



“When You Talk - We Listen!”



MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO
GENERAL RATE APPLICATION
2012/13 AND 2013/14

Before Board Panel:

Regis Gosselin	- Board Chairman
Raymond Lafond	- Board Member
Larry Soldier	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
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Pages 687 to 956

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1 --- Upon commencing at 9:02 a.m.

2

3 THE CHAIRPERSON: -- to commence the
4 proceedings. Do we have any administrative matters to
5 attend to before we start?

6 MS. PATTI RAMAGE: No, I don't believe
7 so.

8 MR. BOB PETERS: None on this side, Mr.
9 Chairman. I -- I do know that we've been asking, and I
10 can appreciate Manitoba Hydro's been busy working on
11 some materials, and just wondering if Ms. Ramage has an
12 indication as to when we'll get an -- we'll get an
13 update on whether or not the 2012 load forecast will be
14 filed, and also the underlying, what I call, revenue
15 assumptions or average revenue and expenses assumptions
16 that underpins the latest IFF have been filed.

17 If we could hear from Ms. Ramage on
18 those, that would be -- that would be helpful.

19

20 (BRIEF PAUSE)

21

22 MS. PATTI RAMAGE: We can advise
23 there's no reason the load forecast shouldn't be filed.
24 And we're going to confirm, simply go back, check and
25 see why it hasn't been filed; but we will get it filed.

1 In terms of the assumptions, Mr. Rainkie believes we
2 should be able to get those after the lunchbreak today.

3 MR. BOB PETERS: Right. And just the
4 assumptions were in the form -- if it'll assist, Mr.
5 Rainkie, I believe it was CAC/Manitoba Hydro First
6 Round Question 3 revised, which is a parallel document
7 to what was Attachment 5 to a September 1st, 2012,
8 interim filing application, if that assists Mr.
9 Rainkie.

10 MR. DARREN RAINKIE: I think our lawyer
11 was temporarily talking to somebody else. That assists
12 me, Mr. Peters. I know what you're talking about. And
13 I think we're pretty close to having it ready.

14 MR. BOB PETERS: Many thanks, Mr.
15 Rainkie. And, Mr. Warden --

16 MS. PATTI RAMAGE: Mr. Peters, if I
17 could just interject. The 2012 load forecast is in
18 fact filed already. It's Attachment 1 to Manitoba
19 Hydro's September 1 rate filing, so it is on the
20 record.

21 MR. BOB PETERS: Oh, there's no update
22 with the...

23 MS. PATTI RAMAGE: No, there wouldn't
24 be an update --

25 MR. BOB PETERS: Okay.

1 MS. PATTI RAMAGE: -- with the IFF
2 because it would be underpinning the IFF.

3 MR. BOB PETERS: All right, thank you.

4

5 (BRIEF PAUSE)

6

7 MR. BOB PETERS: Mr. Chairman, I thank
8 Ms. Ramage for that. I should just indicate that in
9 July -- on July 20th, precisely, Manitoba Hydro filed
10 with the Board some additional information that the
11 Board had requested in consideration of the proposed
12 September 1st, 2012, interim rate increase.

13 Included in that binder under Attachment
14 1 is the 2012 Electric Load Forecast for External Use.
15 And I -- I'm understanding clearly now that there is no
16 further revision to that. Have I got that correct, Ms.
17 Ramage?

18 MS. PATTI RAMAGE: That's correct.

19

20 MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT RESUMED:

21 VINCE WARDEN, Resumed

22 DARREN RAINKIE, Resumed

23 TERRY MILES, Resumed

24 LOIS MORRISON, Resumed

25

1 CONTINUED CROSS-EXAMINATION BY MR. BOB PETERS:

2 MR. BOB PETERS: All right. Thank you.
3 Mr. Warden, can we pick up where we left off yesterday,
4 sir?

5 MR. VINCE WARDEN: Sure.

6 MR. BOB PETERS: It wasn't necessarily
7 homework, but you -- you did want an opportunity to
8 reconsider a presentation at page 36 of your Manitoba
9 Hydro Exhibit 15. I should give you an opportunity
10 this morning, or at a later time, if you prefer, to --
11 to discuss that matter.

12 MR. VINCE WARDEN: Yes, Mr. Peters.
13 Good morning, everyone. The -- and I'm sorry for being
14 so slow on this last evening, but I -- I did want to
15 just check to see what the think -- the thinking was in
16 putting the -- the schedule together. The -- the
17 reference to the -- under 2012, we're re -- referring
18 to page 36 of the document that was reviewed yesterday.

19 The reference to three point six (3.6),
20 the intention there was to reflect Manitoba Hydro's
21 revenue increase in that year, which is 3.57 percent
22 and rounded to three point six (3.6). Of course,
23 that's -- that's wrong, though. That's not correct for
24 -- for purposes of this schedule. We shouldn't have
25 used that -- that number.

1 You were absolutely correct that there
2 were -- there are two (2) rate increases in that fiscal
3 year: 2 percent effective April the 1st, 2012; 2.5
4 percent effective September the 1st, 2012; for a total
5 of 4.5 percent, or 4.6 percent, actually, compounded.

6 So we have made that correction to the
7 schedule. So where it refers to 3.6 percent interim,
8 that should in fact be 4.6 percent interim, which
9 affects the cumulative increases. Instead of being
10 24.2 percent, that number should be 25.3 percent.

11 I should point out, though, that the --
12 the current rates -- rates index, there is a bit of a
13 disconnect between the cumulative increase and the
14 current rates index column in that the current rates
15 index is based on a Edison Electric survey as of July
16 the 1st, 2012.

17 So those indexes will not be updated
18 until the next survey results that we receive. So the
19 changes that we're making to the cumulative increases
20 that I just mentioned will -- will not affect the
21 current rate index as the schedule has been prepared.

22 MR. BOB PETERS: And not looking for
23 any further revisions to that, Mr. -- Mr. Warden. I
24 think that information is of assistance to the Board.
25 I do want to move ahead to the next item of Manitoba

1 Hydro's application, which was Tab 1, page 1, of PUB
2 Exhibit 14.

3 And the next item to discuss, Mr.
4 Warden, is that for test year 2014, under item B,
5 Manitoba Hydro seeks a further 3.5 percent increase in
6 overall revenue effective April 1 of 2013, correct?

7 MR. VINCE WARDEN: Yes, that's correct,
8 Mr. Peters.

9 MR. BOB PETERS: And that will generate
10 approximately 47, \$48 million a year?

11 MR. VINCE WARDEN: Correct.

12 MR. BOB PETERS: And, Mr. Warden, just
13 so the Board is clear, and recognizing that time-of-use
14 rates and class-differentiated rate adjustments are not
15 going to be finalized by the Board in this GRA, can the
16 Board understand Manitoba Hydro's request now to be a
17 specific rate increase of 3.5 percent across all rate
18 classes?

19 MR. VINCE WARDEN: Yes, that is
20 correct.

21 MR. BOB PETERS: And maybe it's a
22 better question for the third panel, Mr. Warden, but is
23 that 3 1/2 percent average revenue increase, or is it 3
24 1/2 percent specific rate increases?

25 MR. VINCE WARDEN: That is 3 1/2

1 percent average revenue increase.

2 MR. BOB PETERS: Which leads to the
3 question that if -- if that's the request, Mr. Warden,
4 then some of the class rate increases -- some of the
5 customers in the class rate increases will have higher
6 than 3.5 percent rate increases. Does that follow?

7 MR. VINCE WARDEN: Yes.

8 MR. BOB PETERS: And is that something
9 the third panel will have -- be able to provide the
10 Board with information showing how customers in those
11 classes are affected on terms of rate increases?

12 MR. VINCE WARDEN: Yes, absolutely.

13 MR. BOB PETERS: And can you indicate
14 to the Board whether it's Manitoba Hydro's request that
15 the Basic monthly charge be increased as a result of
16 the General Rates Application order?

17 MR. VINCE WARDEN: The basic monthly
18 charge for residential, the six eighty-five -- six
19 dollars and eighty-five cents (\$6.85) per month is not
20 proposed to be changed in this Application. There is a
21 proposed change for the general service basic monthly
22 charge for the general service small category. But
23 again, that will be reviewed in some detail by the --
24 by the panel, the rates rev -- the rates panel.

25 MR. BOB PETERS: Yes, and thank you,

1 Mr. Warden. You can confirm to the Board that since
2 2004 that Manitoba Hydro has been awarded by the Board
3 have been what we have, in the vernacular, called
4 across the board increases, with the exception of area
5 and roadway lighting?

6 MR. VINCE WARDEN: Yes.

7 MR. BOB PETERS: And when we say
8 "across the board," it's the same percentage increase
9 to all customer classes?

10 MR. VINCE WARDEN: That's correct.

11 MR. BOB PETERS: And perhaps in terms
12 of the practice that developed in the -- since 2004,
13 those rate increases were to recover average revenue
14 increases, not specific rate increases in and of
15 themselves?

16 MR. VINCE WARDEN: They -- they were
17 designed such to recover a specific target revenue
18 increase, yes, correct, with -- with the possible
19 exception of the diesel -- the diesel category -- class
20 customer.

21 MR. BOB PETERS: This one might stretch
22 you, Mr. Warden, but would it be correct that even by
23 increasing rates by uniform percentages the past decade
24 or so, the revenue-to-cost ratios of those customer
25 classes would remain relatively constant, in terms of

1 their relation to other classes?

2 MR. VINCE WARDEN: Relatively. Having
3 said that, there have been some changes in methodology
4 with respect to cost of service. So it's -- it's not --
5 -- I would -- I wouldn't be comfortable just stating
6 that the -- the RCCs have remained constant over that
7 period of time.

8 MR. BOB PETERS: Would you be
9 comfortable saying absent the methodology changes the
10 RCCs would remain relatively constant --

11 MR. VINCE WARDEN: Well --

12 MR. BOB PETERS: -- over that time?

13 MR. VINCE WARDEN: Sorry. Yes,
14 relatively constant, I guess that's fair to say.

15 MR. BOB PETERS: All right. The next
16 Application item on page 2 of the book of documents is
17 item E.

18 And this is an approval of a 6 1/2
19 percent rate increase on the full-cost portion of rates
20 paid by general service and government customers in the
21 diesel zone, correct?

22 MR. VINCE WARDEN: Correct.

23 MR. BOB PETERS: In the diesel zone --
24 and we'll come to that with your third panel -- in
25 addition to residential customers, there's general

1 service customers and also government class customers.

2 MR. VINCE WARDEN: That's right.

3 MR. BOB PETERS: And the general
4 service customers would be the -- along the lines of
5 the commercial customers, perhaps First Nation offices,
6 arenas, and those types of customers?

7 MR. VINCE WARDEN: Yes, that's right.

8 MR. BOB PETERS: And "government" would
9 mean provincial government, as well as federal
10 government offices, and, if I'm not mistaken, I think
11 the -- the education --

12 MR. VINCE WARDEN: The education --

13 MR. BOB PETERS: -- accounts are also
14 included in that?

15 MR. VINCE WARDEN: That's correct.

16 MR. BOB PETERS: Now, Mr. Warden, the
17 general service customers and the government customers
18 have a tail-block rate presently at thirty-five (35)
19 cents a kilowatt hour. Is that your recollection?

20 MR. VINCE WARDEN: I'm sorry, would you
21 just repeat the -- which category of customers were you
22 referring to?

23 MR. BOB PETERS: I meant to say the
24 general service customers.

25 MR. VINCE WARDEN: Yes, that's right.

1 MR. BOB PETERS: And in addition to the
2 general service customers and the government customers,
3 the revenue increase expected by Manitoba Hydro from
4 this item on your request is approximately two hundred
5 thousand dollars (\$200,000), if I understood you
6 yesterday?

7 MR. VINCE WARDEN: In the first test
8 year, yes.

9 MR. BOB PETERS: And relatively the
10 same in the next?

11 MR. VINCE WARDEN: I -- I believe it
12 rounds --

13 MR. BOB PETERS: Might --

14 MR. VINCE WARDEN: -- rounds to three
15 hundred thousand (300,000) in the next test year.

16 MR. BOB PETERS: And this 6 1/2 percent
17 rate increase was approved by this Board in their
18 interim order on September 1 of 2012, correct?

19 MR. VINCE WARDEN: Correct.

20 MR. BOB PETERS: And just so we can do
21 the math out loud, which is never good for me, but the
22 6 1/2 percent is to represent the 2 percent interim
23 increase on April 1 of 2011 from this Board. That was
24 -- that was subsequently finalized. Then it also adds
25 the 2.0 percent rate increase of April 1 of 2012 and

1 the 2 1/2 percent of September 1 to come up with 6.5
2 percent?

3 MR. VINCE WARDEN: That's right.

4 MR. BOB PETERS: So what this is, is a
5 catch-up for those communities?

6 MR. VINCE WARDEN: Yes.

7 MR. BOB PETERS: And so that the --

8 MR. VINCE WARDEN: Mr. Peters, for
9 those -- we shouldn't say "those communities" -- for
10 those customers, because the other customers, the --
11 the residential and general service customers up to
12 2,000 kilowatt hours pay grid rates. So they've had
13 the same increases as have grid customers.

14 MR. BOB PETERS: That's a good point,
15 Mr. Warden. So let's just make sure the Board
16 understands what you're getting at is that, by policy,
17 Manitoba Hydro charges residential customers in the
18 diesel zone equivalent to grid rates.

19 MR. VINCE WARDEN: Yes.

20 MR. BOB PETERS: And that's for their
21 first 2,000 kilowatt hours per month?

22 MR. VINCE WARDEN: No. No, that was
23 changed to now all consumption by residential customers
24 in the diesel communities is at grid rates.

25 MR. BOB PETERS: Thank you for that.

1 And it's also correct that, in the diesel communities,
2 Manitoba Hydro discourages if not prohibits the use of
3 electricity for space heating of homes?

4 MR. VINCE WARDEN: Well, it's pro --
5 prohibited, so to speak, by the service size. So the
6 limitation is 60-amp service in those communities for
7 residential accounts, and that will not support
8 electric heat.

9 MR. BOB PETERS: So when this Board
10 increases grid rates, Manitoba Hydro automatically also
11 increases the rates to the residential customers in the
12 diesel zone by the same amount?

13 MR. VINCE WARDEN: That's right.

14 MR. BOB PETERS: And so the diesel
15 communities have already seen -- sorry, the residential
16 customers in the diesel zone have already seen that 6
17 1/2 percent rate increase?

18 MR. VINCE WARDEN: Correct.

19 MR. BOB PETERS: When we get back to
20 the government and general service customers, Mr.
21 Warden, that 35 percent tail-block rate that they pay
22 will go up 6 1/2 percent to thirty-seven point three
23 (37.3) cents approximately?

24 MR. VINCE WARDEN: Yes.

25 MR. BOB PETERS: And just so the Board

1 is also aware, and we -- we may not need to cover this
2 in much more detail when the third panel comes, but
3 Manitoba Hydro also calculates what is the full cost of
4 ser -- to serve re -- customers in the diesel zone?

5 MR. VINCE WARDEN: Yes.

6 MR. BOB PETERS: And the last
7 calculation I have for the full cost rate is it costs
8 fifty-nine (59) cents a kilowatt hour to spread out the
9 cost of service to all the customer classes.

10 MR. VINCE WARDEN: Yes, that's right.

11 MR. BOB PETERS: Mr. Warden, there's no
12 recalculation of all diesel zone rates based on a new
13 diesel cost of service study as part of Manitoba
14 Hydro's Application, is there?

15 MR. VINCE WARDEN: No, there is not.
16 What we do -- having said that, Mr. Peters, we do know
17 that we're not recovering the costs to serve those
18 communities, so the -- there is a substantial subsidy
19 to those communities as it stands. And a Cost of
20 Service Study will only demonstrate that.

21 MR. BOB PETERS: Well, Mr. Anderson
22 spoke to the Board in his opening comments about the
23 cost to serve in the community and about the subsidies
24 that had already been quantified by this Board in its
25 orders.

1 What you're telling the Board is that
2 there's a further deficit accumulating because Manitoba
3 Hydro is not recovering in rates the cost to serve the
4 diesel community?

5 MR. VINCE WARDEN: I believe Mr.
6 Anderson was speaking to the deficit that accumulated
7 as of 2004. Since that time, we -- we've changed our
8 approach to diesel, costing of diesel communities, such
9 that we don't accumulate a deficit. So we're not
10 bringing forward a deficit anymore. There is a -- a
11 loss incurred each year which is not -- we don't -- do
12 not attempt to reflect that in future rates.

13 MR. BOB PETERS: All right. So the
14 loss that's incurred every year by not increasing the
15 diesel rates to keep current with their cost of
16 service, that is -- it just falls to Manitoba Hydro's
17 bottom line?

18 MR. BOB PETERS: And I won't -- I won't
19 be able to show the Board that on a discreet item on
20 your IFF, would I?

21 MR. VINCE WARDEN: No, you won't, no.

22 MR. BOB PETERS: And again, Mr. Warden,
23 to the extent you're able without the third panel's
24 assistance, are you able to quantify in the test years
25 what the diesel loss is, if I can use those words?

1 MR. VINCE WARDEN: Well, the -- just
2 very roughly -- and I -- I think there -- this is in
3 our filing, and I -- it would take some time to find
4 it. But very roughly, the cost to serve tho -- the
5 diesel communities is about \$8 million per year,
6 including all of the diesel fuel costs we recover.

7 You know, perhaps it would be best if I
8 -- rather than approximate that, I -- I might -- I
9 might just -- if you would like me to take that as an
10 undertaking, I'll put that --

11 MR. BOB PETERS: No. No, let's not.
12 Let's -- let's wait for the -- let's wait for the third
13 panel. And we'll --

14 MR. VINCE WARDEN: Okay.

15 MR. BOB PETERS: -- get it right the
16 first time, so to speak.

17 MR. VINCE WARDEN: That -- that's --
18 okay, that's best. Thank you.

19 MR. BOB PETERS: Thank you. And, Mr.
20 Warden, why is it that the 3 1/2 percent Hydro is
21 seeking for April 1 of 2013 for grid customer increases
22 is not added to the tail-block rates of the general
23 service and government customers in the diesel zone?

24 MR. VINCE WARDEN: Mr. Peters, it -- it
25 could have been. But -- and this is something that

1 we'll prob -- probably have to be conscious of going
2 forward, is that rather than have a catch-up rate, as
3 we're doing this time around, we should be applying for
4 increases on a more regular basis for those
5 communities. But we chose not to include the
6 additional 3.5 percent at this -- with this
7 Application.

8 MR. BOB PETERS: So whatever -- so
9 whatever revenue is lost as a result of not increasing
10 the rates, that again falls to Manitoba Hydro's bottom
11 line as a loss or a subsidy?

12 MR. VINCE WARDEN: Yes.

13 MR. BOB PETERS: Are you able to
14 quantify that or not at this time?

15 MR. VINCE WARDEN: Well, we can do that
16 with the third shared panel.

17 MR. BOB PETERS: All right. All right.
18 Thank you, sir. And while we're on the item of diesel
19 confirmations, item J on page 2 of Board counsel's book
20 of documents lists a litany of PUB orders that are
21 interim since 2004. And Manitoba Hydro now wants to
22 have those finalized, if I understand Manitoba Hydro's
23 request.

24 Would that be your understanding, as
25 well?

1 MS. PATTI RAMAGE: I might be able to
2 assist on this one. Manitoba Hydro would like those
3 finalized, but that request is subject to provision of
4 the true copies of the -- of the tentative settlement
5 agreement, which I don't believe is tentative anymore,
6 Mr. Anderson.

7 My understanding is -- is that those are
8 -- will soon be available, but -- but I have had that
9 understanding for some time now. So it is certainly
10 our hope that Mr. Anderson will file those with
11 Manitoba Hydro and this Board shortly and during the
12 course of this Hearing so that that order can in fact
13 issue.

14

15 CONTINUED BY MR. BOB PETERS:

16 MR. BOB PETERS: Mr. Warden,
17 appreciating this Board panel will -- this will be
18 coming to them fairly new, there's been a concerted
19 negotiated settlement effort with some of the issues in
20 the diesel zone that have resulted in an -- in an
21 agreement as between Canada, MKO, and Manitoba Hydro?

22 MR. VINCE WARDEN: Yes.

23 MR. BOB PETERS: And MKO was standing
24 in a representative capacity perhaps of the First
25 Nations affected in the diesel zones?

1 MR. VINCE WARDEN: That's right.

2 MR. BOB PETERS: And as a result of
3 those settlements, and Mr. Anderson spoke of them in
4 his opening comments, I think you were correct about
5 the subsidies and the -- the payments that have been
6 made by the various parties, including the Manitoba
7 Hydro writeoff.

8 Manitoba Hydro has been operating on the
9 basis that that settlement agreement is in full force
10 and effect. Would that be fair?

11 MR. VINCE WARDEN: Yes.

12 MR. BOB PETERS: And what I'm hearing
13 from your counsel is that there -- in the vernacular,
14 not all of the 'I's have been dotted or all of the 'T's
15 have been crossed because Manitoba Hydro does not have
16 the paper that it needs to satisfy itself that the
17 settlement has been fully consummated?

18 MR. VINCE WARDEN: Yes, it's been quite
19 a frustrating experience for us, actually, and I'm sure
20 for this Board, as well. It's -- we understand the
21 agreements have been signed but lost in transmittal
22 somewhere. So that has been resting with Mr. Anderson
23 for some time. And perhaps he can speak -- speak
24 further to that when he -- if he appears later in the
25 proceeding.

1 MR. BOB PETERS: Yeah, I went back and
2 reread his transcript, and I'm not sure of the answer
3 to that. But would it be fair to say to this Board
4 that, unless the documents requested by Manitoba Hydro
5 are delivered, this approval will not be sought?

6 MR. VINCE WARDEN: Yeah, there's --
7 from a legal perspective -- and I won't speak for Ms.
8 Ramage for sure -- but there is some risk to the
9 parties having this approved without those documents
10 underpinning them.

11 MR. BOB PETERS: All right. Thank you,
12 sir. I think we'll leave the surplus -- well, Manitoba
13 Hydro is -- is asking in its Application as well for
14 the Board to approve the modifications of the
15 curtailable rates program that Manitoba Hydro has put
16 forth in its Application, correct?

17 MR. VINCE WARDEN: Correct.

18 MR. BOB PETERS: And we'll talk about
19 those with the third panel. And likewise, any -- the
20 ex parte Order 52/12 that this Board issued dealing
21 with curtailable rates, Manitoba Hydro wants that
22 finalized as a result of this process, as well?

23 MR. VINCE WARDEN: Yes.

24 MR. BOB PETERS: And then, lastly, the
25 surplus energy program that results in the Board

1 issuing orders on a weekly basis on an interim ex parte
2 process, that the Corporation wants filed as well --
3 or, finalized as well?

4 MR. VINCE WARDEN: That's correct.

5 MR. BOB PETERS: All right. I have no
6 further questions on that. I want to turn to Tab 2 of
7 the book of documents with you, Mr. Warden, and page
8 17.

9

10 (BRIEF PAUSE)

11

12 MR. BOB PETERS: What is before you
13 there -- and I want you to know it was prepared before
14 Mr. Williams sent his pre-ask question in -- but it --
15 it puts in -- in front of the Board the revenue
16 requests that the Corporation is seeking in -- by test
17 year.

18 Have I got that correct?

19 MR. VINCE WARDEN: That's right.

20 MR. BOB PETERS: I'm not sure you would
21 have depicted it the same way, or Mr. Rainkie may not
22 have depicted it the same way.

23 But the 1 percent interim or rollback
24 that we've talked about was rolled back effective April
25 1st of 2010, correct?

1 MR. VINCE WARDEN: Right.

2 MR. BOB PETERS: So it accumulated for
3 fiscal '11, for fiscal '12, and fiscal '13?

4 MR. VINCE WARDEN: Yes, it accumulated
5 for fis -- fiscal '10/'11, '11/'12, and is still
6 accumulating for the current fiscal year.

7 MR. BOB PETERS: And the way it's shown
8 here is that for 2013, our current fiscal year for
9 Manitoba Hydro, Mr. Warden, it'll accumulate about \$12
10 million?

11 MR. VINCE WARDEN: Yes.

12 MR. BOB PETERS: And what's depicted
13 under 2013 test year on this chart is that all of those
14 revenues combined will crystalize into the
15 Corporation's revenue in 2013?

16 MR. VINCE WARDEN: If the Board
17 approves this, yes, that's -- and that's the way it's
18 depicted in the financial forecast that is before the
19 Board, IFF12.

20 MR. BOB PETERS: Okay, I think you
21 agreed with me yesterday it wasn't depicted that way,
22 but it was included in the general consumers revenue
23 line item?

24 MR. VINCE WARDEN: Well, that's what --
25 yes.

1 MR. BOB PETERS: Okay.

2 MR. VINCE WARDEN: Yes, exactly.

3 MR. BOB PETERS: And -- and then going
4 on a -- on a go-forward basis, the 1 percent, if this
5 Board reinstates it retroactively or otherwise going
6 forward, it would be a \$12 million a year contribution
7 to revenues?

8 MR. VINCE WARDEN: Yes.

9 MR. BOB PETERS: So that --

10 MR. VINCE WARDEN: Just to be clear,
11 that's already included in the base rates of cus -- and
12 the bills that customers are -- are paying today, so.

13 MR. BOB PETERS: All right. That's
14 again a point I think we briefly touched on yesterday,
15 Mr. Warden. What you're telling the Board is that it's
16 -- consumers are being billed that 1 percent, and it's
17 being at least notionally tracked in a deferral
18 account, in terms of the revenues it creates?

19 MR. VINCE WARDEN: More than
20 notionally. It is being tracked in a deferral account,
21 and it's not being included in our -- in the reporting
22 of our revenue. So the quarterly report that we just
23 issues, or issued in the end of September, does not
24 include these amounts in revenue.

25 MR. BOB PETERS: I think when I said

1 "notional", Mr. Warden, you don't actually have a bank
2 account set up for this money; this money is just part
3 of the Corporation's --

4 MR. VINCE WARDEN: Oh --

5 MR. BOB PETERS: -- revenues and you
6 just do it on paper? You just record it on a paper?

7 MR. VINCE WARDEN: I just wanted to be
8 clear, though, it's not included in revenues. It's --
9 it's in a deferral account and not reported as revenues
10 and doesn't contribute to the net income of Manitoba
11 Hydro as reported to date.

12 MR. BOB PETERS: But it is in the IFFs
13 that are before the Board?

14 MR. VINCE WARDEN: It is, assuming that
15 -- on the assumption that it will be approved.

16 MR. BOB PETERS: Fair enough, fair
17 enough. All right. The 2 percent interim increase on
18 April 1 of 2012, that's generating approximately \$25
19 million in each of the test years?

20 MR. VINCE WARDEN: Yes.

21 MR. BOB PETERS: And then the 2 1/2
22 percent interim increase from September of this year,
23 for the seven (7) months, it's generating approximately
24 20 million, or 19.9 million, in the first test year --

25 MR. VINCE WARDEN: Yes.

1 MR. BOB PETERS: -- 32 million in the
2 second?

3 MR. VINCE WARDEN: Yes.

4 MR. BOB PETERS: And the 3 1/2 percent
5 April 1 that's being requested is to generate
6 approximately 47 million in the second test year?

7 MR. VINCE WARDEN: Yes. I think we
8 might have -- in the IFF, that's indicated as 48
9 million, but I -- I believe it's just rounding that
10 makes that difference.

11 MR. BOB PETERS: All right. Agreed,
12 and thank you, Mr. Warden. If we turn the page, sir,
13 and move on to page 18, the Board will see a history of
14 the rate increases and the resulting revenues that have
15 been -- have been -- have arisen as a result of Board-
16 ordered rate increases, sir?

17 MR. VINCE WARDEN: Yes.

18 MR. BOB PETERS: And it starts in --
19 following the -- '03/'04 was the worst financial loss
20 on record of the Corporation, sir?

21 MR. VINCE WARDEN: Yes.

22 MR. BOB PETERS: And the Corporation
23 requested and received additional rate relief as a
24 result of the -- the losses?

25 MR. VINCE WARDEN: Well, we did request

1 additional rate relief, hesitating that we attribute
2 them directly to the losses. I think our intention was
3 to recover the losses over a -- a gradual period of
4 time. So -- but, yes, those -- those are the rate
5 increases that followed the -- the -- the major -- the
6 loss we incurred in '03/'04.

7 I think, if -- if you refer to your
8 schedule, we requested actually a 3 percent rate
9 increase, and -- and this Board awarded a 5 percent
10 rate increase effective August the 1st, 2004. So the -
11 - the rate increases were to restore our level of
12 retained earnings to the pre-loss level over a period
13 of time.

14 MR. BOB PETERS: The Corporation lost
15 \$436 million in that year?

16 MR. VINCE WARDEN: Yes.

17 MR. BOB PETERS: And while the
18 Corporation wanted to gradually recover that loss, it
19 would have taken a massive rate increase to recover it
20 in one (1) year, correct?

21 MR. VINCE WARDEN: Yeah, and we had no
22 intention of doing that.

23 MR. BOB PETERS: And as it turned out,
24 the Corporation's rate increases, together with good
25 hydraulic levels and export opportunities, made the

1 recovery of that loss probably quicker than you
2 initially envisioned?

3 MR. VINCE WARDEN: Yes. As I think I
4 indicated in my -- part of my opening comments, in
5 2006, we had the highest level of export sales in our
6 history, over \$800 million in that year, which
7 contributed to that quick recovery.

8 MR. BOB PETERS: And, Mr. Warden, you
9 looked on page 19 with the Board. And on page 19, in
10 its response to one of the information requests -- I
11 think I labelled it wrong -- it was a Hydro -- sorry
12 PUB/Manitoba Hydro First Round Second Question, number
13 2A.

14 What you pointed out to the Board was
15 the percent rate increase requested in the second
16 column was 3 percent on April 1st of '04, and the Board
17 awarded a 5 percent rate increase?

18 MR. VINCE WARDEN: That's right.

19 MR. BOB PETERS: And what the Board
20 will also see on that schedule is that the debt-equity
21 ratio was brought back from 85:15 up to 75:25 over the
22 period of time with the rate increases depicted?

23 MR. VINCE WARDEN: Yes, that's right.

24 MR. BOB PETERS: And while we're on
25 that schedule, Mr. Warden, if the Board was to add up

1 all of the cumulative additional revenue from rate
2 increases in the third from the right column, it be --
3 it would be approximately \$1.7 billion in additional
4 cumulative revenue since 2004?

5 MR. VINCE WARDEN: Yes. I guess, you
6 know, in putting together a schedule like this it's
7 always -- and you did indicate there was some higher
8 than normal rate increases because of the drought. If
9 we were to go back into the previous decade, of course,
10 that would tell quite a -- quite a different story when
11 we had virtually no rate increases in that decade.

12 MR. BOB PETERS: All right. And let's
13 just remind the Board of -- of that circumstance, Mr.
14 Warden. Why is it that Manitoba Hydro made no request
15 for rate increases in some of the years in the previous
16 decade?

17 MR. VINCE WARDEN: Well, in retrospect
18 I -- you know, I -- it would be nice to have some of
19 those years back, in terms of getting some of those
20 rates in the base. Gradualism is always one of the
21 principles we attempt to follow.

22 We were, in those years though, earning
23 revenues, good revenues, associated with, you know,
24 having put Limestone into service and generating
25 significant revenues from Limestone, contributing to

1 the bottom line gradual increases in -- in equity over
2 that period of time.

3 So there wasn't really a burning
4 platform need for rate increases; quite a different
5 situation than what we're seeing today.

6 MR. BOB PETERS: And at -- at that
7 time, Mr. Warden, Manitoba Hydro did not have a major
8 capital structure construction program of the magnitude
9 as it does as -- as now?

10 MR. VINCE WARDEN: That's right.

11 MR. BOB PETERS: But in any event, the
12 gradualism or no gradualism, rate increases or no rate
13 increases, Mr. Warden, Manitoba Hydro is sitting today
14 with 2 1/2 billion of retained earnings and is in the
15 strongest financial position in its entire sixty-one
16 (61) year history.

17 MR. VINCE WARDEN: Yes.

18 MR. BOB PETERS: Mr. Warden -- Mr.
19 Warden, turning to tab 3 of the book of documents,
20 Exhibit PUB-14, is a operating statement, the balance
21 sheet, and the cash flow statements from IFF11-12 (sic)
22 for your electric operations, sir?

23 MR. VINCE WARDEN: IFF11-2, yes, that's
24 correct.

25 MR. BOB PETERS: Oh, sorry. Thank you.

1 MR. VINCE WARDEN: M-hm.

2 MR. BOB PETERS: Mr. Warden, would it
3 be correct for the Board to understand that the
4 integrated financial forecast -- or, as we'll
5 abbreviate it, the IFF -- it sets out projected
6 financial results and financial position of the
7 Corporation for a twenty (20) year period?

8 MR. VINCE WARDEN: Yes.

9 MR. BOB PETERS: It's to show the long-
10 term financial direction of the Corporation?

11 MR. VINCE WARDEN: It is.

12 MR. BOB PETERS: And it serves as a
13 baseline for the financial evaluation of the strategic
14 alternatives?

15 MR. VINCE WARDEN: It does.

16 MR. BOB PETERS: And it also serves as
17 the primary forecast to determine Manitoba Hydro's
18 needs for rate increases?

19 MR. VINCE WARDEN: That's correct.

20 MR. BOB PETERS: And would it be
21 correct for the Board to understand that for the IFF
22 showing the year -- fiscal year ending 2013 and 2014,
23 the information forms the basis of the revenue
24 requirement portion of Manitoba Hydro's GRA that's
25 before the Board today?

1 MR. VINCE WARDEN: Yes.

2 MR. BOB PETERS: And while you have
3 filed IFF12, can the Board still use with confidence
4 and review the positions in IFF11-2 as -- as to see
5 whether they support the rate increases that are being
6 requested?

7 MR. VINCE WARDEN: Well, the -- to be
8 clear, 11-2 was based on the best information we had at
9 the time, that forecast which was prepared, which was
10 in November 2011. We now have an updated forecast.
11 Conditions have changed quite -- or, to some extent at
12 least, over that period of time such that the more
13 current reference document would be IFF -- IFF12, which
14 was filed last Friday.

15 MR. BOB PETERS: When we go through the
16 line items on IFF12, Mr. Warden, but for the non-
17 controlling interest issue that you brought to the
18 Board's attention yesterday, many of the other changes
19 in the first test year are -- are relatively modest?

