cost of
22 that geothermal system at the seventeen thousand five
23 hundred (17,500) going into that customer's house, and
24 that's done through our PAYS loan program, which was
25 put in effect or supported by the Energy Savings Act.

1 So what it allows us to do under that program, the
2 energy savings have to offset any of the financing
3 charges associated with the measure. So because of
4 those guidelines for that program, we focus on the
5 higher user -- higher using households in the
6 community.

7 So in many of the cases at the
8 beginning where we're working with these communities,
9 the energy savings were able to offset the financing
10 costs of these geothermal heat pump systems that we
11 were able to install at a much lower price because of
12 that community approach.

13 As we've worked over the years with
14 these -- with these specific communities we're looking
15 at houses that have a lower energy use. So once we
16 started getting into houses that they were identifying
17 for us to do the installations with that had a lower
18 energy use, the energy savings were no longer
19 offsetting the financing charge. And under the PAYS
20 terms and conditions that were outlined to the Energy
21 Savings Act, we have to meet that.

22 So as part of Manitoba Hydro's efforts
23 to get the number of unit -- increase the number of
24 geothermal systems installed in these communities, we
25 provide incentives to basically buy down the costs of

1 those units to make it so that the energy savings are
2 now offsetting the financing charges. So really their
3 bills are staying the same.

4 And so, although the incentive looks to
5 be on average forty-nine hundred dollars (\$4900), it
6 changes based on each household, depending on how much
7 we've had to buy down to get that -- to get the
8 financing charge to be equal to what the energy
9 savings are going to be.

10 MR. WILLIAM GANGE: And, Ms. Morrison,
11 can you -- can you advise the Board, what kind of a
12 take-up have you received with respect to First
13 Nations communities taking advantage of geothermal
14 heat?

15 MS. LOIS MORRISON: We are working
16 currently with five (5) communities and we've had very
17 good success with those five (5) communities. In
18 terms of installing geothermal heat pump systems, I
19 think we have three hundred and sixty-five (365)
20 systems that have been installed to date under the
21 program and the communities we're working with are
22 block funded.

23 And so because the way this program
24 works is we are, essentially, putting the financing
25 charge for the geothermal heat pump system on each

1 individual customer's bill. So each household in the
2 community has an energy bill for their house. The
3 financing charge goes on that energy bill.

4 The concern that we ran into working
5 with community -- other communities beyond these five
6 (5) was that INAC was not supportive of reimbursing
7 costs that were financing charges on energy bills.
8 They were only interested in reimbursing the -- or
9 covering the cost of the -- of the energy charges.
10 So, we are in discussions with INAC right now.

11 So although we are -- haven't expanded
12 beyond the five (5) communities, we are working with
13 INAC to identify a way to move forward and we are
14 continuing to work very closely with those five (5)
15 communities who are continuing to install geothermal
16 heat pump systems.

17 MR. WILLIAM GANGE: And -- and can you
18 give me a rough answer to this. Over the next five
19 (5) years, what do you expect in terms of the number
20 of geothermal units to be added to First Nations
21 communities?

22

23 (BRIEF PAUSE)

24

25 MS. LOIS MORRISON: So, I don't have

1 the participation projections readily available for
2 the geothermal -- the community geothermal program in
3 terms of what we're anticipating to see over the next
4 two (2) years.

5 But, we could undertake to provide that
6 to you. Now, recognizing that our projections that we
7 would be referencing would be the ones that are
8 referenced in the 2016 long-term forecast and that was
9 prepared prior to our discussions with INAC, so they
10 may be somewhat higher than what we may achieve until
11 we can resolve these concerns that INAC has.

12 MR. WILLIAM GANGE: If you could give
13 that undertaking as -- as -- as best you can, Ms.
14 Morrison, that would be helpful to us.

15 MS. LOIS MORRISON: We can do that.

16

17 --- UNDERTAKING NO. 38: Manitoba Hydro to provide
18 current projections for
19 participation under the
20 community geothermal
21 program over the next two
22 (2) years, three (3)
23 years.

24

25 CONTINUED BY MR. WILLIAM GANGE:

1 MR. WILLIAM GANGE: Okay, thank you.

2 MS. LOIS MORRISON: The undertaking
3 where we will provide our current projections --
4 Manitoba Hydro's current projections for participation
5 under the community geothermal program over the next
6 two (2) years, three (3) years.

7 MR. WILLIAM GANGE: The next -- if you
8 can do two (2) -- if you can do three (3), it would be
9 better, but if you can do two (2), whatever --
10 whatever works for you.

11 MS. LOIS MORRISON: Okay.

12 MR. WILLIAM GANGE: And -- and, Ms.
13 Morrison, is this one (1) of the programs that will be
14 shifted to the elusive Efficiency Manitoba concept?

15 MS. LOIS MORRISON: Yes. The
16 community geothermal program is one (1) of our demand-
17 side management programs, and as we've testified that
18 responsibility will be moving to Efficiency Manitoba.
19 So, as part of all of Manitoba Hydro's offerings that
20 will then become under the purview of Efficiency
21 Manitoba.

22 MR. WILLIAM GANGE: Okay, thank you.
23 Thank you very much for that. Kristen, if you could
24 go to --

25 BOARD MEMBER GRANT: But before you

1 leave this chart, I was wondering if I could just ask
2 a couple of things. This always perks me up because
3 I'm an all electric consumer household so it grabs my
4 attention.

5 So partly, I want you to give me some
6 hope here. I'm not sure that I understand how this
7 graph is constructed. So, are you taking current
8 technology and the current price of purchasing the
9 capital good, and then just using historical prices
10 and forecast prices to construct this or is there
11 actual -- is there technological change going on
12 within this period of time?

13 MS. LOIS MORRISON: So in terms of --
14 in terms of electric furnace, it's 100 percent
15 efficient. So there's no improvements to the
16 efficiency that we would be factoring into this.

17 In terms of the --

18 BOARD MEMBER GRANT: What about the
19 cost, the purchase cost, the capital cost of it?

20 MS. LOIS MORRISON: That doesn't come
21 into this at all. This doesn't reflect anything
22 related to the purchase cost of the unit. It's only
23 looking at the operating cost.

24 BOARD MEMBER GRANT: Okay.

25 MS. LOIS MORRISON: And so it would be

1 looking at the -- the price increases that are being
2 projected for both -- for electricity and natural gas,
3 and it would be looking at the efficiency of the unit
4 at this time.

5 So we are not -- although there's -- I
6 think we're assuming a 92 to 93 percent efficiency on
7 the high-efficiency natural gas furnace, there's not a
8 substantive difference, really, in terms of moving
9 from a 92, to 94 or 96, in terms of that return on
10 your investment. So, we tend to go around the 92,
11 which is what the code requirement in Manitoba is.

12 So in terms of geothermal, that's why
13 we give a range because really it's performance-based.
14 We've seen geothermal systems go in that only achieve
15 a seasonal coefficient of performance of 1.5. We've
16 seen some that get up to the 3. They are proposing
17 that in the future some of the -- what I call the box
18 which is the compressor unit that goes into your home,
19 they are -- there are improvements and efficiency
20 improvements coming with the next generation of
21 geothermal but, again, there's quite a bit of that
22 performance that relies upon the design of your loop
23 system and the type of soil conditions. So your loop
24 has to be designed appropriately for your soil
25 conditions.

1 So -- so that's why we give the range.
2 So what it allows you to do then is to say, okay,
3 well, if I'm going to get somewhere in-between it'll
4 be around here. It gives you that band to work
5 around.

6 BOARD MEMBER GRANT: Are you telling
7 me to buy a geothermal unit? Is that the hint you're
8 giving me now to get -- never mind, I won't ask for a
9 tip.

10 MS. LOIS MORRISON: It depends on what
11 price you got for it. It's that capital cost
12 component.

13 BOARD MEMBER GRANT: Before my
14 colleague gives you a really good question. Am I
15 correct, speak for all of Ontario now, in their
16 climate change plan initially were they not proposing
17 to subsidize fuel switching from natural gas to
18 electricity for space heating?

19 MS. LOIS MORRISON: Sorry, whose
20 climate change plan?

21 BOARD MEMBER GRANT: Ontario's Climate
22 Change Action Plan, was that not in their original
23 proposal; is that they were going to -- because they
24 wanted to be fossil free and so they were going to
25 subsidize people to move off of natural gas space

1 heating?

2 MS. LOIS MORRISON: I am unfamiliar
3 with that one.

4 BOARD MEMBER GRANT: I probably made
5 that up.

6 MS. LOIS MORRISON: Only because it
7 just intuitively would have gone against all costs,
8 economic --

9 BOARD MEMBER GRANT: That's -- that's
10 Ontario.

11 BOARD MEMBER MCKAY: Yes, I have one
12 (1) question as well. Just in terms of the geothermal
13 options and looking at the operating costs comparison,
14 do you factor in any ongoing maintenance costs for
15 that, or is that just the straight cost?

16 MS. LOIS MORRISON: This is just the
17 straight energy cost. This doesn't include
18 maintenance. So you're very much correct that --
19 there are differences in the maintenance of the
20 different systems.

21 So typically people with electric
22 furnaces, although people -- we will encourage people
23 to maintain their systems, the maintenance of an
24 electric furnace is much less than a maintenance of a
25 natural gas furnace so. And then with a geothermal

1 heat pump system, there will be ongoing maintenance
2 costs or -- for checks and such that should be done to
3 make sure the system is still operating properly, and
4 to its -- to its -- its designed efficiency.

5 BOARD MEMBER MCKAY: And one (1) final
6 question on this one. I realize it says space
7 heating. So does that include or exclude all the
8 other electricity charges you have in a month?

9 MS. LOIS MORRISON: Yes, it does.
10 We're focused solely on what -- this space heating
11 requirement. So it excludes water heating and any
12 plug, lights, load or anything else that would be --
13 the electricity consumed by the household.

14 BOARD MEMBER MCKAY: I was also going
15 to say I'm also an all electric customer. So it like,
16 who pays this much or this little of a whole year, but
17 yes, thank you.

18 THE CHAIRPERSON: Mr. Gange, before
19 Dr. Grant has too much hope, why don't you proceed.

20 MR. WILLIAM GANGE: Try to crush it.
21 I am going to move on. Thank you, Ms. Morrison on
22 that.

23 Mr. Mason, I want to move to the PRA
24 report and this is Manitoba Hydro 88, page 46. I know
25 that you had a discussion with Professor Grant on this

1 point, but I just want to understand a couple of
2 issues.

3 You indicate -- or pardon me, the
4 report indicates that -- that -- that the energy
5 poverty as calculated by the LICO approach understates
6 energy poverty. So the -- the -- it -- it states on
7 page 46:

8 "PRA used this measure. However, it
9 will overstate the extent of energy
10 poverty. It also likely understates
11 the impact of energy poverty outside
12 Winnipeg."

13 So -- so on one hand it's overstating
14 the extent of energy poverty, but understating the
15 impact of energy poverty. I don't understand that,
16 and that may be my functional disabilities. But how
17 does that work?

18 DR. GREGORY MASON: It is a bit of a
19 confusing concept. I will admit.

20 MR. WILLIAM GANGE: Thank you. Give
21 me some hope here.

22 DR. GREGORY MASON: So it's -- I think
23 it's a bit of a puzzler, largely because LICOs are
24 also quite a complex concept. But in general, the
25 notion of a LICO will overstate poverty and that's the

1 incidence of poverty and that's a -- a general
2 consensus. LICO is a statistical measure, purely a
3 statistical measure. The LICO-125 is simply an
4 arbitrary increase in that income by 25 percent. So
5 that's why we say, in general, it will overstate
6 poverty.

7 But what you -- when you look at LICOs
8 themselves, Statistics Canada puts out a whole series
9 of LICOs for different sizes of city and also,
10 generally speaking, for various locations in various
11 urban areas. And so the whole notion here is that
12 LICO does vary independently. And when you go to the
13 Stats Canada webpage and look at the LICOs, you can
14 get all sorts of examples of how the LICO varies by
15 region.

16 And because of that what happens is the
17 actual income level falls, the LICO falls in rural
18 areas and the result is that the energy proportion of
19 that budget will, in fact, rise. And so, essentially,
20 what's happening is that in rural areas it's kind of -
21 - it will automatically tend to understate the true
22 incidence of energy poverty.

23 That's one of the problems with the
24 LICO and using the LICO here. It's just a very tricky
25 slippery concept.

1 MR. WILLIAM GANGE: In the -- in the
2 approach that you use, though, as I understand it, you
3 used the Winnipeg-based LICO?

4 DR. GREGORY MASON: Yes.

5 MR. WILLIAM GANGE: And you applied
6 that to -- to -- province wide?

7 DR. GREGORY MASON: Yes, that's
8 correct.

9 MR. WILLIAM GANGE: And -- and I don't
10 understand why the -- the other LICOs that are -- are
11 more suitable for the area outside Winnipeg were not
12 used in this survey?

13 DR. GREGORY MASON: It's largely
14 because 60 percent of our sample automatically is
15 Winnipeg-based, and then you would have to start
16 parsing out and I know what you're primarily
17 interested in is probably the northern where we have a
18 relatively small size.

19 And so it just becomes less and less
20 precise to do that. And so we basically used the
21 general LICO in -- in this case as a matter of
22 convenience and to be consistent in looking at each of
23 the respondent households in the data set.

24 One could go out and parse it out and
25 look at it, but I don't think it would make much

1 difference at all to the analysis. So I -- we
2 basically elected to choose a more simpler uniform
3 approach.

4 MR. WILLIAM GANGE: Your comment there
5 was that you don't think it would make much difference
6 but would it perhaps change that last sentence where
7 you said:

8 "It also likely understates the
9 impact of energy poverty outside
10 Winnipeg."

11 If you used the rural LICO, would that
12 sentence still hold as valid?

13 DR. GREGORY MASON: I suspect it
14 would, yes.

15 MR. WILLIAM GANGE: It would, would
16 it?

17 DR. GREGORY MASON: Yes.

18 MR. WILLIAM GANGE: Okay. And why is
19 that?

20 DR. GREGORY MASON: It's largely
21 because it -- it's just generally understating the
22 impact. If you correct for that than you get a more
23 accurate statement and you're going to basically be
24 more accurate. The measure we have is probably
25 understating that and I think we've typically said

1 that in the rural areas where the analysis is not
2 capturing the full impact of the energy burden using
3 this -- using this approach.

4 MR. WILLIAM GANGE: Okay, thank you.
5 So if -- Kristen, if you could go to Coalition/
6 Manitoba Hydro 2-44 and -- and the chart. Thank you.

7 In -- in looking at this chart, sir,
8 did you take into account those participants in -- in
9 the survey -- or -- well, I guess I should lay the
10 foundation.

11 Does this come from your survey as
12 well?

13 DR. GREGORY MASON: It does. I just
14 note there's a couple of very high incomes that are
15 possibly data error entries that in the -- our
16 original report were there, but, yeah, there's
17 probably two (2) data points out to the extreme right
18 that are not included on this chart.

19 MR. WILLIAM GANGE: Okay. And -- and
20 would -- would you have checked whether or not the
21 participants in the survey were receiving welfare?

22 DR. GREGORY MASON: I believe we did
23 do some analysis of that. There is a question on
24 origins of income, I believe there is. But I'd have
25 to go back and look at the source data. I haven't

1 looked at it, the source data in a little while.

2 MR. WILLIAM GANGE: Okay and -- and --
3 but off the top of your head, can you -- can you
4 advise whether the -- those people that were receiving
5 income assistance were then excluded from this chart?

6 DR. GREGORY MASON: No, I wouldn't
7 believe though. I think this is the entire -- entire
8 group.

9 MR. WILLIAM GANGE: But those people
10 don't pay -- the people on income assistance don't pay
11 Manitoba Hydro bills --

12 DR. GREGORY MASON: Well, --

13 MR. WILLIAM GANGE: Correct, sir?

14 DR. GREGORY MASON: -- I think we took
15 basically the evidence -- when you say "on assistance"
16 they don't pay Hydro bills?

17 MR. WILLIAM GANGE: That -- that --
18 that the -- that the income assistance usually pays
19 those -- those Hydro bills directly itself.

20 DR. GREGORY MASON: Yes, it started to
21 vary. We've had this discussion before. I believe we
22 took income as stated by the individual. So we
23 collected income on the survey. And that's what we
24 used here.

25 And then we also merged that with just

1 the Hydro bill itself. So there may be some people on
2 social assistance who are paying a bill who are not
3 included in the survey; that's I think a possibility.
4 I would have to check that. I'm not certain.

5 MR. WILLIAM GANGE: And -- and can you
6 give me an estimate, sir, of what portion of the
7 participants received income support?

8 DR. GREGORY MASON: I would believe it
9 would probably be around 20 percent, between 15 and 20
10 percent. Again, that's subject to check. I'd have to
11 go and check that.

12 MR. WILLIAM GANGE: Could you check
13 that for me. I -- I am not going to ask you for an
14 undertaking.

15 DR. GREGORY MASON: Okay.

16 MR. WILLIAM GANGE: So what I mean by
17 that, sir, is if 15 to 20 percent is -- is -- is
18 correct, once you've checked it, don't -- don't --
19 don't worry about it, but if not, if you could advise
20 Ms. Fernandes, and she could advise me.

21 DR. GREGORY MASON: Certainly.

22 MR. WILLIAM GANGE: Is that fair, Ms.
23 Fernandes?

24 MS. ODETTE FERNANDES: That's fair.

25 MR. WILLIAM GANGE: Okay, thank you.

1 MR. PAUL CHARD: Mr. Gange, if I could
2 just provide some clarification on --

3 MR. WILLIAM GANGE: Thank you, Mr.
4 Chard.

5 MR. PAUL CHARD: -- on income
6 assistance. So provincial income assistance there is
7 a proportion of those customers who are put on direct
8 billing, but it wouldn't be all customers -- or all
9 individuals on income assistance who would be put on
10 direct billing.

11 And there are customers -- a component
12 of income assistance in Manitoba is the rent assist
13 program, which is -- customers not on income
14 assistance are eligible for that. And there's no
15 direct billing in relation to their rent assist
16 portion.

17 So, what you've put forward is
18 partially true, but it's not the entire -- it's not
19 the entire population of customers on income
20 assistance.

21 MR. WILLIAM GANGE: Okay, I'd prefer
22 partially accurate as opposed to partially true --

23 MR. PAUL CHARD: Fair enough, I --

24 MR. WILLIAM GANGE: -- that's just me.

25 MR. PAUL CHARD: Partially accurate.

1 MR. WILLIAM GANGE: Thank you. And
2 Mr. Mason, in terms of -- of the -- the energy burden
3 if -- if we could look at -- no, still looking at this
4 same chart, would you agree with me that -- that the
5 energy burden is dependent upon three (3) variables.
6 And I'll go through them one by one and -- and you can
7 agree with me or disagree, one by one.

8 But energy burden, first of all, is
9 dependent upon household income?

10 DR. GREGORY MASON: I don't believe it
11 is as simple and as clear as that. That would suggest
12 a very direct relationship. Income determines one's
13 choice with respect to a whole variety of products you
14 might wish to buy and you're -- so it does affect your
15 kind of set of consumer and other aspects about your
16 house. So, it's a much more complex relationship than
17 just sort of saying, there's three (3) things that
18 drive energy burden.

19 And I think the reason I've come to
20 that is we attempted to look at this in a regression
21 context and it turns out to be a very difficult thing
22 to actually parse out all the factors which are
23 driving energy burden. But you might want to say
24 since a higher income people, they may have more toys,
25 if you will, but they're also able to afford much more

1 efficient houses. Lower income people are typically
2 looking at much less efficient housing and poor
3 housing stock.

4 So there's probably is an inverse
5 relationship between energy burden and income; that
6 would be one (1) factor.

7 MR. WILLIAM GANGE: Okay, so -- so,
8 however, it gets factored in, it is one (1) of the
9 components --

10 DR. GREGORY MASON: It is one of the
11 energy components, yes.

12 MR. WILLIAM GANGE: -- of the energy
13 burden and -- and a second component would be energy
14 consumed?

15 DR. GREGORY MASON: Yes.

16 MR. WILLIAM GANGE: So as you've just
17 said, a more efficient house is going to use less
18 energy?

19 DR. GREGORY MASON: That's correct.

20 MR. WILLIAM GANGE: A drafty house is
21 probably going to use more energy?

22 DR. GREGORY MASON: That's correct.

23 MR. WILLIAM GANGE: Okay. And -- and
24 a third part -- component to the energy burden would
25 be rates themselves?

1 DR. GREGORY MASON: Yes, but I would
2 also caution that there are other factors on top of
3 just the three (3), parsing and dropping it down to
4 three (3) does, in fact, take probably what is a
5 complex process and simplifies it to a very great
6 extent.

7

8 (BRIEF PAUSE)

9

10 MR. WILLIAM GANGE: But would it be
11 fair to say, sir, that -- that from the -- the -- the
12 concept of -- of the energy burden, that the -- the --
13 the consumer him or herself has no control over rates
14 so that that -- that portion of the -- of the concept
15 is beyond the control of -- of the consumer?

16 DR. GREGORY MASON: The consumer has
17 no control over the price. But they can respond to
18 price in ways that mitigate that impact.