20 MR. VINCE WARDEN: Yes, the -- well,
21 there are changes that -- some offsetting changes that
22 result in a -- in a bottom line not too dissimilar from
23 what is now forecast in IFF12.

24 So, to be clear on that, the forecast
25 net income for 2012/'13 in IFF11-2 is \$20 million. The

1 appropriate con -- comparable reference from IFF12, as
2 is referenced on page 9 of Manitoba Hydro's Exhibit
3 number 5, is \$39 million.

4 MR. BOB PETERS: And it would be
5 Exhibit 15, Manitoba Hydro Exhibit 15, I think you
6 meant, Mr. Warden?

7 MR. VINCE WARDEN: Oh, yes. Sorry, 15.
8 Yes. And then for the next test year, 2013/'14, the
9 net income projection of 68 million, the most
10 appropriate comparable to that is 36 million in -- as
11 referenced on -- on page 9 of Exhibit 15.

12 MR. BOB PETERS: The major changes on
13 that, Mr. Warden, are as a result of this non-
14 controlling interest line item that you mentioned?

15 MR. VINCE WARDEN: Yes.

16 MR. BOB PETERS: All right. To the
17 extent that we can, let's go through the application
18 and my questions. And if you feel there is a material
19 update that the Board needs to be aware of related to -
20 - and depicted on IFF12, then let's just please bring
21 it to the Board's attention.

22 But let's stay with your last thought,
23 Mr. Warden. On IFF11-2, you show \$20 million of net
24 income in the first test year, correct?

25 MR. VINCE WARDEN: Correct.

1 MR. BOB PETERS: That already embeds in
2 that line item, I think we've already agreed, some \$36
3 million that is from the 1 percent rollback?

4 MR. VINCE WARDEN: Yes.

5 MR. BOB PETERS: And, in your updated
6 IFF12, you show the net income has gone up from 20
7 million to 53 million. So on the face of it, it looks
8 like you found some \$33 million, but you're telling the
9 Board that that non-controlling interest factor has to
10 be deducted from that?

11 MR. VINCE WARDEN: Yes.

12 MR. BOB PETERS: And similarly, in the
13 second test year, where IFF11-2 shows \$68 million of
14 net income, you're updating it to show in IFF12 that
15 net income would be down slightly to \$60 million,
16 before you subtracted off the non-controlling interest
17 problem?

18 MR. VINCE WARDEN: That's right.

19

20 (BRIEF PAUSE)

21

22 MR. BOB PETERS: Can you tell the
23 Board, Mr. Warden, if this non-controlling interest
24 issue that you spoke to them about yesterday impacts
25 anywhere else in the IFF, other than on the net income

1 line?

2 MR. VINCE WARDEN: No, it would only
3 affect the net income line.

4 MR. BOB PETERS: So there's no need to
5 re-file IFF12, with this new --

6 MR. VINCE WARDEN: Mr. Peters, I'm just
7 going to -- just thinking a little bit further about
8 that. There could be an impact on finance expense to
9 some extent.

10

11 (BRIEF PAUSE)

12

13 MR. VINCE WARDEN: Mr. Peters, subject
14 to giving this a little bit more thought, maybe I'll
15 stay with my first answer, that there will be no impact
16 elsewhere on the -- the financial statement, on the
17 income statement.

18 MR. BOB PETERS: All right. Mr.
19 Warden, I'm going to ask to put Mr. Rainkie and Ms.
20 Carriere to work in an undertaking to confirm, through
21 you to the Board, that as a result of the non-
22 controlling interest -- I call it a "problem,"
23 determine whether IFF12 needs any further revision and,
24 if so, to -- to provide that revised version to the
25 Board.

1 MR. VINCE WARDEN: Yes. We'll do that,
2 yes. Thank you.

3 MR. BOB PETERS: All right. And thank
4 you for that, sir.

5

6 --- UNDERTAKING NO. 5: Manitoba Hydro to confirm
7 to the Board that as a
8 result of the non-
9 controlling interest,
10 whether IFF12 needs any
11 further revision and, if
12 so, provide that revised
13 version to the Board

14

15 CONTINUED BY MR. BOB PETERS:

16 MR. BOB PETERS: While we're on that
17 non-controlling interest, is it -- is it trite to say
18 then, Mr. Warden, that the deal negotiated with the
19 WPLP, it's too good of a deal for Manitoba Hydro
20 because the partners won't pay it?

21 MR. VINCE WARDEN: No, the deal that
22 was negotiated was done so with the expectation of
23 future revenues that have not materialized in
24 accordance with expectations because of the drop in the
25 export market. So the -- the deal, for that reason, in

1 order to obtain the -- the overall objectives of -- of
2 the original agreement will have to be negotiated.

3 So I think the interest here is to make
4 sure that we strike a fair deal with our First Nation
5 partner based on condit -- conditions as we know them
6 today.

7

8 (BRIEF PAUSE)

9

10 MR. BOB PETERS: And I think, Mr.
11 Warden, I want to deal with that when I get down the
12 non-controlling interest line item on the IFF. I want
13 the Board to -- to follow our discussion.

14 But if I look at page 9 of Manitoba
15 Hydro Exhibit 15, which was the document you circulated
16 yesterday, sir, it was your -- your -- you called them
17 "slides," I think, your -- your presentation. And page
18 9 is the page that you referred the Board to a few
19 minutes ago with respect to putting before the Board
20 what Manitoba Hydro expects is a more realistic net
21 income for the two (2) test years?

22 MR. VINCE WARDEN: That -- that's
23 right.

24 MR. BOB PETERS: So you're telling the
25 Board that even though IFF12 has different numbers,

1 that more realistically it should be 39 million in the
2 first test year and 36 million in the second test year?

3 MR. VINCE WARDEN: That's correct.

4 MR. BOB PETERS: And while we're on
5 that, on the issue of Wuskwatim, just in my thinking,
6 you can also confirm to the Board that without
7 Wuskwatim in the first test year net income would be
8 \$106 million higher?

9 MR. VINCE WARDEN: Do you have a
10 reference for the 106 million, Mr. Peters?

11 MR. BOB PETERS: I -- I do. I recall -
12 - it's in my next book of documents, Mr. Warden. But
13 let's -- it's -- I think it's CAC First Round 15. I'll
14 check.

15

16 (BRIEF PAUSE)

17

18 MR. VINCE WARDEN: Yes, we -- we have
19 it here, Mr. Peters.

20 MR. BOB PETERS: I think we have the
21 Board at a disadvantage because I haven't yet provided
22 the second volume to the Board members. But -- but in
23 terms of my -- I was -- I was going to leave that
24 questioning until we talked about Wuskwatim and the
25 limited -- sorry, about the non-controlling interest

1 line item.

2 What that document simply says is that,
3 according to Manitoba Hydro's calculations, the impact
4 on the income statement of Wuskwatim in the first test
5 year is about \$106 million, a hundred and seven (107)?

6 MR. VINCE WARDEN: Mr. Peters, this --
7 this statement refers to the cost of Wuskwatim only,
8 not the revenues from Wuskwatim. So actually, looking
9 at the heading of this statement, it might be somewhat
10 misleading. It's not the impacts on net income, it's
11 the impacts on exp -- the expense of Wuskwatim.

12 MR. BOB PETERS: Okay. Well, let's --

13 MR. VINCE WARDEN: Or, the -- sorry,
14 the expense associated with Wuskwatim. So it's -- it
15 doesn't depict income. So to show what the impacts on
16 net income of -- of Wuskwatim are, you would have to
17 include a revenue provision on this -- on this
18 statement as well.

19 MR. BOB PETERS: Well, let's just stick
20 with the costs then, Mr. Warden. The costs in the
21 first test year are approximately \$106 million,
22 attributed to Wuskwatim. And it goes up to about a
23 hundred and seventeen (117) in the second test year?

24 MR. VINCE WARDEN: Yes.

25 MR. BOB PETERS: All right. And your

1 point to the Board that we will -- if I -- well, maybe
2 we can revisit it now. There is no -- and after I tell
3 Ms. Ramage we don't need to speak to Mr. Cormie. There
4 is no long-term contract for the sale of the Wuskwatim
5 power specifically, is there, sir?

6 MR. VINCE WARDEN: Not -- not spec --
7 specifically, no.

8 MR. BOB PETERS: And Manitoba Hydro
9 could meet all of its long-term export commitments
10 without the addition of Wuskwatim for the test years?

11 MR. VINCE WARDEN: Well, with the
12 addition of wind to the system since Wu -- Wuskwatim
13 was committed, I believe that to be the case, yes.

14 MR. BOB PETERS: What you believe to be
15 the case, Mr. Warden, is that Manitoba Hydro could meet
16 all of its long-term firm, dependable contract
17 commitments without Wuskwatim in the two (2) test
18 years?

19 MR. VINCE WARDEN: Yes.

20 MR. BOB PETERS: And so what we then
21 know is that if there's no long-term contract for
22 Wuskwatim for its dependable resource that's been
23 specifically signed, then notionally Manitoba Hydro,
24 the best it would be able to do would be to sell it on
25 the opportunity market.

1 Would that be correct?

2

3 (BRIEF PAUSE)

4

5 MR. VINCE WARDEN: Notionally, I'll --
6 I'll accept that, yes.

7 MR. BOB PETERS: And if Manitoba Hydro
8 was selling on the opportunity market only the
9 Wuskwatim output, and in an average year that Wuskwatim
10 output would be approximately 1,500 gigawatt hours, Mr.
11 Warden?

12 MR. VINCE WARDEN: That -- that's
13 right.

14 MR. BOB PETERS: And since he's not
15 here, I'll speak for Mr. Cormie. I -- I recorded
16 yesterday his telling the Board that in the day-ahead
17 market Manitoba Hydro was averaging two point eight
18 five (2.85) cents a kilowatt hour -- I think he gave
19 the megawatt hour -- in either Novem -- I think in --
20 on November -- in November of '12. And it was two
21 point seven six (2.76) cents a kilowatt hour on peak in
22 the -- in the day-ahead market in November of 2011?

23 MR. VINCE WARDEN: Yes.

24 MR. BOB PETERS: You'll accept those,
25 and then --

1 MR. VINCE WARDEN: Yes.

2 MR. BOB PETERS: -- Mr. Wa -- let's
3 give Mr. Cormie every opportunity to correct that if
4 I'm wrong. So what Mr. Cormie's telling the Board is,
5 the output from Wuskwatim on peak was getting just
6 under three (3) cents?

7 MR. VINCE WARDEN: Yes. You know, I
8 would like Mr. Cormie to speak to this, though, because
9 with the knowledge that he has Wuskwatim energy
10 available, he's not going to be selling that on the
11 day-ahead market. He -- he is going to be committing
12 longer term at higher prices than day ahead.

13 MR. BOB PETERS: All right. And his
14 longer-term commitment prices that he told us yesterday
15 were three point one (3.1) cents in November of '12,
16 and three point seven (3.7) cents in November of '11.
17 Do you recall that?

18 MR. VINCE WARDEN: Yes, I do.

19 MR. BOB PETERS: So can we use three
20 (3) cents, would be an approximate price, Mr. Warden,
21 for Wuskwatim output?

22

23 (BRIEF PAUSE)

24

25 MR. VINCE WARDEN: We'll accept that

1 for purposes of our discussion, Mr. Peters.

2 MR. BOB PETERS: Right. And -- and the
3 only way we're going, Mr. Warden, is you told the Board
4 that we should have a revenue item attributed to
5 Wuskwatim because they now see what the expenses are in
6 the test years. And so I'm suggesting that at 1,500
7 gigawatt hours a year at three (3) cents a kilowatt
8 hour you'd be looking at approximately \$45 million of
9 additional revenues?

10 MR. VINCE WARDEN: That's right.

11 MR. BOB PETERS: Okay.

12

13 (BRIEF PAUSE)

14

15 THE CHAIRPERSON: Excuse me for a
16 second. I wonder, Mr. Peters, if I could just ask a
17 few questions about --

18 MR. BOB PETERS: Anytime.

19 THE CHAIRPERSON: -- some of the
20 information that we've been presented with. I just
21 wanted to confirm with you that the values that we're
22 seeing, for example, on page 9, you know, showing the
23 results for 2012/'13 specifically, those were projected
24 as of what date?

25 What date -- you know, do you have some

1 idea of when that \$39 million was established?

2 MR. VINCE WARDEN: Yes. So this would
3 have been based on IFF12, which was approved by the
4 Board of -- presented and approved by the Board of
5 Manitoba Hydro in November.

6 THE CHAIRPERSON: In November.

7 MR. VINCE WARDEN: November 21st.

8 THE CHAIRPERSON: Okay, so. But they
9 were generated as of what time frame within Manitoba
10 Hydro?

11 MR. VINCE WARDEN: Well, there --
12 there's a substantial buildup to preparing the
13 financial forecast. It begins early on with the
14 preparation of the load forecast, which starts -- which
15 is prepared in -- generally in May of each year, so the
16 load forecast is the starting point. We have to know
17 what our Manitoba -- most recent forecast of Manitoba
18 load is.

19 We then progre -- progressed through a
20 number of other documents, including the generation
21 estimate, the power resource plan, up until we get to
22 November -- or the fall of every year, when we co --
23 compile all of those forecasts together in -- in our --
24 what we call the integrated financial forecast.

25 So it's a con -- almost a continuing --

1 continuous planning and refreshing process that we go
2 through at Manitoba Hydro, but it is updated once per
3 year and presented to the Board in the fall of every
4 year.

5 THE CHAIRPERSON: I'll share with you
6 one (1) of my frustrations, is that, you know, we issue
7 an order relating to a requested rate increase. And
8 you base the justification for the decision on a set of
9 values that are based on information that's provided to
10 us by Manitoba Hydro, but the results are evolving as
11 the year goes by.

12 And we issue an order. And all of a
13 sudden we find that the results that we used to base
14 our order have changed because of water conditions and
15 so on and so forth. So we're surprised by results that
16 were available to Manitoba Hydro while we were
17 discussing the order.

18 I mean, I realize that you're basing
19 your justification for the application to us based on
20 descri -- the process you just described. But while we
21 are debating the merits of the application the
22 situation is evolving. And we're surprised by results
23 when we issue our order because the quoted results are
24 so much different than what was being reflected in the
25 application.

1 So it's a source of great frustration
2 for me that we don't have access to some of that
3 information whilst -- before we issue the order. You
4 know, we -- if, for example, we say we believe that
5 Manitoba Hydro, based on their current situation, needs
6 a rate increase of 'X'. And we issue the order based
7 on that justification or that rationale, and then we
8 later discover that their quarterly results are
9 significantly different than what's been projected on
10 the forecast that we've seen.

11 And so it's a source of frustration. I
12 don't know what the answer is, but I want to make sure
13 that, you know, while we are debating this particular
14 Rate Application -- and to the point where we issue an
15 order based on the application that's before us we need
16 to have some way of knowing what's going on internally
17 at Manitoba Hydro so that we're not caught out by
18 saying we based our application on these results and
19 the results are going to be significantly different.

20 Now, it could go either way. You know,
21 we could -- you know, your situation could change
22 dramatically. You could -- you could go down from 39
23 million profit to \$60 million loss. I mean, it -- it
24 works both ways here. We've been surprised. The
25 experience I've had is we've been surprised by -- by an

1 increased profit. And so we base our decision on a
2 certain level of -- of financial results, and you --
3 quarterly results come out about the same time that
4 we're issuing the order, and they're way better than
5 what we -- we had seen when we dec -- made our
6 decision. Now, they could go the other way.

7 I'm just -- I -- I just -- it's a
8 technical problem that we have to address, because it
9 makes us look bad, it makes you look bad because it --
10 it's as if you've rep -- misrepresented the information
11 that -- that was represented to -- the Board. It makes
12 us look bad because we don't know -- it looks like we
13 don't know what we're doing, you know.

14 Manitoba Hydro provided a set of results
15 and -- and -- so we have to find a way in which -- and
16 I don't know what the answer is. I -- I'm just posing
17 a -- somewhat of a rhetorical question is: How do we
18 address this so that, when ultimately our order comes
19 out some months down the road, it reflects the most
20 currently available data? I don't know what the
21 solution -- I'm just presenting a problem that I think
22 we both have.

23 MR. VINCE WARDEN: Mr. Chairman, if --
24 if I can comment on that, and I certainly appreciate
25 your frustration.

1 Mr. Peters did ask earlier whether, had
2 Manitoba been awarded the rate increase it sought on
3 April the 1st, 2012, of the 3 1/2 percent, whether we
4 would have applied for another rate increase in
5 September. Highly unusual for us to apply for a rate
6 increase in -- in September as we did this -- this past
7 year.

8 You know, Manitoba Hydro certainly
9 accepts all decisions of this Board, but I can say
10 quite frankly -- and this is perhaps a bit sensitive --
11 that we didn't agree with the order that was received
12 that rolled back rates to April the 1st, 2010, and
13 reduced the rate increase that we had applied for on
14 April the 1st, 2012.

15 We thought we had justified our position
16 well. We believed -- and again I'm being very frank --
17 we believed we were being punished for not providing
18 information with respect to our export contracts. And
19 it's no secret that the -- the Board was not happy with
20 that because there -- there was a court application to
21 demand those contracts be filed.

22 So I think, Mr. Chairman, you're --
23 you're dealing with a highly un -- unusual set of
24 circumstances here. Typically, when we -- when we go
25 to our board, the Manitoba Hydro board, with our

1 financial forecast in the fall of every year, there is
2 a regular process by which we would then file an
3 application with this Board following the approval of
4 the IFF by the Manitoba Hydro board.

5 So the -- there's a sequence of events.
6 It is more -- much more logical than what we're seeing
7 here today. We would have filed an application
8 following approval by our Board in November.
9 Typically, we would be having a hearing in the spring
10 or close to the -- close enough to such that we could
11 get rates approved for April the 1st 2000 -- April the
12 1st of the subsequent year.

13 So we're in a much different cycle here
14 than what is normal and what is -- and what is optimum,
15 but it's a result of circumstances that we somehow
16 found ourselves in. We're not happy neither with --
17 with the situation we're in, and we also share your
18 frustration.

19

20 CONTINUED BY MR. BOB PETERS:

21 MR. BOB PETERS: Mr. Warden, would it
22 be fair and correct for the Board to understand that,
23 as the CFO, you have an update on the Corporation's
24 financial position almost in real time?

25 MR. VINCE WARDEN: Yes.

1 MR. BOB PETERS: And to have that
2 update in financial position, the Corporation doesn't
3 create a new IFF for many of those new documents, does
4 it, sir?

5 MR. VINCE WARDEN: No. The -- the only
6 time we would create a new IFF, if there was a -- a
7 very material change in circumstance, in which case we
8 would -- we would update the IFF. It's -- it's not
9 normal for us to update the IFF midyear. A change in
10 circumstance could be the onset of a drought, a
11 material change in water conditions, or the situation
12 that we found ourselves in with respect to our rate
13 application.

14 MR. BOB PETERS: And in years where
15 there is no new IFF created as a result of a -- seen as
16 a material circumstance that would justify it, you
17 still get updates on the Corporation's financial
18 position almost in real time?

19 MR. VINCE WARDEN: Yes, that -- that's
20 fair.

21 MR. BOB PETERS: And those updates to
22 you, sir, would be using the IFF -- the most current
23 IFF as the baseline. Would that be fair?

24 MR. VINCE WARDEN: Yes, we use the IFF
25 that's approved normally in the fall of every year. We

1 use that for reporting throughout the year unless
2 there's a material change in circumstance.

3 MR. BOB PETERS: And your board of
4 directors for Manitoba Hydro electric board would
5 receive financial updates, I'm sure, at their regular
6 meetings?

7 MR. VINCE WARDEN: Yes, we report
8 monthly to the board the -- the financial results
9 compared -- compared to the approved forecast and
10 explain any variances from that forecast.

11 MR. BOB PETERS: Is that type of report
12 that you just mentioned one that the Corporation would
13 be prepared to share with the Board on request, this
14 Board on request?

15 MR. VINCE WARDEN: I -- I don't see any
16 reason why not, yes.

17 MR. BOB PETERS: All right. Well,
18 let's think about that, and perhaps Ms. Ramage and I
19 have some homework as well. So, thank you, sir.

20 Would it be also correct, Mr. Warden,
21 that the IFF is an iterative electronic spreadsheet of
22 some complexity?

23 MR. VINCE WARDEN: Yes.

24 MR. BOB PETERS: You change one
25 assumption, and that could have impact on many other

1 line items?

2 MR. VINCE WARDEN: Yes.

3 MR. BOB PETERS: And it's also correct
4 that Manitoba Hydro doesn't share that electronic
5 spreadsheet in -- in live form, does it?

6 MR. VINCE WARDEN: No, it doesn't.

7 MR. BOB PETERS: And it protects that
8 spreadsheet because Manitoba Hydro has proprietary
9 information embedded in the spreadsheet?

10 MR. VINCE WARDEN: Yes, partly for that
11 reason. Other -- the other reason, as you indicated,
12 it is quite complex. And unless you understand all the
13 assumptions, underlying formulas that -- that -- on
14 which that forecast is based, there could be some
15 erroneous use of that forecast information.

16 MR. BOB PETERS: Virtually every line
17 item contains a myriad of assumptions is what you're
18 telling the Board?

19 MR. VINCE WARDEN: Yes, it does.

20 MR. BOB PETERS: All right, we'll
21 review some of those. I don't think we're going to get
22 quite to the complexity that you've -- you've alert to
23 -- us to.

24 But if the forecast input on any of
25 those assumptions is incorrect, it's likely the final

1 output information will also be incorrect?

2 MR. VINCE WARDEN: That's right.

3 MR. BOB PETERS: And IFF09 underpinned
4 Manitoba Hydro's last GRA?

5 MR. VINCE WARDEN: Yes.

6 MR. BOB PETERS: And subject to what
7 you've already said, this General Rate Application was
8 filed and underpinned by IFF11-2, correct?

9 MR. VINCE WARDEN: Correct.

10

11 (BRIEF PAUSE)

12

13 THE CHAIRPERSON: While Mr. Peters is
14 reviewing his material, I wonder if I could ask a
15 question in respect of how variable the financial
16 results for the year are.

17 Specifically what I -- I would like to
18 know -- you know, I -- I'm assuming that the -- the
19 biggest variable that impacts on your financial results
20 for the year would be electricity prices. Is that...

21 MR. VINCE WARDEN: Water conditions is
22 the --

23 THE CHAIRPERSON: Water conditions.

24 MR. VINCE WARDEN: Yes.

25 THE CHAIRPERSON: So -- so water

1 conditions are variable, but prices are variable as
2 well, obviously. So that's another really significant
3 variable, right?

4 MR. VINCE WARDEN: Yes.

5 THE CHAIRPERSON: Okay. Is there --
6 are there others that -- I mean, we just talked about
7 perhaps Jenpeg being down as being something that's
8 impacted on.

9 But are there others that could
10 potentially impact your yearly financial results
11 significantly?

12 MR. VINCE WARDEN: Yes, your reference
13 to Jenpeg is -- is another one. So unexpected
14 maintenance that -- that arises because of units being
15 down. Units being down for maintenance unexpect --
16 unplanned maintenance can -- can have a major impact on
17 the revenues, of course, that we would otherwise derive
18 from exports. Changes in -- or assumptions with
19 respect to borrowing costs, financing expenses, to a
20 lesser extent. You know, we do -- we are able to
21 forecast that quite readily.

22 Late in-service dates for -- for
23 projects coming into service -- because when a -- when
24 a project is placed in service, then all the interest
25 and depreciation would -- would, at that point, hit the

1 operating statement. So if it's delayed for -- if a
2 project -- a major project is delayed for any reason,
3 then the timing of that could -- could affect one (1)
4 year or the next, depending on what month it might --
5 might fall, so.

6 But those would be the major variables
7 it would affect our -- our operating statement.

8 THE CHAIRPERSON: Now, the Board
9 members here have budgeted -- also budgeted in various
10 capacities or another. And I -- we know what it -- you
11 know, we can effect changes as the year goes by to
12 ensure that we end up with a more positive result than
13 would otherwise be the case.

14 Now, to what extent can you materially
15 change the results, I mean, legitimately, you know,
16 through administrative action, corporate action, to --
17 so to vary the results?

18 And what I'm getting at is, for example,
19 can you -- you know into the fall you're heading into a
20 difficult year. You know that you're going to have
21 trouble at the end of the year for the financial
22 results. To what extent can you impact the results by
23 administrative action by saying we're going to slow the
24 construction down a bit, we're going to -- have you got
25 much room to operate there?

1 MR. VINCE WARDEN: Very little
2 flexibility, really. We have our -- our fixed costs
3 drive the -- the largest portion of our -- of our --
4 the cost of the opera -- of the Corporation. And --
5 and by "fixed costs," I mean als -- also would include
6 the -- the base labour forces needed to keep -- keep
7 the system operating.

8 So there's very little thin -- you know,
9 we -- when we get to year end, we look at such things
10 as assumptions that we use on our pension for pension
11 liability. And there -- there's things like that that
12 we can make some im -- impact on the bottom line.

13 But -- but in reality, there's very --
14 very little we can do. We -- the cost-constraint
15 measures that we em -- talked about earlier certainly
16 has had some effect, but in the overall scheme of
17 things, not -- not major.

18 THE CHAIRPERSON: Now, looking at
19 these, the two (2) year projections that are in the
20 Rate Application, I mean, water conditions, I think I
21 heard -- I think I heard that the water conditions
22 going into the winter are not bad, which would suggest
23 to me that the revenues -- at least the water
24 conditions will not materially impact revenues for the
25 current fiscal year?

1 MR. VINCE WARDEN: That's right.

2 THE CHAIRPERSON: Okay. And prices are
3 weak. They're not likely -- I mean, they'll only --
4 what could happen, there would maybe a spike in prices
5 upward. Not likely to have it spike downward, is
6 there? I mean...

7 MR. VINCE WARDEN: Yeah, I -- I would
8 say. And I think Mr. Cormie indicated that he -- he --
9 his belief is that prices have bottomed out. So I -- I
10 don't think there's much risk on the downside.

11 THE CHAIRPERSON: Okay. So in terms of
12 the results for the current year that you're projecting
13 on IFF12, those are fairly good, right? I mean, I
14 think what I'm hearing is that they're -- you're fairly
15 confident about what's being projected here?

16 MR. VINCE WARDEN: Yes.

17 THE CHAIRPERSON: Yeah, okay. And then
18 next year, of course, is a wildcard because you're
19 dealing with a future period?

20 MR. VINCE WARDEN: A wildcard, to some
21 extent. There is some, of course, carryover in water
22 flow conditions into -- that will affect '13/'14, as
23 well. So at this point, it's -- it's looking
24 reasonably good, but that can turn around fairly
25 quickly.

1 THE CHAIRPERSON: Okay, thank you.

2

3 CONTINUED BY MR. BOB PETERS:

4 MR. BOB PETERS: Mr. Warden --

5 THE CHAIRPERSON: Just a second, Mr.
6 Peters.

7 MR. RAYMOND LAFOND: On the same line
8 of thought, Mr. Peters, you alluded to -- to talking
9 about the assumptions later on. And if that's the
10 case, I will wait. Otherwise, I think getting the
11 IFF12 is great, but we have a lot of numbers. But
12 there is no writing, in terms of the assumptions behind
13 these numbers; in other words, how much of our debt
14 load it's going to be, floating rates and what is the
15 projected rate for the next twenty (20) years, your --
16 your assumption in terms of export revenues over a
17 twenty (20) year period because you do give us a
18 forecast over twenty (20) years.

19 So in other words, just getting an
20 understanding of the assumptions behind these numbers.
21 And here I'm not talking about the details formulas.
22 And again, if we're going to be covering this later on,
23 I'm going to wait for that.

24 MR. VINCE WARDEN: Well, Mr. La --
25 Lafond, the assumptions though, if you -- if you do

1 look at our integrated financial forecast document that
2 was distributed --

3 MR. RAYMOND LAFOND: Which page?

4 MR. VINCE WARDEN: The -- the forecast
5 assumptions begin on page 3 of that document. So it
6 lists all of the -- our assumptions with respect to
7 rates, the economic variables with respect to interest
8 rates, what our load is projected to be, what our firm
9 co -- what -- the conditions of our firm contracts and
10 supply. So the major assumptions -- or at least that's
11 -- that's the attempt is to -- to list the major
12 assumptions as a part of -- an integral part of this
13 document.

14 MR. RAYMOND LAFOND: Okay. I will look
15 at that.

16 MR. VINCE WARDEN: Okay, thank you.

17 MR. RAYMOND LAFOND: Thank you.

18

19 CONTINUED BY MR. PETERS:

20 MR. BOB PETERS: And in addition, Mr.
21 Warden, I believe Ms. Ramage indicated first thing this
22 morning that the -- the assumptions, at least maybe
23 with Mr. Rainkie, I'm sorry -- agreed with me this
24 morning that the assumptions that underpinned IFF12
25 would be -- would be prepared and provided in a format

1 similar to that -- that is in CAC/Manitoba Hydro First
2 Round 3 revised?

3 MR. DARREN RAINKIE: Yes, Mr. Peters.
4 Just -- just one (1) clarification on that schedule I'd
5 like to make, though, just for the Board purposes, is
6 that we keep referring it -- to it as the IFF
7 assumptions. And I think of it a little differently.
8 It's more an output document. And we have very complex
9 models, as we talked about earlier, that all fit into
10 the integrated financial forecast.

11 And what this document that you're
12 talking about does is then takes, you know, averages.
13 It takes, you know, total revenues and divides it by
14 volumes and gets average prices so that people that
15 aren't, you know, involved in all the detailed
16 modelling can kind of get a perspective of where the
17 prices are going.

18 So, you know, it's just -- is maybe a
19 technical detail on my part. But we keep talking about
20 it like it's an input file into the IFF. It really is
21 a -- a way that we communicate with our board and our
22 audit committee about how the cha -- the assumptions
23 are changing. So to the extent that context provides a
24 little information for the Board, I just wanted to add
25 that.

1 But I think subject to reviewing it at
2 the break, we're fr -- pretty close to having it. But
3 I think we would need Mr. Cormie here to -- to, you
4 know, productively explore -- explore it.

5 MR. BOB PETERS: All right. Well,
6 thank you, Mr. Rainkie. And I -- I did call it the
7 assumptions, and I think I was using Manitoba Hydro's
8 title from a -- from years ago. And I think it's
9 changed in the current GRA to be called, I think,
10 average -- or, average revenues, or average costs. But
11 I think we're talking the same document, and I think
12 the Board appreciates it's not an input document; it's
13 an output document. It's -- it's how you've classified
14 it, sir. So thank, you.

15 While we're on the -- the IFF11-2, the
16 IFF11-2 that's in the Board's counsel's book of
17 documents at Tab 3, contains financial ratios for the
18 electric operations at the bottom.

19 Do you see that, Mr. Warden?

20 MR. VINCE WARDEN: Yes, I do.

21 MR. BOB PETERS: And I should note that
22 Board member Lafond yesterday referred to IFF12 in your
23 -- in the integrated financial forecast that's marked
24 as Exhibit Manitoba Hydro-9. But I just want the
25 Board to also be aware that the electric operations is

1 found under the tab called MH-12 in that document.

2

3

(BRIEF PAUSE)

4

5 MR. BOB PETERS: Is that correct?

6 MR. VINCE WARDEN: Oh, yes. Yes.

7 Sorry.

8

MR. BOB PETERS: And -- and what you've
9 done under MH-12, Mr. Warden, is you have segmented off
10 the electric operations from the consolidated
11 statement?

12 MR. VINCE WARDEN: Yes, that's right.

13

MR. BOB PETERS: And will you be -- I
14 know I asked whether or not you were going to be filing
15 a new IFF12 to reflect the non-controlling interest
16 issue. But in any event, would you be able to provide
17 IFF12 with the financial ratios at the bottom, much
18 like you did in -- in the Board's book of documents at
19 Tab 3 under PUB/Manitoba Hydro First Round 22?

20

MR. VINCE WARDEN: Yes, that's -- I
21 understand that's a pre-ask and we -- we are prepared
22 to file that. I just want to maybe comment that
23 Manitoba Hydro does not reference financial targets.
24 The targets are recognized at the corporate level only.
25 The -- preparing it for electric operations only will

1 not be material different -- materially different from
2 the corporate financial targets. But it's not an --
3 they're not the official financial targets of Manitoba
4 Hydro. It's done solely for the -- for the purp -- for
5 your -- to respond to that information request.

6 MR. BOB PETERS: All right. I think I
7 understand your point, but you're telling this Board
8 that financial targets are set -- consolidated?

9 MR. VINCE WARDEN: Yes.

10 MR. BOB PETERS: And so what you've
11 provided to us in Board counsel's book of documents at
12 Tab 3 of Exhibit 14 is financial ratios relating only
13 to the electric operations, but those aren't the
14 official financial targets of the Corporation because
15 they don't include the consolidated information?

16 MR. VINCE WARDEN: Yes, so they could
17 be slightly different at the corporate consolidated
18 level.

19 MR. BOB PETERS: And when you say
20 "slightly," Mr. Warden, it's -- the gas operations --

21 MR. VINCE WARDEN: That's right.

22 MR. BOB PETERS: -- don't -- don't
23 significantly impact the electric operations?

24 MR. VINCE WARDEN: That's right.

25 MR. BOB PETERS: All right. Thank you.

1 Mr. Warden, when the Board looks at tab 3 of Board
2 counsel's book of documents under the 2012 fiscal year,
3 are those actual results, sir?

4 MR. VINCE WARDEN: Well, that's in 11-
5 2, so no, that -- at the time this was prepared, we
6 wouldn't have actual results for 2012.

7 MR. BOB PETERS: And 11-2 was prepared
8 by Manitoba Hydro in April of 2012, I thought,
9 according to its cover.

10 Would that be right?

11 MR. VINCE WARDEN: That's right, yes.

12

13 DAVID CORMIE, Resumed

14

15 CONTINUED BY MR. BOB PETERS:

16 MR. BOB PETERS: And in answer to the
17 questions from the Chairman in terms of water level --
18 and Mr. Cormie makes his cameo at the appropriate time
19 -- I think yesterday, Mr. Cormie, you indicated to the
20 Board that in the first year of the IFF, which -- when
21 we look at 11-2, do we take the first year -- this --
22 sorry, let me start over again.