19 MR. WILLIAM GANGE: Exactly. So that
20 energy -- of the three (3) things that we -- that we
21 talked about, energy consumption is something that --
22 that a consumer has a certain degree of control over?

23 DR. GREGORY MASON: That's correct.

24 MR. WILLIAM GANGE: And would you
25 agree with me, sir, that -- that Manitoba Hydro also

1 has some degree of control over energy consumption?

2 And let me -- let me help you by finishing that
3 question.

4 So that the demand-side management
5 function of Manitoba Hydro, it plays a -- a role in
6 energy consumption. Would you agree with that, sir?

7 DR. GREGORY MASON: Man -- I would say
8 that Manitoba Hydro's offers opportunities for
9 individuals to manage their energy consumption. I
10 would not go so far as to say that Manitoba Hydro has
11 control over the consumption. I'd like to -- there's
12 a nuance there I think is important.

13 MR. WILLIAM GANGE: Yeah, I hope I
14 didn't say "control," but if I did, I did. But -- but
15 they -- but Manitoba Hydro has a role that -- that --
16 that it can offer with respect to energy consumption?

17 DR. GREGORY MASON: I believe through
18 its demand-side management and other programs, it's
19 accepted that role.

20 MR. WILLIAM GANGE: Yes. Yes. Yeah,
21 you're fighting with me on something that I -- I'm not
22 asking to fight with you.

23 DR. GREGORY MASON: I just want to
24 know what the question is.

25 MR. WILLIAM GANGE: Okay. Wait for

1 it, okay.

2 DR. GREGORY MASON: Okay.

3 MR. WILLIAM GANGE: And in terms of --
4 of this -- that -- the issue of energy bur -- energy
5 burden, the -- the -- the involvement of Manitoba
6 Hydro or the -- or the effect of Manitoba Hydro is
7 tied up in the -- the correlation of -- of rates and
8 of -- of DSM programs that are offered to individuals?

9 DR. GREGORY MASON: Those would be two
10 (2) of several factors, I would imagine.

11 MR. WILLIAM GANGE: Okay, thank you,
12 sir.

13

14 (BRIEF PAUSE)

15

16 BOARD MEMBER GRANT: Could I -- could
17 I interrupt again? I'm getting on a role here.

18 MR. WILLIAM GANGE: Dr. Grant, far be
19 it for me to say no.

20 BOARD MEMBER GRANT: Dr. Mason, I was
21 wondering if -- it all came back to me suddenly that
22 your colleague, I think at the NFAT, had presented
23 some data on the degree of energy poverty. I think he
24 was drawing from the household survey.

25 And anyway, I recollect he had a

1 figure like low income households are spending about 3
2 percent of their total budget on -- on electricity
3 costs. Does that sound familiar at all? Did you ever
4 have a chance to discuss that with him?

5 DR. GREGORY MASON: You're talking
6 about Professor Simpson?

7 BOARD MEMBER GRANT: Yes.

8 DR. GREGORY MASON: I talk about a lot
9 of things with Professor Simpson. I don't recall that
10 one, no.

11 BOARD MEMBER GRANT: Gee, I thought
12 that would be right on top of the list. He did some
13 work with Mr. Stevens I think.

14 DR. GREGORY MASON: Yes, Harvey
15 Stevens, sure.

16 BOARD MEMBER GRANT: And -- but he was
17 using household survey data and it showed a much lower
18 figure of household spending on -- it may have been
19 electricity as opposed to energy, I'm not sure, but --
20 okay, just thought I'd --

21 DR. GREGORY MASON: The Fraser
22 Institute has also put out similar kinds of data and
23 they're using the survey of household finances, which
24 does not use income, it uses expenditure data.

25 I would freely argue that that probably

1 is more accurate than the survey. Statistics Canada
2 is usually able to ensure a much higher level of
3 compliance and accuracy on their survey than anyone
4 outside. So that's one of the reasons why, you know,
5 any of the survey stuff where people are self
6 reporting is a bit of -- tricky and the problem here
7 is not the electricity consumption or the gas
8 consumption data from Hydro, the problem is our income
9 data, which is much less reliable than the expenditure
10 data that Stats Canada has access to.

11 Because when people do a survey of
12 household expenditures, they typically will bring all
13 their monthly receipts and they will verify them in
14 that survey process. It's a very sophisticated
15 complex survey that are way beyond the resources of
16 any private sector, or even Manitoba Hydro to collect.

17 BOARD MEMBER GRANT: And -- and you'd
18 be using pretax income?

19 DR. GREGORY MASON: Yes, that's
20 exactly it. So there's a whole range of factors and
21 that's one (1) of the reasons why an expenditure base
22 is more reliable than an income base because you get
23 into those taxation issues and the expenditure base is
24 much easier for Stats Canada to get people to verify.

25 BOARD MEMBER GRANT: And so your

1 results at least of an order of magnitude that you
2 would have anticipated based on some of the
3 expenditure figures?

4 DR. GREGORY MASON: Yes, it is an
5 order of magnitude but I believe that they tend to be
6 overstated.

7 BOARD MEMBER GRANT: Okay, thanks.

8

9 CONTINUED BY MR. WILLIAM GANGE:

10 MR. WILLIAM GANGE: Ms. Galbraith, if
11 you could take a look at -- at Manitoba Hydro 88, page
12 23, the bill management plan.

13 Is -- is that your bailiwick or is that
14 Mr. Chard's?

15 MR. PAUL CHARD: That would actually
16 be mind.

17 MR. WILLIAM GANGE: Okay, thank you,
18 Mr. Chard. Thank you. With respect to this, you
19 indicated in your -- in -- in your earlier testimony
20 that -- that this was a -- that the equal payment plan
21 and the energy affordability instalment plans that is
22 -- is just coming into effect now, were meant to
23 assist people who have been having trouble with making
24 payments.

25 Is that -- that's the basis of it?

1 MR. PAUL CHARD: I would say it's
2 available to all customers who want to use that tool
3 to smooth their bills throughout the year.

4 MR. WILLIAM GANGE: Yes. Although the
5 energy affordability instalment plan is specifically
6 meant to deal with arrears?

7 MR. PAUL CHARD: Yes.

8 MR. WILLIAM GANGE: So that's for
9 customers that haven't been able to pay their bill and
10 have built up an arrear -- arrears problem; correct?

11 MR. PAUL CHARD: That's correct, yes.

12 MR. WILLIAM GANGE: And -- and when
13 you say this is new in 2018, has it started yet, or
14 when does it start?

15 MR. PAUL CHARD: We are still working
16 on the -- on the IT portion of -- that will be
17 required for this. So the expectation is that it will
18 be ready by mid year.

19 MR. WILLIAM GANGE: Okay. Is there a
20 partial forgiveness portion to the energy
21 affordability instalment plan?

22 MR. PAUL CHARD: No, there is not.

23 MR. WILLIAM GANGE: Has -- has
24 Manitoba Hydro conceptually considered that?

25 MR. PAUL CHARD: Yes. So some element

1 of arrears forgiveness was another recommendation of
2 the bill affordability working group and we -- that is
3 something that we are also working on introducing but
4 we have not made as much progress on it as we have on
5 the energy affordability instalment plan.

6 MR. WILLIAM GANGE: So right now, as I
7 understand it, there is a -- a one time grant that can
8 be obtained and I think it's through Salvation Army;
9 is that -- it's administered through Salvation Army;
10 is that correct, sir?

11 MR. PAUL CHARD: Yes, it is and -- and
12 I should maybe clarify that Manitoba Hydro does engage
13 in some limited arrears forgiveness, but it saw --
14 it's not on a -- it's on a discretionary basis with
15 when credit reps are working with customers, and it's
16 really is in sort of exceptional circumstances.

17 So the program that we're looking to
18 develop will -- will seek to expand that specifically
19 attempting to focus on low income customers, but
20 already existing today, yes, is the Neighbours Helping
21 Neighbours program, which is a one time grant to
22 assist customers.

23 MR. WILLIAM GANGE: And so the program
24 that you're currently working on that aro -- that
25 springs from the affordability working group is going

1 to expand that kind of a -- or -- or potentially could
2 expand that kind of a process; is that correct, sir?

3 MR. PAUL CHARD: I would say
4 complement, yes.

5 MR. WILLIAM GANGE: And -- and I'm --
6 I'm sorry, you may have said this, but when do you
7 expect that portion of the plan to be rolled out?

8 MR. PAUL CHARD: So the recommendation
9 on that front was for us to model and potentially
10 pilot. I will say that to date, as we've been looking
11 at it, it's been extremely difficult to model as --
12 and I've mentioned I think before that because we lack
13 the income information on customers, targeting is a
14 particular problem.

15 So I think that we may actually skip
16 the model step and move to some limited pilots to see
17 if we have some -- can have some success.

18 MR. WILLIAM GANGE: Okay. And when
19 you say a pilot program, what -- what do you -- like
20 how would that work? What's -- what's the process for
21 that, sir.

22 MR. PAUL CHARD: I guess, generally
23 speaking, it would be to identify a target group that
24 could benefit from assistance and to set parameters
25 around that. And then the pilot portion phase would

1 likely involve dividing customers into two (2) groups
2 and sending one (1) group through the -- the pilot
3 program, whatever the parameters of it are, and
4 leaving the other group in the normal sort of
5 collection cycle. And at the end of that period we
6 will look at the two (2) groups. We'll look at the
7 success that we've had in bringing those customers in
8 -- in relieving their arrears and also look at the
9 costs of -- of both streams.

10 MR. WILLIAM GANGE: Okay. And -- and,
11 Mr. Chard, that kind of a concept of doing a pilot
12 program is -- is that something that Manitoba Hydro
13 has done in -- in other areas? And Ms. Galbraith may
14 be able to assist on that, I don't know.

15

16 (BRIEF PAUSE)

17

18 MR. PAUL CHARD: Yes, so there's been
19 elements of the affordable energy program that have
20 been done first as a pilot, and then have -- if
21 successful, have carried on to be -- come part of the
22 program.

23 MR. WILLIAM GANGE: Okay. And so the
24 concept, I take it, is that you identify somehow
25 through your research efforts potential participants

1 in the program. Is that correct, sir?

2 MR. PAUL CHARD: That's correct.

3 MR. WILLIAM GANGE: And -- and -- and
4 then the program is instituted in a limited fashion --
5 "limited" meaning in terms of scope of participation,
6 correct, sir?

7 MR. PAUL CHARD: That's correct, yes.

8 MR. WILLIAM GANGE: But -- but in
9 terms of the program itself, the full program is
10 attempted to be instituted with respect to those
11 individuals?

12 MR. PAUL CHARD: I'm sorry, I'm not
13 sure that I follow the question

14 MR. WILLIAM GANGE: So -- so all of
15 the aspects of the program are then applied to the
16 individuals that have been identified and agreed to
17 participate in the program?

18 MR. PAUL CHARD: During the pilot
19 phase?

20 MR. WILLIAM GANGE: Yes.

21 MR. PAUL CHARD: No, I think what I
22 was describing is we would probably segment -- so we
23 would have a control group and a pilot group.

24 MR. WILLIAM GANGE: Right. I'm with
25 you on that part. And then you do research in terms

1 of seeing how well that worked?

2 MR. PAUL CHARD: That's correct.

3 MR. WILLIAM GANGE: Okay. And in the
4 past has that been a successful way for Manitoba Hydro
5 to test out potential programs?

6 MR. PAUL CHARD: I'll let -- I think
7 I'll let Ms. Galbraith come in on the experience for
8 the affordable energy program, but it's not uncommon
9 in terms of other initiatives that we might try within
10 -- and I'm thinking specifically of the credit
11 department, you know, we -- we will, on occasion,
12 we'll try something and see if it -- if it works, and
13 sometimes there's a temptation to -- to abandon the --
14 the pilot because you're having such good success that
15 you just want to --

16 MR. WILLIAM GANGE: Roll it out.

17 MR. PAUL CHARD: Yes.

18 MR. WILLIAM GANGE: I see.

19 MR. PAUL CHARD: But -- but we've --
20 we've had success doing that in the past, yes.

21 MR. WILLIAM GANGE: Right. Okay. I
22 don't know, Ms. Galbraith, do you want to add anything
23 to that?

24 MS. COLLEEN GALBRAITH: Yes, I do,
25 thank you. The affordable energy program was actually

1 born out of a pilot. It was I believe the Centennial
2 Neighbourhood Corporation where we initially began
3 working with social enterprises. And through the
4 success of that then have now developed today's
5 affordable energy program as you see it.

6 We've spoken before the Board as well
7 in previous hearings, as well as present, that there's
8 always a challenge to increase participation in the
9 lower income market. So we're always looking for
10 innovative ways to increase this. One of them is
11 through the Neighbourhood Power Smart Project where we
12 initially partnered with the Northern Community
13 Renewable Corporation. I mentioned we had energy
14 advocates that go out and door knock.

15 There was not -- there was some
16 success, but not as much as we hoped, particularly
17 since we're concentrating in the north end of Winnipeg
18 where we are aware there is a larger incidence of
19 lower income customers.

20 So what we did is we have been
21 piloting, I believe for the last three (3) summers, in
22 the warmer months, a street-by-street approach where
23 we pick a block of individual -- or customers and we
24 will go out and set up a table with canvas and we
25 actually waive the income requirement for all of the

1 homes on that specific block. The idea being perhaps
2 providing your income verification is a challenge. So
3 by waiving it we should get further uptake and year-
4 over-year we've seen those applications and numbers
5 increasing.

6 So pilots are quite successful for
7 Manitoba Hydro to attempt, especially initially when
8 we want to see what potential cost savings we might
9 offset, particularly with Mr. Chard's offsetting
10 collection costs as well.

11

12 (BRIEF PAUSE)

13

14 MR. WILLIAM GANGE: Thank you very
15 much, Ms. Galbraith. I -- I appreciate the -- the
16 thoroughness of that answer. I appreciate it greatly.
17 Kristen, if you could go to appendix 10.5 and -- and
18 down to the paragraph that starts "as in Manitoba."

19 Mr. Mason, with respect to this
20 paragraph about the -- the review of -- of several
21 jurisdictions. How many jurisdictions did you review?

22 DR. GREGORY MASON: We reviewed those
23 primarily in United States and Canada. I'd have to go
24 back and count in the report how many utilities we
25 did, but we certainly believe in Canada, we looked at

1 Manitoba, Ontario and BC. And then I'd have to bring
2 up the rest of the report to actually remember all the
3 ones that we did in the United States.

4 And I guess as part of an undertaking,
5 I also looked at several OECD countries and Europe to
6 look at what they do.

7 MR. WILLIAM GANGE: Right. A number
8 of the programs that you reviewed, had a rate
9 assistance program, did they not, sir?

10 DR. GREGORY MASON: That's correct.

11 MR. WILLIAM GANGE: And Manitoba Hydro
12 does not have that?

13 DR. GREGORY MASON: That's correct.

14 MR. WILLIAM GANGE: A number of the
15 programs that you reviewed had an arrears forgiveness
16 program?

17 DR. GREGORY MASON: That's correct.

18 MR. WILLIAM GANGE: And -- and -- and
19 although Mr. Chard has indicated that -- that Manitoba
20 Hydro is moving towards something on that, as of -- as
21 of today Manitoba Hydro does not have that -- that
22 portion of a program as well; is that correct, sir?

23 DR. GREGORY MASON: That's correct.

24 And I think I just want to be a little more clear.

25 The word "forgiveness," I think primarily should be

1 better understood as an arrears management process.
2 So the whole process there is -- in some cases in some
3 jurisdictions I've looked at they may get to the point
4 where they forgive part of the bill as part of an
5 overall social assistance strategy for that individual
6 household. It may occur in what are called emergency
7 situations but I'm not aware of certainly in the
8 jurisdictions we looked at that there would be
9 systematic forgiveness of the bill always.

10 I think it's always in context of a
11 plan with respect to helping a household manage a
12 difficult situation, and typically in the context of
13 an emergency.

14 MR. WILLIAM GANGE: Right. And so as
15 an example, the plan may have a proposal whereby an
16 individual has to enter into a -- a -- an arrears
17 management program as a starting point and then if --
18 if a -- if a person complies with the arrears
19 management program for a certain period of time, one
20 of the options may be that if you achieve that kind of
21 -- of compliance, a portion of the bill may be
22 forgiven.

23 That's one of the -- one of the plans;
24 is that correct, sir?

25 DR. GREGORY MASON: That's certainly a

1 possible variation of that plan, yes.

2 MR. WILLIAM GANGE: Yes, thank you.

3 DR. GREGORY MASON: I would like to
4 add one (1) thing again using findings from the
5 Undertaking 16. This is typically not done in Europe,
6 France, Germany and the Nordic countries will
7 typically work within their social assistance envelope
8 to deal with the entire expenditures of the household.
9 In England they have a very complex array of possible
10 supports but typically any program is done as a
11 combination of the local council, the Utility and
12 various trusts and charities.

13 And so it is typically a consortium
14 that actually manages many of the -- what I would call
15 low income energy cost management programs in the UK.

16 MR. WILLIAM GANGE: Yes but as set out
17 in page 131 of -- of appendix 10.5, you specifically
18 note that -- that -- that the Public Service Company
19 of Colorado, the Phila -- Philadelphia Electric
20 Company or PICO, Hydro Quebec have -- have all
21 introduced some form of arrears forgiveness to
22 supplement conventional arrears management programs?

23 DR. GREGORY MASON: That's correct.

24 MR. WILLIAM GANGE: So that the -- the
25 -- the information that we got from Mr. Chard, in

1 terms of the direction that Manitoba Hydro's is moving
2 towards with respect to developing some sort of
3 arrears forgiveness program, is consistent with the
4 direction that many of the utilities that you've
5 looked at have taken?

6 DR. GREGORY MASON: Well, we tried to
7 do a fairly broad search of all the utilities and
8 these are the ones that came up with the program.

9 To say it's many of the utilities do
10 that, I think we were able to identify the most -- I
11 guess the most common ones, but I wouldn't say our
12 list is exhaustive and so we didn't do a 100 percent
13 inventory of every utility in the United States, for
14 example, to determine whether they had an arrears
15 assistance program.

16 So, we basically used internet
17 searching and linking and stuff like that to -- to
18 find these and we -- the way you do this is you look
19 at the literature and you start to pick up, well,
20 here's a citation on several utilities have done that.
21 You start picking up more citations and you start
22 building it that way. So, we didn't actually develop
23 a kind of old-fashioned inventory of every utility and
24 call them to see whether they had an arrears
25 assistance program.

1 MR. WILLIAM GANGE: Okay, fair
2 enough, but is it -- is it fair for me to say to you
3 that it is not uncommon from your review of -- of
4 utilities in North America, it is not uncommon for
5 those utilities to have developed some form of arrears
6 forgiveness to supplement conventional arrears
7 management?

8 DR. GREGORY MASON: Yes. I mean, it
9 would probably be fair to say even more precisely that
10 we found maybe half a dozen that have a well-developed
11 arrears program. That's probably the way I'd prefer
12 to say that.

13

14 (BRIEF PAUSE)

15

16 MR. WILLIAM GANGE: Thank you. Scroll
17 down a little bit, thank you.

18 Mr. Chard, I think this might be for
19 you. This comes from the Boston Consulting Group.
20 It's page 292 of 615 and -- and I have heard and I
21 understand the -- the commentary that Manitoba Hydro
22 has made that this isn't your -- your document, it's a
23 document that was provided to you. So I -- I -- I get
24 that part.

25 But there's recommend -- or there's --

1 there's a reference there that Minnesota Power has a
2 program component that reduces monthly rates for low
3 income households. Do you see that, sir?

4 MR. PAUL CHARD: Yes, I see that.

5 MR. WILLIAM GANGE: And that -- that
6 this program is administered by local nonprofit
7 organizations?

8 MR. PAUL CHARD: Yes, I see that.

9 MR. WILLIAM GANGE: And to date has
10 Manitoba Hydro through the affordability group or --
11 or any of your brainstorming considered using a
12 similar type of program to be administered by a local
13 nonprofit organization?

14 MR. GREG BARNLUND: Mr. Gange, if I
15 may. The State of Minnesota has specific legislation
16 that provides direction to the Utilities Board in
17 terms of rate setting. One (1) of the matters that
18 they are required to take into consideration are -- is
19 the ability to pay, which is a distinct difference
20 from how a number of regulators are -- are required to
21 view just and reasonable rates.

22 So the situation in Minnesota is
23 significantly different than we see in many other
24 jurisdictions and a lot of it is largely driven by --
25 by legislation in that regard, sir.

1 MR. WILLIAM GANGE: Thanks, Mr.
2 Barnlund. Could -- could you -- could I just explore
3 that a little bit.

4 Is it your understanding that -- that -
5 - that the -- the legislative component that regulates
6 Minnesota Power has -- has legislative provisions to
7 take into account ability to pay?

8 MR. GREG BARNLUND: I believe the
9 legislation that -- that provides the mandate to the
10 Utilities Commission has that particular language in
11 it.

12 MR. WILLIAM GANGE: Okay, thank you.
13 In terms of -- of this Board, this Board has indicated
14 in -- in -- in the last hearing that the -- that it
15 had the power to set up a separate rate category for -
16 - based on ability to pay.

17 MR. GREG BARNLUND: And I believe that
18 would probably fall in underneath of their ability to
19 take other relevant policy matters into consideration.