23 Mr. Cormie, I think we understand that
24 IFF11-2 was prepared in April of 2012. Is that your
25 understanding, sir?

1 MR. DAVID CORMIE: Yes.

2 MR. BOB PETERS: And at that time, sir,
3 Mr. Warden has indicated that the -- the actual results
4 for 2012 would not have been finalized.

5 MR. DAVID CORMIE: Yes, but we had --
6 we were at year end already, so we -- we had all the
7 information.

8 MR. BOB PETERS: Okay. You had the
9 information, but it's not in this IFF?

10 MR. DARREN RAINKIE: Mr. Peters, maybe
11 I can help here. I've been sitting idle for a while,
12 so my load factor isn't very high in the last day and a
13 half. So --

14 MR. BOB PETERS: You weren't invited,
15 if you read the email to Ms. Ramage, but -- but thank
16 you for coming.

17 MR. DARREN RAINKIE: So I don't want to
18 be just the chaff here. The -- I think we coined this
19 as projected 2012. It -- it's -- comes down to \$64
20 million, the electric operations only. The actual
21 figure that we filed throughout the material was about
22 \$62 million, so it -- we already had the information.

23 At year end, we were going through and
24 going through with our auditors, et cetera, so it was
25 pretty good. We were just \$2 million off. The only

1 that really changed between the 64 million we have here
2 and the 62 million actual was we had to book a few
3 extra expenses based on a change in discount rate to
4 our pension obligation and benefits.

5 So -- so I think the, you know, extra-
6 provincial line item, the fuel and power purchase, the
7 water rentals were all bang on. I think it was just
8 the operating expense line item that increased a little
9 bit over what's depicted here, if that's helpful.

10 MR. BOB PETERS: It is, and thank you,
11 Mr. Rainkie. You are a welcome addition to the table.

12 Mr. -- Mr. Cormie, in IFF11-2, the water
13 flows for 2013, sir, in my words, Manitoba Hydro uses a
14 -- a guesstimate, but it uses the year end 2012 as a
15 starting position together with what it knows are -- is
16 in storage and the precipitation that's already
17 occurred?

18 MR. DAVID CORMIE: Yes. We had come
19 through a very dry winter and when we were putting the
20 forecast together in late winter of -- of last year, we
21 anticipated a below normal spring snow melt runoff and
22 we saw that. Subsequently, though, the precipitation
23 was higher than average and we -- we have recovered.

24 MR. BOB PETERS: And so this IFF11-2,
25 Mr. Cormie, depicts below normal precipitation for the

1 first test year, 2013?

2 MR. DAVID CORMIE: We made some
3 adjustments to the forecast very late in the day that -
4 - that reflected the change in conditions. So there
5 were some adders put in to net revenue. And so
6 although we were anticipating it and we built it into
7 the detailed calculations at the last minute, we
8 adjusted it for the changing conditions and reflected
9 those in -- in 11-2.

10 MR. BOB PETERS: I think we'll come
11 back and revisit that, Mr. Cormie.

12 But then for the test year of 2014,
13 you've told the Board that, for that year, you would
14 use the median flows assumed over ninety (90) --
15 actually experienced over ninety-six (96) years?

16 MR. DAVID CORMIE: Which year are you
17 speaking about now, Mr. Peters?

18 MR. BOB PETERS: The second test year,
19 2014.

20 MR. DAVID CORMIE: And you're speaking
21 about IFF11-2?

22 MR. BOB PETERS: Correct.

23 MR. DAVID CORMIE: Yes, that would have
24 been the average of all flow conditions.

25 MR. BOB PETERS: The average, or the

1 mean?

2 MR. DAVID CORMIE: It's the average of
3 all the revenues, an average of all the costs for --
4 under all the flow conditions.

5 So each -- we -- we assume each flow
6 condition occurs. We calculate the revenues associated
7 with that flow condition and the costs in that flow
8 condition. We have nine (9) -- or ninety-six (96) of
9 them, or a hundred of them, and we average those
10 revenues and costs together to put the number into the
11 IFF, so.

12 MR. BOB PETERS: I may have misspoke.
13 I think I said "mean", and I meant "median".

14 But you're saying it's average for 2014
15 in IFF11-2?

16 MR. DAVID CORMIE: Yeah, we would refer
17 to that as year 3 of the forecast, and that's the
18 average of all flow conditions.

19 MR. BOB PETERS: Okay. I didn't see it
20 as year 3, but you're telling the Board, consistent
21 with what you said yesterday, this would be the third-
22 year forecast based on the average of all of the
23 previous flow conditions?

24 MR. DAVID CORMIE: Yes. And for every
25 IFF there are -- there are -- the first year is the --

1 essentially, the actuals for the year to-date plus an
2 expectation of what's going to happen for the balance
3 of that year. The second year of the forecast is
4 median inflows, what -- what we expect to be exceeded
5 50 percent of the time. And then the third year to the
6 eighteenth and -- to the twentieth year is the average
7 of all possible flow conditions.

8 MR. BOB PETERS: And so when the Board
9 comes to look at the assumptions that I talked to Mr.
10 Rainkie about for IFF12, that will update the water-
11 flow assumptions?

12 MR. DAVID CORMIE: And when we did
13 IFF12 this last summer, that reflected actual
14 conditions through the summer. And -- and so the first
15 year of IFF12, again incorporates actual conditions;
16 the second year of IFF12 would be based on the median
17 inflow to reservoirs; and the third and subsequent
18 years would be the average of all revenues and costs.

19 MR. BOB PETERS: And just a thought
20 that came to me, Mr. Cormie is that in -- in 2013
21 (sic), Lake Winnipeg was -- was up to 714 1/2 feet,
22 approximately. And so by the second quarter, would it
23 be correct, that Manitoba Hydro had kind of maxed out
24 on its energy generation?

25 MR. DAVID CORMIE: You referred to

1 2013, Mr. Peters. What are you referring to there, or
2 --

3 MR. BOB PETERS: Sorry. I'm referring
4 to the first test year, the year -- the year that we're
5 currently in.

6 MR. DAVID CORMIE: And which IFF are we
7 referring to?

8 MR. BOB PETERS: Eleven-two.
9

10 (BRIEF PAUSE)

11

12 MR. DAVID CORMIE: The...

13

14 (BRIEF PAUSE)

15

16 MR. DAVID CORMIE: Mr. Peters, I'm --
17 I'm thinking you're asking me in IFF11-2 for fiscal
18 year 2012 and '13, we started Lake Winnipeg out at
19 seven thirteen point four (713.4). They're -- the --
20 we were forecasting the level would reach seven
21 fourteen point one (714.1) by the 1st of August and it
22 would decline after that date.

23 Does that answer your question?

24 MR. BOB PETERS: Did the Corporation
25 find itself in a position where, even though the water

1 flows were abundant, it had maxed out its generation
2 capacity, Mr. Cormie?

3

4

(BRIEF PAUSE)

5

6 MR. DAVID CORMIE: Yes, Mr. Peters. We
7 ended up getting to the point where we had to increase
8 the outflows from Lake Winnipeg because we were
9 expecting to reach the full supply level. And the
10 licence requires us to -- to go to those discharges.
11 And that resulted in -- in spillage on the -- on the
12 Nelson River.

13 MR. BOB PETERS: And in partial answer
14 to, I think, Board member Lafond's question of
15 yesterday, that's why, even though with the -- the
16 water level charts that you showed and reviewed with
17 him yesterday, the Corporation wasn't necessarily able
18 to translate that into additional revenues. Is that
19 correct?

20 MR. DAVID CORMIE: Yes, that's correct.
21 There are -- the -- the constraints on our reservoir
22 operations are such that we only have a certain amount
23 of storage in Lake Winnipeg that we can use for power
24 production and then when levels approach the -- the
25 elevation of 715 feet the licence requires us to go to

1 maximum discharge.

2 And -- and that's to provide flood
3 relief to those people on Lake Winnipeg who are -- are
4 dependent upon Lake Winnipeg regulation to keep water
5 levels within a lower range than would otherwise occur.

6

7 (BRIEF PAUSE)

8

9 MR. BOB PETERS: Mr. Chairman,
10 recognizing the hour, this might be an appropriate time
11 for a morning recess.

12 THE CHAIRPERSON: Let's adjourn now for
13 ten (10) minutes or so, back here at quarter to --
14 quarter to 11:00, please.

15

16 --- Upon recessing at 10:33 a.m.

17 --- Upon resuming at 10:52 a.m.

18

19 MS. PATTI RAMAGE: Yes, thank -- thank
20 you, Mr. Chair. We're back on now after the break.
21 And at the break Manitoba Hydro distributed two (2)
22 documents. The first one which we will suggest be
23 assigned Exhibit number 16, responds to Mr. Peters's
24 request to refile IFF11-2, electric operations only,
25 including the financial targets for each year. And

1 that's the -- the document Mr. Warden spoke to
2 immediately prior to the break.

3

4

(BRIEF PAUSE)

5

6 MS. PATTI RAMAGE: Okay. As I was
7 saying, at the break Manitoba Hydro distributed two (2)
8 documents. The first of which, for the record, we're
9 suggesting be assigned Exhibit 16, and that's the
10 IFF11-2 for electric operations only, which includes
11 financial targets for each year.

12

13 --- EXHIBIT NO. MH-16: IFF11-2 for electric
14 operations only, which
15 includes financial targets
16 for each year

17

18 MS. PATTI RAMAGE: The second document
19 is -- that's the average unit revenue cost calculation
20 in IFF12. And we are suggesting that be assigned
21 Manitoba Hydro Exhibit 17.

22

23 --- EXHIBIT NO. MH-17: The average unit revenue
24 cost calculation in IFF12

25

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: Thank you, Ms. Ramage.
3 If we can continue, Mr. Cormie, just a couple of quick
4 thoughts over the break. When -- when in the summer of
5 2012, did Manitoba Hydro start spilling water?

6 MR. DAVID CORMIE: Yes, Mr. Peters.
7 Over break I was -- had my memory refreshed. And I
8 have the charts here that indicate the spillage started
9 about the first of August and it went for two (2)
10 weeks.

11 As I mentioned yesterday, there's a --
12 there's three (3) constraints that we need to respect
13 that can force us to have water that we can't use. The
14 first one, when -- if there is insufficient reservoir
15 storage and you can't store the water and carry it over
16 to a time that it's -- it can be used, and it has to
17 be spilled. And that's as a result of licence
18 limitations in our Water Power Act licences for the
19 reservoirs.

20 The second is when there's insufficient
21 generating capacity at the generating stations. And
22 when the river flow gets higher than the discharge
23 capacity of the -- of -- of the generating station and
24 spillage is required.

25 And the -- the third one is when there's

1 insufficient interconnected capability to sell the
2 power that could be generated from the surplus. And
3 that was the case in the summer of -- of 2012. We had
4 not anticipated spilling, because we had scheduled our
5 river flows based on full export capacity.

6 But in August there was a forced outage
7 on -- in the United States on the 500 kV line. There
8 were some capacitor banks out of service, and that
9 resulted in a 200 megawatt de-rate on the interconnect
10 capacity.

11 And so we had scheduled water, the water
12 was in the river, it was on it's way. We had this
13 sudden de-rate of the transmission line, and for that
14 two (2) week period in -- in August we had more water
15 than we had market access. And that caused -- caused
16 that spillage to occur.

17 Lake Winnipeg reached its peak level
18 around -- it appears to be around 714.6, which is about
19 .4 feet lower than the full supply level. So had we
20 known in advance that this transmission capacity would
21 not have been there, we would have been able to back
22 off the flows. But it was a forced outage. It came
23 acro -- came upon us suddenly, and it wasn't something
24 that we could plan for.

25 And once the water's in the river, you

1 have to deal with that, and it was dealt with at the
2 station through -- through the use of spillage.

3 MR. BOB PETERS: Thank you, Mr. Cormie.
4 Just to tie this back together, at page 48 of Manitoba
5 Hydro's Exhibit 15, which was the document you and Mr.
6 Warden shared yesterday, you took the Board to your --
7 I think you called it the spaghetti page, page 48.

8 MR. DAVID CORMIE: Yes.

9 MR. BOB PETERS: And the Board will see
10 there that the daily inflows peaked in mid to -- the
11 middle of -- the middle of June --

12 MR. DAVID CORMIE: Yes.

13 MR. BOB PETERS: -- around that time?
14 And then if the Board turns the page to the energy --
15 total energy and reservoir storage, the energy in
16 storage peaked approximately the end of July of the
17 summer of 2012?

18 MR. DAVID CORMIE: Yes.

19 MR. BOB PETERS: And the -- the peak on
20 Lake Winnipeg that you mentioned of 714.6, that was --
21 it peaked in either late July or early August.

22 Have I got that right?

23 MR. DAVID CORMIE: It was in early
24 August, yes.

25 MR. BOB PETERS: Thank you, Mr. Cormie.

1 Mr. Warden, with your assistance, we can
2 hopefully briefly take the Board -- or, have the Board
3 take stock of where Manitoba Hydro and the Board have
4 been as a result of the last general rate application
5 that you mentioned for the 2010/'11 and '11/'12 test
6 years. And if we turn to tab 4 of the book of
7 documents, PUB Exhibit 15 -- sorry, 14, there's an
8 attempt to provide some of that information to the
9 Board.

10 And as a starting point, Mr. Warden,
11 IFF09 would have been the IFF that was the basis of the
12 last general rate application.

13 Would that be correct?

14 MR. VINCE WARDEN: Yes, that's right.

15 MR. BOB PETERS: And just in terms of
16 the overall results, in IFF09 for the 2010 year,
17 Manitoba Hydro was forecasting net income, down near
18 the bottom of the page in the first series of columns,
19 at about \$121 million?

20 MR. VINCE WARDEN: Yes.

21 MR. BOB PETERS: And the actual came
22 in, I think, closer to about 164 million, not the 170
23 that I had prepared here. But I think, from your
24 annual report, it was approximately 164 million?

25 MR. DARREN RAINKIE: Mr. Peters, yes.

1 The 164 million is the right number for the electric
2 segment, recognizing that that segment includes both
3 the utility operations and subsidiary operations.
4 Subsidiary operations had about a \$4 million net income
5 in that year, so really the comparable number to the
6 121 is 160.

7 I think you'll find that at CAC/MH-1-2A,
8 if you're looking for a reference for that, and the
9 same goes for the 2011 and 2012 years. The actual
10 results for electric utility operations would be about
11 \$5 million less. You have to -- just so we have an
12 apples-to-apples comparison on this schedule.

13 MR. BOB PETERS: Thank you, Mr.
14 Rainkie. What I was hoping to do, without -- and I
15 haven't done it very well, obviously -- is just show
16 the Board what was forecast and what actually happened.
17

18 So in -- in 2010, the Corporation,
19 you're telling the Board, thought they'd come in about
20 121 million of net income, came in at 160 million would
21 be closer to the number?

22 MR. DARREN RAINKIE: That's correct,
23 Mr. Peters.

24 MR. BOB PETERS: So some \$39 million of
25 additional income?

1 MR. DARREN RAINKIE: You're good on the
2 calculator, Mr. Peters.

3 MR. BOB PETERS: Well, I've been taught
4 well. And, Mr. Rainkie, for the next year, likewise,
5 the forecast came in -- it was forecast at 78 million,
6 came in at 138 million, or some \$60 million more?

7 MR. DARREN RAINKIE: That's correct.

8 MR. BOB PETERS: And then starting in
9 2012, the forecast of 87 million was underachieved by
10 the better part of 15 million?

11 MR. DARREN RAINKIE: Actually, no, it
12 was --

13 MR. BOB PETERS: Twenty-five million.
14 I'm sorry.

15 MR. DARREN RAINKIE: -- 25 million.
16 Yeah, the actual was 62 million in that year.

17 MR. BOB PETERS: Sixty-two million.
18 Thank you.

19

20 (BRIEF PAUSE)

21

22 MR. BOB PETERS: Mr. Rainkie, why don't
23 you take us to the next page, page 30 of the book of
24 documents, when we -- when we look to see the IFF for
25 the two (2) test years we're presently in and compare,

1 I suppose IFF09 to IFF11-2.

2 We see, do we, in test year '13 that net
3 income was forecast at about 72 million and IFF11-2
4 comes in at 20 million, correct?

5 MR. DARREN RAINKIE: Yeah, those are
6 correct numbers, Mr. Peters.

7 MR. BOB PETERS: And then we also have
8 to layer on top of that now, Mr. Ra -- I'm sorry, Mr.
9 Rainkie. We have to layer on top of that Mr. Warden's
10 qualification that the non-controlling interest of --
11 of 14 million for the 2013 year is not going to be
12 achieved. And so that puts the corporation in a
13 different position relative to its final net income?

14 MR. DARREN RAINKIE: Now you're
15 shifting comparisons though to IFF12, Mr. Peters.

16 MR. BOB PETERS: Okay, fair comment.

17 MR. DARREN RAINKIE: But I can accept
18 Mr. Warden's discussion. But --

19 MR. BOB PETERS: Okay, for pur --

20 MR. DARREN RAINKIE: -- you wouldn't
21 deduct that from the \$20 million number here, right?

22 MR. BOB PETERS: No. We'll -- we'll
23 come back to that. But --

24 MR. DARREN RAINKIE: Okay.

25 MR. BOB PETERS: -- from -- from what's

1 before the Board now then, 11-2 compared to IFF09 was
2 \$52 million negative on the net income line?

3 MR. DARREN RAINKIE: That's correct.

4 MR. BOB PETERS: And following that
5 through, IFF09 to IFF11-2 for 2014, the more current of
6 those two (2) IFFs show the corporation \$57 million
7 negative in net income?

8 MR. DARREN RAINKIE: That's correct,
9 Mr. Peters.

10 MR. BOB PETERS: And the fiscal years
11 '15 and '16 are also depicted. And they likewise show
12 the net income was -- was forecast higher in IFF09 than
13 the IFF11-2 forecast?

14 MR. DARREN RAINKIE: Yeah, these are --
15 these are the correct figures on this --

16 MR. BOB PETERS: Okay.

17 MR. DARREN RAINKIE: -- schedule, Mr.
18 Peters.

19 MR. BOB PETERS: Thank you.

20

21 (BRIEF PAUSE)

22

23 MR. BOB PETERS: Would it be fair to
24 say that you need not look much further than the
25 extraprovincial revenue line to -- to find the culprit,

1 Mr. Rainkie, for the major source of the -- the less
2 favourable IFF, as compared to 09 to 11-2?

3 MR. DARREN RAINKIE: Yeah, there's lots
4 of turn in the -- on all the figures, Mr. Peters. But
5 I would think that was -- that's the largest
6 contributor to the deficit.

7 MR. BOB PETERS: And for the -- the --
8 you know, the 2012/2013/2014 fiscal years, about \$685
9 million negative on the extraprovincial income line, if
10 I've added that correctly, Mr. Rainkie?

11 MR. DARREN RAINKIE: Sorry, for which
12 years, Mr. Peters?

13 MR. BOB PETERS: I was including 2012,
14 2013, and 2014.

15

16 (BRIEF PAUSE)

17

18 MR. DARREN RAINKIE: It looks like
19 about \$600 million, Mr. Peters, yeah.

20 MR. BOB PETERS: All right.

21

22 (BRIEF PAUSE)

23

24 MR. BOB PETERS: Mr. Rainkie, on page
25 32 of the book of documents there's an explanation

1 under the extraprovincial revenue line. And what the
2 Board is looking at on page 32, found in the back of
3 Tab 4, Mr. Rainkie, is a high-level variance
4 explanation that the Corporation provides relative to
5 its IFF comparisons?

6 MR. DARREN RAINKIE: Yeah, it was one
7 (1) that was requested as part of this process. We
8 normally wouldn't compare an IFF versus an IFF that's,
9 you know, three (3) years apart. But this was a
10 specific information request as part of this process.

11 MR. BOB PETERS: And, Mr. Rainkie, if
12 we just look at the extraprovincial variance
13 explanation, we've already talked about the lower
14 prices. And I think Mr. Cormie and Mr. Warden have
15 detailed those.

16 When it talks about increased Manitoba
17 demand, that is more for the -- the long term, the
18 cumulative 2012 to 2020 picture, as opposed to the test
19 years, Mr. Rainkie?

20 MR. DARREN RAINKIE: That would be
21 consistent with my memory of this, Mr. Peters.

22 MR. BOB PETERS: All right. And then I
23 wonder if you could explain to the Board -- and maybe
24 Mr. Cormie would be the better person to discuss this -
25 - is it says, "a reduction of contracted energy

1 delivered" as attributing to the lower extraprovincial
2 revenue.

3

4 (BRIEF PAUSE)

5

6 MR. DAVID CORMIE: Mr. Peters, we
7 reflected the change in delivery schedules to Wisconsin
8 Public Service and Minnesota Power. And so there was -
9 - in the previous IFF we had assumed the WPS sale would
10 start in 2018 -- '19, and -- and the Minnesota Power
11 sale would start later.

12 In the updated IFF, the Minnesota Power
13 sale started at a lower megawatt value, and the WPS
14 sale didn't -- it kicked in -- in two (2) -- 2021 at a
15 hundred and it didn't go up to five hundred (500) until
16 2025. And so there's -- there's less contracted energy
17 delivery under those contracts in the -- in -- in those
18 years of the -- of the forecast.

19 So the energy that's -- the energy
20 that's being sold is now being sold -- rather than
21 under contracted energy, it goes into the opportunity -
22 - the opportunity energy. Or it goes into -- it goes
23 into firm energy that gets sold at -- at firm prices
24 rather than at -- at contracted prices.

25 MR. BOB PETERS: All right. We'll come

1 back to that, Mr. Cormie, and you can explain that
2 further when we do. It also indicates that one of the
3 explanations for the lower extraprovincial revenue was,
4 "reduced capacity for the US interconnection."

5 Can you explain that to the Board as to
6 how that impacted the -- the extraprovincial revenue
7 decline?

8 MR. DAVID CORMIE: Again, we -- we
9 initially assumed, with the WPS sale up front, that we
10 would have a 1,000 megawatt interconnection. And in
11 the subsequent IFF it was reduced down to, I believe,
12 400 megawatts. And so there's less on-peak export
13 capacity. And so the surplus would be sold in off-peak
14 hours, at lower prices than it would have been if there
15 had been that additional on peak capacity associated
16 with the higher interconnection value.

17 MR. BOB PETERS: All right. Thank you.
18 Mr. Warden, Mr. Rainkie, when the Canadian dollar gets
19 stronger, that's not necessarily financially positive
20 for your export business.

21 Is that what the Board will dedu --
22 deduce from the next comment?

23 MR. DARREN RAINKIE: That's correct. I
24 assume you'll get to the finance expense part of that,
25 but -- eventually, because there is an offset there.

1 But that's correct for export revenue.

2 MR. BOB PETERS: What you're telling
3 the Board, Mr. Rainkie, is that when you export into
4 the United States and are paid in American dollars and
5 those American dollars are worth more than the Canadian
6 dollars, that -- that shows up positively in your
7 financial results?

8 MR. DARREN RAINKIE: I guess what I was
9 trying to say is that we have a -- a hedge, an
10 effective hedge, between our US revenues and our US
11 interest payments that we pay. So it's -- it's maybe
12 not exactly one (1) on one (1). But when one
13 increases, the other decreases and vice versa, so that
14 we're relatively insulated from shifts in the -- in the
15 Canadian/US exchange rate.

16 MR. BOB PETERS: Right, but I was
17 restricting my comments, Mr. Rainkie, just to the
18 extraprovincial revenue line. And there Manitoba Hydro
19 would experience a positive result if the American
20 dollar was -- was worth more than the Canadian dollar?

21 MR. DARREN RAINKIE: That's right.

22 MR. BOB PETERS: And what you're
23 telling the Board -- and we will, I guess, try to
24 remember to discuss -- is that on the -- when it comes
25 time to paying expenses, you can use your American

1 currency to pay American debt, and that's the -- the
2 hedge that you referred to.

3 MR. DARREN RAINKIE: That's right. And
4 we -- we call it the exposure management program. It's
5 act -- you know, it's a -- it's a thing that's actively
6 managed. It just doesn't happen by luck.

7 MR. BOB PETERS: The last item
8 mentioned under the variance explanation for why
9 extraprovincial revenue decline had occurred, or was
10 forecast to occur, was the forecast -- decrease in the
11 forecast due to Wuskwatim general -- generating station
12 deferral. Can you explain that to the Board?

13 MR. DAVID CORMIE: A deferral in -- in
14 the in-service of Wuskwatim would have resulted in a
15 reduced hydraulic generation on the system and reduced
16 surplus energy volumes available under the forecast
17 flow conditions.

18 MR. BOB PETERS: Correct me if I'm
19 wrong, Mr. Cormie, but was the expectation the first
20 generating -- generator would come in service in
21 December of 2011? Did we have that discussion some
22 time ago?

23 MR. DAVID CORMIE: I believe that's
24 correct, Mr. Peters. We were expecting it late last
25 winter.

1 MR. BOB PETERS: And then I also
2 thought that in early January of -- or in January of
3 2012, the other two (2) generators would have been
4 expected to come online. Is that also consistent with
5 what we had --

6 MR. DAVID CORMIE: I think early in the
7 -- early in the New Year they would have come in.

8 MR. BOB PETERS: I think there was also
9 a discussion last time that there was a -- there was a
10 problem or I'll call it an "engineering problem" just
11 so we can --

12 MR. DAVID CORMIE: Blaming the
13 engineers?

14 MR. BOB PETERS: Well, I guess you get
15 that a lot. But let's not go there, Mr. Cormie. There
16 was a reason that they were delayed at that point in
17 time, correct?

18 MR. DAVID CORMIE: I'm -- I'm sure
19 there was a reason. I don't have the details of the
20 delay at hand. And I -- I can remember some of the
21 issues. But if you want me, I can -- I can find out
22 exactly what the cause was.

23 MR. BOB PETERS: No, no, I don't. But
24 the expectation was that these would be in service for
25 all of fiscal '13. But as it turns out, they only have

1 come into service -- all three (3) units are now in
2 service in fiscal '13. Is that right?

3 MR. DAVID CORMIE: Yes. I think we --
4 we only -- we're only getting a half a year production
5 from the station rather than the full fiscal year
6 production.

7 MR. BOB PETERS: All right. I think I
8 may have missed it, but do you know when the specific
9 generators came in service, they were staged?

10 MR. DAVID CORMIE: I -- they -- they
11 were August, September and October, Mr. Peters. I can
12 get you the precise dates if you wish.

13 MR. BOB PETERS: No, that's fine, Mr.
14 Cormie. Thank you for that.

15 MR. DAVID CORMIE: The first was June,
16 June 1st -- or in June, Mr. Peters.

17 MR. BOB PETERS: I appreciate we're
18 talking at fairly rounded figures, Mr. Cormie, but when
19 you say you get a half a year of in-service from
20 Wuskwatim, does that mean then that there would only be
21 a half of year of revenues associated with the output
22 of Wuskwatim?

23 MR. DAVID CORMIE: Yes.

24 MR. BOB PETERS: And, Mr. Rainkie, if
25 there's half a year of revenues are there only a half a

1 year of costs that are going to hit the operating
2 statement?

3 MR. DARREN RAINKIE: Yeah, that's at a
4 high level, correct, Mr. -- Mr. Peters. We --

5 MR. BOB PETERS: And I thought --

6 MR. DARREN RAINKIE: -- don't start
7 bringing the costs in until the generating stations
8 come in. We defer the cost until the generating
9 stations are in service and then bring the cost in
10 proportionate to the -- as -- as the units come in
11 service.

12 MR. BOB PETERS: And -- and just tell -
13 - the reason I ask and pause on that, Mr. Rainkie and
14 Mr. Warden, is we -- we had a discussion about -- about
15 the costs on the income statement of Wuskwatim being
16 \$117 million in the second test year.

17 Do you recall our discussion on that?
18 And we -- we looked in the Volume II, I think, of Board
19 counsel book of documents and -- and found a reference
20 for that?

21 MR. DARREN RAINKIE: Yes, I recall that
22 discussion.

23 MR. BOB PETERS: Mr. Rainkie, is that a
24 full year's costs?

25 MR. DARREN RAINKIE: Given that it was

1 based on IFF11-2 and it was '13/'14, yeah, I think that
2 would be a full -- full year cost.

3 MR. BOB PETERS: All right. And then -
4 - but for the first test year, the costs that the Board
5 would have seen would have been around \$106 million on
6 that sheet. Do you remember that?

7 MR. DARREN RAINKIE: Yes, I have that
8 tab now. But I'm trying to recall as I think that
9 IFF11-2 assumed that -- an in-service date pretty much
10 at the end of '11/'12. So I would think this
11 calculation, subject to check, was a whole year
12 calculation at that point. Maybe I can just check with
13 the back row quickly.

14 MR. BOB PETERS: If -- if you'd like,
15 Mr. Rainkie, sure, yeah.

16

17 (BRIEF PAUSE)

18

19 MR. DARREN RAINKIE: I apologize for
20 that, Mr. Peters. I just -- I just confirmed that that
21 was the case. That was based on a whole year cost.

22 MR. BOB PETERS: Okay. If -- if we
23 then follow that train, Mr. Rainkie, if -- if you put
24 in almost a full year's costs, but are only going to
25 get a half a year's use out of the -- the generators,

1 should the costs be reduced in the fiscal '13?

2

3

(BRIEF PAUSE)

4

5

MR. DARREN RAINKIE: Sorry, Mr. Peters.

6

It's all coming back to me. We've done so many

7

forecasts in the last number of months that it's

8

getting a little foggy in my mind. The 2012/'13

9

forecast, because IFF11-2 was prepared in April, or

10

finalized in April of this year, we did -- you know,

11

when you look at the operating cost line there we had

12

\$8 million.

13

So I think the assumption that was

14

inherently built into this table was units coming into

15

service starting in June of 2012/'13. So it wasn't

16

starting in the start of the fiscal year as I had said

17

in a previous question. Maybe you can repeat your

18

subsequent question to me. I just wanted to clarify

19

that before we -- we got much further.

20

It's kind of a notional calculation, so,

21

sorry, it's a -- a notional calculation we did for

22

filing purposes and it's -- it's something that's

23

really fresh in my mind at this point.

24

MR. BOB PETERS: Mr. Rainkie, I think

25

the Board has now received a copy of Volume II of the

1 book of documents from Board counsel. And at -- at Tab
2 25 on page 268, I would just like to bring you and Mr.
3 Warden to that page, if I could. At Tab 25, page 268,
4 it's right near the back of the document. And, Mr.
5 Rainkie, you're with me on that?

6 MR. DARREN RAINKIE: Yes, I -- I have
7 it in front of me now, Mr. Peters.

8 MR. BOB PETERS: And -- and I suppose
9 that the -- the crux of my question then becomes, are
10 those costs that are in the income statement in IFF11-2
11 overstated, recognizing that the generators didn't get
12 as much use as had initially been expected?

13

14 (BRIEF PAUSE)

15

16 MR. VINCE WARDEN: I think, Mr. Peters,
17 as we've indicated previously, when conditions do -- do
18 change -- and IFF12 that has been now filed, would
19 reflect the actual in-service dates of -- of Wuskwatim.
20 So while there were some assumptions that were made
21 with respect to in-service dates at the time IFF11-2
22 was prepared, and I believe these -- the numbers we
23 have before us here are annualized costs, with the
24 update that was filed with IFF12 the actual in-service
25 dates with the first unit of Wuskwatim coming in on

1 June the 22nd, I believe it was, would have been
2 reflected in IFF12. So there's no overstatement of
3 costs in IFF12.

4 MR. DAVID CORMIE: Mr. Peters, I've --
5 I -- I wanted to add to Mr. Warden's response. In
6 IFF11, we assumed that Wuskwatim would generate 949
7 gigawatt hours. And in IFF12, we assumed nine hundred
8 (900) and -- I'm sorry, I misspoke, 973 gigawatt hours.
9 And in the -- in IFF12, we have nine hundred and
10 seventy (970). So the amount of generation in -- in
11 each forecast was the same.

12 MR. BOB PETERS: Do you go up to
13 average generation of about 1,500 gigawatt hours in the
14 second test year, Mr. Cormie?

15

16 (BRIEF PAUSE)

17

18 MR. DAVID CORMIE: Under the median
19 inflow assumption, it's 1,648 gigawatt hours, Mr.
20 Peters. The fifteen hundred (1,500) is the average of
21 all the flow conditions.

22 MR. BOB PETERS: And back to Mr.
23 Rainkie and Mr. Warden. On page 9 of Manitoba Hydro's
24 Exhibit 15 document that you reviewed with the Board
25 yesterday, you presented the projected net income on

1 page 9.

2

3

(BRIEF PAUSE)

4

5

MR. VINCE WARDEN: Yes, we have it

6

here, Mr. Peters.

7

MR. BOB PETERS: And what was the --

8

what were the income statement costs attributed to

9

Wuskwatim in the 2012/2013 column that you've -- that

10

you've used?

11

12

(BRIEF PAUSE)

13

14

MR. VINCE WARDEN: Well, Mr. Peters,

15

Wuskwatim gets transferred from work in progress into

16

fixed capital, and then would start attracting

17

depreciation from that point forward. And interest

18

capitalize would then -- would then cease at that point

19

proportional to the units as -- as they come into

20

service.

21

As we've indicated though, to show the

22

impact -- the direct impact on the operating statement

23

we would have to make an assumption about how much

24

internally generated funds were used to finance

25

Wuskwatim.

1 So I don't believe we have in the filing
2 -- just -- I'll just double-check this, Mr. Peters, for
3 a moment.

4

5 (BRIEF PAUSE)

6

7 MR. VINCE WARDEN: Yes, apparently we
8 did it at the last proceeding, I believe, have a
9 statement that showed the estimated impact based on an
10 assumption of internally generated funds contributing
11 to Wuskwatim, showing the impact on the oper -- net
12 impact on the operating statement. But I understand
13 that has not been filed in this proceeding.

14 MR. BOB PETERS: Oh, just -- I don't
15 want to interrupt you, Mr. Warden, but I -- I think I
16 want to help you give your answer, although I don't
17 know that your answer is -- is answering my question
18 quite properly. Maybe I've not worded it right.

19 But I think if you go to Tab 25 of the
20 second book of documents before you provide your answer
21 you'll -- you'll have the documentation that you, I
22 think, need. And, Mr. Warden, once you've found Tab 25
23 -- and I appreciate there's a lot of paper here, let me
24 just walk you through what -- what you're looking at.

25 You'll find at Tab 25, starting on page

1 267, Mr. Warden, CAC/Manitoba Hydro First Round 15A,
2 where the -- where the estimated impacts of Wuskwatim
3 on net income are provided. And we've talked about
4 that, correct, sir?