20 MR. WILLIAM GANGE: Right.

21 MR. GREG BARNLUND: And which -- I --
22 I just wanted, though, reference that against
23 Minnesota where there is an obligation for them --

24 MR. WILLIAM GANGE: Right.

25 MR. GREG BARNLUND: -- as opposed to

1 this Board having the ability to make that judgment
2 for themselves.

3 MR. WILLIAM GANGE: And -- and, Mr.
4 Barnlund, when -- when the affordability group was
5 considering the issues of a lower income rate has --
6 has consideration been given to using the assistance
7 of a local nonprofit to assist in that process?

8 MR. GREG BARNLUND: Well, I think that
9 was part of the discussions that occurred with respect
10 to the bill affordability working group was to be able
11 to leverage the strengths of other agencies that are
12 involved in providing social assistance programming or
13 interacting with customers in terms of social
14 assistance and utilize those strengths as opposed to
15 expecting Manitoba Hydro to develop its own set of
16 skills and proficiencies in that respect.

17 MR. WILLIAM GANGE: Right. And -- and
18 -- and, Mr. Mason, one (1) of the issues that -- that
19 you raised in your direct testimony was you indicated
20 that it was your perception that Manitoba Hydro
21 doesn't have the infrastructure to be undertaking this
22 kind of a process. Is that correct, sir?

23 DR. GREGORY MASON: That would be my
24 assessment, that it's a significantly significant --
25 it's a very major expense to actually ramp this up and

1 to do it properly.

2 MR. WILLIAM GANGE: Would you agree
3 with me, sir, that -- that it's -- it's somewhat
4 difficult to establish what those -- what that expense
5 would be because -- because it's never been tried?

6 DR. GREGORY MASON: No, I would think
7 that because there is some evidence about the bill
8 affordability program and the cost there, there is
9 evidence presented there. There's substantial costs
10 which are not included in the -- I guess the find --
11 the administration of that program.

12 One could get a sense of what that
13 would be by looking at the administration of programs
14 such as rent assist which the province manages. So
15 you could develop an estimate of that. And I would
16 think that just because it hasn't been tried one could
17 certainly actually get a decent estimate of what those
18 expenditures would be.

19 MR. WILLIAM GANGE: But as you can see
20 from that chart with respect to Mani --- or with
21 respect to the Boston Consulting Group, that the way
22 that Minnesota Power does that is that it's
23 administered through a local nonprofit organization.

24 Would you agree with me, sir, that that
25 would be one (1) of the potential options for --

1 for...

2

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(BRIEF PAUSE)

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DR. GREGORY MASON: I was just

reminded that the Neighbours Helping Neighbours

program uses the Salvation Army and there are

significant expenses with that, that would be maybe

one point.

I think the second point is I'm not

sure that a nonprofit organization has access to the

kind of verification procedures that are needed to, in

fact, establish whether a household is truly eligible.

So I'd be very doubtful that just because a nonprofit

was available that you would actually have an

efficiently administered program.

Again, I go back to the point I made

last week. The province has that infrastructure, and

I think duplicating it doesn't make a lot of sense.

MR. WILLIAM GANGE: And, sir, one (1)

of the things that you did say last week was that your

-- your preference has always been an Mincome

approach?

DR. GREGORY MASON: Well, that's just

a general policy statement, yes.

1 MR. WILLIAM GANGE: Yeah, but -- but
2 it was a general policy statement that you made to
3 this Board?

4 DR. GREGORY MASON: Yes, and --

5 DR. GREGORY MASON: And -- and one (1)
6 of the things that is in your CV is that you've done
7 considerable research into the Mincome experiment that
8 was undertaken in the province of Manitoba; correct,
9 sir?

10 DR. GREGORY MASON: That's correct,
11 yes.

12 MR. WILLIAM GANGE: And that was a
13 pilot program that was centered in -- in the city of
14 Dauphin?

15 DR. GREGORY MASON: No, I take issue
16 there. It was not centered in the city of Dauphin.
17 Most of the Mincome project dealt with Winnipeg
18 residents. Dauphin was a kind of a little offshoot
19 that was looking at a very narrow administrative
20 question. The main event was Winnipeg and all --
21 always was Winnipeg.

22 MR. WILLIAM GANGE: Okay. Sorry. And
23 -- and your research focused on what; that -- the
24 entire program?

25 DR. GREGORY MASON: The entire

1 program. All sites. All three (3) sites.

2 MR. WILLIAM GANGE: And it's clear,
3 sir, that Mincome and that kind of approach was
4 abandoned by the Manitoba government?

5 DR. GREGORY MASON: Well, it was
6 abandoned jointly by both governments because of
7 formidable administrative expenses. All the income
8 maintenance experiments of the '70s collapsed under
9 the shear administrative expense of running them.

10 MR. WILLIAM GANGE: Right. So -- so
11 that's not com -- that that -- as you said, your --
12 your -- your favourite approach would be the Mincome
13 approach; that's not happening any time soon, is it?

14 DR. GREGORY MASON: Well, Ontario is
15 attempting a pilot.

16 MR. WILLIAM GANGE: But in -- in
17 Manitoba --

18 DR. GREGORY MASON: Oh no.

19 MR. WILLIAM GANGE: -- you'd agree
20 with me, sir, there is no appetite under the current
21 political regime that is in effect in Manitoba right
22 now, there is no appetite for such a program?

23 DR. GREGORY MASON: I would agree with
24 that.

25 MR. WILLIAM GANGE: So that in terms

1 of solving or -- or -- or attempting to move forward
2 with the problem of energy poverty, can I -- can I
3 suggest to you, sir, the Mincome approach is off the
4 table for the foreseeable future?

5 DR. GREGORY MASON: I would -- if
6 you're solving poverty problems in general, I would
7 say it's off the table, yes.

8 MR. WILLIAM GANGE: And -- and -- and
9 specifically with respect to energy poverty, that's
10 not part of this equation, is it, sir?

11 DR. GREGORY MASON: Not anytime soon.

12 MR. WILLIAM GANGE: Good, thank you.

13

14 (BRIEF PAUSE)

15

16 MR. WILLIAM GANGE: Ms. Galbraith,
17 with -- I'm looking at appendix 10.5, page 224. And
18 as we scroll down and you could even go to the next
19 page, Kristen.

20 So there are a number of -- of items
21 that are -- are listed here. If you go back up,
22 please. And -- and in terms of the -- the two (2)
23 sides of this, one says "modelled and not
24 recommended." And if you could go back up, Kristen,
25 even further. Thank you. Right there.

1 I just want to make something -- and
2 perhaps this is -- this is trite, but the report
3 specifically stated that although items are discussed
4 and disclosed under the not recommended category, that
5 doesn't mean that they were rejected by the working
6 group. Is that correct?

7

8 (BRIEF PAUSE)

9

10 MS. COLLEEN GALBRAITH: That is
11 correct. There were a number of options where there
12 was not consensus reached by the entire working group.

13 MR. WILLIAM GANGE: So that -- the
14 only ones that would be recommended were -- was if
15 there was consensus of the entire group, correct?

16 MS. COLLEEN GALBRAITH: That is
17 correct.

18 MR. WILLIAM GANGE: And other items
19 that a lot of -- a lot of the participants may have
20 thought, Yeah, that's a great idea, but a -- a couple
21 of people said, I don't think it's a great idea, that
22 just went into the not recommended portion?

23 MS. COLLEEN GALBRAITH: Yes, that's
24 correct.

25 MR. WILLIAM GANGE: Okay. Thank you.

1 MS. COLLEEN GALBRAITH: I'm sorry, Mr.
2 Gange, can I add to that?

3 MR. WILLIAM GANGE: I hope not. Yes,
4 of course. Yeah, I -- I liked where you were.

5 MS. COLLEEN GALBRAITH: Well, I didn't
6 know exactly where you're going yet.

7 MR. WILLIAM GANGE: I -- I'm gone.
8 I'm gone.

9 MS. COLLEEN GALBRAITH: Not yet.

10 MR. WILLIAM GANGE: That's -- that's
11 why I said I was --

12 MS. COLLEEN GALBRAITH: What I wanted
13 to add was that all of the options that were modelled
14 but not rec -- not recommended were not necessarily
15 recommended because nobody could reach a decision on
16 which one. They were evaluated against the evaluative
17 criteria that the working group collaboratively agreed
18 to through consensus.

19 MR. WILLIAM GANGE: Okay. Thank you.
20 That -- that -- thank you.

21 I -- I just have a couple questions for
22 -- for Mr. Miles. And -- and I understand, Mr. Chair,
23 that some of these questions Mr. Miles may not be able
24 to answer either, and they may have to be taken by
25 undertaking, and Mr. Miles, if that's the case, that's

1 -- that's fine with me. I'm -- I'm quite fine with
2 that.

3 MR. TERRY MILES: That's why we had
4 hoped to have Dr. Swatek here as well today, and he's
5 not able to --

6 MR. WILLIAM GANGE: Yes.

7 MR. TERRY MILES: -- deal with the
8 transmission --

9 MR. WILLIAM GANGE: Yes.

10 MR. TERRY MILES: -- and -- and
11 distribution ones.

12 MR. WILLIAM GANGE: So if -- if we
13 could go to PUB/Manitoba Hydro Second Round 57
14 revised, and scroll up please, Kristen. Thank you.
15 And now down further. No, sorry.

16

17 (BRIEF PAUSE)

18

19 MR. WILLIAM GANGE: As I -- so -- so
20 Mr. Miles, did you have anything to do with the
21 preparation of this IR?

22 MR. TERRY MILES: I did, yes.

23 MR. WILLIAM GANGE: Okay. So I could
24 start anyways. It makes reference to the -- that --
25 that a 2017 update includes a change in the

1 methodology for the valuation of the generational
2 capacity marginal value, correct, sir?

3 MR. TERRY MILES: That's correct.

4 MR. WILLIAM GANGE: And that change
5 was to base that on -- well, it says:

6 "The generation capacity marginal
7 value is based on deferral of a
8 peaking type natural gas combustion
9 turbine built in 2030/'31."

10 Correct, sir?

11 MR. TERRY MILES: That's correct, yes.

12 MR. WILLIAM GANGE: Now, with respect
13 to that, sir, the -- the information as to the
14 marginal value of -- that's -- that's obtained from
15 the national gas -- natural gas combustion turbine,
16 that's not based -- those -- those values aren't based
17 on proprietary third-party information, is it, sir?

18 MR. TERRY MILES: Those -- those
19 values aren't based specifically on proprietary
20 information. However, if -- if I understand where
21 you're going, pulling those values out of the
22 calculation than provides more detail and information,
23 then, about the generation component, the cap -- the
24 capacity component, and then starts to lead towards
25 that CSI or disclosure of the -- of the CSI

1 information. And it's a matter of where we draw the
2 line, if you will, as to how many layers you peel off
3 the onion before you actually get to the core of
4 things, so.