5 MR. VINCE WARDEN: Yes, I see that.

6 MR. BOB PETERS: Okay. And then the
7 very next page is a copy of an exhibit from the last
8 GRA which contained a calculation of -- of the
9 Wuskwatim project income statement impacts together
10 with the IFF10 related to the partnership. And then
11 following that document, sir, at page 273 is a
12 refreshed request, in this case, in this GRA, a PUB
13 Manitoba Hydro Second Round question 50B for a
14 calculation in support of the internally generated
15 funds used on the Wuskwatim project.

16 So I think that information is provided,
17 the very information you were indicating you might have
18 to use as an assumption or a notional calculation has
19 already been done. That's the purpose of my bringing
20 it to your attention.

21 Does that assist you, sir?

22 MR. VINCE WARDEN: Yes. Thank you, Mr.
23 Peters.

24 MR. BOB PETERS: Okay. And what -- let
25 me just come back to -- my question, though, is -- on

1 page 268 of the book of documents at Tab 25 of Exhibit
2 PUB-14, the IFF11-2 indicates that the income statement
3 is affected by Wuskwatim \$106 million in the first test
4 year and 117 million in the second test year.

5 We -- we're there, Mr. Warden?

6 MR. VINCE WARDEN: Yes.

7 MR. BOB PETERS: And so, in light of
8 Mr. Cormie telling us that the generators, in ballpark
9 figures, are on-stream for approximately half of the
10 year, should the Board not expect that the estimated
11 impacts on net income are only half of what is depicted
12 in the 2013 test year?

13

14 (BRIEF PAUSE)

15

16 MR. VINCE WARDEN: Mr. Peters, we're
17 just trying to confirm the assumptions that were used
18 between IFF11-2 and IFF12. I think it might be helpful
19 if we took an undertaking as to what -- just to make
20 sure we're working with the most current information,
21 the assumption that is used or the -- the actual
22 financial impacts of Wuskwatim on both the test years
23 in IFF12, if that would be acceptable.

24 MR. BOB PETERS: Mr. Warden, I think
25 that would be helpful to the Board to have an

1 understanding of that. I think it would also be
2 helpful if -- if the Corporation would include in that
3 undertaking an update to the CAC/MSOS First Round 15A
4 question found on page 268 of Board counsel's book of
5 documents to show the Board the estimated impacts of
6 Wuskwatim on net income in not only the IFF11-2, but
7 also carry it over to include IFF12, sir.

8 MR. VINCE WARDEN: Yes, and we'll be
9 clear on what in-service date assumptions were used in
10 both of those scenarios, or in that scenario.

11 MR. BOB PETERS: And while we're at it
12 -- and I wasn't actually going to talk to you about
13 Wuskwatim until we got to that non-controlling interest
14 line item, Mr. -- Mr. Warden, so the -- the -- you'll
15 see also in that same tab of the book of documents, I
16 referred you to Exhibit Manitoba Hydro 115 from the
17 previous GRA, and also PUB/Manitoba Hydro Second Round
18 Question 50B, where the internally generated funds
19 calculations were made, please also advise the Board in
20 your undertaking as to whether updates have to be
21 provided in respect of those questions, sir.

22 MR. VINCE WARDEN: Yes, we will do
23 that.

24 MR. BOB PETERS: All right. I
25 appreciate that, Mr. Warden.

1 --- UNDERTAKING NO. 6: Manitoba Hydro to provide
2 the assumption used on the
3 actual financial impacts on
4 Wuskwatim on both test
5 years in IFF12; and provide
6 an update to the CAC/MSOS
7 First Round question 15A to
8 show the estimated impacts
9 of Wuskwatim on net income
10 for IFF11-2 and IFF12; and
11 include in-service date
12 assumptions; and advise
13 whether updates have to be
14 provided to Exhibit
15 Manitoba Hydro 115 from the
16 previous GRA and
17 PUB/Manitoba Hydro Second
18 Round Question 50B

19
20 CONTINUED BY MR. BOB PETERS:

21 MR. BOB PETERS: And lastly, you had
22 mentioned to the Board that -- and I think you'll find
23 at PUB/Manitoba Hydro First Round 39B is the indication
24 that the components that get transferred from the CWIP,
25 or the construction work in progress, account to plant

1 in-service happened on a prorated basis, typically
2 based on the generating capacity of the generating unit
3 relative to the entire generating station. And that, I
4 think, is consistent with what you told the Board a few
5 minutes ago?

6 MR. VINCE WARDEN: Yes, that's right.

7 MR. BOB PETERS: All right. So,
8 subject to your providing that information, I think
9 we'll be -- I think we'll have a better understanding,
10 sir, of -- of the impacts of Wuskwatim.

11 THE CHAIRPERSON: Mr. Peters, just for
12 clarification, did you request an update of the
13 document that's contained on page 269?

14 MR. BOB PETERS: Yes. I -- I asked Mr.
15 Warden to consider whether that needs to be updated.
16 And it -- it's possible, Mr. Chairman, that the
17 document at page 269, which is an exhibit from the
18 previous GRA, has been updated by the document provided
19 by Manitoba Hydro on page 273 of the book of documents.
20 But I think we'll let Mr. Warden and Mr. Rainkie sort
21 that out because either or both of them may need
22 updating at this point in time, just to keep the Board
23 current with what's factually transpired with respect
24 to Wuskwatim.

25

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: Would that be
3 acceptable, Mr. Warden?

4 MR. VINCE WARDEN: Yes.

5 MR. BOB PETERS: All right.

6 MR. VINCE WARDEN: We'll do that, Mr.
7 Peters.

8 MR. BOB PETERS: Yeah, thank you for
9 that, sir. Now, it'll be one (1) omnibus undertaking,
10 and as only Mr. Rainkie and Mr. Warden can do, they'll
11 compile all that information and present it to the
12 Board when it's available or -- or ready.

13 And I can indicate that I -- I can
14 indicate to Mr. Warden that I wanted to revisit the
15 Wuskwatim issue when we got to the non-controlling
16 interest line item on the IFF, which is not going to be
17 for a number of days.

18 THE CHAIRPERSON: I wonder if I could
19 ask a question at this point. We did spend some time
20 reviewing the changes in the forecasts contained in the
21 IFFs as they evolved over the years. Now, you
22 indicated, Mr. Rainkie, that that's not something you
23 usually do. And I would expect what you're probably
24 doing is comparing your IFF forecast to actual.

25 And I was wondering is -- would -- has

1 that been filed? I mean, there's so many documents,
2 I'm not sure what's in there any more, but have you
3 filed the document that indicates how close your
4 actuals are to your projected IFF figures?

5 MR. DARREN RAINKIE: Well, Mr. Chair,
6 I'm in the same boat as you. I -- I'm sure we filed
7 something like that somewhere here, and we could look
8 through the record and identify it for you. The point
9 I was trying to make is this is spanning two (2) or
10 three (3) different IFFs. And as you indicate,
11 normally we would do a budget versus actual type of a
12 comparison as normal course.

13 And in this case, we were spanning two
14 (2) or three (3) different IFFs, so -- for regulatory
15 purposes, I suppose. But I'm sure somewhere in this
16 extensive record, we have a comparison that we could
17 provide for you, and we'll find it.

18 THE CHAIRPERSON: Could you undertake
19 to do that, please?

20 MR. DARREN RAINKIE: Sure.

21 MS. PATTI RAMAGE: To be clear, that
22 would be -- the undertaking is to either locate or
23 prepare the comparison of actuals to IFF11-2. Would
24 that be -- oh, no?

25 THE CHAIRPERSON: I wonder if we could

1 expand it beyond just 11-2. What I'm looking for is,
2 I'm trying to -- we're sitting here saying, Okay, we're
3 going to establish rates based on IFF12 presumably.
4 I'd like to go back and say, Okay, how -- how good have
5 -- how good have the forecasts been relative to actual,
6 so we can decide how much confidence we should be
7 placing on the forecasts that have been submitted in
8 the past relative to the current one

9

10 (BRIEF PAUSE)

11

12 MR. VINCE WARDEN: Mr. Chairman, we --
13 we will certainly do that. Just for clarification, how
14 far back in terms of forecast would you like -- would
15 you prefer us to go?

16 THE CHAIRPERSON: '07 would certainly
17 work, but I don't want to impose a lot of work on you.
18 But, you know, clearly I think five (5) years would be
19 the -- would be the best, yeah.

20 MR. VINCE WARDEN: We'll do that.

21 MR. BOB PETERS: Thank you, Mr.
22 Chairman.

23

24 (BRIEF PAUSE)

25

1 MR. BOB PETERS: Yes, I'll ask Mr.
2 Warden or Ms. Ramage, to the extent they're able to, to
3 indicate on the record what the undertaking is from
4 Manitoba Hydro's understanding.

5 MR. VINCE WARDEN: Yes, the undertaking
6 is to compare the actual experience compared to the
7 five (5) years of forecast. So we're going to go back
8 to our -- five (5) years on -- on our forecast and
9 compare the actual results to each of those forecasts.

10

11 --- UNDERTAKING NO. 7: Manitoba Hydro to compare
12 the actual experience
13 compared to the five (5)
14 years of forecast

15

16 CONTINUED BY MR. BOB PETERS:

17 MR. BOB PETERS: Mr. Warden, in an
18 effort to be efficient when we get to it on the non-
19 controlling interest line item, Manitoba Hydro, as I
20 take from your previous answer, is able to notionally
21 calculate the application of some internally generated
22 funds to its major capital projects?

23 MR. VINCE WARDEN: Yes.

24 MR. BOB PETERS: And I'm not going to
25 review those now with you that are in Tab 25 of Board

1 counsel's book of documents. We'll review them later.

2 But some assumptions are made in coming to that

3 calculation. Would that be correct?

4 MR. VINCE WARDEN: That's is correct.

5 MR. BOB PETERS: And we'll review

6 those. But if the -- if the internally generated funds

7 are credited to Wuskwatim and Wuskwatim is only coming

8 into service half a year later than perhaps expected,

9 then not all of those internally generated funds should

10 be credited to the Wuskwatim project in the first test

11 year, should they?

12 MR. VINCE WARDEN: Well, I think the

13 question would be what percentage of financing that was

14 necessary for Wuskwatim was provided by internally

15 generated funds. So in -- in developing that notional

16 calculation we would go back to each year of

17 construction for Wuskwatim and say how much surplus --

18 surplus cash did we have in that particular year, and

19 then prorate a portion of that back to Wuskwatim.

20 MR. BOB PETERS: And I think you did

21 that in the documents I drew to your attention. But

22 I'd like you to just check and see if that's still

23 accurate in light of the delay in in-service on the

24 Wuskwatim project.

25 MR. VINCE WARDEN: We -- we will do

1 that, Mr. Peters. I don't think should -- the delay
2 should affect that notional calculation, though, but I
3 -- we -- we will review that.

4 MR. BOB PETERS: All right. And that's
5 -- no, no additional undertaking there, enough already.
6 But there is another thought I have. And Ms. Ramage
7 handed out this -- this morning Manitoba Hydro Exhibit
8 17 which had average revenue unit cost calculations for
9 IFF12.

10 And, Mr. Rainkie, it's got your
11 fingerprints all over it, so I'm -- I'm going to direct
12 this to you. In general terms, if we go down the left-
13 hand side to, Total export sales. It's about four (4)
14 lines from the bottom on Manitoba Hydro Exhibit 17,
15 there's new average revenue -- unit revenue
16 calculations, sir, compared to what was in IFF11-2,
17 correct?

18 MR. DARREN RAINKIE: Yeah, that's --
19 that's taking total revenue divided by total volume, so
20 that --

21 MR. BOB PETERS: Un -- understood. And
22 --

23 MR. DARREN RAINKIE: Yeah.

24 MR. BOB PETERS: -- as has been
25 explained at some length, the export revenue prices are

1 down. And so, to some extent, these -- these prices
2 are lower than what had been calculated previously,
3 correct?

4 MR. DARREN RAINKIE: Yeah, I think
5 you've gone through that with Mr. Cormie in the last
6 couple of days.

7 MR. BOB PETERS: I'm not going through
8 it again, you can be assured. And, Mr. Rainkie, the
9 fact that this now has occurred would also impact the
10 WPLP IFF that you have provided to the Board.

11 Wouldn't that also be correct?

12

13 (BRIEF PAUSE)

14

15 MR. VINCE WARDEN: Mr. Peters, would
16 you mind just repeating that question? We want -- we
17 want to make sure we're clear.

18 MR. BOB PETERS: I will in just a
19 minute. I'll wait for Mr. Rainkie and Ms. Carriere.

20

21 (BRIEF PAUSE)

22

23 MR. DARREN RAINKIE: Given that a --
24 the -- the formula, I think, for attributing revenue to
25 the WPLP includes both dependable and opportunity, yes,

1 those reduced opportunity prices would affect it. But
2 it's not one and the same, Mr. -- Mr. Peters.

3 MR. BOB PETERS: And so, Mr. Rainkie,
4 at Tab 24 of Board counsel's Volume II of the book of
5 documents was the -- was the IFF prepared for Wuskwatim
6 Power Limited Partnership, which we refer to as WPLP,
7 version 11-2. And you've got that, sir?

8 MR. DARREN RAINKIE: I do now, Mr.
9 Peters.

10 MR. BOB PETERS: And, Mr. Rainkie, I'm
11 going to ask, can you undertake to revise the Wuskwatim
12 Power Limited Partnership IFF for -- to be consistent
13 with IFF12?

14 MR. DARREN RAINKIE: Yes, we can file
15 the new version of that as well, Mr. Peters.

16 MR. BOB PETERS: All right. Thank you,
17 sir. And --

18 MR. DARREN RAINKIE: That might even be
19 one of the pre-asks that we have still outstanding.
20 I'm not sure, but at any rate -- in any event, we'll
21 provide that to you, Mr. Peters.

22

23 --- UNDERTAKING NO. 8: Manitoba Hydro to revise
24 the Wuskwatim Power Limited
25 Partnership IFF to be

1 consistent with IFF12

2

3 CONTINUED BY MR. BOB PETERS:

4 MR. BOB PETERS: And I didn't quite
5 understand -- and it's my -- my deficiency, gentlemen -
6 - that Mr. Warden, for accounting reasons, wanted not
7 to include the reality of the WPLP non-controlling
8 interest situation into the IFF12, if I have that
9 right, Mr. Warden?

10 MR. VINCE WARDEN: I'm not sure I
11 understand your question, Mr. Peters.

12 MR. BOB PETERS: IFF12 that you have
13 filed with the Board does not, according to Manitoba
14 Hydro, depict factually the non-controlling interest
15 situation. Have I said that correctly?

16 MR. VINCE WARDEN: Well, it does depict
17 factually the situation in accordance with the current
18 agreement, the agreement that is under negotiation.

19 MR. BOB PETERS: Those on -- those
20 negotiations are ongoing today?

21 MR. VINCE WARDEN: Yes, they are.

22 MR. BOB PETERS: And so you're not in
23 any position to advise the Board what that non-
24 controlling interest number's going to look like for
25 the test years?

1 MR. VINCE WARDEN: Other than I can
2 assure the Board that there will not be a -- a positive
3 non-controlling interest as depicted in IFF12.

4

5 (BRIEF PAUSE)

6

7 MR. BOB PETERS: What you're telling
8 the Board on slide 9 of Manitoba Hydro Exhibit 15 that
9 you referred to is that Manitoba Hydro does not expect
10 to collect 14 million in the first test year and 24
11 million in the second test year, as a result of its
12 non-controlling interest in WPLP?

13 MR. VINCE WARDEN: Yes, that's right.

14 MR. BOB PETERS: And I don't want to
15 push you further, Mr. Warden, if there's negotiations
16 ongoing and they're sensitive to that nature.

17 But is -- is the number to be zero, or
18 is the number going to be negative, or can you -- can
19 you even indicate anything at this point in time?

20 MR. VINCE WARDEN: I really can't
21 indicate anything beyond what we have indicated, Mr.
22 Peters.

23 MR. BOB PETERS: Well, I suppose that,
24 then, the assumption that you want this Board to make
25 is that it's zero at this point in time?

1 MR. VINCE WARDEN: Yes.

2 MR. BOB PETERS: So I -- I'd request
3 that of all the undertakings we've discussed that I
4 suppose that assumption should be carried through and
5 noted on any revised documents you provide the Board as
6 to what assum -- what -- what change you're making, or
7 what assumptions you're making with respect to the non-
8 controlling interest for the test years?

9 MR. VINCE WARDEN: Yes, we'll
10 incorporate that.

11 MR. BOB PETERS: All right. Thank you
12 for that, sir. And...

13

14 (BRIEF PAUSE)

15

16 MR. BOB PETERS: Mr. Cormie, if we can
17 pick up and try to move along a little bit here from
18 where we left off before we got sidetracked on
19 Wuskwatim. In the book of documents there was a
20 comparison of forecasts. And the Chairman has referred
21 to them with Mr. Warden.

22 But if I look on page 30 of Board
23 counsel's book of documents and Tab 4, we go out past
24 the test years. We go into 2015 and 2016, sir. Do you
25 see that?

1 MR. DAVID CORMIE: Yes.

2 MR. BOB PETERS: And without -- without
3 any specificity, the forecast for extraprovincial
4 revenue is likewise taken a serious negative turn in
5 those years, correct?

6 MR. DAVID CORMIE: Yes.

7 MR. BOB PETERS: And it would be
8 correct for the Board to understand that in 2015 and
9 2016 there will be no new export contracts in those
10 years, sir?

11 MR. DAVID CORMIE: No. We -- we are
12 working on export contracts that -- that cover that
13 period of time. And they may be converted into results
14 that would affect these numbers. But they are works in
15 progress.

16 MR. BOB PETERS: I -- I didn't mean --
17 I didn't mean to go there, Mr. Cormie. What I meant,
18 if we could just take -- you -- I think you put --

19 MR. DAVID CORMIE: I think, Mr. Peters,
20 the answer is we haven't -- we haven't changed the
21 assumption of what contracts are in the forecast. It's
22 that -- that just reflects the -- the price effects of
23 these -- of the opportunity market.

24 MR. BOB PETERS: Okay. That's helpful,
25 Mr. Cormie. In 2015, you still have an existing long-

1 term contract that -- that will be in -- in place that
2 -- that fiscal year?

3 MR. DAVID CORMIE: Yes, it expires -- I
4 think it's on May the 31st, 2015, and it has been
5 extended under different pricing beyond that, and
6 different volumes.

7 MR. BOB PETERS: Does Manitoba Hydro
8 have any issue with putting the name of the counter-
9 party on the public record?

10 MR. DAVID CORMIE: No, it's the -- it's
11 the sale agreement with Xcel Energy that -- that is
12 currently running at 500 megawatts and it expires in
13 2015. And it's been renegotiated and extended at 375
14 megawatts in the summer and 325 megawatts in the winter
15 under different pricing.

16 MR. BOB PETERS: Thank you, Mr. Cormie.
17 And when you say Xcel Energy, that's also known as
18 Northern States Power, or NSP?

19 MR. DAVID CORMIE: Yes, NSP is the
20 subsidiary of Xcel.

21 MR. BOB PETERS: So you've told the
22 Board that going forward, the existing NSP arrangement
23 is in place until approximately May of 2015. And
24 that's going to be followed by a -- the renegotiated
25 new contract with the same counter-party, for reduced

1 volumes going forward?

2 MR. DAVID CORMIE: Yes. In addition
3 there's the option to increase it back up to five
4 hundred (500) in 2021 by 125 megawatts, to take it back
5 up to the 500 megawatt amount in the summertime.

6 MR. BOB PETERS: And that 125
7 additional megawatts in 2021, Mr. Cormie, is dependent
8 on Manitoba Hydro having Keeyask Generating Station?

9 MR. DAVID CORMIE: There is a condition
10 precedent that gives us the option if we don't build
11 Keeyask to not extend it if -- but even if we -- and if
12 we don't do, we still have the option of extending it.

13 MR. BOB PETERS: If you have the
14 capacity without the new generating station you can
15 extend the contract?

16 MR. DAVID CORMIE: We can exercise our
17 option, yes.

18 MR. BOB PETERS: Okay, I think I under
19 -- thank you, sir. No new transmission is needed for
20 that NSP arrangement under either of those scenarios
21 that you've talked about?

22 MR. DAVID CORMIE: No, the -- no new
23 transmission is needed. It uses the existing
24 transmission system that's in place.

25

1 (BRIEF PAUSE)

2

3 MR. BOB PETERS: Mr. Chairman, I plan
4 to move on into some new areas, including getting to
5 Manitoba Hydro's load forecast. And recognizing the
6 time, this might be an appropriate time for -- for me
7 to stand down and, subject to any questions of the
8 Board, consider a lunch re -- recess.

9 THE CHAIRPERSON: I do have a question.
10 And it's in relation to the financial ratios that are
11 set out in IFF11-2, page 21. Specifically, comparing
12 those ratios to MPI's Exhibit 16, page 2 of 7 -- in
13 other words, what we tabled this morning, we had
14 Manitoba Hydro file a document which contains the
15 revised ratios. And I'd like to compare both and
16 understand what's going on there, why there would be
17 that -- that variation in the nearby values of those
18 ratios.

19

20 (BRIEF PAUSE)

21

22 THE CHAIRPERSON: So it's page 21 of
23 the -- of the book of documents, and page 2 of 7 of
24 Exhibit 16, at the bottom.

25

1 (BRIEF PAUSE)

2

3 THE CHAIRPERSON: And the other obvious
4 one is the rat -- the big difference in the capital
5 coverage ratio.

6

7 (BRIEF PAUSE)

8

9 THE CHAIRPERSON: Given the
10 concentration I'm seeing from the other side, probably
11 not a bad idea -- why don't we -- why don't we adjourn
12 for lunch at this moment. And you can -- we can
13 address this when we come back from lunch. I don't
14 want to have people's lunch any more lukewarm than it
15 already is. So let's agree to talk about this when we
16 get back from lunch. And I -- I suggest we resume
17 proceedings at one o'clock.

18

19 --- Upon recessing at 11:56 a.m.

20 --- Upon resuming at 1:01 p.m.

21

22 THE CHAIRPERSON: Good afternoon. I
23 believe we're ready to start. I wonder if we have some
24 matters to address before we turn the mic over back to
25 Mr. Peters?

1 MS. PATTI RAMAGE: Nothing -- nothing
2 at this point. Perhaps after the break we'll have some
3 more.

4 THE CHAIRPERSON: If there are no
5 matters to attend to, back to you, Mr. Peters.

6

7 CONTINUED BY MR. BOB PETERS:

8 MR. BOB PETERS: Thank you and good
9 afternoon, Mr. Chairman, Board members, ladies and
10 gentlemen.

11 I'd like to start at tab 5 of the book
12 of documents. And with only the precision of an
13 engineer, maybe Mr. Cormie can help us. I -- we have a
14 new vernacular for the Board, Mr. Cormie, when we talk
15 about electric matters.

16 But am I correct that 1 megawatt is
17 about -- is exactly a thousand kilowatts?

18 MR. DAVID CORMIE: Yes.

19 MR. BOB PETERS: And -- and a gigawatt
20 is a million kilowatts?

21 MR. DAVID CORMIE: A gigawatt is a
22 thousand megawatts, which is a -- a million kilowatts,
23 yes.

24 MR. BOB PETERS: If I leave my 100-watt
25 incandescent bulb burning for ten (10) hours, I've

1 consumed a kilowatt hour, correct?

2 MR. VINCE WARDEN: Yeah.

3 MR. BOB PETERS: And Manitoba Hydro's
4 going to bill me approximately seven (7) cents for that
5 at my home?

6 MR. VINCE WARDEN: Yes.

7 MR. BOB PETERS: All right. I think
8 we're on the same page and you won't need that
9 calculator because -- but let's just help the Board
10 understand, in terms of some of the numbers we're going
11 to be talking about and have already talked about, that
12 an average home we can assume, in my numbers, is
13 approximately 10,000 kilowatt hours per year.

14 Would you be okay with that?

15 MS. LOIS MORRISON: The average home
16 using natural gas as -- as its heating system would use
17 approximately 10,000 kilowatt hours, give or take.

18 MR. BOB PETERS: Thank you, Ms.
19 Morrison. And thanks for the -- the qualification that
20 this -- the 10,000 kilowatt hours a month -- sorry, the
21 10,000 kilowatt hours a year assumes the person's not -
22 - the residential customer's not using it for space
23 heating?

24 MS. LOIS MORRISON: That is correct.

25 MR. BOB PETERS: And if they were using

1 electricity as space heating, then they would consume
2 approximately 25,000 kilowatt hours per year. Would
3 that be correct?

4 MS. LOIS MORRISON: Yes, it would be 25
5 to 26,000 kilowatt hours a year.

6 MR. BOB PETERS: All right. And I
7 think Mr. Warden had some charts or slides that he
8 referred to where we're in the same ballpark. He
9 assumed 2,000 kilowatt hours per month for the all-
10 electric customer?

11 MS. LOIS MORRISON: Yes, that is
12 standard for rate comparisons across jurisdictions.

13 MR. BOB PETERS: And, Ms. Morrison,
14 approximately 35 percent of the residential customers
15 of Manitoba Hydro use electricity for space heat?

16 MS. LOIS MORRISON: Yes, that's
17 correct.

18 MR. BOB PETERS: And would the Board be
19 correct in understanding, Ms. Morrison, that the space
20 heating with electricity is predominantly outside of
21 the urban centres?

22 MS. LOIS MORRISON: It's predominantly
23 outside of Winnipeg, Brandon and Portage le Prairie, in
24 terms of the southern part of the province. But, of
25 course, the urban centres in the north are using

1 electric heat.

2 MR. BOB PETERS: Mr. Cormie, back to my
3 math -- and maybe I should have checked with my
4 engineer before I ask this one. But a gigawatt hour of
5 energy that we're going to talk about is enough to
6 power one hundred (100) typical residential homes that
7 do not use electricity for space heat. Would you agree
8 with that?

9 MR. DAVID CORMIE: Sounds right.

10 MR. BOB PETERS: And following up on
11 Ms. Morrison's answers, a gigawatt -- 1 gigawatt hour
12 of energy would be enough to power then forty (40) all-
13 electric homes for a year? Those homes that I call
14 all-electric are using it for space heating.

15 MR. DAVID CORMIE: Yes.

16 MR. BOB PETERS: And, Mr. Cormie, to
17 distinguish between capacity and energy, would it be
18 correct for me to consider that capacity is the size of
19 the generating units?

20 MR. DAVID CORMIE: Yes.

21 MR. BOB PETERS: Often measured in
22 megawatts?

23 MR. DAVID CORMIE: Yeah. And -- and a
24 simple analogy is you might have a 300 horsepower
25 engine in your car, and that's the capacity of the

1 engine. It can produce that amount of power, but you -
2 - you hardly ever use all that capacity. But you --
3 and the -- and the amount of gas that you use is the
4 number of -- is the amount of energy that you use.

5 So what we're differentiating is the
6 capacity of the -- of the -- the machine versus how
7 much energy it produces over time.

8 MR. BOB PETERS: And, Mr. Cormie, you
9 and Board member Lafond have talked about the system
10 capacity being in the range of 5,000 megawatts of
11 hydraulically available generation?

12 MR. DAVID CORMIE: Yeah, about that.

13 MR. BOB PETERS: And approximately five
14 hundred (500), if I have your number right, of thermal
15 generation?

16 MR. DAVID CORMIE: Yes.

17 MR. BOB PETERS: All right. And to go
18 from capacity into energy, one would need to
19 incorporate the -- the element of time, together with
20 the available river flows, to get the hydraulic energy
21 amount?

22 MR. DAVID CORMIE: Yes.

23 MR. BOB PETERS: So, theoretically, at
24 least, you could take the number of megawatts that a
25 generating station is rated for, and you could multiply

1 it by how many hours there are in the year.

2 But you'd still need another factor,
3 which would be the amount of water that would be
4 available to go through it?

5 MR. DAVID CORMIE: Yes. And we design
6 our generating stations to be able to produce -- I
7 think it's around 65 percent of the time we can produ -
8 - produce energy on -- under average flow conditions,
9 so that, for example, the -- the flow capacity of the
10 Kettle Generating Station is around a 160,000 cubic
11 feet per second, but the average flow is only about
12 115,000.

13 So you can only run the -- you can only
14 -- if you had 115,000 as the average and 160 as the
15 capacity, you could only run the station 70 percent of
16 time. Then you run out of water because we -- we over-
17 install in order to meet the peak demand because the --
18 the demand for electricity isn't constant over time.
19 It varies over time. And you have to meet the peak
20 demand, because the demand for electricity isn't
21 constant over time. It varies over time, and you have
22 to meet the peak demand. And you have to meet the
23 energy demand as well.

24 MR. BOB PETERS: And in -- briefly, can
25 you explain to the Board members how Manitoba Hydro

1 would decide how much capacity to install as to -- to
2 how much of the water to take advantage of, rather than
3 spill?

4 MR. DAVID CORMIE: The -- the size of
5 the generating station is optimized for the water
6 resource. And given the relative value of electricity
7 versus the value -- the incremental cost of
8 construction, so you -- you keep investing in -- in
9 facilities, i.e., additional turbine and generator
10 capacity.

11 And you measure the -- the -- how much
12 additional -- how many additional megawatt hours you
13 can produce, and what's the additional cost of that.
14 And you keep increasing the size of the generating
15 station design until the incremental revenue on an
16 annual basis equals the incremental carrying cost of
17 the additional investment. And -- and so, you know,
18 that's -- that's how you would, in -- in simple terms,
19 size the station.

20 MR. BOB PETERS: All right. So you
21 recognize that when you build these stations that there
22 will be occasions that water will be spilled?

23 MR. DAVID CORMIE: Yes. There's --
24 putting enough flow capacity at a generating station to
25 capture all the wat -- all the water flows, even the

1 highest water flows would mean that there would be
2 units that might never run. So there's a -- there's a
3 breakeven point where it -- it makes sense to stop
4 investing in additional generating capacity.

5 MR. RAYMOND LAFOND: Can I ask you a
6 question for clarification? The numbers you have at
7 the end of your annual report in terms when you -- when
8 it's headed, "Net Capability in Megawatts," that is not
9 the potential, but that would be like at 65 percent of
10 potential? To follow the discussion we're having now?

11 MR. DAVID CORMIE: That is the net
12 capability, given that the power plant needs to prov --
13 sell -- to provide electricity to run itself. So it's
14 the -- it's not the gross production. It's the gross
15 production minus the station service load. What --
16 what energy is needed to serve -- to -- to have the
17 plant operate. So it's the -- it's -- it would be the
18 net capability.

19 MR. RAYMOND LAFOND: But it's not the
20 average capability based on average flows?

21 MR. DAVID CORMIE: No, it's the -- it's
22 the capac -- capability under specific conditions that
23 are -- are used for rating generating stations.

24 MR. RAYMOND LAFOND: Could you develop
25 this a bit more? Because I'm trying to relate it to

1 potential versus water flows.

2 MR. DAVID CORMIE: The capability is --
3 is dependent upon the head of water at the generating
4 station. So it's the level of the forebay minus the
5 level of the tailrace. And -- and the level of the
6 tailrace fluctuates with the water flow.

7 So if you were to open -- to open all
8 the gen -- all the gates at the generating station, and
9 the tail water would come up and the forebay would be
10 at -- at a certain level, you could calculate what the
11 head is at the time of maximum production. And so
12 that's -- that's the head and -- that's the head
13 condition at which the capability is designed, or is
14 set. It's under the -- the head condition with the
15 station fully operating.

16 And the capability of the generating
17 station varies month by month over the year. In the
18 winter time, if there's ice in the river, the ice in
19 the river causes the water to back up into the tailrace
20 of the generating station so the head's lower. So
21 generally our stations have a lower capability in the
22 winter than they do in the summer time.

23 And so we -- we have numbers for the
24 capability of the station each month of the year. And
25 we -- we choose a specific month in which to publish

1 the -- the number for -- for public purposes. But for
2 credit -- accrediting the capacity, we -- we have it
3 month by month throughout the year.

4 MR. RAYMOND LAFOND: So when I look at
5 the net capability on your annual report, and I try and
6 relate this to peak rates, it's a bit of a problem.
7 Because your peak rates happen in the winter, but your
8 net capability would actually be lower than indicated
9 here in the winter, but probably higher in the summer,
10 if I can follow that reasoning.

11 MR. DAVID CORMIE: I think for -- for
12 the annual report purposes, we -- we publish the -- the
13 maximum value that occurs in -- under ideal hydraulic
14 conditions, which I think is in September, when the
15 head -- the head at the stations -- there's no ice in
16 the tailrace, and in the winter there's a -- a slight
17 derate due to ice conditions.

18 And again, it's net of the station
19 service load, so there's a few megawatts that are
20 required to -- to run the station, to supply the
21 exciters and the -- and -- and the station can't
22 operate without. So it's -- it's the capability that's
23 available to serve load beyond the station's
24 requirements itself.

25 MR. RAYMOND LAFOND: Could you give me,

1 for instance, when -- when you do meet your peak in any
2 time of the year, or I think yesterday you said, Well,
3 for instance, yesterday it was at four point four (4.4)
4 or 4,400 megawatts was the peak.

5 Do you know at that time what was the
6 net capability also?

7 MR. DAVID CORMIE: I don't know what
8 the capability was at that time because we have outages
9 occurring at the -- in the system right now.

10 MR. RAYMOND LAFOND: But theoretically,
11 you could -- you could determine what it is?

12 MR. DAVID CORMIE: Yeah, we can -- I
13 can -- I can get you that number if you would like to
14 see that.

15

16 (BRIEF PAUSE)

17

18 MR. DAVID CORMIE: A good example of
19 the effect of time of the year is -- occurs at the
20 combustion turbines when it -- in the summertime, it's
21 very hot; the capability of the combustion turbines at
22 Brandon is -- is relatively low. In the wintertime,
23 when it's very cold, the -- the turbines have increased
24 capacity.

25 And so when you look at the annual

1 total, the difference between the winter peak
2 capability and the summer capability for the system is
3 -- is relatively the same: about -- only about 15
4 megawatts difference. But -- so the -- the reduction
5 that we see in the wintertime due to -- due to
6 hydraulic effects is offset by the extra capacity that
7 we get from the thermal plants in the wintertime
8 because they're more efficient in cold weather.

9 So it's a -- a complicated thing, but
10 we've -- we -- we use standard, industry-accepted
11 testing procedures to develop these numbers. And
12 you've heard in many cases where you adjusted for
13 standard pressure and temperature. There's lots of --
14 of examples of where that's done. We do that for the
15 capacity that we report to -- to MISO for our -- for
16 our turbines and -- and system.

17 MR. RAYMOND LAFOND: So I can conclude
18 that the net capability in numbers given to us are
19 relatively the same throughout the year, give or take a
20 few -- like a -- 1 or 2 percent?

21 MR. DAVID CORMIE: Yes. There's
22 variation station to station. But for the system as a
23 whole, it's -- it's pretty well constant over the year.

24 MR. RAYMOND LAFOND: My last question,
25 which is different: When we talk about electric --

1 electrically heated homes, we are also including water
2 heating at -- as part of gas rather than electrically?
3 Because some people have both, but what -- you know, I
4 -- I'm just interested whether you include gas heat for
5 water if you assume that the house is heated with gas.

6 MS. LOIS MORRISON: The number that we
7 gave for the gas heating assumes a certain percentage,
8 so a weighted average representation of the water
9 heating that we have in the market that is electric
10 versus natural gas.

11 THE CHAIRPERSON: Ms. Morrison, I just
12 want to -- the figure you used was an average home
13 using natural gas for heating uses 10,000 kilowatt
14 hours.

15 Did I get that right? What was the
16 figure you provided?

17 MS. LOIS MORRISON: That was the figure
18 that we confirmed. It's in around that. The exact
19 number is --

20 THE CHAIRPERSON: Okay. What I'm --
21 what I'm trying to understand, is that a -- a national
22 standard or is that a made-in-Manitoba standard?

23 MS. LOIS MORRISON: That's Manitoba
24 Hydro's customers.

25 THE CHAIRPERSON: How does it compare

1 to other provinces?

2 MS. LOIS MORRISON: We have a higher
3 proportion of electric heat. For the standard
4 customer, we're probably closer to the average across
5 Canada. I can confirm that but -- because there you
6 would be looking at -- the differences would be more
7 driven by the type of housing, more -- if they have
8 more apartments versus single attached or row housing.
9 That will all affect -- how big the house is to what
10 level of lighting they have in the house and such. But
11 there's certain consistent end uses that really don't
12 deviate between different jurisdictions.

13 THE CHAIRPERSON: What I'm trying to
14 understand is the -- there's often criticism that
15 Manitobans use more electricity than they should
16 because it's cheap. So I guess the question that I'm
17 trying to understand is: Is that factual? Is it based
18 on data that -- when we -- when people make those kinds
19 of statements?

20 I'm not try -- I'm not trying to -- it's
21 not a value judgment. Just trying to understand
22 whether that's a factual statement or not.

23 MS. LOIS MORRISON: I would have to
24 confirm it specifically for standard -- or, what we
25 normally term standard customers, being that those are

1 the ones we've identified as being heated by a fuel
2 source other than natural gas.

3 Generally, when other jurisdictions are
4 comparing us, they're comparing us to that overall
5 average number. They'll take our residential
6 consumption and divide it by our number of customers
7 and say, That average. Well, that average includes a
8 waiting for electric heat and a larger proportion of
9 electric water heating.

10 So if you look at it from that
11 perspective, then, yes, we do use more because we have
12 a higher percentage of those end uses that consume more
13 energy, more electricity. I would have to look at it
14 specifically as it relates to the standard customer
15 though to confirm that, to -- to confirm whether their
16 ascertainment (sic) that we're using more as a customer
17 than the other jurisdictions.

18 THE CHAIRPERSON: The follow-up
19 question to that is: In an environment where you're
20 seeing progressively higher energy costs for a
21 consumer, to what extent will that influence behaviour
22 on the part of the Manitoba consumer?

23 That's a tough question to answer. But
24 I'm trying understand -- what I'm getting at is trying
25 to find -- figure out if we grant rate increases, is

1 there some way in which Manitobans can mitigate those
2 rate increases by how they consume heat and
3 electricity?

4 MS. PATTI RAMAGE: Mr. Chair, I might
5 jump in here and -- and try to assist. That question
6 is something that members of our third panel are
7 intending to specifically address.

8 MR. BOB PETERS: Ms. Ramage, thank you
9 for that indication. Perhaps your third panel could be
10 forewarned and forearmed to then explain to the Board
11 the concept of price elasticity in respect of the resi
12 -- residential, for example, electricity rates and, to
13 the extent possible, what the price elasticity is for
14 those who heat their home with electricity compared to
15 those who don't heat their home with electricity.

16 If -- if you could take that to them,
17 please.

18 MS. PATTI RAMAGE: Yes. We'll make
19 sure Mr. Wiens is ready to go on that topic.

20 MR. BOB PETERS: I think he's ready
21 already.

22

23 CONTINUED BY MR. BOB PETERS:

24 MR. BOB PETERS: Is -- is -- Ms.
25 Morrison, in following up the discussion you had with

1 the Chairman, there's a concept of degree-day heating,
2 or is it heating degree days, that is used to measure a
3 deviation between a number and the actual temperature
4 that arises in a zone?

5 MS. LOIS MORRISON: Yes, there's both
6 degree-day heating and degree-day cooling that is used
7 to adjust forecasts in an attempt to remove weather
8 effect.

9 MR. BOB PETERS: And -- and that's the
10 point I wanted you to explain to the -- to the Board,
11 is that in comparing Manitoba to other jurisdictions it
12 is possible to eliminate the impact of weather.

13 Is that correct?

14

15 (BRIEF PAUSE)

16

17 MS. LOIS MORRISON: I -- I don't think
18 that's how -- well, sorry, it's not how we use it.
19 What we use as the degree-day heatings is to normalize
20 our own weather within Manitoba so that when we're
21 creating forecasts we can try to take out the
22 variations that occur over time as a result of weather
23 effect.

24 MR. BOB PETERS: And I was wondering if
25 you couldn't use that same methodology to compare

1 Manitoba with Southern Ontario by using -- taking into
2 account the degree-day heating in each jurisdiction?

3 MS. LOIS MORRISON: You can make a
4 comparison from jurisdiction to jurisdiction using
5 degree ha -- degree-day heating as one (1) way of
6 looking at energy consumption. But you can't use it in
7 and of itself because there's too many other variables
8 that may affect that energy consumption, such as the
9 percentage of electric heat in the -- in the
10 jurisdiction, the percentage of water heating.

11 So the -- the types of buildings, they
12 all impact the energy consumption. And so it's one of
13 the things that you can do to do the -- well, they're
14 kind of in the same range of, but you can't use them
15 for a direct comparison to say if, say, Manitoba has,
16 say, four (4) -- four thousand (4,000) degree-day
17 heating and Ontario only has two thousand (2,000)
18 degree-day heating, then the ratio should apply. You
19 can't do that direct comparison.

20 MR. BOB PETERS: All right. Thank you.
21 And maybe if you're going to be with us for the third
22 panel, we could resume that discussion. And maybe you
23 could come back with a comparison of electric heating
24 in Thompson, Manitoba, compared to electric heating in
25 Winnipeg and explain to the Board the degree-day

1 deficiency and how much of the heating bill is
2 influenced by the weather. That's not an undertaking.
3 That's just a friendly request.

4 Back to a friendly request of Mr.
5 Cormie. When you talked with Board member Lafond about
6 the sizing of the generating units and trying to find
7 the optimal size, would low export prices influence the
8 size of installed capacity at a station?

9

10 (BRIEF PAUSE)

11

12 MR. DAVID CORMIE: I'm not an -- an
13 expert on the -- the sizing of -- of generating station
14 and their economics, Mr. Peters. But my understanding
15 is that the long-run marginal cost of electricity for
16 Manitoba which comes from the -- from the export market
17 is used to optimize many things, including the
18 generating station size -- conductor size and
19 transmission design.

20 They all look at the -- the incremental
21 value of the next kilowatt hour of production or
22 losses, depending on whether you're -- on the -- on the
23 application.

24 MR. BOB PETERS: So the export price
25 would influence the size of the installed station

1 capacity in some way?

2 MR. DAVID CORMIE: I -- I would expect
3 so, yes.

4 MR. BOB PETERS: Mr. Cormie, also --

5 MR. RAYMOND LAFOND: Excuse me. Would
6 it rather be the -- the export price or the additional
7 cost of -- of putting one (1) additional kilowatt or
8 megawatt through the system?

9 MR. TERRY MILES: I'll see if I can
10 give that a try. I think when it comes down to sizing
11 the generating stations, as David Cormie indicated,
12 it's the physical nature of the site that really
13 defines the capacity, so the megawatt size. It's
14 really the physical restrictions or characteristics of
15 the site: how high the head can be, so, you know, the
16 banks of the river, those types of things.

17 When it comes down to costing and the
18 actual value of the generating station, I think you're
19 -- you're right in one sense, where additional units to
20 the site may not be economic, I think, as was indicated
21 with that.

22 And as we go through the process of
23 determining what size the generation station might be,
24 there is an economic side to it. And we do consider
25 that as we go -- as we go through the analysis that's

1 there.

2 But I think, as well, from the
3 generating station there's a level of efficiency that
4 you get out of the site in terms of how much energy you
5 get, you know, per whatever, per unit megawatt. And
6 that, in essence, helps define what the most effective
7 amount of energy you can get out of that particular
8 site.

9 MR. RAYMOND LAFOND: So I can conclude
10 that the biggest factor is not what the prices are
11 going to be in ten (10) or twenty (20) years, but
12 rather what it'd cost to produce -- you know, to -- so
13 si -- to add 4 inches to one (1) or two (2) turbines,
14 what it'd cost for a kilowatt hour compared to the
15 first turbines. And at a point in time, it just
16 becomes too expensive.

17 And it's not related to revenues, but
18 the cost of generation?

19 MR. TERRY MILES: No, I -- I think at
20 some point it -- it does refer back to the -- the
21 revenue. I think it does depend in part on -- no, I
22 think that's probably -- that's probably correct to
23 leave it at that, yeah.

24 MR. RAYMOND LAFOND: I'd like to try
25 this again. Assuming all our consumption was by

1 Manitoba consumers, and -- and exports were not in --
2 in the picture as a basic assumption, when you build a
3 new station, a new power plant, I would imagine you
4 look at the cost per kilo -- kilowatt hour of -- of
5 building it and you get to a certain type of design
6 where it's larger, or whatever, but it becomes
7 more expensive to -- to build the extra capacity than
8 to -- than to a certain limit, and that would be the
9 biggest factor in terms of determining whether you --
10 you build it some -- one (1) way or another way.

11 In other words it's -- because its usage
12 has nothing to do with the -- with the price, but
13 rather with the cost of building this extra capacity?

14 MR. DAVID CORMIE: Yes. And I -- I
15 think that you're exactly right. And -- and a good
16 example is how much rock do you remove from the river
17 downstream of the generating station to make it more
18 efficient. And you can do the calculation; another
19 million dollars spent on excavation makes the
20 generating station more hydraulically efficient, lowers
21 -- in -- increases the head a little bit. But you may
22 have to spend \$2 million in order to achieve that
23 million dollar in -- in benefit. And at that point you
24 would say, Why am I excavating more?

25 Now, in calculating -- in calculating

1 the -- the -- that benefit, it's how many megawatt
2 hours each year for the life of the station, using a
3 discount rate, using an assumed value of power in the
4 future. And -- and I believe that for that assumed
5 value of future power, we will use our long-run
6 marginal cost of electricity, which we -- which, for
7 our system, is what we view as the market price of our
8 surplus power.

9

10 CONTINUED BY MR. BOB PETERS:

11 MR. BOB PETERS: Thank you, Mr. Miles,
12 and Mr. Cormie, and Ms. Morrison. Mr. Cormie, I'm not
13 sure you'll be able to answer this, but can you provide
14 the Board with an indication of the dependable energy
15 for domestic consumption that comes out of each of the
16 -- of the lower Nelson generating stations, for
17 example? What percentage of -- of limestone is used to
18 support the domestic consumer of Manitoba?

19

20 (BRIEF PAUSE)

21

22

23 MR. DAVID CORMIE: Mr. Peters, because
24 -- because the dependable energy of the hydraulic
25 system is supported by reservoir storage, we really

1 can't allocate back to the generating stations the
2 exact amount. For example, the dependable capability
3 of the hydraulic system now is around 21 1/2 thousand
4 gigawatt hours. That doesn't equal to the sum of the
5 dependable capability of the addition -- of each
6 generating station, because to that there is some --
7 there are storage effects.

8 And you could do it on an approximate
9 basis, on a pro rata basis, but we don't have it -- we
10 -- we don't have that -- that system capability by
11 station.

12 MR. BOB PETERS: You'd have to pick a
13 point in time in which to do it?

14 MR. DAVID CORMIE: Yes, because the
15 dependable capability varies. It's a function of the
16 Manitoba load. It goes up and down, and...

17

18 (BRIEF PAUSE)

19

20 MR. BOB PETERS: Perhaps, another way
21 we could look at it, Mr. Cormie, is if Keeyask is 2,900
22 gigawatt hours of dependable energy, what's the total
23 maximum capacity of that plant?

24 MR. DAVID CORMIE: The -- the twenty-
25 nine hundred (2,900), Mr. Peters, is -- is the change

1 in system capability when we add Keeyask to the system.
2 It's not the -- it's the change in the system effect;
3 it's not Keeyask by itself, because it -- it has
4 storage effects.

5 The -- Keeyask is forty-four hundred
6 (4,400) under average. I don't have the maximum
7 number, but it'll be -- it'll be significantly higher
8 than that.

9 MR. BOB PETERS: And maybe just to
10 close off on this area, Mr. Cormie, a question
11 yesterday from Board member Soldier as well as Mr.
12 Lafond: In dealing with the peak -- and I think it was
13 December 11th that you provided the Board with some
14 peak information. Is that the correct date?

15 MR. DAVID CORMIE: It was Tue --
16 Tuesday, yes.

17 MR. BOB PETERS: And are you able to
18 provide the Board with a -- a graphic depiction of the
19 -- the peak-day stack in terms of how much of that was
20 domestic residential, how much was domestic general
21 service, how much was exports, and then how much was
22 unavailable because of the various units being out for
23 either service or fire reasons to -- to compare it with
24 what we see on page 34 of Board counsel's book of
25 documents, which are the statistics that Board member

1 Lafond was referring to on the back of the annual
2 report?

3 MR. DAVID CORMIE: We can show the --
4 the supply sources for last Tuesday. I don't think
5 we're able to break it down by customer classification,
6 where it's going, but we can show the supply and -- and
7 where the demand is going. It'll go to domestic load
8 and to -- there'll be some interprovincial transac --
9 export transactions occurring at the same time. But we
10 -- we'll -- we'll provide you that information, Mr.
11 Peters.

12 MR. BOB PETERS: Thank for that
13 undertaking, and if you could also include some graphic
14 depiction, that might -- and I know Mr. Rainkie knows
15 on the gas side how well that's done, but that might be
16 a -- that might be a comparable matter to consider.

17 MR. DAVID CORMIE: Yes.

18 MR. BOB PETERS: Thank you, sir.

19 MR. DAVID CORMIE: We know how to do
20 that.

21

22 --- UNDERTAKING NO. 9: Manitoba Hydro to provide a
23 graphic depiction of the
24 peak-day stack

25

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: And while we're
3 looking at the book of documents with Board member
4 Lafond's questions, if we turn to page 37, Mr. Cormie
5 and Mr. Miles, we can see these statistics just come
6 out of the back of a -- of an annual report, Mr.
7 Cormie, so I won't take this opportunity to say that
8 they were probably prepared by the accountants, but
9 from an engineering perspective, you're showing the
10 Board on page 37, for example, that the electric system
11 supply at generation in 2012 was 33,235 gigawatt hours.

12 Have I got that right?

13 MR. DAVID CORMIE: Yes.

14 MR. BOB PETERS: And if we go back a
15 few years, the Board can see that it was closer to 20 -
16 - 37,620 gigawatt hours?

17 MR. DAVID CORMIE: In 2006, yes.

18 MR. BOB PETERS: All right. And if the
19 Board is interested -- if that was the -- if that was
20 the hydraulic generation in those years, we can drop
21 down a few lines to look at the electric load at
22 generation of the integrated system, and we can see
23 that the electric load in 2012 is recorded as 23,499
24 gigawatt hours, correct? I'm just down three (3)
25 lines.

1 MR. DAVID CORMIE: Yes.

2 MR. BOB PETERS: And -- and the -- the
3 point there, Mr. Cormie, is that the twenty-three
4 thousand four hundred and ninety-nine (23,499)
5 represents the Manitoba domestic customers load?

6 MR. DAVID CORMIE: That's correct.

7 MR. BOB PETERS: It does not include
8 any exports?

9 MR. DAVID CORMIE: Yes, that's the
10 domestic load at generation.

11 MR. BOB PETERS: And -- and I guess we
12 better take a second here and say that "at generation"
13 has a meaning; can you explain that meaning to the
14 Board as to what that measurement includes, or does not
15 exclude, I guess is another way to put it.

16 MR. DAVID CORMIE: Well, it includes
17 all the transmission line losses to move the
18 electricity from the generating station to the
19 distribution system. So in a -- in a -- in addition to
20 that, there are -- there will be distribution losses.
21 No, that includes all the losses, because what we do is
22 we -- the -- the way the -- the load in Manitoba is
23 calculated, it's by -- we know what the generation is,
24 we know how much is being exported, so the difference
25 is what's being used in Manitoba. So that determines

1 the -- the Manitoba load; it's by -- by the difference.

2 We don't actually have meters on every -
3 - at every place electricity is used, because there's -
4 - you -- energy is used in transmission line losses,
5 and we don't meter those. So we have to do it -- the
6 only thing that we're metering is the generation and
7 the net interchange.

8 MR. BOB PETERS: Just a matter of
9 subtraction then is how you determine the Manitoba
10 load?

11 MR. DAVID CORMIE: Yes.

12 MR. BOB PETERS: Mr. Cormie, the
13 transmission losses, in my mind, it's a number of
14 approximately 10 percent is a -- is a figure used for
15 transmission losses?

16 MR. DAVID CORMIE: Ye -- yes. And --
17 and it's also dependent upon the state of the HVDC
18 system because there are conversion losses that are
19 included in the transmission losses calculation.

20 MR. BOB PETERS: They're part of that
21 10 percent number I gave you?

22 MR. DAVID CORMIE: They are.

23 MR. BOB PETERS: Yeah. And -- and just
24 on that point, Mr. Cormie, if you're exporting energy
25 to the United States, there's energy loss along the

1 transmission line as those electrons are headed south,
2 correct?

3 MR. DAVID CORMIE: Yes, there are
4 losses that are incurred in Manitoba and -- that are
5 associated with the exports.

6 MR. BOB PETERS: Who pays for those
7 transmissions losses that occur in Manitoba as you're
8 exporting the energy?

9 MR. DAVID CORMIE: They're paid for by
10 Manitobans.

11 MR. BOB PETERS: All right. And any
12 transmission losses on -- south of the 49th parallel
13 would be picked up by the American counterparty?

14 MR. DAVID CORMIE: Generally, yes.
15 There has been times in the past where Manitoba Hydro
16 had to supply the losses associated with certain
17 transactions. But now it's all built into -- in --
18 into the LMP price.

19 So although we -- we may not deliver
20 losses anymore, we have to -- we may have to pay for
21 losses through -- because loss costs are part of the
22 LMP price that we see at the Manitoba commercial node.

23 MR. BOB PETERS: And the acronym you
24 used?

25 MR. DAVID CORMIE: The LMP price? It's

1 the locational marginal price.

2 MR. BOB PETERS: All right.

3 MR. DAVID CORMIE: Locational marginal
4 price is the price that reflects the cost of losses and
5 the cost of congestion. And so if there are losses
6 between the Manitoba node and the generator that's
7 determining the market clearing price in MISO, that
8 difference reflects the cost of losses. So,
9 indirectly, Manitoba's paying for those losses that are
10 occurring through a lower price.

11 MR. BOB PETERS: While we're on page 37
12 of Board council's book of documents, Mr. Cormie,
13 looking still on that domestic load at generation
14 listing, the integrated system in 2009 shows 24,285
15 gigawatt hours of domestic consumption, correct?

16 MR. DAVID CORMIE: Yes.

17 MR. BOB PETERS: Is that the highest
18 domestic consumption Manitoba Hydro has ever had to
19 your knowledge, sir?

20 MR. DAVID CORMIE: From this table that
21 appears to be correct.

22 MR. BOB PETERS: All right. And I'm
23 just wondering if that's an all-time record, but you
24 wouldn't know that sitting here, I take it?

25 MR. DAVID CORMIE: I -- I believe that

1 to be the case. The numbers vary year-by-year based on
2 the weather and, you know, given the record warm
3 conditions we had last year, our -- our demand was
4 down. But, you know, I -- I can't imagine that prior
5 to 2003 we would have had more than that amount as a --
6 it doesn't seem to be conceivable.

7 MR. BOB PETERS: Mr. Cormie, just to
8 make sure that I absorbed your second last answer to
9 the Board, the HVDC losses on exports flow only to the
10 domestic customers and they're not allocated to any
11 exports.

12 Would that be a way of summarizing your
13 point?

14 MR. DAVID CORMIE: The -- the system
15 losses associated with exports are absorbed by -- by
16 Mani -- by Manitoba Hydro. They're -- they're part of
17 the cost of delivering that -- that energy to the
18 border. We don't -- we don't have an ability to
19 recover those losses.

20 MR. BOB PETERS: All right. And when
21 you say it's absorbed by Manitoba Hydro, what you mean,
22 is it, that it's charged through to Manitoba Hydro's
23 domestic customers are the ones who end up being
24 accountable for that?

25 MR. DAVID CORMIE: Right. The -- the -

1 - whether the electron -- or the electricity is sold to
2 the Manitobans or it's sold to the -- to the export
3 market, the losses are the same. We can allocate
4 losses back to those -- to those transactions in the
5 same way we allocate losses to domestic load. You can
6 allocate those things. But there's no way to recover
7 those costs; it's just, that's -- that's the cost of
8 moving electricity from northern Manitoba to southern
9 Manitoba.

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(BRIEF PAUSE)

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MR. DAVID CORMIE: The alternative, Mr.
Peters, would not to be to engage in the export. And -
- and then instead of getting 90 percent of the energy
sold, you'd sell none -- none of it; it would go over
the spillway. So it's better to get 90 percent than to
get zero. And -- because the losses are -- there are
sunk costs. They -- you have to --

MR. BOB PETERS: Yeah, I under -- I

understand your argument. And maybe my question got a
little bit ahead of us to the panel -- the third panel,
but in terms of a cost allocation, do you know if -- if
the transmission losses end up being allocated back to
the export customer class, or are those absorbed by

1 domestic customers?

2 MR. VINCE WARDEN: They would be
3 allocated back to the export class, Mr. Peters, as we
4 currently structure our cost of service study.

5 MR. BOB PETERS: All right. And if I
6 turn to the document that Ms. Ramage had marked as
7 Manitoba Hydro Exhibit 17, it was the -- I called it
8 "assumptions" and Mr. Rainkie corrected me; it's
9 "average unit revenue/cost calculations" for IFF12.

10 And if I -- if I look down approximately
11 five (5) lines to the export transmission losses line,
12 Mr. Warden and Mr. Rainkie and Mr. Cormie, those export
13 transmission losses then relate only to losses south of
14 the border, and not the losses inside of the Province
15 of Manitoba en route to export?

16 MR. DAVID CORMIE: No, those are the --
17 those are the losses -- the system losses that have
18 been allocated to the export. So it -- it brings the
19 export back to generation. We -- we do all our energy
20 accounting at -- at generation, as a hundred megawatts
21 at the -- a hundred megawatt sale at the border is like
22 110 megawatts at generation.

23 MR. BOB PETERS: Thank you. I've got
24 your point. On the IFF that was at Tab 3 of the book
25 of documents, that's PUB Exhibit 14, there's a line

1 item at the top -- one (1) of the largest line items
2 that -- under "revenues" is "general consumers at
3 approved rates."

4 You're with me there, Mr. Warden?

5 MR. VINCE WARDEN: Yes.

6 MR. BOB PETERS: And would it be
7 correct that every penny on that line item comes from
8 PUB approved rates?

9

10 (BRIEF PAUSE)

11

12 MR. VINCE WARDEN: Just trying to think
13 where we allocate late payment charges. I believe they
14 -- those get accum -- or those get recorded under
15 "other revenue".

16 Aside from that, yes, that -- that's --
17 your statement is correct.

18 MR. BOB PETERS: But -- okay, and
19 you're saying that there's even, under the other line
20 that we'll get to on this IFF, there's late payment
21 charges that the Board has approved that also gets
22 recovered, but in a different line?

23 MR. VINCE WARDEN: It is correct that
24 the Board doesn't approve the -- the late payment
25 charges. I would have to confirm for sure where

1 they're classified on this statement, though.

2 MR. BOB PETERS: All right. I -- then
3 I misunderstood your qualif -- or your qualified answer
4 to me, sir. What you're saying to the Board is that,
5 subject to where late payment charges are recorded, all
6 of the general consumers revenue at approved rates
7 comes from PUB approved rates?

8 MR. VINCE WARDEN: Yes.

9 MR. BOB PETERS: And rate increase
10 calculations that are proposed by the Utility are
11 calculated based on the volume of energy consumed that
12 underpins that dollar amount, correct?

13 MR. VINCE WARDEN: Yes, that's right.

14 MR. BOB PETERS: And would it also be
15 correct, Mr. Warden, that if export revenues are down
16 and Manitoba Hydro cannot decrease its costs in lock
17 step, then there's only the domestic customers left to
18 -- to be the additional source of revenues.

19 MR. VINCE WARDEN: Yes, that's right,
20 other than flowing through to net income for -- for the
21 -- for the period. But you -- if we have a drop in
22 export revenues, for example, next year compared to
23 what we're forecasting here, we're not going to be
24 coming back to the Public Utilities Board for -- to
25 make up that deficiency; that deficiency will flow

1 through to net income and -- and reduced retained
2 earnings.

3 MR. BOB PETERS: If it's negative?

4 MR. VINCE WARDEN: Well, if there's a
5 deficiency, it would be negative, yes.

6 MR. BOB PETERS: Touche. Thank you,
7 Mr. Warden. But if we reduce retained earnings, it --
8 it decreases the equity percentage in the Corporation,
9 correct?

10 MR. VINCE WARDEN: That's right.

11 MR. BOB PETERS: And then Manitoba
12 Hydro will want to increase its equity percentage, and
13 it looks to consumer rate increases to -- to help in --
14 in recovery of that money?

15 MR. VINCE WARDEN: Yes.

16 MR. BOB PETERS: So, ultimately, it's
17 the consumers who are going to end up having to -- to
18 pay for that?

19 MR. VINCE WARDEN: Ultimately, yes.

20 MR. BOB PETERS: All right. And the
21 general consumers revenues at approved rates depends on
22 the domestic revenues for that -- for that line item,
23 Mr. Warden?

24 MR. VINCE WARDEN: Yes, it does.

25 MR. BOB PETERS: And that domestic

1 revenues flows from Manitoba Hydro's load forecast?

2 MR. VINCE WARDEN: Well, the load
3 forecast is used in the -- in the determination of what
4 those revenues will be, yes.

5 MR. BOB PETERS: On a future basis or
6 forecast basis, correct?

7 MR. VINCE WARDEN: Yes, that's right.

8 MR. BOB PETERS: All right. And, Ms.
9 Morrison, maybe this is the time we can turn to Tab 6
10 and page 39 and 41, I suppose, of -- 39, 40, and 41 of
11 the book of documents found at Tab 6 of PUB Exhibit 14.

12 If the Board looks at the graphs, and I
13 know there's different scales involved with them, but
14 generally it is correct that the load forecast has been
15 successively reduced in the load forecast from 2007 to
16 2009 to 2011?

17 MS. LOIS MORRISON: That's correct.

18

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: When we turn to page
22 40, Ms. Morrison, we see here Manitoba Hydro has
23 provided the data points on its graph, and in the 2011
24 forecast for the 2011/'12 fiscal year, the forecast
25 consumption was 24,475 gigawatt hours of domestic load,

1 correct?

2 MS. LOIS MORRISON: Yes.

3 MR. BOB PETERS: And the actual for
4 that period of time, Ms. Morrison, has come in at a
5 thousand gigawatt hours lower than the 2011 load
6 forecast.

7 Would that be correct?

8 MS. LOIS MORRISON: The actual, 'not
9 adjusted for weather' effect, is a thou -- is
10 approximately a thousand gigawatt hours lower, yes.

11 MR. BOB PETERS: Okay. At the risk of
12 confusing me with the weather effects, are these
13 numbers in the table adjusted so that there's no
14 weather effects?

15 MS. LOIS MORRISON: The numbers in the
16 table on page 40 are weather normalized because they're
17 forecast numbers. So we assu -- it's assuming a normal
18 weather pattern. These are the anticipated gigawatt
19 hours that we would sell -- or that Manitobans would
20 consume.

21 MR. BOB PETERS: Okay.

22 MS. LOIS MORRISON: Actual will reflect
23 actuals' weather.

24 MR. BOB PETERS: Okay. No, you -- I
25 don't think you confused me as much as I thought. The

1 -- to explain to the Board, when you're doing a
2 forecast, you have to assume Manitoba Hyd -- Manitoba
3 Hydro will experience, in its service territories,
4 normal weather.

5 Is that correct?

6 MS. LOIS MORRISON: Normal weather for
7 Manitoba.

8 MR. BOB PETERS: Yes?

9 MS. LOIS MORRISON: Yes.

10 MR. BOB PETERS: And Manitoba Hydro has
11 statistically calculated how it defines weather --
12 normal weather in Manitoba.

13 MS. LOIS MORRISON: We have a factor
14 that we use that is based on past weather effect to
15 normalize the weather going forward, yes.

16 MR. BOB PETERS: I may not be as
17 familiar as I should be, Ms. Morrison, but is it a
18 rolling average that you provide of actuals to come to
19 a normal -- to a normal weather?

20 MS. LOIS MORRISON: We use a twenty-
21 five (25) year average. And so it is rolling in the
22 sense of every year we refresh it for the last twenty-
23 five (25) years.

24 MR. BOB PETERS: And what you're
25 telling the Board is that the average of those past

1 twenty-five (25) years is what Manitoba Hydro to -- is
2 -- defines as normal for Manitoba?

3 MS. LOIS MORRISON: Yes, it's what
4 we're using to normalize the weather.

5

6 (BRIEF PAUSE)

7

8 MR. BOB PETERS: Ms. Morrison, just for
9 record, we had determined that the most current
10 electric load forecast for 2012 is found at Attachment
11 -- Attachment 1 to the filing in support of the
12 September 1st interim rate increase. And included in
13 your -- in your load forecast is a weather adjustment
14 on -- I'm looking at page 38 of the most current one,
15 to provide the Board with an indication that the
16 adjustment can -- can fluctuate from, you know, minus -
17 - minus two hundred and twenty-five (225) maybe up to
18 as high as plus eight hundred (800)?

19 MS. LOIS MORRISON: Yes, that is
20 correct, the weather effect can represent that many
21 gigawatt hours.

22 MR. BOB PETERS: All right. So let's
23 go back to where I was with the 2011 load forecast on
24 page 40 at Tab 6 of PUB Exhibit 14. The forecast was
25 for 24 -- almost 24 1/2 thousand gigawatt hours.

1 And you're telling the Board the actual
2 came in about a 1,000 gigawatt hours less than that?

3 MS. LOIS MORRISON: That is correct.

4 MR. BOB PETERS: And if I remember what
5 Mr. Cormie taught me, that thousand gigawatt hours
6 would be enough to -- to use for a hundred thousand
7 typical residential homes that don't use electric heat?

8 MS. LOIS MORRISON: Yes, and it's about
9 800 gigawatt hours, so a few less houses.

10 MR. BOB PETERS: Okay, my math and
11 yours isn't quite up to date. But I'm looking at the
12 forecast of twenty-four, four seventy-five (24,475) and
13 the actual of twenty-three, five hundred (23,500).

14 MS. LOIS MORRISON: Sorry. Yes, I'm
15 looking at -- my math is wrong. It's --

16 MR. BOB PETERS: Okay.

17 MS. LOIS MORRISON: When I look at the
18 math, what we have is we have about twenty-three
19 thousand, six hundred and five (23,605), and it's more
20 so the way we track -- what we include and what we
21 don't include. It's a little bit different than what
22 is reported in the annual forecast.

23 MR. BOB PETERS: All right, thank you.

24 MS. LOIS MORRISON: But it's about 900
25 gigawatt hours, so, yes, a thousand gigawatt hours.

1 MR. BOB PETERS: We're still in the
2 same ballpark?

3 MS. LOIS MORRISON: Yes, sorry, we are.

4 MR. BOB PETERS: Okay. And if we look
5 at -- at the actual being about twenty-three thousand,
6 five hundred (23,500) that -- that I get from page 87
7 of the annual report that's in Tab 5 of the book of
8 documents, to where the forecast takes it for 2012/'13,
9 the first test year, Ms. Morrison, it now looks like
10 the growth would have to be the better part of 1,500
11 gigawatt hours to get back on track with the forecast?

12

13 (BRIEF PAUSE)

14

15 MS. LOIS MORRISON: Hello, Mr. Peters.
16 We have to take into consideration there are -- as --
17 as we mentioned there's some items that are not
18 included that the two (2) -- twenty-three five (23.5)
19 does not represent, compared to the forecast figures.

20 Now, for the twenty-three five (23.5),
21 we would have to add back in the weather effect,
22 because as we know, last year was a unseasonably warm
23 weather. And that would represent around 750 gigawatt
24 hours.

25 The other factor is that that twenty-

1 three five (23.5) would repre -- would be actuals
2 representing energy conservation effect that has
3 occurred over that last year, which, when we do our
4 load forecasting we do not include DSM programming in
5 that forecast. That DSM programming is netted out at
6 the pa -- at the time that the power source planning
7 function is prepared.

8 And, finally, the other factor that's
9 not included in the actuals as reported in the -- in
10 the annual report is station service. So -- so there
11 are a number of components that would actually bring us
12 quite -- quite nicely back to the twenty-five (25). So
13 if we have a regular winter this year, we -- and -- and
14 when you factor in the DSM components and the station
15 service, we'll probably be quite close to being back on
16 track.

17 MR. BOB PETERS: All right. But the --
18 the weather impact that was seen last year, that
19 doesn't automatically assume Manitoba Hydro's going to
20 start from that base, then? You're -- you're adding
21 that back to assume that's where you will be on a
22 weather-normal basis?