5 MR. WILLIAM GANGE: So -- so the --
6 the values for the generation capacity marginal value,
7 that information has not been supplied because it's
8 considered commercially sensitive information.

9 Is that correct, sir?

10 MR. TERRY MILES: That is correct,
11 yes.

12 MR. WILLIAM GANGE: Okay. And -- and
13 perhaps it would be helpful to me and helpful to Mr.
14 Chernick for you to -- to explain how that value can
15 be commercially sensitive when it's not based upon the
16 -- the -- any proprietary information?

17 MS. ODETTE FERNANDES: Mr. Gange, I'm
18 going to have to interject, here. Manitoba Hydro
19 filed a CSI motion with respect to this issue. GAC
20 provided their comments, and this Board has already
21 det -- made a determination that tho -- that those
22 values are commercially sensitive, so I don't believe
23 we should be discussing this again on the record once
24 the Board has already made their determination.

25 MR. WILLIAM GANGE: Doesn't this --

1 and Ms. Fernandes, I -- did -- did the commercially-
2 sensitive motion deal with this revised IR? I thought
3 that this came out subsequent to the motion, so that I
4 don't think that -- that this information was the
5 subject of that motion.

6 MS. ODETTE FERNANDES: The original
7 motion was based on the values provided in response to
8 PUB Second Round 57. This response is providing
9 updates to those values which were already initially
10 determined to be commercially sensitive.

11 MR. WILLIAM GANGE: So -- so, Mr.
12 Chair, you have the -- this -- I mean, our -- our
13 position is that the -- that -- that this is a
14 different methodology, and that it's not subject to
15 that ruling. Now, if -- if --

16 THE CHAIRPERSON: I -- we would have
17 to take a break, because quite frankly, I didn't sit
18 on the panel that dealt with the issue. So --

19 MR. WILLIAM GANGE: Can we -- can --
20 can we leave that -- well, Dr. Williams would like to
21 --

22 DR. BYRON WILLIAMS: If -- if I could
23 just -- certainly, we would be -- from the perspective
24 of the Coalition, in terms of Mr. Gange's position,
25 we'd be supportive of -- in recognition that they've

1 gone to a -- rather than the export market, they're
2 looking at a peaking natural gas in -- in Manitoba
3 context. So that would be the distinction we would
4 draw to the prior motion.

5 THE CHAIRPERSON: Yeah. I would
6 actually have to -- we -- we'd have to get the panel
7 to actually look at the materials that were filed with
8 the original motion to make sure that we --

9 MR. WILLIAM GANGE: Okay. Could --
10 Mr. Chair, I -- I'm going to suggest that we hold that
11 one in advance, and -- and I do know that our expert,
12 Mr. Chernick, would like to know what -- how -- how
13 the generation capacity marginal value is -- is
14 established.

15 And I'll move on, but I -- but I would
16 like a ruling on that, which then the answer could be
17 given if -- I mean, if you rule that it's commercially
18 sensitive, that's the end of the -- the discussion.
19 If you rule that -- that it doesn't fall within the
20 framework of that first motion, then it could be done
21 by way of an undertaking by Manitoba Hydro.

22 THE CHAIRPERSON: Okay. We'll --
23 we'll review it later, but -- but we'll have to look
24 at the -- the actual motion itself, and --

25 MR. WILLIAM GANGE: Okay.

1 THE CHAIRPERSON: -- and consider it.

2 MR. WILLIAM GANGE: Thank you.

3

4 (BRIEF PAUSE)

5

6 THE CHAIRPERSON: Sorry, Mr. Gange,
7 can you make reference again to -- to document?

8 MR. WILLIAM GANGE: The document is --
9 is some Manitoba Hydro -- PUB/MH Second Round 57
10 revised, and it's on page 1 of 3 of that document.

11 THE CHAIRPERSON: Okay. Thank you.

12 MR. TERRY MILES: My -- my -- just a
13 general comment from a technical piece -- I understand
14 it has to be reviewed from the -- the legal aspect,
15 but if that's provided, if the capacity value is
16 provided, then you understand the component of a
17 capacity value and the overall generation marginal
18 value for that piece.

19 You can take that proportion, then, and
20 assume, then, that there's a capacity value on the
21 previous values provided, draw that inference, and get
22 a perspective on what the proportion on that
23 generation value is, which are confidential, and it
24 gives confidential information that now --
25 proprietary, commercially sensitive for us on our

1 negotiations with our sales customers, et cetera, on
2 our position on those -- on those values.

3 So that's -- that's the concern we
4 have, and that's the comment that I raised about you
5 start giving certain pieces to it, eventually, you can
6 actually get to the commercially-sensitive aspect of
7 things, and that's our fundamental concern with --
8 these types of things have come up before where we
9 ratchet along at some point, and -- and divulge the --
10 the commercially-sensitive information.

11 So I thank you for that comment.

12 THE CHAIRPERSON: Thank you, Mr.
13 Miles.

14

15 (BRIEF PAUSE)

16

17 CONTINUED BY MR. WILLIAM GANGE:

18 MR. WILLIAM GANGE: If -- if we could
19 go to the Manitoba rebuttal, page 75 to 76.

20

21 (BRIEF PAUSE)

22

23 MR. WILLIAM GANGE: Mr. Miles, Mr.
24 Chernick has raised general objections to Manitoba
25 Hydro's method of calculating transmission and

1 distribution marginal costs. You're aware of that,
2 sir?

3 MR. TERRY MILES: I am generally aware
4 of that. I did not prepare these sections of the
5 rebuttal.

6 MR. WILLIAM GANGE: Okay it -- it may
7 be that -- that -- well, let -- let me -- let me go
8 down this a little ways, and if it's -- if it's not
9 turning up, anything fair enough.

10 The -- the suggestion by Manitoba Hydro
11 to Mr. Chernick was that capital expenditure forecasts
12 could be used as a basis for marginal transmission and
13 distribution cost estimates. Is that correct, sir?

14 MR. TERRY MILES: I'll take that as
15 correct.

16 MR. WILLIAM GANGE: I don't understand
17 how, if -- if -- and -- and I'll go back to that last
18 answer that you gave to the Board, that if one (1)
19 portion of the marginal cost estimate was disclosed,
20 that you could unravel it and find out other portions,
21 okay? So that's -- the -- but then if that's the
22 case, what value is the capital expenditure forecast
23 if it doesn't have anything to do with marginal cost
24 estimates?

25 MR. TERRY MILES: Not sure I

1 understand the question you're asking me.

2 MR. WILLIAM GANGE: But you're asking
3 -- you're -- you're telling Mr. Chernick that he can
4 use as a proxy for his calculations -- and -- and Mr.
5 Chernick wanted to use the marginal cost estimates in
6 order to prepare his alternative rate design. You're
7 aware of that, sir?

8 MR. TERRY MILES: I -- I understand
9 that, yes. Yes.

10 MR. WILLIAM GANGE: So if -- if
11 there's a proxy that's being used, doesn't it come
12 down to the same thing? Aren't you -- aren't you
13 still -- either -- either the proxy has nothing to do
14 with the correct value so that Mr. Chernick's analysis
15 is going to be useless, or -- or you get back to that
16 same point where you're saying, Well, you're giving
17 away commercially-sensitive information.

18 MR. TERRY MILES: I -- I think it's
19 back to my comment on taking that piece out allows you
20 to segregate, then, the generation piece and the
21 capacity piece. My question would be is if you have
22 the generation piece that's an aggregate of a thirty
23 (30) year value, and that's the value that you have to
24 work with, what additional value is adding the
25 capacity component to it? I know I shouldn't ask

1 questions, but that would be my question behind it is:
2 What additional value do you get out of that?

3 MR. WILLIAM GANGE: Okay. So, Ms.
4 Fernandes can ask that question of -- of --

5 MR. TERRY MILES: Okay, sorry.

6 MR. WILLIAM GANGE: -- Mr. Chernick.
7 I hope you wrote that down, Odette.

8 MR. TERRY MILES: I was -- I was
9 asking that only for me to try to help to understand
10 exactly where you were heading with your questioning--

11 DR. BYRON WILLIAMS: Okay. Thank you
12 --

13 MR. TERRY MILES: -- on that piece.

14 DR. BYRON WILLIAMS: But -- but is it
15 the position of Manitoba Hydro that -- that the
16 capital expenditure forecasts do serve as a useful
17 proxy for Mr. Chernick in his calculations?

18 MR. TERRY MILES: For T & D marginal
19 costs, maybe.

20 DR. BYRON WILLIAMS: Okay. Thank you.

21 THE CHAIRPERSON: T & D...

22 MR. TERRY MILES: T & D, I'm sorry,
23 transmission and distribution.

24 THE CHAIRPERSON: Transmission and
25 distribution.

1 MR. TERRY MILES: My apologies.

2 MR. WILLIAM GANGE: I'm not really an
3 expert on this, Mr. Miles, but G & T, as I understand
4 it, is an entirely different issue, and perhaps one
5 that can be followed right now.

6 I -- I thank you very much to the
7 panel. I have -- I am -- I've finished my cross-
8 examination. Thank you.

9 THE CHAIRPERSON: Thank you, Mr.
10 Gange. Before we finish, I believe Ms. Steinfeld has
11 a few questions. Okay, sorry. I'm giving a
12 pointing...

13 MS. DAYNA STEINFELD: Thank you, Mr.
14 Chair. I had reserved a few questions on cross-
15 examination in order to review the transcript that
16 wasn't available at the time that I concluded before
17 the holiday break, so I just have a few brief
18 questions now.

19

20 CONTINUED CROSS-EXAMINATION BY MS. DAYNA STEINFELD:

21 MS. DAYNA STEINFELD: I'd like to turn
22 to Dr. Mason. You were asked a question, I believe,
23 before the break about individuals being verified for
24 government assistance programs, and it came up again
25 today. You spoke about the kind of verification

1 mechanisms that are needed to -- to run a program, and
2 the fact that the Province has that kind of
3 infrastructure.

4 Are you aware of the -- the mechanisms
5 by which individuals are qualified for government-run
6 social or income assistance programs? How is it done?

7 Just -- your mic, sir.

8 DR. GREGORY MASON: It is typically
9 done through a process of cross-checking with income
10 tax records, and depending on the program, and maybe
11 wage receipts. And in some cases, programs will
12 accept the fact that if a person's already been deemed
13 eligible by another inco -- means-tested program such
14 as social assistance, they may, in fact, accept that
15 as verification as well.

16 MS. DAYNA STEINFELD: And does the --
17 the Province or the government agency do that on their
18 own initiative, or does an individual have to apply,
19 and -- and if so, how?

20 DR. GREGORY MASON: It depends on the
21 program entirely. In some programs where the
22 individual has to apply, like the Canada Learning
23 Bond, the individual has to make the application and
24 then have to supply the evidence.