23 MS. LOIS MORRISON: We add back in that
24 weather-normal component to create the new baseline
25 from which we forecast forward, because we can't assume

1 that the actual will re -- represent where we're going
2 to start from, because we may not have a -- a warm
3 winter again this year. So we have to look at -- and -
4 - and given the weather so far, we can anticipate we're
5 not going to have the same winter we did last year.

6 MR. BOB PETERS: And you also said
7 station service has to be taken into account. And I
8 think Mr. Miles and Mr. Cormie referred us to that as
9 well.

10 Is station service another way for
11 saying that's the amount of electricity that Manitoba
12 Hydro uses to do its business?

13 MS. LOIS MORRISON: Yes.

14 MR. BOB PETERS: What is that total
15 number?

16

17 (BRIEF PAUSE)

18

19 MS. LOIS MORRISON: In our 2012 plan on
20 page 36, we outline the station service requirements.
21 And in 2011, we saw the usage being approx -- 131
22 gigawatt hours.

23 MR. BOB PETERS: Does that represent
24 Manitoba Hydro's consumption at all? Manitoba Hydro
25 facilities, including generating stations?

1 MS. LOIS MORRISON: As I understand it,
2 yes.

3 MR. BOB PETERS: Thank you. And on the
4 issue of DSM savings, am I correct in -- in
5 understanding your second previous answer to me, that
6 there's no way that Manitoba Hydro can actually meter
7 DSM savings, so Manitoba Hydro has to make an
8 assumption as to what DSM savings resulted in the
9 previous year?

10 MS. LOIS MORRISON: That is correct.
11 We do estimates of what the impact has been in previous
12 years, in terms of what actuals are. And we prepare a
13 forecast going forward as to what we anticipate to
14 achieve from DSM activities, or program-related DSM
15 activities, that are not included in the load forecast.

16

17 (BRIEF PAUSE)

18

19 MR. BOB PETERS: So from what answers
20 you've provided, Ms. Morrison, the expectation of
21 Manitoba Hydro then is that the -- the incremental load
22 growth will return of approximately 500 gigawatt hours?
23 That's after you've weather-normalized and taken in
24 your DSM adjuc -- adjustments, as well as your station
25 service amount?

1 MS. LOIS MORRISON: Sorry, I just want
2 to check on the 2012 forecast as opposed to the 2011
3 that's included here.

4

5 (BRIEF PAUSE)

6

7 MS. LOIS MORRISON: Yes, that is
8 correct. It's going to be approximately 500 to 590
9 gigawatt hours of growth.

10 MR. BOB PETERS: Thank you, Ms.
11 Morrison. Let's turn then to the domestic load growth
12 information found at page 42 of tab 6 of Board
13 counsel's book of documents. And this domestic load
14 growth takes into account both residential, plus
15 commercial, plus industrial?

16 MS. LOIS MORRISON: Yes. It includes
17 the residential market, our general service mass
18 market, and top consumers.

19 MR. BOB PETERS: And if we look, as we
20 have, the information just segmented on page 42, from
21 approximately 2001 through to 2006/'07, the average
22 annual increase appears to be approximately 2 1/2
23 percent.

24 You'd accept those numbers, ma'am?

25 MS. LOIS MORRISON: Yes, that is

1 correct.

2 MR. BOB PETERS: And then the Board
3 will see that from '07 to '12, the domestic load growth
4 dropped down to probably closer to 0.2 percent?

5 MS. LOIS MORRISON: Yes, that is
6 correct.

7 MR. BOB PETERS: And the -- the
8 forecast for the next five (5) years appears to be
9 almost ten (10) times the actual load growth for the
10 past five (5) years.

11 MS. LOIS MORRISON: Yes, but I think we
12 can all acknowledge that the last five (5) years has
13 been an unusual circumstance.

14 MR. BOB PETERS: Okay. So let's tell
15 the Board what the unusual circumstances are that will
16 result in the load growth increasing more than it has
17 in the last, on average, five (5) years.

18 MS. LOIS MORRISON: Well, in 2008, we
19 saw a significant market turnaround -- or -- no one
20 wants to use "a recession", but we did have an economic
21 downturn in the marketplace which saw a significant
22 amount of our customers, particularly in the top
23 consumers, adjust their loads and their operations in
24 order to manage through that economic downturn.

25 And what we're seeing and have had

1 communicated to us is that they are beginning to
2 recover and they are reinstating operations, which we
3 are comfortable that they will be returning back to
4 their previous level of operations, for the most part,
5 with the exception of the one (1) company within the
6 top consumers which we have removed which -- from the
7 pulp and paper industry which did discontinue
8 operations in Manitoba.

9 MR. BOB PETERS: Thank you, Ms.
10 Morrison. And I should indicate -- and I should have
11 indicated before now, Mr. Chairman and Board members --
12 that I'm not going to ask Ms. Morrison or anyone from
13 Manitoba Hydro to divulge specific customer
14 information. So to the extent we can, we should, we'll
15 -- we'll keep specific customers' names off the public
16 record, if -- if that's agreeable, Ms. Morrison?

17 MS. LOIS MORRISON: Yes, thank you.

18 MR. BOB PETERS: Well, let's look at
19 some specifics then, Ms. Morrison, and turn over to the
20 -- well, before we do; in terms of the annual energy
21 sales that's reported for the last five (5) years,
22 they've been relatively -- relatively flat, you would
23 agree, Ms. Morrison?

24 MS. LOIS MORRISON: Yes, they have.

25 MR. BOB PETERS: How does Manitoba

1 Hydro decide how much of that flat energy growth, or
2 non-growth, is attributed to DSM?

3 MS. LOIS MORRISON: We don't go back to
4 -- the last five (5) years, as we've mentioned, is a
5 very unique circumstance. How we determine what we've
6 done in terms of impact from DSM is we look at the
7 individual customer's participation and what they've
8 done specifically, and come up with estimates related
9 to that. That is how we determine our DSM impact.

10 The economic impact, or the economic
11 growth or lack of growth, is a separate indication in -
12 - within the -- within the actuals that we would have
13 to look at on a case-by-case -- as -- as -- at the
14 overall market. So, as -- as we've said before, it's
15 very difficult to go back and say that 'X' percent of
16 this was as a result of DSM.

17 MR. BOB PETERS: You said that one (1)
18 of the ways you judge DSM is by individual customers'
19 uptake of your programs?

20 MS. LOIS MORRISON: That is correct.

21 MR. BOB PETERS: And how do you measure
22 that?

23 MS. LOIS MORRISON: We have tracking
24 systems in place. So when a customer participates they
25 are basically applying to the program, and they tell us

1 details about what measures they're going to be taking
2 part in.

3 So, for example, we can use a
4 residential example where a customer has decided
5 they're going to, say, increase the insulation in their
6 home. We will collect quite a bit of information about
7 that particular customer in terms of the size of their
8 home, the level of insulation they're starting at, the
9 level of insulation they're coming to, which has to be
10 the Power Smart recommended standard. And we will use
11 that to determine what the energy savings on a average
12 installation would be for that customer; so not looking
13 at weather impacts and all that, just on the average --
14 for that customer, on average, they would save 'X'
15 kilowatt hours over the year.

16 A commercial customer who, say, is
17 participating in say our commercial lighting program
18 will do the same thing. We will -- they will apply to
19 the program; we will look at what they had installed,
20 what they're replacing it with, the number of units and
21 such, and that's how we track.

22 So we have multiple tracking systems
23 with all this information on each individual customer
24 from -- so we have a good idea as to what they've done.

25 MR. BOB PETERS: There'd be no

1 empirical tracking methodology by way of meter readings
2 or otherwise, would there, Ms. Morrison?

3 MS. LOIS MORRISON: For our industrial
4 programs, yes, we have more detailed metering
5 requirements. We also have metering, or spot metering
6 requirements, for some of our commercial programs.

7 MR. BOB PETERS: Not for the
8 residential?

9 MS. LOIS MORRISON: The residential
10 program, we will do verifications that the measures
11 have been put in place, but we use engineering
12 estimates to determine the actual energy savings. It
13 would be cost prohibitive to go out and meter
14 individual houses specific to those measures they
15 undertook.

16 MR. BOB PETERS: All right. Thank you.
17 Let's turn to the residential load forecast information
18 on page 43 at Tab 6 of PUB Exhibit 14.

19 And when we talk residential load
20 forecast, Ms. Morrison, what we're doing is -- Manitoba
21 Hydro has the electric heat customers together with
22 their standard customers, and you add those two (2)
23 together to get their total residential customers, as I
24 understand it.

25 MS. LOIS MORRISON: That is correct.

1 MR. BOB PETERS: And again, just
2 looking at the actual information in various time
3 periods, the Board will see that from '99 through to
4 '03, there seemed to be a large growth rate of about 9
5 percent a year.

6 MS. LOIS MORRISON: That is correct.

7 MR. BOB PETERS: Do you have any
8 recollection or knowledge as to why that seemingly
9 large, annual, average growth rate would have occurred?

10

11 (BRIEF PAUSE)

12

13 MS. LOIS MORRISON: We will have to get
14 back to you on the specific details as to why. We'll
15 probably have to look at weather effect, because these
16 are actual recorded, and look at the number of
17 customers that were new to the system to give you a
18 better idea as to what was causing that growth.

19 MR. BOB PETERS: Because it stands out
20 on the page, Ms. Morrison, I think we would appreciate
21 an undertaking to that effect to get back to the Board
22 on that when you can.

23 MS. LOIS MORRISON: Yes, we will.

24 MR. BOB PETERS: Okay, thank you.

25

1 (BRIEF PAUSE)

2

3 MS. LOIS MORRISON: We will report back
4 to the Board what was driving the annual increase in
5 energy consumption in the residential market from 1998
6 to 2003.

7

8 --- UNDERTAKING NO. 10: Manitoba Hydro to provide a
9 reason for the annual
10 increase in energy
11 consumption in the
12 residential market from
13 1998 to 2003; and to
14 indicate why it would be
15 flat in the last five (5)
16 years

17

18 CONTINUED BY MR. BOB PETERS:

19 MR. BOB PETERS: Going forward, we can
20 see that the next five (5) years, from '03 to '08,
21 increased the residential load on average about 2.2
22 percent a year, Ms. Morrison?

23 MS. LOIS MORRISON: That's correct.

24 MR. BOB PETERS: And then from '08 to
25 '12, it was down to 0.3 percent, approximately?

1 MS. LOIS MORRISON: That is correct.

2 MR. BOB PETERS: Would -- would, again,
3 you have any explanation as to why it would be
4 approximately flat in -- in the last five (5) years?

5 MS. LOIS MORRISON: I can say that part
6 of it will be the weather, because obviously the 2011
7 year coming in at 6,9 -- 6,900 gigawatt hours does
8 reflect that warmer winter. We will have to get back
9 to you on the specifics as to why it -- what the exact
10 impact of it is related to weather.

11 MR. BOB PETERS: I think that would be
12 helpful, if you could then undertake to do that.

13 MS. LOIS MORRISON: Yes, we can do
14 that.

15 MR. BOB PETERS: Thank you.

16 MS. LOIS MORRISON: As part of the
17 overall under -- as part of that one (1) undertaking.

18 MR. BOB PETERS: That'd be fine.
19 That'd be fine.

20 MS. LOIS MORRISON: Okay.

21 MR. BOB PETERS: Thank you. Now, in
22 terms of the forecast, the -- am I also correct that in
23 -- in about 2011, Manitoba Hydro had a change in their
24 calculation to have a better understanding of the
25 number of all-electric customers that they had?

1 MS. LOIS MORRISON: That is correct.

2 MR. BOB PETERS: Can you explain that
3 to the Board as to what happened there, or why -- why
4 there was a -- a readjustment?

5 MS. LOIS MORRISON: In 2009, we
6 undertook our residential -- residential energy use
7 survey. And through that survey we identified that
8 there was a discrepancy in our billing system as to who
9 was recorded as being an electric heat -- or electric
10 heat capable customer, and who was recorded as a
11 standard heat customers.

12 And so we took a closer look at our
13 system and were able to identify that there were a
14 number of customers that really based -- were using
15 electric heat as opposed to being coded as being
16 standard heat -- or other than electric. And so really
17 what you're observing there is a shift between customer
18 groupings.

19 MR. BOB PETERS: While it didn't
20 change, Ms. Morrison, the number of overall residential
21 customers, it just changed the allocation as between
22 which -- whether they were all-electric or standard
23 customers?

24 MS. LOIS MORRISON: That is correct.

25 MR. BOB PETERS: And they took with

1 them their energy consumption, depending on which class
2 you determined they properly were in?

3 MS. LOIS MORRISON: Yes.

4 MR. BOB PETERS: And going forward, can
5 you explain to the Board the -- the reasons that
6 Manitoba Hydro uses approximately a 1.5 percent per
7 year increase on the residential load?

8

9 (BRIEF PAUSE)

10

11 MS. LOIS MORRISON: The 1.5 percent
12 increase is primarily due to the forecast population
13 growth.

14 MR. BOB PETERS: Is Manitoba Hydro
15 forecasting that population growth to be at a higher
16 rate than it has been in the last five (5) years?

17 MS. LOIS MORRISON: Yes.

18 MR. BOB PETERS: And what's the reason
19 for the increase in the forecast of population?

20 MS. LOIS MORRISON: The popula -- our
21 population forecast is a compilation of a number of
22 different forecasters, and what they're anticipating is
23 that, due to the increase in immigration that is being
24 forecast, that our population will grow.

25 MR. BOB PETERS: Just help the Board

1 understand. These forecasts are forecasts that
2 Manitoba Hydro purchases?

3 MS. LOIS MORRISON: Yes, they are.

4 MR. BOB PETERS: And how many of them
5 do you get?

6 MS. LOIS MORRISON: For the...

7

8 (BRIEF PAUSE)

9

10 MS. LOIS MORRISON: We -- we do know
11 that they get six (6) population -- they get six (6)
12 forecasts for the GDP, so we will assume that they will
13 get six (6) forecasts for the population, but we can
14 confirm that.

15 MR. BOB PETERS: These forecasts are --
16 are documents that Manitoba Hydro doesn't put on the
17 public record?

18 MS. LOIS MORRISON: No, I don't believe
19 we put it on the public record.

20 MR. BOB PETERS: And is that at
21 Manitoba Hydro's insistence, or is that on the supplier
22 of the information's assistance -- insistence?

23

24 (BRIEF PAUSE)

25

1 MS. PATTI RAMAGE: Mr. Peters, they're
2 all looking at me, so --

3 MR. BOB PETERS: So it's your forecast.

4 MS. PATTI RAMAGE: I think part of it
5 is because I don't think anyone's ever asked for us --
6 for me to go look at why -- whether we can or not. I
7 suspect because they're purchased they can't go out.
8 But having said that, I don't think anyone's ever
9 requested to see them before, so it's never come across
10 my desk.

11 MR. BOB PETERS: Fair comment, Ms.
12 Ramage. Consider this then your first request to
13 produce them, and let us know if you're able to do that
14 without breaching any concerns of confidentiality by
15 Manitoba Hydro. If there are other concerns, you can
16 bring them to the Board's attention.

17

18 --- UNDERTAKING NO. 11: Manitoba Hydro to determine
19 whether it can provide
20 purchase forecasts for
21 population growth on the
22 record. If so, provide
23 information to depict the
24 forecaster's numbers and
25 what Manitoba Hydro

1 settled. Manitoba Hydro to
2 also look at what net
3 immigration was assumed and
4 provide a comparison of the
5 actual population growth
6 and the increase to
7 Manitoba Hydro's customers
8 for the last five years

9

10 CONTINUED BY MR. BOB PETERS:

11 MR. BOB PETERS: But, Ms. Morrison, are
12 you able for the -- these forecasts, do they look out
13 five (5) years or ten (10) years, or can you tell us
14 that at all?

15 MS. LOIS MORRISON: They are twenty
16 (20) year forecasts.

17 MR. BOB PETERS: Are you able to
18 provide the Board with -- with the forecasts on a table
19 or -- depicting Forecaster A, B, C, D, and E without
20 identifying who they are to show where their numbers
21 are -- are going?

22 MS. LOIS MORRISON: I think we'll have
23 to look into what we can and cannot provide as per the
24 purchase contracts.

25 MR. BOB PETERS: Okay. That's --

1 that's certainly fair. And then, if you're able to
2 provide that kind of a depiction to the Board, indicate
3 what number Manitoba Hydro has settled on, or do you --
4 do you settle on the average of the fi -- of the six
5 (6)?

6 MS. LOIS MORRISON: I believe they use
7 it to derive an average growth rate.

8 MR. BOB PETERS: All right. Maybe then
9 my request stands that, when you look at the -- at the
10 -- whether or not you can disclose the actual
11 forecasts, but provide it to the Board in a way that
12 the Board can see what each forecaster is forecasting,
13 and then include on that same chart the forecast number
14 that Manitoba Hydro has settled on.

15 MS. LOIS MORRISON: Yes, we will do
16 that.

17 MR. BOB PETERS: Okay. Thank you.

18 MR. RAYMOND LAFOND: Can I suggest that
19 we also, in order to put the forecasts in perspective,
20 look at what the actual net immigration was over the
21 last five (5) to ten (10) years? Because, from memory,
22 it has increased substantially year by year over the
23 last five (5) years, and the last two (2) years I think
24 were records.

25 MS. LOIS MORRISON: Yes, we can do

1 that, along with the overall population growth.

2

3

(BRIEF PAUSE)

4

5 CONTINUED BY MR. BOB PETERS:

6

MR. BOB PETERS: I want to --

7

THE CHAIRPERSON: Since -- since we're

8

on -- on that undertaking, why don't you throw in the

9

numbers that were actuals, what you actually

10

experienced in your customer base, so not just the

11

projection values for the past years, but what you

12

actually experienced. If you could do that, please.

13

MS. LOIS MORRISON: So we'll go back

14

five (5) years?

15

THE CHAIRPERSON: Five -- five years --

16

MS. LOIS MORRISON: -- or would you

17

like --

18

THE CHAIRPERSON: Five (5) years would

19

be fine.

20

MS. LOIS MORRISON: Okay.

21

THE CHAIRPERSON: Thank you.

22

MR. BOB PETERS: And you'll have those

23

numbers readily available from your load forecast,

24

correct?

25

MS. LOIS MORRISON: We will have the

1 customer number and --

2 MR. BOB PETERS: Yes.

3 MS. LOIS MORRISON: -- which is
4 different than the population forecast.

5 MR. BOB PETERS: Right.

6 MS. LOIS MORRISON: So what we'll do is
7 we'll provide -- given what we're looking at here
8 driving the changes, the population forecast, we'll
9 give you what we know to be the actuals for population
10 growth. And then we can also provide you with a
11 comparison of the customers.

12

13 CONTINUED BY MR. BOB PETERS:

14 MR. BOB PETERS: All right. Thank you.
15 I want to turn to the all-electric residential
16 customer, if I could, please. And starting on page 44
17 of Tab 6, in response to one (1) of the Information
18 Requests, Manitoba Hydro provided some information in
19 respect, first of all, of customer numbers, and then
20 also, in addition, provided the actual load growth, the
21 growth -- the energy consumption.

22 So, Ms. Morrison, just picking the
23 approximate ten (10) year period on this chart, going
24 back ten (10) years, the first forecast in 2007 for
25 electric heat customers was forecasting approximately

1 sixteen thousand (16,000) new all-electric customers
2 over a ten (10) year period, correct?

3 MS. LOIS MORRISON: That is correct.

4 MR. BOB PETERS: And we can fast-
5 forward to 2009 and see that that number went up to
6 twenty-three thousand (23,000) all new electric
7 customers forecast?

8 MS. LOIS MORRISON: That is correct.

9 MR. BOB PETERS: And then in '11 --
10 2011 electric load forecast, now Manitoba Hydro is
11 forecasting as many as thirty-five thousand (35,000)
12 new all-electric customers in the next ten (10) years?

13 MS. LOIS MORRISON: That is correct.

14 MR. BOB PETERS: And if we look at the
15 next page and we look at the -- at the consumption
16 level, the consumption will go up fro approximately 388
17 gigawatt hours over ten (10) years to 859 gigawatt
18 hours over the same ten (10) year period but in a
19 different later load forecast, correct?

20 MS. LOIS MORRISON: Yes, that is
21 correct.

22 MR. BOB PETERS: So on the face of it,
23 Manitoba Hydro, between '07 and 2011 forecasts, was
24 predicting the number of residential customers that
25 would be all-electric would essentially double from

1 sixteen thousand (16,000) up to thirty-five (25,000)
2 thousand?

3 MS. LOIS MORRISON: That is correct.

4 MR. BOB PETERS: But yet, the
5 consumption will track on a per capita basis also
6 double, approximately?

7 MS. LOIS MORRISON: Yes.

8 MR. BOB PETERS: And does that suggest
9 then that there's lower DSM being used by the electric
10 -- all-electric customer?

11 MS. LOIS MORRISON: No. What we're
12 seeing is there's a higher percentage of customers
13 choosing electric heat over -- so there's two (2)
14 compounding impacts occurring here. We're seeing a
15 higher percentage of customers choosing electric heat
16 to -- for their heating source. We're also seeing an
17 increased -- the -- the pop -- and also factoring in is
18 the population growth, which is what's driving up the
19 majority of that impact.

20 And -- but if you -- if you look in a
21 per unit basis, as a per -- per household consumption,
22 it's actually staying relatively constant. And if you
23 compare that though to our customers who are using
24 natural gas, or another alternati -- or another fuel
25 for their he -- their heat, you'll see that their

1 actual energy consumption per household is going up.

2 So what we see is that we -- what we're
3 seeing is, because the average consumption per home is
4 staying relatively constant for the electrically heated
5 customer, that we think that they're -- because they're
6 insulating their houses and doing more to -- to manage
7 that electric heat component, we're seeing that they're
8 potentially offsetting some of that increase as a
9 result of consumer goods that are going into our
10 houses, because we all like our really big TVs, and
11 such.

12 MR. BOB PETERS: All right, Ms.
13 Morrison. Let's see if we can show the Board that
14 then, on turning to page 46 of the book of documents at
15 Tab 6 of Exhibit 14. The standard customer that
16 Manitoba Hydro defines is the customer that has -- that
17 -- that isn't using electricity for space heat.

18 Would that be correct, Ms. Morrison?
19 The standard customer doesn't use electricity for space
20 heat?

21 MS. LOIS MORRISON: No, they're not
22 using electricity for space heat.

23 MR. BOB PETERS: But in answer to Board
24 member Lafond's previous question, some of these
25 customers may actually use electric hot water heat, but

1 you've factored that in in some percentage way?

2 MS. LOIS MORRISON: Yes, the -- and
3 what we'll see with the -- there -- there's a number of
4 factors that influence the numbers that are presented
5 from 2007 and 2000 -- to '11.

6 So, first off, yes, there are more
7 customers choosing electric water-heating. And, so, on
8 a per-customer basis, or a per-household basis, the
9 average usage in a standard home is increasing along
10 with the fact that the mis -- what we deem to be
11 miscellaneous loads are also increasing; that would be
12 the electronics. The gaming systems, laptops, set-top
13 boxes, those types of things are increasing in these
14 homes.

15 Now, one (1) item to -- to recognize, in
16 doing the comparison between 2007 and 2011, is that the
17 average usage per home in the 2007 figures included
18 those customers that were mis -- miscoded as electric -
19 - as standard, but were using electric heat. So when
20 we looked at the average consumption of those
21 customers, they would have made the average consumption
22 look higher than it was for standard -- for a standard
23 heated home.

24 MR. BOB PETERS: All right. And you're
25 -- you're ahead of me as usual, Ms. Morrison.

1 MS. LOIS MORRISON: Oh.

2 MR. BOB PETERS: But let's look to the
3 page 47 and look at the load. This is measuring the
4 energy consumed. And the point on page 47 is that the
5 -- the forecast for a ten (10) year period going
6 forward is -- 266 gigawatt hour increase over ten (10)
7 years was forecast in '07, and that -- for that same
8 period of time, the forecast went up to 308 gigawatt
9 hours for the ten (10) year period in your 2011 load
10 forecast, correct?

11 MS. LOIS MORRISON: That is correct.

12 MR. BOB PETERS: So if we -- if the
13 Board looks at the previous page, they'll see that the
14 -- the customer numbers forecast have increased 50
15 percent, yet the load increase is only 15 percent or
16 so, correct?

17 MS. LOIS MORRISON: That is correct in
18 what's presented here. But, as I mentioned --

19 MR. BOB PETERS: All right.

20 MS. LOIS MORRISON: -- the -- the
21 average -- we can't necessarily use the -- the average
22 consumption that was presented in the 2007 forecast and
23 directly compare it to the 2011, because of the fact
24 that we did have that -- those approximately eighteen
25 thousand (18,000) customers that were electrically

1 heated are included in that number. Or -- so now the
2 2011 forecast has that pulled out and is truly
3 reflecting what would be customers with stan -- heating
4 other than electric.

5 MR. BOB PETERS: Just so I'm clear, the
6 mistake was that you had in your standard customer base
7 eighteen thousand (18,000) too many customers because
8 they were actually all electric?

9 MS. LOIS MORRISON: That's correct.

10 MR. BOB PETERS: And that change was
11 made in 2011, or was that made earlier?

12 MS. LOIS MORRISON: Yes, that's just in
13 the 2011 forecast.

14 MR. BOB PETERS: Let's -- let's turn to
15 a little bigger picture then, Ms. Morrison: The total
16 customer number growth forecast for the next ten (10)
17 years. In the '07 forecast, if we add the all-electric
18 with the standard -- and you'll have to accept these
19 numbers subject to check, unless you want me to take
20 you to the specific pages -- you add the all-electric
21 and the standard back in '07, and you were predicting
22 about thirty thousand (30,000) new customers.

23 And then if we jump forward to 2011 and
24 add the all-electric and the standard together, the
25 forecast goes up to about fifty-eight thousand (58,000)

1 new customers over the ten (10) year period to follow,
2 correct?

3 MS. LOIS MORRISON: Subject to check,
4 yes, that's correct.

5 MR. BOB PETERS: All right. And -- and
6 so the -- the new forecast -- whether these -- whether
7 these eighteen thousand (18,000) were miscategorized or
8 not won't matter in this assessment, will it, because
9 they're still customers in one (1) of the two (2)
10 categories?

11 MS. LOIS MORRISON: Correct.

12 MR. BOB PETERS: So Manitoba Hydro is
13 almost doubling its prior forecast, in terms of the
14 total number of residential growth?

15 MS. LOIS MORRISON: In terms of the
16 number of customers? Yes.

17 MR. BOB PETERS: Yes. And that
18 undertaking that you provided may help reconcile where
19 Manitoba Hydro forecasts this growth to be coming from?

20 MS. LOIS MORRISON: Yes, it will.

21 MR. BOB PETERS: Okay, and thank you.
22 The historical average over the last ten (10) years has
23 been less than 1 percent. Is that also correct?

24 MS. LOIS MORRISON: For the number of
25 customers?

1 MR. BOB PETERS: For the number of
2 customers, residential customers.

3

4 (BRIEF PAUSE)

5

6 MR. BOB PETERS: I was looking -- I --
7 I think I got the note, Ms. Morrison, on page 7 of the
8 load forecast, Appendix 8.1. I -- I didn't put it in
9 the book of documents.

10 MS. LOIS MORRISON: Sorry. That would
11 be the 2011 load forecast?

12 MR. BOB PETERS: It was, yes. Appendix
13 8.1 of the filing. Page 7.

14

15 (BRIEF PAUSE)

16

17 MS. LOIS MORRISON: On page 7, you are
18 referring to the notation that cu -- residential basic
19 customers are forecast to grow at an -- an increase of
20 1 percent per year? I'm sorry, is that what you're
21 referring to?

22 MR. BOB PETERS: I -- I was looking at
23 the historical average was -- was 1 percent or slightly
24 less than 1 percent.

25 MS. LOIS MORRISON: Yeah.

1 MR. BOB PETERS: And then the forecast
2 going forward is -- is closer to 1 1/2 percent a year?

3 MS. LOIS MORRISON: The forecast going
4 forward for the number of customers is around 1.1
5 percent. And the other contributing factor is the
6 increased -- to the gigawatt hour forecast is the
7 increased pe -- participation by customers choosing
8 electric heat.

9 MR. BOB PETERS: All right. Thank you
10 for that. I'll come back and revisit that. But, Mr.
11 Chairman, this might be an opportune time for the
12 afternoon recess, subject to any questions of the
13 Board.

14 MR. RAYMOND LAFOND: Just one (1) brief
15 question. In the -- in the last five (5) years, the
16 new homes being built in Winnipeg, are they essentially
17 all opting for electric heat or gas? And -- and is --
18 is the tendency changing, or is it the same over the
19 last five (5) years? And what do you foresee for the
20 future?

21 MS. LOIS MORRISON: What we're seeing
22 in Winnipeg is -- in -- in Winnipeg proper, is still
23 natural gas, high-efficiency furnaces, but they're
24 installing electric water tanks. It's more so the
25 growth that we're seeing in the southern part of the

1 province, more the capital region outside of what we
2 would deem to be the south gas area.

3 We're seeing more subdivisions where
4 they're choosing electric heat. Steinbach, Morden,
5 Winkler, that area, we're seeing a -- an increased
6 growth in electric heat as being -- as being the
7 primary heating source. There's some infill lots in
8 Winnipeg and -- that are choosing electric, but they
9 are very few and far between.

10 But what we are seeing in Winnipeg,
11 though, is in the multi-unit. Apartment blocks are
12 choosing to install electric heat. And those are
13 included in our residential numbers, because they will
14 put electric baseboards in the individual units of the
15 apartment blocks, and that way the customer themselves
16 pays for the heat as opposed to the property manager or
17 the property owner.

18 MR. RAYMOND LAFOND: So when you look
19 over the last five (5) years, what is the trend? Is it
20 increasing, decreasing, in terms of those who go all-
21 electric?

22 MS. LOIS MORRISON: The trend over the
23 last five (5) years has been an increase in the number
24 of people installing electric heat.

25 THE CHAIRPERSON: So why don't we take

1 ten (10) minutes? So back in the room at about ten
2 (10) to 3:00, please.

3

4 --- Upon recessing at 2:37 p.m.

5 --- Upon resuming at 2:57 p.m.

6

7 THE CHAIRPERSON: I believe we're ready
8 to resume proceedings. I have a question for you, Ms.
9 Morrison, and it's something that came up when we were
10 having our break.

11 When we're talking about electric heat,
12 are we making a distinction between electric radiant
13 heat and electric forced air, or is it -- or you all --
14 all users are combined together?

15 MS. LOIS MORRISON: They're combined
16 together. They're treated as one (1).

17 THE CHAIRPERSON: And the new homes
18 south of Winnipeg that are using electric heat, are
19 they using radiant or are they using furnace? Can you
20 tell or do you know or...?

21 MS. LOIS MORRISON: We -- we don't...

22

23 (BRIEF PAUSE)

24

25 MS. LOIS MORRISON: When you refer to

1 "radiant heat", you are talking about a boiler system,
2 correct?

3 THE CHAIRPERSON: I'm talking of the
4 baseboard heaters. Does anybody do that at all?

5 MS. LOIS MORRISON: Yes, there's still
6 some people that install baseboard heating. But we --
7 in our 2009 energy survey we did identify customers and
8 asked them to identify what type of electric heating
9 they had, if it was a boiler or a baseboard or a
10 forced-air furnace.

11 So we can get you those numbers. But
12 from a -- from a planning purpose, they all use the
13 same amount of energy. That energy for space heating
14 is more derived from the size of the house and the
15 level of insulation, so.

16 THE CHAIRPERSON: But the motivation
17 for somebody to use electricity versus gas is -- I
18 mean, it's probably a set of variables, but lower
19 capital cost, is that the reason?

20 MS. LOIS MORRISON: Yes, for the most
21 part.

22

23 CONTINUED BY MR. BOB PETERS:

24 MR. BOB PETERS: Ms. Morrison, before
25 the afternoon recess you and the Chairman were having a

1 discussion. And you mentioned that Manitoba Hydro is
2 seeing, in my words, the Pembina Valley uptake of all-
3 electric homes at a greater rate than had previously
4 been thought.

5 Have I got that right?

6 MS. LOIS MORRISON: That is correct.

7 MR. BOB PETERS: And does Manitoba
8 Hydro have an ability to demonstrate to the Board on a
9 geographic region basis the higher uptake of
10 electricity for electric-heated homes compared to what
11 -- what they presently have?

12 Can you show that by region?

13

14 (BRIEF PAUSE)

15

16 MS. LOIS MORRISON: Yes, we can
17 identify how many homes were constructed from 2005 to
18 2009, installing electric heat in the -- what we call
19 the south gas available area. We are just trying to
20 locate that information to see whether or not we've
21 already filed it as an IR, or, if not, then we'll bring
22 it forward.

23 MR. BOB PETERS: Thank you. And -- and
24 in that information you'll have not only the electric-
25 heat customer growth, but you'll also have the -- the

1 number of non-heat or standard customer growth?

2 MS. LOIS MORRISON: Yes.

3 MR. BOB PETERS: Okay, that would be
4 helpful if you could undertake to provide that. And if
5 it's not already on the record, that would be greatly
6 appreciated, Ms. Morrison. Thank you.

7

8 --- UNDERTAKING NO. 12: Manitoba Hydro to provide
9 electrical heat growth in
10 the Pembina Valley region
11 and the non-heat/standard
12 customer growth

13

14 CONTINUED BY MR. BOB PETERS:

15 MR. BOB PETERS: Ms. Morrison, I hope
16 you didn't talk to Mr. Cormie at the break about his
17 300-horsepower car because we're going to talk about
18 electric vehicles now. And I'm surprised he mentioned
19 such a -- such a high-muscle car, but that perhaps days
20 of his youth, we...

21 The plug-in electric vehicle is -- is
22 now becoming a reality, Mr. Morrison. Would that be
23 fair to say?

24 MS. LOIS MORRISON: Yes.

25 MR. BOB PETERS: And on page 48 of the

1 book of documents you include some information, some
2 data, on the plug-in electric vehicle. And let's just
3 first get the -- the understanding clear, that in 2011
4 you're telling the Board that there was thirty (30)
5 plug-in electric vehicles in -- in Manitoba?

6 MS. LOIS MORRISON: That was our
7 estimate at the time of what we thought would likely be
8 in the market. We had not confirmed that.

9 MR. BOB PETERS: Is one (1) of those
10 Mr. Warden's? Does Manitoba Hydro have a fleet of
11 electric vehicles? I -- I was actually partially
12 serious with that question.

13 MS. LOIS MORRISON: We have confirmed
14 that as of March 31st, 2012, that there are actually
15 five (5) registered electric vehicles in the Province
16 of Manitoba. And, yes, one (1) of them is, I think,
17 the one (1) that -- no, I don't -- you're not driving
18 an electric vehicle? No, he's not one our VPs testing
19 them. Lloyd Kuczek is one of those VPs testing them.

20 MR. BOB PETERS: And so the five (5)
21 registered vehicles, how many of those are registered
22 to Manitoba Hydro?

23 MS. LOIS MORRISON: I believe three (3)
24 of them are.

25 MR. BOB PETERS: Okay. And so when we

1 look at page 48, and we go down to the line,
2 "2011/'12," the total PEV number in the -- at
3 approximately the middle of the page, across from
4 2011/'12, instead of a hundred and thirty (130), it
5 should be five (5), because that's an actual number
6 now?

7 MS. LOIS MORRISON: Yes, that is
8 correct.

9 MR. BOB PETERS: Okay.

10 MS. LOIS MORRISON: That is reflected
11 in our 2012 load forecast.

12 MR. BOB PETERS: Right. I've got a
13 couple of questions about the -- the 2012. I looked at
14 it at the break on this point. But plug-in electric
15 vehicles, just for those of us who are more in Mr.
16 Cormie's era, the -- these include vehicles that are
17 battery only.

18 Is that correct?

19 MS. LOIS MORRISON: They include ones
20 that are battery -- plug-in electric vehicles that have
21 a battery as the primary. That would include vehicles
22 such as the Nissan Leaf. It also includes cars such as
23 the Chevy Volt, which does have a small gasoline
24 component to it, or internal combustion engine, to
25 provide greater range.

1 One of the concerns with consumers for
2 uptake with the plug in electric vehicles is range.
3 There's -- they call it range anxiety, that they think
4 they'll run out of kilowatt hours by the time they need
5 to get to their destination, and they may not be able
6 to return or such. So because of the battery
7 development, the range on these vehicles per fill isn't
8 as great as you would have with a inc -- internal
9 combustion engine.

10 MR. BOB PETERS: But this does not in -
11 - when we look at PEVs by definition, Ms. Morrison,
12 that doesn't include the -- the car -- and I only know
13 them by brand names. But -- yeah, the taxis that have
14 --

15 MS. LOIS MORRISON: It doesn't include
16 --

17 MR. BOB PETERS: -- the battery that
18 also has the gas in it?

19 MS. LOIS MORRISON: Yeah. No, it does
20 not include the -- the hybrids. The hybrids don't plug
21 in. They are -- the -- the battery is charged from the
22 braking system and internal systems of the car.

23 MR. BOB PETERS: Okay, thank you for
24 that. That should be easier for me to -- to recognize
25 that. When the Board looks at the bottom of page 48 --

1 and let's just go down to the middle. The -- the total
2 number of vehicles forecast out to 2031, you're showing
3 nine hundred and sixty thousand, four hundred and sixty
4 (960,460) on this table at page 48, Ms. Morrison.

5 But when I looked at the -- the new load
6 -- or, the newer load forecast for 2012, that's up over
7 a million. It's one million, twelve thousand
8 (1,012,000). So you're increasing -- your forecast is
9 to increase the number of vehicles on the road by the
10 end of this forecast period?

11 MS. LOIS MORRISON: Yes, that's true.
12 Sorry, I just have to find the page.

13 MR. BOB PETERS: Well, I'm sure this
14 Board'll see that through the MPI side of its business.
15 But when we turn over to the total PEV line, what you
16 show is forty-two thousand, nine hundred and twenty
17 (42,920) in a forecast, that's been downgraded now. I
18 think it's on page 48, Ms. Morrison --

19 MS. LOIS MORRISON: Thank you.

20 MR. BOB PETERS: -- of the new -- I'm
21 sorry, no, that's -- sorry. Page 37 of your -- of your
22 book. I was just wanting the Board to be aware that
23 you had forecast initially forty-two thousand, nine
24 hundred and twenty (42,920) plug in electric vehicles
25 by the end of your forecast in 2031. And that number's

1 been now downsized to fifteen thousand, four hundred
2 and ten (15,410).

3 Have I got that right?

4 MS. LOIS MORRISON: Oh, yes. For the -
5 - for 2030/'31. Yes, that's correct.

6 MR. BOB PETERS: And so what -- what
7 the Board is seeing is a significant reduction in the
8 forecast for plug-in electric vehicles.

9 And -- and why has Manitoba Hydro
10 downgraded its forecast related to that specific item?

11 MS. LOIS MORRISON: We're -- we've
12 downgraded it primarily because we have not seen the
13 battery technologies take off as such that we had --
14 was originally being proposed. When plug-in electric
15 vehicles first started hitting the market there was
16 quite a bit of excitement, and there was a lot of talk
17 about how many would be -- how -- how it would be
18 changing every -- the -- the evolution of car driving.

19 And what we've seen is that the -- the
20 projections that were originally anticipated have not
21 yet materialized. And so based on our projections,
22 case in point, we had originally thought that there
23 would be more in the market, and there's not. There's
24 only five (5) right now, and they're all -- I -- I do
25 know that four (4) of those five (5) are with the --

1 either a Crown or the provincial government.

2 So it's -- it's difficult to -- at this
3 point in time, to project a very aggressive adoption.
4 Until we see something significant happen, in terms of
5 battery technology and customers which would then
6 alleviate that range anxiety that we talked about,
7 we're not going to see a significant uptake.

8 MR. BOB PETERS: Everybody in the room,
9 Ms. Morrison, has now assumed that the fifth and last
10 registered PEV in the province of Manitoba is with Mr.
11 Gange. So we'll have to see if that's accurate.

12 That aside, what is Manitoba Hydro
13 specifically doing to get there? And I want to talk
14 dollars and cents. Is Manitoba Hydro going to be
15 spending ratepayers' money on putting up public
16 charging stations, for example?

17 MS. LOIS MORRISON: At this point in
18 time, we do not have any plans to invest public --
19 sorry, ratepayer dollars in public charging stations.

20 MR. BOB PETERS: All right. You're
21 leaving the plug-in electric vehicles to be simply a
22 consumer choice, and whatever infrastructure is needed
23 to support those vehicles will have to be provided by
24 sectors other than Manitoba Hydro?

25 MS. LOIS MORRISON: I think we would be

1 willing to work with any partner organizations that
2 wish to come to the -- to the province to start looking
3 at providing those types of -- that type of
4 infrastructure.

5 Right now, the -- the benefit of -- and
6 -- and this is part of that cultural shift that has to
7 occur for plug-in electrical vehicles to take off.
8 Right now, we -- we go to the gas station to fuel up.
9 But you can't fuel up at home. The difference is, is
10 that if you've got a plug-in electric vehicle, you can
11 fuel up at home. You may not need that gas station as
12 much or -- or that charging station.

13 So these are some of the things that are
14 a little bit different about it. So at this point in
15 time, Manitoba Hydro believes that, you know, there is
16 infrastructure existing to support at this time. But
17 if -- if there were to be an organization or -- or a
18 company to wor -- to -- to Manitoba Hydro and want to
19 work with us, we'd be perfectly happily -- happy to
20 work with them at that time.

21 MR. BOB PETERS: Well, let's be clear.
22 When you say, "work with them," does that mean also
23 spend Manitoba Hydro's money? I'm sorry, I'll...

24 Sorry, Ms. Morrison, did you want to
25 continue or did you want me to pull...

1 MR. RAYMOND LAFOND: Can I suggest that
2 in Manitoba we have a lot of parking spaces with
3 electric outlets, electrical outlets, which that does
4 not egi -- exist when you go a thousand miles south and
5 they do not have that infrastructure. But we do, in
6 large part.

7 MS. LOIS MORRISON: That is correct.
8 And there are some parkades that are now contemplating
9 putting in the 240-volt charging that provides quicker
10 charging. But it's still not being picked up to any
11 great extent. Like when I say a cou -- I -- I mean
12 quite seriously one (1) or two (2), so.

13

14 CONTINUED BY MR. BOB PETERS:

15 MR. BOB PETERS: Ms. Morrison, this
16 will probably show more of my ignorance than knowledge,
17 but can these vehicles be plugged in by the 120-volt
18 plug-ins in people's garages or outside their homes?

19 MS. LOIS MORRISON: Yes, but they take
20 quite a bit more time to charge.

21 MR. BOB PETERS: All right. And that's
22 why you said if you get a 240-volt adapter you can
23 charge them more quickly?

24 MS. LOIS MORRISON: Yes, but we're
25 talking the difference between say eight (8) hours and

1 four (4) hours to get a full charge.

2 MR. BOB PETERS: And is Manitoba Hydro
3 aware that there are programs in other jurisdictions
4 that do support a public infrastructure for charging
5 stations?

6 MS. LOIS MORRISON: I'm aware -- well,
7 sorry, Manitoba Hydro is aware that there are other
8 organiz -- other jurisdictions that have programs in
9 place to support. I'm not aware of the specific
10 details of those funding arrangements.

11 MR. BOB PETERS: Such as in the
12 Province of British Columbia?

13 MS. LOIS MORRISON: I'm not aware of
14 the specific details of that arrangement.

15 MR. BOB PETERS: All right. So what I
16 -- what I take, and Mr. Warden's been eerily silent,
17 but there's nothing forecast here in terms of
18 expenditures in the next -- in the forecast period of
19 the IFF to support infrastructure, to support public --
20 or, sorry, plug-in electric vehicles?

21 MS. LOIS MORRISON: There is no
22 additional funds other than what we normally would do
23 to -- to, say, improve our distribution system if the
24 load required it.

25 MR. BOB PETERS: We'll -- we'll come to

1 that, Ms. Morrison. But am I correct in -- up until
2 2031, there's nothing specific in the distribution
3 upgrades for the residential customer or the commercial
4 customer that is -- that is over and above what would
5 be otherwise expected and related only to the PEV?

6 MS. LOIS MORRISON: No, there is
7 nothing additional.

8 MR. BOB PETERS: All right. Thank you
9 for that.

10

11 (BRIEF PAUSE)

12

13 MR. BOB PETERS: Ms. Morrison, before I
14 leave the point, if you could flip ahead to page 67 of
15 the book of documents, we may as well address it right
16 now. On page 67 in Tab 7 of the book of documents,
17 there's -- there's a page out of Appendix 8.1 which is
18 the 2011 load forecast about unexpected potential loads
19 and some of the consequences of that.

20 You're familiar with that, ma'am?

21 MS. LOIS MORRISON: Yes.

22 MR. BOB PETERS: And one (1) of the
23 consequences listed is additional load if electric
24 vehicles grow to 70 percent. Now, first of all, that's
25 certainly not expected, that's not forecast, that's not

1 planned.

2 Am I correct so far?

3 MS. LOIS MORRISON: That is correct.

4 This is presented only as a sensitivity of what it
5 would look like if this were to happen.

6 MR. BOB PETERS: And now that you've
7 downgraded the forecast, even this additional
8 requirement for energy and capacity is even more
9 unrealistic.

10 Would that be true?

11 MS. LOIS MORRISON: Yes.

12 MR. BOB PETERS: Let's turn to the
13 general service load growth table. And what kind of
14 customers are we talking, Ms. Morrison, when we talk
15 about general service customers?

16 MS. LOIS MORRISON: General service
17 would be our commercial and industrial customers, so
18 anything from government, institution, retail,
19 manufacturing -- all other customers outside of
20 residential.

21 MR. BOB PETERS: And on page 47 of the
22 book of documents, back on tab 6, the general service
23 load has been broken down between mass market and top
24 consumers to equal a total general service.

25 Do you see that, ma'am?

1 MS. LOIS MORRISON: Yes.

2 MR. BOB PETERS: And the mass market
3 would be all general service customers except Manitoba
4 Hydro's top consumers?

5 MS. LOIS MORRISON: Correct.

6 MR. BOB PETERS: And the top consumers
7 -- if I have this right, it's seventeen (17) customers
8 that have twenty-five (25) meters?

9 MS. LOIS MORRISON: Twenty-five (25)
10 accounts, yes.

11 MR. BOB PETERS: Okay. Did I say it
12 wrong? These -- there's not twenty-five (25) meters
13 for those seventeen (17) customers?

14

15 (BRIEF PAUSE)

16

17 MS. LOIS MORRISON: Yes, that's
18 correct.

19 MR. BOB PETERS: So one (1) customer
20 may have -- in -- in reality has more than one (1)
21 meter. Does that reflect more than one (1) place of
22 business?

23 MS. LOIS MORRISON: Yes, that does
24 reflect more than one (1) location.

25 MR. BOB PETERS: And when we talk about

1 mass market, we know from some of the information
2 provided that there's about sixty-five thousand one
3 hundred and ninety-five (65,195) general service
4 customers; about sixty-five thousand (65,000)?

5 MS. LOIS MORRISON: That sounds
6 correct, subject to check.

7 MR. BOB PETERS: Thank you. And of
8 those, approximately 85 percent would be commercial,
9 and 15 percent would be the industrial?

10 MS. LOIS MORRISON: Yes.

11 MR. BOB PETERS: And what we -- what
12 the Board members will see in the annual report
13 statistics back in Tab 5 on page 37 of the book of
14 documents is that when it comes to electric load --
15 sorry, electric system deliverable -- yeah, I'm looking
16 on page 37 at Tab 5 of the book of documents, in an
17 extract from Manitoba Hydro's annual report. In
18 approximately the middle of the page there's some
19 information about electric system deliverable, millions
20 of kilowatt hours. And the residential and the general
21 service customers are shown, where it's roughly two-
22 thirds (2/3s) general service and one-third (1/3)
23 residential?

24 MS. LOIS MORRISON: Correct.

25 MR. BOB PETERS: But when it comes to

1 money, if we look a little further down, if we look at
2 the -- the revenues from -- from the customers actually
3 back on the other page, on that page 37, you can barely
4 make out that page number, but the top left-hand corner
5 of page 36, we go on the revenues. And if we're
6 looking for the 2012 year, we can see that the
7 residential customers bringing in just under 500
8 million and the general service customers are about
9 \$700 million, correct, more of a 60:40 spilt in favour
10 of the general service customer?

11 MS. LOIS MORRISON: That is correct.

12 MR. BOB PETERS: All right. In terms
13 of the load growth back on page 49 of the book of
14 documents, if we look at the mass market to start with
15 and we pick up some of the segmented years, we can
16 start from 2000 up to 2005/'06, the growth rate was
17 about 95 -- approximately 95 gigawatt hours a year
18 increase, or a 6.3 percent increase. And that follows
19 by the numbers that are shown: 1.7 percent increase,
20 and then 2 percent increase, and then 1.7, again?

21 MS. LOIS MORRISON: Correct.

22 MR. BOB PETERS: And this is the mass
23 market that -- it doesn't reflect any large recession
24 or economic decline, for the most part, Ms. Morrison?
25 Would you say that it's held relatively steady?

1 MS. LOIS MORRISON: Yes, although we
2 did have the -- the -- they -- they would have, in some
3 way, experienced it. They did not feel it the same way
4 our top consumers would have.

5 MR. BOB PETERS: All right. So let's
6 turn over and look at the top consumers. And what
7 you're telling the Board is that, in the early years of
8 what's depicted here from the -- the load growth
9 information, the top consumers were increasing their
10 loads at 5.4 percent for the first five (5) or six (6)
11 years, from 2001 through to 2006, correct?

12 MS. LOIS MORRISON: Correct.

13 MR. BOB PETERS: And then the -- that --
14 - the top consumers were -- were -- suffered a rate --
15 an average rate decrease of about 2 percent for the
16 next five (5) years?

17 MS. LOIS MORRISON: That is correct.

18 MR. BOB PETERS: And Manitoba Hydro's
19 forecast is that going forward the -- the increase will
20 be 2.6 percent, approximately on average, for the next
21 five (5) years?

22 MS. LOIS MORRISON: That is correct.

23 MR. BOB PETERS: Can you explain to the
24 Board, when -- when the overall mass market is staying
25 relatively static, why is it that Manitoba Hydro

1 believes the top consumers are going to rebound to --
2 to growth rates that hadn't been experienced on average
3 for the last five (5) years?

4 MS. LOIS MORRISON: We prepare our top
5 consumer's forecast based upon discussions with those
6 individual customers, based on what they are
7 projecting. And we only include those items which we
8 see they have actually undertaken measures to install
9 related to plant expansions, or such.

10 What we have seen already is cus -- as I
11 mentioned earlier, is that, among our top consumers,
12 they have started to -- their energy consumption has
13 already begun to return back to normal, pre -- they've
14 already started to come back to a level closer to what
15 they were before the economic downturn.

16 The other thing that we're seeing is
17 that although we did have the losses of the one (1) top
18 consumer, we have seen expansion in a number of other
19 sectors. Particularly, in the pipeline and the
20 chemical sector -- are growing to offset that change,
21 and to offset the upcoming shut down of a smelter and
22 refinery in northern Manitoba.

23 We're seeing, actually, over the next
24 five (5) years, approximate net 300 gigawatt hour
25 increase, as a result of the offsetting increases to

1 load among those consumers.

2 MR. BOB PETERS: Ms. Morrison, let's
3 follow that up on page 50 of the book of documents,
4 with the industrial sector load growth summary. And in
5 terms of the top consumers information at the far right
6 of the chart on page 50 of Tab 6, PUB Exhibit 14,
7 there's a slight decline from '05 through to '12 in the
8 top consumers, correct?

9 MS. LOIS MORRISON: I'm sorry, could
10 you repeat?

11 MR. BOB PETERS: Yes, I'm on page 50,
12 looking at top consumers, the far right hand column.
13 And I'm seeing that the top consumers growth is -- is
14 declining, on average, by about 1.2 percent a year?

15 MS. LOIS MORRISON: But it's coming --
16 it did decline, but we're starting to see it come back
17 --

18 MR. BOB PETERS: Yes, and if --

19 MS. LOIS MORRISON: -- in the last --
20 in the '11/'12 year.

21 MR. BOB PETERS: Okay. And if we
22 follow to the bottom of the -- the chart, which is some
23 information provided in Information Requests from MIPUG
24 to Manitoba Hydro First Round 46B, we can see that
25 Hydro is forecasting that the top consumers will

1 increase over the next three (3) years by about 3.3
2 percent a year?

3 MS. LOIS MORRISON: That is correct.

4 MR. BOB PETERS: That's the rebound to
5 which you referred?

6 MS. LOIS MORRISON: Yes.

7 MR. BOB PETERS: And if we look at the
8 total -- the calculated total industry numbers, we see
9 that the total industry increases slightly, as well, on
10 a total basis, correct?

11 MS. LOIS MORRISON: That is correct.

12 MR. BOB PETERS: And are the top
13 consumers included or excluded in that total industry
14 calculation?

15 MS. LOIS MORRISON: The industry
16 calculation would include all but one (1) of our top
17 consumers. The industry number includes all general
18 service greater than 30 kV customers. And we do have
19 one (1) top consumer which is not in that rate
20 classification.

21 MR. BOB PETERS: If I understand your
22 answer then, that one (1) of the top consumers is using
23 less than 30 kV?

24 MS. LOIS MORRISON: Yes. They might be
25 -- this is where I'm not the engineer. But it's really

1 related to the cal -- to -- to how they receive their
2 energy. The one (1) customer does not own their own
3 transformation, and so they're billed at a general
4 service medium rate. Where the other customers own
5 their own transfer -- transformation and are therefore
6 billed at a general service large rate.

7 MR. BOB PETERS: I think you did the
8 engineers proud there, so we'll -- we'll leave it at
9 that.

10 Can you explain to the Board, on the --
11 on the top part of that table, why the total industry
12 would have some slight growth to it? We see 271
13 gigawatt over -- hours over a five (5) year period,
14 whereas, the top consumers will have dropped by 417
15 gigawatt hours per year.

16

17 (BRIEF PAUSE)

18

19 MS. LOIS MORRISON: Hello, Mr. Peters.
20 It's been brought to my attention that the -- the
21 reference that you're using in your -- on page 50 of
22 your book of documents, PUB/Manitoba Hydro-1-118A,
23 because it's using the greater than thirty (30) GSL
24 account, it will not match the top consumers. And so
25 we would actually refer you to the PUB/Manitoba Hydro-

1 1-11 revised, which shows the categories which
2 categorizes the top consumers and their annual energy
3 demands by sector, and shows their annual energy use
4 from 2005 to 2010, and it would -- it would match -- it
5 would show the growth overall.

6 MR. BOB PETERS: Thank you for bringing
7 that to our attention, Ms. Morrison. We'll -- we'll do
8 that, and if --

9 MS. LOIS MORRISON: And I would also
10 point out that some of the numbers that we're referring
11 to in terms of the top consumers, in particular the
12 2009/'10 at 5,961 gigawatt hours, is actually five
13 thousand four hundred and sixty-one (5,461), and so it
14 reflects that downturn more quickly and then starting
15 to recover.

16 MR. BOB PETERS: Thank you for that.

17 MR. RAYMOND LAFOND: Could we have some
18 clarity on that page 50 in terms of the headings? The
19 very last column, it says "top consumer"; that is one
20 (1) consumer?

21 MS. LOIS MORRISON: No, I think it's
22 "top consumers". The 'S' just --

23 MR. RAYMOND LAFOND: And then there's a
24 dollar sign and then there's --

25 MS. LOIS MORRISON: No, that's not a

1 dollar sign; that's an 'S'.

2 MR. RAYMOND LAFOND: Ah, now I got it.

3 Thank you.

4 MR. BOB PETERS: Apologies for the
5 presentation on that to both the Board members and Ms.
6 Morrison. But thank you for -- for bringing the
7 correction or the -- the additional information to our
8 attention.

9

10 CONTINUED BY MR. BOB PETERS:

11 MR. BOB PETERS: Let's take the Board,
12 if we can, Ms. Morrison, to the individual industry
13 sectors, and maybe we'll just -- again, not looking for
14 customer names, but to the primary metals customer --
15 customers.

16 These are companies that in -- include
17 ore processing, would that be fair?

18 MS. LOIS MORRISON: Yes, that would.

19 MR. BOB PETERS: And the information
20 shown here, does it reflect a reduction, or a load
21 loss, that has been publicly declared by one (1) of the
22 -- the ore processing companies, that its smelter will
23 close in 2015/'16?

24 MS. LOIS MORRISON: Yes. It reflects
25 the -- the publicly announced closure of the smelter

1 and refinery.

2 MR. BOB PETERS: And -- but if the --
3 if the Board looks at page 50 -- and you can tell me if
4 this is still correct -- that under primary metals for
5 the last six (6) or seven (7) years, the growth has
6 been essentially flat?

7 Would that be correct?

8 MS. LOIS MORRISON: Yes, that's true.

9 MR. BOB PETERS: And then, looking at
10 going forward, there's a forecast for -- provided that
11 it's going to increase by about 3 percent over the next
12 three (3) years?

13

14 (BRIEF PAUSE)

15

16 MS. LOIS MORRISON: The scheduled
17 shutdown of the smelter and refinery is not to occur
18 until 2 -- beginning in 2014/'15. But, really,
19 effectively, it will be hitting our -- I guess our
20 gigawatt hour bottom line in 2015/'16, and 2016/'17 it
21 will be fully offline.

22 So, in terms of what you're projecting
23 here, there is no projected change in load for that
24 customer during this time horizon of the 2013 to '14.
25 But what we do have is other consumers in that sector

1 bringing on additional load.

2 MR. BOB PETERS: And so the -- the
3 approximate 630 gigawatt hour reduction, as a result of
4 a smelter and refinery shutdown, that doesn't appear on
5 this chart? That's the next year --

6 MS. LOIS MORRISON: No, it --

7 MR. BOB PETERS: -- or next two (2)
8 years?

9 MS. LOIS MORRISON: -- it will not
10 fully materialize until -- 2016/'17 is the first year
11 that it will be fully off our -- our system.

12 MR. BOB PETERS: And --

13 MS. LOIS MORRISON: Anticipated.

14 MR. BOB PETERS: All right. When --
15 when a load goes off does it go off gradually, or is it
16 -- is it like flipping a switch: it's on or off?

17 MS. LOIS MORRISON: Well, it depends on
18 the load. But this one we are projecting to come off
19 gra -- to drop by approximately a hundred gigawatt
20 hours in '14/'15, 400 gigawatt hours in '15/'16, and
21 then the remainder -- remaining amount off by 2016/'17.

22 MR. BOB PETERS: Thank you for that.
23 And that's included in the 2012 load forecast, that
24 information in the -- in those --

25 MS. LOIS MORRISON: That was included

1 in both the --

2 MR. BOB PETERS: Yeah.

3 MS. LOIS MORRISON: -- 2011 and 2012
4 forecasts.

5 MR. BOB PETERS: The same amount for
6 each year?

7 MS. LOIS MORRISON: Yes.

8 MR. BOB PETERS: As for the petroleum
9 transportation sector, also shown on page 50, the last
10 six (6) years appears to be fairly flat, or exactly
11 flat; there's been 4 gigawatt hours of growth over four
12 (4) -- over six (6) years.

13 Is that correct?

14 MS. LOIS MORRISON: That is correct.

15 MR. BOB PETERS: And then going
16 forward, for the next three (3) years, there's a
17 somewhat significant increase in load of 289 gigawatt
18 hours projected, or 11 percent growth rate.

19 Is that also correct?

20 MS. LOIS MORRISON: That is correct.

21 MR. BOB PETERS: And what's the basis
22 of that? Can you provide it to the Board?

23 MS. LOIS MORRISON: We have a number of
24 our customers increasing their activity in our
25 marketplace -- I'm -- primarily as a result of the

1 increased activity in the -- as you know, the natural
2 gas and oil markets. There's been quite a bit of
3 increased activity in both the North Dakota area and in
4 Alberta and such, and so there's -- our customers are
5 increasing their capacity to move product.

6 MR. BOB PETERS: So the petroleum
7 transport sector, also known as the pipeline sector, is
8 expanding; would that be what I'm gathering from your
9 last answer?

10 MS. LOIS MORRISON: Yes, that is
11 correct.

12 MR. BOB PETERS: And in the pulp and
13 paper matter, I think you referenced this in your prior
14 evidence, but Manitoba Hydro lost a large customer in
15 the pulp and paper industry. And that was discussed,
16 to some extent, at the last general rate application.

17 But it now appears that there's even a
18 further load reduction; would that be true?

19

20 (BRIEF PAUSE)

21

22 MS. LOIS MORRISON: I'm sorry, Mr.
23 Peters. I'm having trouble identifying where the load
24 reduction is. We still have a number of -- we have
25 more than one (1) customer in that sector left.

1 MR. BOB PETERS: Okay. Has only one --
2 one (1) customer has exited the industry?

3 MS. LOIS MORRISON: Yes, and that has
4 been reflected in the forecasts.

5 MR. BOB PETERS: And the remaining
6 customers, has their load been reduced, to your
7 knowledge?

8 MS. LOIS MORRISON: They're not
9 forecast to reduce, no. They're forecast to remain
10 relatively the same.

11 MR. BOB PETERS: And so, from Manitoba
12 Hydro's perspective, there's stability now in that
13 industry?

14 MS. LOIS MORRISON: As much as you
15 could expect in any -- in the pulp and paper industry.

16 MR. BOB PETERS: While we're on the
17 issue of load losses or reductions, I recall there
18 being a recent public announcement of a -- what I'll
19 call, or remember to call, a -- a medical or surgical
20 imaging firm relocating out of Manitoba and taking as
21 many as a hundred and seventy (170) jobs south of the
22 border.

23 Does Manitoba Hydro -- they -- you're
24 aware of that from a -- business reasons?

25 MS. LOIS MORRISON: We're aware of that

1 company moving, yes.

2 MR. BOB PETERS: And does that -- what
3 impact does that company have on your load forecast
4 going forward?

5

6 (BRIEF PAUSE)

7

8 MR. BOB PETERS: And rather than
9 quantify specifics, but is it a significant loss, or is
10 this --

11 MS. LOIS MORRISON: No. They would
12 have been basically within our general mass market, and
13 so likely within our regular forecasting process.
14 There are companies that come and go quite regularly in
15 the province. That would be more noted because of the
16 number of jobs that it took.

17 MR. BOB PETERS: All right. So the
18 loss was -- the economic loss was the -- the loss of
19 the jobs as opposed to the loss of the electricity for
20 Manitoba Hydro?

21 MS. LOIS MORRISON: In -- in relative
22 terms, yes.

23 MR. BOB PETERS: All right. And, Ms.
24 Morrison, if we can, let's see if we can tidy up the
25 fuel switching discussion, which I take it is also an

1 area in which you have responsibility?

2 MS. LOIS MORRISON: Yes.

3 MR. BOB PETERS: As I understood not
4 only questions -- or not only questions from Ms. Ramage
5 but also from the Board members to you, the theory is
6 that because Manitoba Hydro exports hydro-generated
7 electricity, it displaces coal-generated power or
8 natural gas-generated power in the MISO region.

9 MS. LOIS MORRISON: That is correct.

10 MR. BOB PETERS: And to put finer
11 points on it, as I think Mr. Cormie did, during peak
12 hours Manitoba Hydro's exports would generally displace
13 natural gas-generated electricity.

14 Is that your understanding?

15 MS. LOIS MORRISON: Based on what Mr.
16 Cormie said, yes.

17 MR. BOB PETERS: All right. And when
18 we talk of peak hours, those have specific definitions
19 in the electrical industry, but peak hours are hours
20 that occur I guess sixty (60) -- is it sixteen (16)
21 hours a day, five (5) days a week?

22 MR. DAVID CORMIE: That's what we would
23 define as the on-peak hours, yes, Mr. Peters.

24 MR. BOB PETERS: And is -- is there a
25 specific time they start? Is it 7:00 a.m.?

1 MR. DAVID CORMIE: Yes, Mr. Peters.

2 MR. BOB PETERS: All right. And when
3 Manitoba Hydro could export electricity at higher
4 prices than domestic rates, there would be an economic
5 benefit to exporting while retaining natural gas-heated
6 homes in Manitoba.

7 Does that follow?

8 MS. LOIS MORRISON: Yes.

9 MR. BOB PETERS: Would it be correct --
10 and maybe we need Mr. Warden or Rainkie to also help
11 us, or perhaps yourself, Ms. Morrison. The kilowatt
12 hour that returns to Manitoba Hydro the greatest amount
13 of revenue is currently sold to domestic customers.

14 Is that correct? On average?

15 MS. LOIS MORRISON: I think I'll leave
16 that one to the --

17 MR. VINCE WARDEN: Yes, although it
18 really depends whether we're talking opportunity sales
19 or -- or committed -- dependable sales on -- on -- to a
20 contract. So some of the contracts that are under
21 negotiation will return significantly higher than --
22 than the domestic market.

23 MR. DAVID CORMIE: Mr. Peters, the
24 incremental opportunity sales have essentially zero
25 cost associated with them. So essentially, they're all

1 profit. The sale revenue from domestic customers,
2 because we're a cost of service basis, are matched with
3 costs. So they're -- if you're talking about the
4 profitability of the sales, the export sales are
5 probably more profitable than the domestic sales.

6 MR. BOB PETERS: Thank you, Mr. Cormie.
7 I wasn't talking profitability, but the -- the kilowatt
8 hour that returns currently, on average, to Manitoba
9 Hydro the greatest amount of money is the seven (7)
10 cents a kilowatt hour received from a domestic
11 customer, was my supposition?

12 MR. VINCE WARDEN: At the -- at this
13 particular time, yes.

14 MR. BOB PETERS: All right. And, Mr.
15 Cormie, I'm going to quote you as best I remember from
16 yesterday or the day before. Your long-term contracts
17 of dependable energy are averaging, at this point in
18 time, approximately five (5) cents a kilowatt hour?

19 MR. DAVID CORMIE: Yes, a bit more than
20 that.

21 MR. BOB PETERS: But not six (6) cents?

22 MR. DAVID CORMIE: No, not yet.

23 MR. BOB PETERS: Okay. And your
24 opportunity exports are, depending whether they're on-
25 peak or off-peak, but they're in the two (2) to three

1 (3) cent a kilowatt hour range?

2 MR. DAVID CORMIE: Yes.

3 MR. BOB PETERS: So you've got
4 Manitobans who are using electricity at and paying
5 seven (7) cents a kilowatt hour as the highest return
6 per kilowatt hour -- not return, but the highest dollar
7 value, not profit value, for the kilowatt hours on your
8 -- in your sales package?

9 MR. DAVID CORMIE: On a revenue basis,
10 yes.

11 MR. BOB PETERS: Okay, that's fair. So
12 then let's turn to the most colourful of charts in the
13 book of documents at page 53, under Tab 7. And, Ms.
14 Morrison, thank you -- and, Ms. Ramage, because I think
15 this was updated at your behests. And what you're
16 showing the Board is, this is, first of all,
17 information that's available on Manitoba Hydro's
18 website?

19 MS. LOIS MORRISON: Yes, that's true.

20 MR. BOB PETERS: And this is the type
21 of information that a residential customer may be
22 interested in when making a decision on whether to use
23 electricity or natural gas to heat their home, if they
24 have an option?

25 MS. LOIS MORRISON: We would hope

1 they'd be looking at it, yes.

2 MR. BOB PETERS: Well, doesn't Manitoba
3 Hydro bring it to their attention?

4 MS. LOIS MORRISON: As I mentioned in
5 my direct, we are -- at this point in time we've
6 initiated a heating education campaign to help
7 customers, or to remind customers as to what they
8 should be looking at when they're making a decision to
9 purchase or replace their heating equipment.

10 And we would hope that they would come
11 to us to get it -- get more information on their -- the
12 operating costs, the capital costs, or they should be
13 considering the capital costs of the units before they
14 make their decisions.

15 This is the type of information that we
16 provide to customers when they ask. We make it
17 available through our district offices. We have it on
18 our website, as you mentioned. We also regularly,
19 through our energy expert column in the Winnipeg Free
20 Press and through other media, talk to different
21 operating costs of different heating systems.

22 MR. BOB PETERS: Do you ever put this
23 as a bill-stuffer to your hundreds of thousands of
24 customers?

25 MS. LOIS MORRISON: I would have to

1 check if this -- in this format, no. But we have
2 provided information on gas pricing versus electricity
3 pricing from -- from a heating perspective, the
4 operating costs, in a bill-stuffer, yes.