25 In, for example, the Canada Child Tax

1 Benefit, once you've filed a return and you've got all
2 the particulars in your income tax return, and you've
3 actually noted that you want to receive the -- the
4 benefit, it comes automatically based upon Revenue
5 Canada's review of your income tax return.

6 MS. DAYNA STEINFELD: And I bel -- I
7 believe you spoke to this before the break, but just
8 to confirm, is it correct that it's your view that
9 these government programs are -- are streamlined by
10 virtue of the fact that the government already has
11 that data, and it may mitigate the need to have
12 individuals reapply when their income changes, or
13 those kinds of complications?

14 DR. GREGORY MASON: That's actually
15 quite a -- a difficult area here, because again, for a
16 program that the individual's applying for, again,
17 depending upon jurisdiction, and at -- at the
18 provincial level, you will often see individuals
19 having to reapply several times. Again, for federal
20 programs such as the Canada Tax -- Child Tax Benefit,
21 the -- there's no need to reapply. It's done
22 automatically as part of filing your return.

23 MS. DAYNA STEINFELD: Thank you, Dr.
24 Mason. And you -- you were also asked a -- a question,
25 and -- and spoke about it again today with Mr. Gange

1 about LICO-125 and consideration of different regional
2 circumstances.

3 How, if at all, does the LICO measure
4 correspond to the living circumstances of different
5 populations based on regions? So one (1) example
6 might be higher food costs in the north.

7 DR. GREGORY MASON: It corresponds
8 roughly, but it's not as accurate as other measures
9 such as the Market Basket Measure, or other measures
10 which are typically more favoured by economists.
11 Stats Can indeed favours these processes. They've
12 been quite difficult to take root, because they do
13 require a fair amount of data collection and a -- a
14 significant amount of information in order to develop
15 these measures.

16 And again, part of the issue is that so
17 many people have become used to using the LICO that
18 it's now become embedded, and so making the conversion
19 to what people might say might be a superior measure
20 turns out to be challenging.

21 MS. DAYNA STEINFELD: So it -- it --
22 LICO would look at it to some extent, but there are
23 other measures that would do a better job of it?

24 DR. GREGORY MASON: I think the belief
25 is that a Market Basket Measure is a superior measure

1 all around.

2 MS. DAYNA STEINFELD: And I might just
3 be forgetting, or perhaps we haven't gone there yet,
4 but can you give a brief explanation of the Market
5 Basket Measure?

6 DR. GREGORY MASON: Essentially, it's
7 in the -- it's basically identifying -- it's similar
8 to what they use in England. It's basically putting
9 together kind of what the -- what are considered the
10 necessities of life, and you can either make a very
11 strong assumption that only people need minimal
12 physical necessities, or what is generally done is a
13 more generous interpretation that people also need
14 necessities to engage in -- in an appropriate social
15 life.

16 And in order to participate in
17 education, for example, you do need access to the
18 Internet. That would be part of what a Basket Measure
19 would look at. So that's the kind of ideas that come
20 forward. And so the -- the notion here is that it
21 does involve a fair amount of judgment.

22 The beauty of a LICO is it's purely
23 statistical, and that's why Stats Can prefers it.
24 They don't have to make those judgments.

25 MS. DAYNA STEINFELD: And shifting

1 gears slightly, you had indicated in a discussion with
2 Board Member McKay that the survey was done in the
3 course of the bill affordability working group work
4 does not cover Northern or isolated populations very
5 well. I think we've since had some evidence that
6 there are some new survey measures being undertaken by
7 Manitoba Hydro.

8 Is it your view that those new survey
9 measures that are being undertaken will do a better
10 job of gathering information about the populations in
11 the North or isolated regions and their particular
12 energy burdens.

13 DR. GREGORY MASON: I would think so,
14 because the sample sizes are larger, and they're
15 making a concerted effort to go after First Nations
16 respondents.

17 MS. DAYNA STEINFELD: And would you
18 have any recommendations to Manitoba Hydro in terms of
19 steps that they can take in gathering better data or -
20 - or the use to which they might be able to put that
21 data?

22 DR. GREGORY MASON: I think pending
23 just seeing how the results are coming in, after we
24 see the results, I would think it will be a continuing
25 challenge to gather responses from First Nations

1 communities, and Stats Canada has had to make special
2 agreements and efforts in order to do that. So I
3 think that's going to be an ongoing challenge for the
4 upcoming survey, the one that's in the field now, and
5 for any future survey.

6 MS. DAYNA STEINFELD: And you were
7 also asked a question about whether the definition of
8 energy poverty takes into account social assistance,
9 and again, Mr. Gange touched on this a little bit, but
10 I'm going to look at it a slightly different way. If
11 a person is receiving social assistance, how, if at
12 all, is that person included in the determination of
13 the numbers of energy poor in the Province?

14 DR. GREGORY MASON: Well, I think --
15 I've just gone back and checked some of the numbers,
16 and the survey we did under-represents the social
17 assistance group because, in fact, they're actually
18 not a robust or a large element in the Manitoba Hydro
19 customer base, partly because much of their energy
20 costs are being borne already within the social
21 assistance system.

22 So I gave out a number, for example, of
23 20 percent. It's actually probably closer to 6 to 8
24 percent in the sample. So there is an under-
25 representation of the energy costs. But at the same

1 time, the energy costs of many social assistance
2 recipients is already included in at least two (2)
3 other programs. One (1) is subsidized housing, and
4 the other would be -- I'm sorry, three (3) programs.
5 The actual social assistance envelope itself, and a
6 programs such as Rent Assist, which has grown very
7 rapidly over the last three (3) years.

8 So the Rent Assist program is a
9 significant Provincial initiative that will assist
10 those in rental housing to manage utility
11 expenditures. That's one (1) of the primary reasons
12 it was brought into -- into play, both Utility and
13 rental expenditures.

14 MS. DAYNA STEINFELD: And maybe just
15 to look at an example so I can make sure I understand
16 your answer -- Kristen, I didn't give you any warning
17 of this, but if you could put up Manitoba Hydro
18 Exhibit 97, which is Manitoba Hydro Undertaking number
19 29, and just scroll down a bit. Thank you, Kristen.
20 It turns out you don't need any notice.

21 We see here that this is dealing with
22 the month of June of 2017, that in that month, more
23 than 32 percent of all residential First Nations
24 customers had their bills paid 100 percent by social
25 assistance. So would those customers be captured

1 within the definition of energy poverty if social
2 assistance is covering those bills?

3 DR. GREGORY MASON: That's one (1) of
4 the things that I'm uncertain about, frankly. I'd
5 have to really look at the data, and I'm not sure we -
6 - the survey we did captured that, and since I haven't
7 seen the residential use service in the field, I'm not
8 sure if it's going to capture that as well. That is
9 an open question that should be looked at.

10 MS. DAYNA STEINFELD: And would you
11 suggest that would be helpful for Manitoba Hydro, in
12 order to gain a better understanding of these issues,
13 look at that particular issue?

14 DR. GREGORY MASON: Yes. I think the
15 other issue here is that one (1) of the phrasing here
16 that's important is First Nation customers versus
17 First Nations customers living on reserve, and so
18 that's the distinction that I don't think is often
19 made sufficiently in terms of how bills are managed.

20 MS. DAYNA STEINFELD: And would a --
21 another aspect or complication that be once a person
22 who is receiving social assistance gains employment,
23 how they may or may not be factored into the energy
24 poor group?

25 DR. GREGORY MASON: That's exactly

1 true. That's part of the -- the challenge, too. And
2 you were touching on the issue that it's very, very
3 hard to get accurate income data -- self-report income
4 data. So that turns out to be an ongoing challenge in
5 this whole area.

6 MS. DAYNA STEINFELD: Thank you, Dr.
7 Mason.

8 And just one (1), possibly two (2)
9 brief questions for Ms. Galbraith. You were asked a
10 question about the number of band housing managers.
11 Does each First Nation have a dedicated band housing
12 manager?

13 MS. COLLEEN GALBRAITH: No. I'm
14 sorry; that's really loud. No, we went back and
15 actually checked, and while the majority of them do
16 have a band housing manager, at times, our Indigenous
17 energy advisor is dealing with a housing
18 representative, which could be the housing counselor,
19 or in some particular cases, the Chief, but it's
20 really whoever the community has designated to look
21 after the housing portfolio.

22 MS. DAYNA STEINFELD: So is there
23 still one (1) person on each First Nation who is
24 responsible for the housing portfolio, or is there
25 some regional sharing of that responsibility?

1 MS. COLLEEN GALBRAITH: No. In each
2 individual community, there's somebody designated to
3 look after housing. It's just a matter of whom the
4 community designates, so there is no regional sharing.

5

6 (BRIEF PAUSE)

7

8 MS. DAYNA STEINFELD: And Ms.
9 Galbraith, is -- is that same person the -- and I -- I
10 don't know if this is the -- the right term; you'll
11 correct me -- the energy advisor for the residential
12 populations on that First Nation?

13 MS. COLLEEN GALBRAITH: Do you mean
14 our Indigenous energy advisors who is dealing with
15 somebody as a housing representative from each
16 community?

17 MS. DAYNA STEINFELD: Yes.

18 MS. COLLEEN GALBRAITH: That's
19 correct. And I should qualify my former answer that
20 there may be regional sharing of some services amongst
21 communities, but we deal directly with somebody from
22 each individual community.

23 MS. DAYNA STEINFELD: Thank you, Mr.
24 Chair. Those are my follow-up questions.

25 THE CHAIRPERSON: I have a -- sorry,

1 Dr. Williams, do you have a --

2 DR. BYRON WILLIAMS: Certainly, our
3 clients would appreciate permission to ask a question
4 about a couple of undertakings filed by Manitoba --

5 THE CHAIRPERSON: Certainly.

6

7 CONTINUED CROSS-EXAMINATION BY DR. BYRON WILLIAMS:

8 DR. BYRON WILLIAMS: One is
9 Undertaking 9 -- Undertaking 16, Exhibit 95, which was
10 the survey of certain OECD countries. And -- and I
11 wanted to draw your attention, Dr. Mason to the bottom
12 of page 2, and then we're going to flip over to the
13 bottom -- top of page 3.

14 And you see the point being made at the
15 bottom of page 2 that in addition to a number of one
16 (1) time programs, there's also longer-term subsidies,
17 and there's a suggestion made that a partnership of
18 energy, utilities, charities, and trusts forms a
19 financial basis for these subsidies, sir?

20 DR. GREGORY MASON: That's correct.

21 DR. BYRON WILLIAMS: Now, if we can go
22 to the top of page 3, the first longer-term -- or the
23 first one referenced here is the Warm Home Discount
24 Scheme, sir, and that, to your understanding, is a --
25 a government of the United Kingdom program?

1 DR. GREGORY MASON: That's correct.

2 DR. BYRON WILLIAMS: And sir, I'm
3 going to suggest to you -- you'll see the item number
4 2 is the Cold Weather Payment Scheme. That's the
5 second one you reference there, sir?

6 DR. GREGORY MASON: That's correct,
7 yes.

8 DR. BYRON WILLIAMS: And I'm going to
9 suggest to you, sir that that as well is a government
10 of the UK program?

11 DR. GREGORY MASON: I would believe it
12 is, yes.

13 DR. BYRON WILLIAMS: And sir, I'll
14 suggest to you that it is -- that there is a
15 restricted eligibility for that program which would be
16 restricted to groups such as pensioners, and those on
17 income support, and -- and similar assistance
18 programs?

19 DR. GREGORY MASON: I believe that's
20 the case, yes.

21 DR. BYRON WILLIAMS: Okay. And sir,
22 one (1) program that doesn't appear to be referenced
23 here, you -- you -- don't make reference to the UK
24 Winter Fuel Program, sir?

25 DR. GREGORY MASON: No, I guess I

1 missed that one.

2 DR. BYRON WILLIAMS: And sir, given
3 your vast reading this -- in this area, you'll be
4 aware that the Winter Fuel Program, again, is a -- a
5 program offered by the United Kingdom, instituted by
6 the former Prime Minister and Finance Minister Mr.
7 Brown?

8 DR. GREGORY MASON: Yes, I would --
9 that would probably be correct, yes.

10 DR. BYRON WILLIAMS: And it, sir, I'll
11 suggest to you, was targeted to -- to seniors, defined
12 as those born before August 5th, 1953. Would -- would
13 that be consistent with your understanding, sir?

14 DR. GREGORY MASON: I will take your
15 information as valid, yes.

16 DR. BYRON WILLIAMS: And just going to
17 -- to Manitoba Hydro Exhibit 97, and -- and My Friend
18 Ms. Steinfeld already had that up, but I guess this is
19 for you, Mr. Chard. Just to make sure that I
20 understand the -- the numbers reported at the bottom
21 of this undertaking, for which our clients thank you,
22 is this referring to First Nation residence on
23 reserve, sir, the 32 percent?

24 MR. PAUL CHARD: Yes, it is.

25 DR. BYRON WILLIAMS: Okay. And so

1 what it's suggesting is in this particular month, in
2 the month of June, a bit more than 30 per -- 2 percent
3 of all residential First Nation customers on reserve
4 had 100 percent of their bills paid by the Fed -- the
5 Federal Income Assistance Program, or the -- by -- by
6 social assistance?

7 MR. PAUL CHARD: Through their local
8 income assistance program, yes.

9 DR. BYRON WILLIAMS: Okay. Thank you.
10 And -- and it's -- it's the -- what the second point
11 being made here on this page, sir, is that of the
12 bills issued to customers receiving social assistance,
13 in total, more than 80 percent of the bill amounts
14 were paid for by social assistance. And this again is
15 referring to persons on reserve?

16 MR. PAUL CHARD: Yes.

17 DR. BYRON WILLIAMS: And this will go
18 -- make the point that I guess we covered on -- in our
19 discussion in -- in -- on or about December 20th,
20 which was in certain households, there may be some
21 members of the household who are on assistance and
22 others who are -- are working. And -- and the -- the
23 -- are -- your hypothesis was that the -- the
24 outstanding amount would be allotted to those who are
25 working?

1 MR. PAUL CHARD: That -- that's
2 correct, yes.

3 DR. BYRON WILLIAMS: Mr. Mason -- or
4 Dr. Mason, excuse me, just in -- in terms of -- just
5 to finish up, in terms of income assistance, because
6 the record may be a little foggy -- we're off reserve
7 now. We're looking at income assistance as provided
8 under the Manitoba Assistance Act, sir.

9 And one (1) mechanism, and that could
10 go to Mr. Chard or Dr. Mason, one (1) mechanism is for
11 Manitoba Assistance to directly pay Manitoba Hydro,
12 agreed?

13 DR. GREGORY MASON: You mean income
14 assistance, it -- employment income assistance?

15 DR. BYRON WILLIAMS: Yes.

16 DR. GREGORY MASON: Could you rephrase
17 that? I'm not sure I got the --

18 DR. BYRON WILLIAMS: Yes. For a
19 significant number of income assistance recipients,
20 Manitoba Hydro is directly billed -- or directly bills
21 income assistance, and -- and their bills are paid by
22 Manitoba Hydro --

23 MR. PAUL CHARD: So I --

24 DR. BYRON WILLIAMS: -- by -- by
25 income assistance?

1 MR. PAUL CHARD: -- I think I've
2 already put on the record that in August 2017, there
3 was four thousand eight hundred and seventy (4,870)
4 customers who were on direct billing.

5 DR. BYRON WILLIAMS: Okay.

6 MR. PAUL CHARD: What I don't have for
7 you is how many social assistance recipients there are
8 in the Province.

9 DR. BYRON WILLIAMS: Okay. That's
10 fair enough. Another mechanism for recipients of
11 income assistance in Manitoba to be paid by income
12 assistance for their utility bill is when they get
13 their payment directly from income assistance, I'll
14 suggest to you, sir, that there is a budget line on
15 their statement for utilities.

16 Is that your understanding as well,
17 sir?

18 DR. GREGORY MASON: That is my
19 understanding.

20 DR. BYRON WILLIAMS: Okay. So that's
21 a -- a second way. And sir, you also made reference
22 to -- to Rent Assist?

23 DR. GREGORY MASON: Yes.

24 DR. BYRON WILLIAMS: And sir,
25 generally, Rent Assist is aimed at -- at assisting in

1 -- income in -- Manitoba recipients to -- to move
2 towards 75 percent of the average rent in the housing
3 market? Is that the objective generally of that
4 program?

5 DR. GREGORY MASON: I don't believe it
6 has that stated objective. When you look at their
7 qualifications, I'm not sure they have those stated --
8 that stated as a goal.

9 DR. BYRON WILLIAMS: And sir, just so
10 I understand, is it expressly an element of Rent
11 Assist that it is aimed to assist utility bills?

12 DR. GREGORY MASON: It's one (1) of
13 the items that can be included. So it is designed to
14 assist people with all aspects of housing -- or rental
15 housing.

16 DR. BYRON WILLIAMS: Okay. Thank you
17 for that.

18 THE CHAIRPERSON: Dr. Mason, I -- I
19 have a question. At one (1) point, Mr. Gange was
20 talking about energy burden factors, and he listed
21 three (3) categories: income, energy consumed, and
22 rates.

23 And you stated there were other
24 factors. Can you list what the other factors are, or
25 some of them?

1 DR. GREGORY MASON: Typical ones would
2 be the age of the house, and I guess the choice of the
3 individual of what they'd want to include in their
4 house, and so it's a fairly complex process of
5 deciding where you're going to allocate your budget,
6 and it's not simply a linear process for most people.
7 So I was trying to express the fact that, you know,
8 it's not a simple or straightforward causal
9 relationship, but the three (3) elements that Mr.
10 Gange put out are probably among the primary factors.

11 THE CHAIRPERSON: Okay. Thank you.
12 Any questions from the panel?

13 Thank you very much. I appreciate --

14 MR. BOB PETERS: Mr. -- Mr. Chair --

15 THE CHAIRPERSON: Okay, we've got
16 competing microphones.

17 MR. BOB PETERS: Well, I'll -- I'll
18 certainly defer to Ms. Fernandes, but I actually would
19 like thirty (30) seconds to speak to Ms. Fernandes,
20 because I may have one (1) or two (2) additional
21 matters. So if -- if you'd be --

22 THE CHAIRPERSON: Certainly.

23 MR. BOB PETERS: -- give me the
24 indulgence of a -- a minute, I -- I'll take care of
25 that.

1 THE CHAIRPERSON: Certainly.

2

3

(BRIEF PAUSE)

4

5 MS. ODETTE FERNANDES: So while Mr.
6 Peters heads back, Manitoba Hydro has provided one (1)
7 further response to Undertaking number 14, and that
8 has been marked as Manitoba Hydro Exhibit number 103 -
9 - 103.

10

11 --- EXHIBIT NO. MH-103: Response to Undertaking 14

12

13 MR. BOB PETERS: While that's being
14 marked, Mr. Chair, if I could, one (1) of the
15 announcements deals with tomorrow, which is January 5,
16 the afternoon has scheduled public presentations, and
17 that there has been an unavoidable circumstance, and
18 certainly an uncontrollable circumstance from the
19 Board that's resulted in the -- the need to adjourn
20 the proceedings by four o'clock. So I'm providing
21 that on the record, and if someone is listening or
22 reading, and they are aware of it, they'll be
23 notified.

24

The Board is attempting to make
25 alternate arrangements for the up to four (4) or five

1 (5) people who would be affected by that time change,
2 and I think we have the some degree of confidence
3 we'll be able to -- to get everything done, but we
4 will be concluding tomorrow at four o'clock, so I
5 thought I should notify the Board and -- and others.

6 And the -- excuse me. The last matter
7 is, Kristen, I don't know if I can give you less
8 warning than Ms. Steinfeld did, but PUB -- sorry,
9 Manitoba Hydro Exhibit 77 has had some redactions
10 lifted, and we should just take a second with that.
11 Page 1 of 6, if we could. There it is.

12 With the closing of the rate panel
13 testimony, it's raised the distinct possibility that
14 today will be the last day that Mr. Barnlund is on the
15 microphone as a witness for Manitoba Hydro. And so
16 while on the microphone, we have all seen the vastness
17 of his knowledge, and the -- I think it was the
18 breadth of his experience, for which he ought not
19 apologize.

20 So we want to take this opportunity to
21 recognize his vast contributions to the regulatory
22 process and proceedings in Manitoba, and on behalf of
23 all parties, including the Board, the Board staff, and
24 its advisors, the Intervenors, and all present, we
25 take this opportunity to publicly thank Mr. Barnlund

1 for his contributions and his service. He has
2 advanced utility regulation in Manitoba and will leave
3 a void that will not be readily filled, if at all.

4 So we wish Mr. Barnlund well as he
5 explores the next chapters and adventures in his life.
6 All the best.

7 MR. GREG BARNLUND: Mr. Peters, thank
8 you very much.

9 THE CHAIRPERSON: And remember, Mr.
10 Barnlund, we do live stream. Thank you. We're
11 adjourned until nine o'clock tomorrow morning. Thank
12 you.

13

14 (PANEL STANDS DOWN)

15

16 --- Upon adjourning at 4:39 p.m.

17

18

19 Certified Correct,

20

21 _____

22 Cheryl Lavigne, Ms.

23

24

25