5 MR. BOB PETERS: All right. And if we
6 look at the electricity column on the top half of the
7 page, this is for space heating of a typical family
8 residence?

9 MS. LOIS MORRISON: As to what we've
10 defined as a typical family residence.

11 MR. BOB PETERS: Right. That's a good
12 point, Ms. Morrison. And here it says "average single
13 family residence." But there's no such thing as that I
14 take it. It's -- it's notionally derived or calculated
15 as what would be typical?

16 MS. LOIS MORRISON: Yes. I have not
17 yet met the household that has two point four (2.4)
18 people in it.

19 MR. BOB PETERS: All right. I think
20 somebody in the back row might -- Ms. Perrault might --
21 might want to take issue with you on that. But I'm
22 going to leave that.

23 MR. RAYMOND LAFOND: I have a son who
24 is usually about four-tenths (4/10) of the time at
25 home.

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: So when -- when --
3 when a customer looks at this with you, Ms. Morrison,
4 you're telling them that at the most current PUB
5 approved rates in their average single family residence
6 they can expect to pay one thousand, one hundred and
7 fifty-two dollars (\$1,152) a year in electricity in a -
8 - in a typical weather normal year?

9 MS. LOIS MORRISON: That is correct.

10 MR. BOB PETERS: And in terms of
11 natural gas, you provide three different stacks or bar
12 charts. Am I correct that it is no longer legally
13 possible to purchase a conventional furnace in
14 Manitoba?

15 MS. LOIS MORRISON: That is correct.
16 There are regulations in place for -- enacted by the
17 province of Manitoba that limits the -- or that sets
18 the required energy efficiency standard for furnaces
19 being installed.

20 MR. BOB PETERS: Am -- am I further
21 correct that that middle stack called mid-efficiency
22 furnace is also not able to be sold in Manitoba?

23 MS. LOIS MORRISON: Yes.

24 MR. BOB PETERS: So if a person was to
25 purchase a natural gas furnace in Manitoba they would

1 be in the high -- the high efficiency furnace category?

2 MS. LOIS MORRISON: Yes, they are
3 required -- the minimum efficiency that can be
4 installed now is a 92 percent in Manitoba.

5 MR. BOB PETERS: And 92 percent is
6 lowest of the high efficiency, so to speak?

7 MS. LOIS MORRISON: No. The federal
8 requirement is 90 percent. But Manitoba took a -- took
9 a stronger stance and elected to set the minimum at 92
10 percent AFUE.

11 MR. BOB PETERS: Under the high
12 efficiency furnace that's depicted on page 53 of the
13 book of documents you're telling the Board that the
14 fuel cost per year is four hundred and seven dollars
15 (\$407) in a weather normal year to heat this average
16 typical home?

17 MS. LOIS MORRISON: Yes.

18 MR. BOB PETERS: And on top of the four
19 hundred and seven dollars (\$407) the customer is going
20 to end up having to pay a basic monthly charge of -- of
21 fourteen dollars (\$14) a month or two hundred and
22 sixty-eight dollars (\$268) a year?

23 MS. LOIS MORRISON: Correct.

24 MR. BOB PETERS: You'd also have to pay
25 a basic monthly charge if you have electricity,

1 correct?

2 MS. LOIS MORRISON: Yes, but the
3 difference is is that when the customer is making a
4 decision they generally have electric service. And so
5 regardless of whether they are choosing to heat with
6 electricity or not, they have to pay that basic monthly
7 charge.

8 So from an incremental perspective, when
9 the customer is making their assessment they should be
10 assessing in that basic monthly charge on the cost of
11 the natural gas furnace because they -- although some
12 customers are out there that do have a natural gas
13 service without having a natural gas furnace, it's
14 very, very, very uncommon.

15 MR. BOB PETERS: And in terms of
16 natural gas rates, the rate would -- would be the
17 latest PUB-approved gas rate, to your knowledge?

18 MS. LOIS MORRISON: Yes.

19 MR. BOB PETERS: And Manitoba Hydro
20 acknowledges that there's an economic or a financial
21 incentive to install natural gas furnaces?

22 MS. LOIS MORRISON: From whose
23 perspective?

24 MR. BOB PETERS: From a consumer's
25 perspective. Good point. Good point.

1 MS. LOIS MORRISON: Yes, it -- for most
2 customers, depending on the availability of gas, it is
3 -- it is in -- they will usually be financially better
4 off over the life cycle of that furnace -- over the
5 life of that furnace if they install natural gas.

6 MR. BOB PETERS: Is it a proper
7 interpretation of page 53, the chart you have, Ms.
8 Morrison, to say that the natural gas would have to
9 double in price while electricity rates would have to
10 stay essentially flat before natural gas would be a
11 more expensive option than electricity?

12 MS. LOIS MORRISON: Sorry, yes. You
13 would have to see the natural gas price go to about
14 fifty-five (55) cents a cubic metre in addition to the
15 basic monthly charge for it to be similar to the
16 current cost of heating with electricity.

17 MR. BOB PETERS: But Mr. Warden brought
18 us his IFF12, which over the forecast period is going
19 to increase electricity rates by 108 percent, correct?
20 In IFF12 by 2032?
21 Take that subject to check, Ms. Morrison, because I
22 looked --

23 MS. LOIS MORRISON: Subject to Vince
24 checking that, yeah.

25 MR. BOB PETERS: All right. I --

1 MR. VINCE WARDEN: That's correct, Mr.
2 Peters.

3 MR. BOB PETERS: Okay, thank you. So
4 what -- what we know as we sit here is Manitoba Hydro
5 has a forecast that's going to essentially double its
6 electricity cost for the average residential customer?

7 MS. LOIS MORRISON: Yes.

8 MR. BOB PETERS: What we don't know is
9 what's going to happen with the commodity cost for the
10 molecules of natural gas?

11 MS. LOIS MORRISON: Correct.

12 MR. BOB PETERS: But they, too -- the -
13 - the molecules, at this point in time, the gas rate
14 would have to go from twenty-three (23) cents a cubic
15 metre up to fifty-five (55) just to get even with where
16 Hydro is today. And then it would have to increase
17 further to keep up with Manitoba Hydro in terms of
18 equivalency?

19 MS. LOIS MORRISON: Yes. I should note
20 that that fifty-five (55) cents includes holding our
21 distribution charges on the gas side as constant. And
22 it's only reflecting as increasing the primary natural
23 gas. So the whole package would have to increase to
24 fifty-five (55) cents.

25 MR. BOB PETERS: Thank you, Ms.

1 Morrison. I -- I only briefly looked at the CGM12 IFF
2 that was filed. It's at the second-last tab of the
3 IFF, marked as Manitoba Hydro Exhibit 9. And I only
4 see it going out to ten (10) years. But maybe the
5 Board should -- should join us on this point.

6 I'm on page 43, Mr. Chairman and Board
7 members, of Manitoba Hydro's integrated financial
8 forecast 12, which was marked as Exhibit 9. I'm just
9 flipping ahead to page 43 to catch up with Ms.
10 Morrison.

11 Ms. Morrison, when I look at the natural
12 gas integrated financial forecast out for the next ten
13 (10) years, the rate increases on a cumulative basis
14 for the next ten (10) years are 5 percent, correct?

15 MS. LOIS MORRISON: That appears to be
16 correct.

17 MR. BOB PETERS: And whereas if we flip
18 back to page 37 on the electric-only IFF, the electric
19 operations, over that same period of time, if Manitoba
20 Hydro's forecast is accurate and if it was successful
21 in receiving the rate increases as -- as depicted here,
22 Manitoba Hydro's rates would increase 41 percent over
23 that same period of time?

24 MR. VINCE WARDEN: Just to be clear,
25 Mr. Peters. Those numbers aren't really comparable,

1 because the 5 percent for natural gas is the
2 distribution cost only. It does not include commodity
3 costs.

4 MR. BOB PETERS: Thank you, Mr. Warden.
5 But, Ms. Morrison, when you told the Board that when
6 you compared the cost of home heating, you had to
7 recognize that the fifty-five (55) cents a cubic metre
8 was only reflecting commodity cost increases, assuming
9 that the distribution costs were held constant. IFF
10 Centra Gas 12 suggests that, in the next ten (10)
11 years, the distribution costs would increase 5 percent
12 over that ten (10) year period?

13 MS. LOIS MORRISON: Yes. And I
14 apologize if I made the item more complicated than it
15 needed to be. I was just noting that that's how we
16 calculated the 55 percent -- sorry, fifty-five (55)
17 cents a cubic metre.

18 MR. BOB PETERS: No -- no, you didn't
19 make it more complicated. I think just the opposite.
20 So, thank you. And, Ms. Morrison, have I got this
21 point right that according to the load forecast that
22 we've reviewed, 60 percent of all new residential
23 customers in the next ten (10) years are going to be
24 elec -- all electric homes, according to Manitoba
25 Hydro's forecast?

1 MS. LOIS MORRISON: Yes, but that would
2 include across the province.

3 MR. BOB PETERS: Right. And there are
4 some areas where customers don't have a choice between
5 natural gas and electricity?

6 MS. LOIS MORRISON: That is correct.

7 MR. BOB PETERS: In areas where there's
8 no natural gas they'd have to look to fuel oil or
9 propane or, I guess, geothermal?

10 MS. LOIS MORRISON: They normally don't
11 opt for fuel oil or propane. Normally they're opting
12 for electric -- electricity -- sorry, electric
13 resistance heating, or there -- there are some that are
14 choosing geothermal.

15 MR. BOB PETERS: Right. But in terms
16 of competitive options, there's no natural gas in some
17 parts of the province?

18 MS. LOIS MORRISON: That is correct.

19

20 (BRIEF PAUSE)

21

22 MR. BOB PETERS: When you -- when you
23 speak of electric resistance heat, Ms. Morrison, that's
24 simply running electricity through a heating coil?

25 MS. LOIS MORRISON: Sorry, that's an

1 electric furnace or an electric baseboard or an
2 electric boiler or -- yeah.

3 MR. BOB PETERS: It doesn't matter
4 whether it's baseboard heating or a forced air electric
5 furnace?

6 MS. LOIS MORRISON: No.

7 MR. BOB PETERS: It's still resistance
8 heating?

9 MS. LOIS MORRISON: Yes.

10 MR. BOB PETERS: And while you've said
11 that 60 percent of all new residential customers will
12 choose electric heat over natural gas, you've -- you
13 layer on top of that that some people don't have a
14 choice between the two (2). But is it also correct
15 that in about 70 percent of the time, people do have
16 choices?

17

18 (BRIEF PAUSE)

19

20 MR. BOB PETERS: And I'm looking at a
21 note in the margin of my notes, Ms. Morrison. It's not
22 meant to be a skill-testing question. But PUB/Hydro
23 First Round 112A was just -- I noted that 70 percent of
24 new residential customers will have a choice as between
25 electricity and natural gas?

1 MS. LOIS MORRISON: Yes. Of that
2 number, about -- of the -- and I'm refer -- I'm looking
3 at the same reference you are. Of the sixty-five
4 thousand (65,000) new customers projected, about twenty
5 thousand (20,000) of them will be in an area where they
6 do not have an option.

7 And then, also, as mentioned in that
8 response, there is -- there are the multi-family
9 electrically-heated building. So that's where you're
10 seeing apartments and such, where the customer or the
11 par -- the developer is choosing to put the electric
12 heat responsibility onto the customer or the -- the
13 tenant or the condo owner.

14 And so it's -- it's really in the area
15 of about -- we're -- we're projecting in -- in about 40
16 per -- sorry, 50 percent of those customers that may be
17 in a gas-available area are choosing electric heat. I
18 -- I do need to qualify that "gas-available" doesn't
19 necessarily mean access or economic access to gas.

20 We define the sou -- the -- the gas-
21 available area in -- in a geographic zone. But where
22 the gas mains are actually located and they're -- and
23 the customer's proximity to that gas main may not make
24 it economic for us -- for them to have gas extended to
25 them. So -- so there are some subtle nuances there.

1 But for the record, yes, there is --
2 there is a large percentage, 50 percent, of those
3 customers that are choosing electricity.

4 MR. BOB PETERS: And that's 50 percent
5 who are choosing electricity when they have an option
6 of natural gas?

7 MS. LOIS MORRISON: Potentially an
8 option for natural gas.

9 MR. BOB PETERS: Yes. And -- and those
10 -- those exceptions, those -- those would be on the
11 margins though. Those wouldn't be large numbers, would
12 they, those who may not have gas potentially available
13 even though they're in a gas -- gasified region?

14 MS. LOIS MORRISON: I can't quantify
15 that.

16 MR. BOB PETERS: And you were going to
17 -- you already are -- have agreed to provide an
18 undertaking to the chairman to -- to provide some
19 information about a specific area in terms of the
20 numbers. But what's the largest influence that
21 Manitoba Hydro is finding as to why, in light of the
22 apparent economics, a customer that has a choice
23 between gas and electricity to heat their homes would
24 pick electricity?

25 MS. LOIS MORRISON: From our

1 discussions to date, the greatest uptake appears to be,
2 for space heating, is in the new home market. And a
3 lot of that is tied to -- some of it is tied to
4 customers feeling that they're still feeling the
5 effects of the volatility of gas. And that volatility,
6 to them, translates into high prices.

7 They don't understand that although it
8 was volatile, it was still less than the cost of
9 heating with electricity. There's some misconceptions
10 there. Also, in terms of developments, there are some
11 developers who are choosing not to -- or homebuilders
12 who are choosing not to bring gas into the area, or we
13 bring gas into the area and the homebuilder is not
14 installing a natural gas furnace, basically due to the
15 split incentive. It's -- it's a lower capital cost for
16 them to install -- or they perceive it to be a lower
17 capital cost for them to install the electric furnace
18 instead of the natural gas unit.

19 In some of the south gas availability
20 areas, we've actually had some developers comment that,
21 I have an electrician on staff because I have to have
22 an electrician on staff. Every house requires
23 electricity. If I have to put in a natural gas
24 furnace, then I have to bring in a gasfitter or someone
25 with a gas ticket, and that then increases my costs,

1 may affect my timelines.

2 So they are -- you'll see with -- with
3 some builders that it's logistics and costs. And so we
4 are working very closely with builders to -- to try and
5 communicate to them the benefit to the customer and
6 identify the best way to help them help their
7 customers.

8 MR. BOB PETERS: Does Manitoba Hydro
9 provide an express subsidy, one way or the other, when
10 competing between natural gas and electricity?

11 MS. LOIS MORRISON: We don't provide
12 any incentives or subsidies for the installation of gas
13 equipment or electric equipment, no.

14 MR. BOB PETERS: And there's no subsidy
15 provided by Manitoba Hydro, or no incentives provided
16 by Manitoba Hydro, to convert infrastructure from one
17 (1) heat source to another?

18 MS. LOIS MORRISON: No, there's not.

19 MR. BOB PETERS: Ms. Morrison, before I
20 leave page 53 and the coloured bar chart, the
21 electricity column on the top half of the page and the
22 one thousand, one hundred and fifty (1,152), is that --
23 does that relate only to the heating of the home, or is
24 that also the keeping of the lights on and the
25 computers fired up and the big screen going?

1 MS. LOIS MORRISON: That is just the
2 heating component.

3 MR. BOB PETERS: All right. So you've
4 -- you've taken out of that number any -- I forget the
5 polite words you used, but any incidental energy or the
6 -- the other energy that was -- was -- is used in a
7 home?

8 MS. LOIS MORRISON: Yes.

9 MR. BOB PETERS: And --

10 MS. LOIS MORRISON: It only reflects
11 space heating.

12 MR. BOB PETERS: And that's because,
13 whether the house is heated by gas or electricity,
14 you'd expect the -- the other electricity consumption
15 patterns to be homogeneous?

16 MS. LOIS MORRISON: Yes.

17 MR. BOB PETERS: Ms. Morrison, this --
18 can you provide the calculations that led you to the
19 one thousand, one hundred and fifty-two dollars
20 (\$1,152) and the five hundred and seventy-five dollars
21 (\$575) for gas?

22 MS. LOIS MORRISON: We can get that for
23 you.

24 MR. BOB PETERS: Yes. Could you take
25 that as an undertaking?

1 MS. LOIS MORRISON: Yes.

2

3 --- UNDERTAKING NO. 13: Manitoba Hydro to provide
4 calculations that led to
5 the one thousand, one
6 hundred fifty-two dollars
7 (\$1,152) and five hundred
8 seventy-five dollars (\$575)
9 for gas; include the
10 calculations that are found
11 at the bottom half of page
12 53 to show the electricity
13 hot water heating costs and
14 the natural gas hot water
15 heating costs from one (1)
16 of the efficient natural
17 gas appliances

18

19 CONTINUED BY MR. BOB PETERS:

20 MR. BOB PETERS: Okay. Thank you. The
21 bottom half of the page, Ms. Morrison, deals with hot
22 water heating, and again help the Board understand that
23 hot water heating is at a what appro -- approximate
24 percentage of the -- the home heating bill for the all-
25 electric customer?

1 MS. LOIS MORRISON: It's about 12
2 percent of an electrically heated home. It's about --
3 12 percent of your -- your energy bill is -- is related
4 to water heating.

5 MR. BOB PETERS: And what you've shown
6 on the bottom of the page again is different sources of
7 fuel options. Again, electricity -- first of all, are
8 all of those water heaters available for purchase in
9 Manitoba, or have some of those been coded out of
10 existence by legislation or provincial building codes?

11 MS. LOIS MORRISON: They are all
12 available in the marketplace.

13 MR. BOB PETERS: All right. And in
14 this particular instance, you've indicated that even
15 though there's an economic incentive to use natural gas
16 there's a very high saturation rate in the new-home
17 construction for the hot water tank to be -- be
18 electrically heated?

19 MS. LOIS MORRISON: That is correct.

20 MR. BOB PETERS: And the theory being
21 that if you put in an electric furnace you don't need a
22 chimney. If you put in a high-efficient gas furnace,
23 you don't need a chimney. So there's a savings of
24 capital costs to the builder which hopefully gets
25 passed on to the homeowner.

1 MS. LOIS MORRISON: Well, the -- the
2 builder only has the option of a nat -- of a high-
3 efficiency natural gas furnace, which does not require
4 a chimney. It's side vents. And so the builder then
5 is making the choice of how -- how do I provide hot
6 water in the home?

7 So now they're choosing between either a
8 side-vent hot-water -- natural gas water tank, or
9 they're choosing between an electric water tank. So
10 then it does become that capital cost. A side vent
11 water heater is -- is substantially more than a -- than
12 an electric tank.

13 MR. BOB PETERS: The discussion you
14 have is that the -- the electric hot water tank can be
15 vented in a more -- in a cheaper fashion than using a
16 gas vented hot water tank?

17 MS. LOIS MORRISON: Electric tanks
18 don't require venting.

19 MR. BOB PETERS: But the -- but the
20 natural gas ones do, and formerly it used to have to be
21 through a chimney?

22 MS. LOIS MORRISON: Previously, when
23 you were installing a -- some of the older mids and the
24 conventional natural gas furnaces, they had a chimney.
25 And they would share -- and that chimney would be

1 shared use between the water tank and the furnace. And
2 so when -- they -- they were already installing the --
3 the chimney for the purposes of the -- the shared use.

4 But now the builders look at that and
5 think, Well, I'm not going to build in a chimney just
6 for the water tank. It's quicker and easier for them,
7 and cheaper, to install an electric water tank.

8 MR. BOB PETERS: No, I -- I understand
9 that point. Is there now available on the market
10 natural gas hot water tanks that side vent as opposed
11 to chimney vent?

12 MS. LOIS MORRISON: Yes, there are.

13 MR. BOB PETERS: And is that going to
14 influence the number of customers making choices on
15 their hot water heating or whether they use gas or
16 electricity?

17 MS. LOIS MORRISON: They still have a
18 significant, or -- or a -- a quite a bit higher upfront
19 capital cost associated with the side vent natural gas
20 water tank. So we see -- we still see that as a market
21 barrier for customers.

22 MR. BOB PETERS: Ms. Morrison, in the
23 most recent Power Smart plan, Appendix 7 I think --
24 sorry, Tab 7, Appendix 7.1 that's been filed with the
25 Board, there's an indication that Manitoba Hydro is

1 assessing the incentives that apply to new home
2 building. Do you recall that? Page 12 I believe is
3 the -- the reference if you need to locate it.

4

5 (BRIEF PAUSE)

6

7 MS. LOIS MORRISON: Sorry.

8 MR. BOB PETERS: So --

9 MS. LOIS MORRISON: Could you reference
10 that again --

11 MR. BOB PETERS: Yeah, page 5.

12 MS. LOIS MORRISON: -- now that I have
13 the document?

14 MR. BOB PETERS: Page 5 would be the --
15 the cite.

16

17 (BRIEF PAUSE)

18

19 MS. LOIS MORRISON: Page 5 of the Power
20 Smart plan? And you referred to...?

21 MR. BOB PETERS: There was an
22 indication under the new home program that Manitoba
23 Hydro is assessing the incentives that it would provide
24 with respect to new homes?

25 MS. LOIS MORRISON: Yes, we are. We --

1 we are looking at a new initiative, or -- or a next
2 generation approach to new home construction. We
3 recently, working with the Office of the Fire
4 Commissioner and the Building Standards Board, brought
5 in energy efficiency requirements under the building
6 code, under the Part 9 res -- building code for homes.
7 And so, as with all of our initiatives, once we've
8 coded something, now that becomes base case. So now
9 we're looking at what's next.

10 MR. BOB PETERS: And I suppose where --
11 where I was coming back to, or circling back to, was
12 the discussion about incentives. And there's no
13 incentives, then, for influencing consumers as to which
14 fuel source would be used for their new home?

15 MS. LOIS MORRISON: No.

16 MR. BOB PETERS: This is just envelope
17 building code issues that you're -- you're addressing?

18 MS. LOIS MORRISON: This would be
19 energy efficiency as a whole within the house. So it
20 would look at envelope as you -- as you stated. It
21 would look at lighting. It would look at water use,
22 therefore water heating. So -- so -- and -- and
23 efficiencies related to the house as opposed to fuel
24 type.

25 MR. BOB PETERS: All right. Thank you

1 for that clarification. And you were gracious enough
2 to agree to an undertaking to provide the Board with
3 calculations of how you determined the annual space
4 heating cost through electricity, and also the high
5 efficiency gas furnace.

6 Could you also include the calculations
7 for one (1) of the electric -- electric hot water tanks
8 and the -- the high efficiency gas hot water tank, too?

9 MS. LOIS MORRISON: Yes, we can include
10 that within that undertaking.

11 MR. BOB PETERS: That would be -- that
12 would be appreciated. Thank you.

13 Yes. I'm -- I'm asking, in addition to
14 the undertaking that Ms. Morrison provided to the Board
15 with respect to providing calculations for the
16 electricity cost to heat the home of one thousand, one
17 hundred and fifty-two dollars (\$1,152), as well as the
18 natural gas costs of five hundred and seventy-five
19 dollars (\$575), that she expand it and also include the
20 calculations that are found at the bottom half of page
21 53 to show the electricity hot water heating costs and
22 the natural gas hot water heating costs from one (1) of
23 the efficient natural gas appliances. Thank you.

24 MR. RAYMOND LAFOND: Can I ask a
25 question? We're using a 90 -- a 92 percent efficiency

1 furnace. I replaced my furnace last winter. I'm not
2 even sure a 92 percent was available. I think it
3 started at 94 percent, and then 96. And I can't recall
4 if it even went up to 98.

5 Could you enlighten me on that?

6 MS. LOIS MORRISON: As I mentioned, I'm
7 not an engineer. We -- code represents the minimum.
8 And so what we've done through the, sorry, regulation
9 in -- in the case of appli -- equipment it's a
10 regulation, provincial regulation. It represents the
11 minimum.

12 So -- so when you're enacting code
13 you're basically trying to cut off the bottom end of
14 the -- the less efficient measure -- equipment. So
15 there are 92 percent efficient units out there. I
16 actually have one.

17 The -- and -- and there are 94. And
18 there are new ones coming out. But they -- what the --
19 what we do is we use what the -- the base case is right
20 now. And the base case is what regulation states. And
21 so there are some units that have higher efficiencies,
22 but it's not what we use in this document.

23 And the differential in terms of the
24 actual energy change or the energy use between a 92 and
25 a 94 is very marginal, so.

1 MR. RAYMOND LAFOND: Rather than using
2 the three (3) classes: 60 percent, 80 percent and 92,
3 and if we can't buy the 80 percent and 60 percent, why
4 don't we use 92, 94 and 96, for instance, which is the
5 majority of the units being bought?

6 MS. LOIS MORRISON: This -- so -- so
7 this document is to help customers who -- who have
8 existing equipment make that choice to change it. So -
9 - so the customer is looking at it. And he says, Well,
10 I've got an old furnace, what's it using?

11 Well, it's using seven hundred (700) --
12 you know, six hundred and twenty-five dollars (\$625) a
13 year. If I change it, what am I going to save? So --
14 so this document that we have on our website is -- is
15 supposed to be more than just for the person making
16 that choice to -- to -- you know, between electric and
17 gas.

18 They're making a choice between should I
19 be upgrading my -- my system and what are my choices
20 there. So someone who comes in and says, I've already
21 -- I've got this system, it's working perfectly fine,
22 it hasn't died on me yet, is it worthwhile for me to
23 replace it now.

24 So -- so that's what this document is
25 for. It -- it serves more than one (1) purpose.

1 MR. RAYMOND LAFOND: I hear you.
2 However, I would suggest that most people who change
3 their furnaces because it has to be changed. And,
4 therefore, the majority of us would be in a position of
5 having to make a decision between 92, 94 and 96 percent
6 rather than just comparing with electricity when you
7 already have gas.

8 MS. LOIS MORRISON: Yeah. And
9 actually, we should probably make sure that our
10 customers understand what that differential is. And we
11 will check and make sure that we have that information.

12 MR. RAYMOND LAFOND: Secondly, these
13 charts just show the actual cost comparisons between
14 one (1) and the other. Could we not show projections,
15 for instance, like for every five (5) years for the
16 next twenty (20) years and showing assumptions in terms
17 of gas prices, what the price would be if the gas
18 prices doubled or tripled or quadrupled in order to
19 help the -- like I just went through the experience of
20 replacing my furnace, and that would have been very
21 enlightening to be able to see what the impact could be
22 in making a decision on this.

23 MR. VINCE WARDEN: Mr. Lafond, we're --
24 we're very careful not to speculate or to -- on what
25 future gas prices might be. They are -- have been

1 extremely volatile over the past number of years, and
2 when we're informing customers of their -- of choices
3 available to them, we let them know what the current
4 situation is.

5 But, it would be a dangerous game to be
6 speculating on what the price might be in the future,
7 and we wouldn't want a customer to make a decision on
8 the basis of, Well, Manitoba Hydro told me the price
9 was going to be this, and now look at what they --
10 they've done to me.

11 MR. RAYMOND LAFOND: I totally agree,
12 and that -- that was not my intent. My intent was
13 simply to state something to the effect: If prices
14 doubled, it would be so much; if they tripled, it would
15 be so much; if they quadrupled, it'd be so much, and
16 maybe just give like a previous five (5) or ten (10)
17 year history of what the prices were so the customer
18 can really make the decision, and not for Hydro to
19 speculate on what the prices would be.

20 MR. VINCE WARDEN: We would have to be
21 careful how we displayed that, but that -- I agree that
22 would be useful information if we could do that.

23 MS. LOIS MORRISON: Actually, we do
24 have on our website, and we do communicate to our
25 customers, that the -- the cost of electric heating

1 versus natural gas heating over time -- I can't quite
2 see it, but we have a nice little chart that shows that
3 over the past history, what it would have looked like.

4 THE CHAIRPERSON: That document is on
5 the website?

6 MS. LOIS MORRISON: Yes. The charts
7 that are included with this brochure are on the
8 website, and you can also get a copy of the brochure if
9 you'd like one.

10 MR. BOB PETERS: Maybe we could have --
11 ask you to undertake to provide copies, colour copies,
12 of that brochure that you're referring to so the
13 transcript will be able to back reference to it.

14 What's the title of the document, Ms.
15 Morrison?

16 MS. LOIS MORRISON: The -- the title of
17 the brochure is "Replacing Your Furnace or Water
18 Heater? Know Your Heating Options."

19 MR. BOB PETERS: Ah, perfect. It'll
20 fit in well then. Thank you for agreeing to provide
21 that.

22

23 --- UNDERTAKING NO. 14: Manitoba Hydro to provide
24 colour copies of brochure
25 entitled "Replacing Your

1 Furnace or Water Heater?
2 Know Your Heating Options"

3

4 CONTINUED BY MR. BOB PETERS:

5 MR. BOB PETERS: Ms. Morrison, it's not
6 that I don't want to see you tomorrow, but if I can
7 just finish on -- on the fuel switching questions I
8 have in the time that's afforded me, you may get a
9 Hydro Friday.

10 The fuel switching report is found
11 starting on page 56 and 57 of the book of documents
12 under Tab 7, and the cover letter from Manitoba Hydro
13 explains the -- the origin of the fuel switching
14 report.

15 And then I've only included some -- some
16 extracts of the document for purposes here, but would
17 it be correct for me to summarize, Ms. Morrison, that
18 this report on fuel switching in Manitoba was to test
19 whether exporting hydraulic-generated electricity
20 results in larger global, environmental, and economic
21 benefits than if Manitobans fuel switched from natural
22 gas to electricity?

23 MS. LOIS MORRISON: One (1) of the
24 components of the report was to examine the
25 environmental impacts from both a local and a global

1 perspective of customers choosing electric heating and
2 electric water -- electric space heating and electric
3 water heating over natural gas.

4 MR. BOB PETERS: And not to -- the
5 report does -- does speak to its conclusions, but the -
6 - the bottom line was that it really depends -- to get
7 an answer as to whether or not there's larger global,
8 environmental, and economic benefits, it depends on a
9 number of factors, so you really don't know for
10 certain; you have a range of possibilities.

11 MS. LOIS MORRISON: Yes. We -- we
12 recognize that today, this is -- this is the situation
13 in the -- in the MISO territory. But as we go into the
14 future, if energy policies change and the -- the
15 Utilities are required to meet certain environmental or
16 renewable requirements, the choices that they make
17 won't necessarily be between what's existing today and
18 -- and our electricity. We would be offsetting
19 possibly other renewables.

20 Our -- our product will still have value
21 in the market because it's renewable, and has low --
22 has no GHG impacts. But it -- it's still looking at
23 the fact that into the future we don't know what the
24 energy policies are going to be. So to make the
25 overriding conclusion that it's going to continue into

1 the future as being -- offsetting GHG, we can't draw
2 that conclusion.

3 MR. BOB PETERS: I understand and I --
4 I've read the -- read the report. I'd just ask of Ms.
5 Ramage an undertaking that this fuel switching report
6 be filed as an exhibit in these proceedings if it's not
7 already in the materials. And I -- I actually couldn't
8 find it. So I'm -- if it's there, I -- I missed it as
9 an appendix. But if it's not already on the record,
10 I'll just ask that it be put there.

11 Ms. Morrison, on page 65 of the book of
12 documents there are some conclusions that are reached.
13 And I want to look at those briefly with you. As much
14 as you have discussed with the Board panel, the
15 conclusion is that over the life cycle, I suppose, of
16 natural gas space heating, the consumer is about
17 seventy-seven hundred dollars (\$7,700) better off by
18 using natural gas space heating relative to an electric
19 furnace?

20 MS. LOIS MORRISON: That is true.

21 MR. BOB PETERS: And, likewise, the
22 consumer is seven hundred and twenty-seven dollars
23 (\$727) better off by installing a natural gas water
24 heater relative to an electric water heater?

25 MS. LOIS MORRISON: They are seven

1 hundred and twenty-seven dollars (\$727) better off if
2 they're installing an -- a conventional natural gas
3 water heater, compared to an electric water heater.
4 That would be one that vents up the chimney.

5 MR. BOB PETERS: All right. And so if
6 it's a high efficiency natural gas hot water heater,
7 the savings are even higher?

8 MS. LOIS MORRISON: The power vent or
9 the side vent water heaters actually have only a
10 marginal improvement to the energy efficiency factor.
11 Instead of being 57 percent, they're at fifty-nine
12 (59). So, really, there's -- we're talking dollars,
13 like two (2) to three dollars (\$3) of savings.

14 The differential is that the side vent
15 has a much higher capital cost. So when you're looking
16 at it in terms of what your choices are, we would say
17 that if you're only -- if the customer's only choice is
18 a side venting natural gas water heater, they may not
19 be ahead of the game.

20 MS. PATTI RAMAGE: Mr. Peters, just
21 while you're flipping your papers, I just thought I'd
22 bring it to your attention. The fuel switching report
23 is filed as Appendix 26 of the Application. So --

24 MR. BOB PETERS: Thank you, Ms. Ramage.

25 MS. PATTI RAMAGE: -- so we can take --

1 check that one off our list.

2 MR. BOB PETERS: And I'm sorry I
3 couldn't find it. But thank you.

4

5 CONTINUED BY MR. BOB PETERS:

6 MR. BOB PETERS: Ms. Morrison, the last
7 page I think I want to discuss with you is the -- the
8 unexpected potential loss -- loads that we've alluded
9 to when we talked about electric cars, but on page 67.

10

11 (BRIEF PAUSE)

12

13 MR. BOB PETERS: In terms of the
14 unexpected potential loads, when we look at one (1)
15 very new large industrial customer which appears to be
16 at the high end of the -- of the risk factors here,
17 what this says is that if you get a very large
18 industrial customer coming to Manitoba, you would
19 ostensibly have to provide them with all of the
20 electricity that comes from Wuskwatim generating
21 station?

22 MR. DAVID CORMIE: Yes, that's correct.

23 MR. BOB PETERS: And that, Mr. Cormie,
24 was a concern of the Corporation when it considered an
25 energy intensive industrial rate some years ago,

1 correct?

2 MR. VINCE WARDEN: Yes, that's right.

3 MR. BOB PETERS: And the concern, put
4 in my words, Mr. Warden, is that if a large industrial
5 customer came to Manitoba to use, in essence, the
6 output of a Wuskwatim type generating station, there
7 are significant capital costs and operating costs and
8 depreciation expense and financing costs to go with it,
9 such that Manitobans would have to, essentially, cross-
10 subsidize such a customer coming to Manitoba?

11 MR. VINCE WARDEN: Yes, in -- in simple
12 terms, Mr. Peters. As you're aware, the energy
13 intensive industrial rate was intended to address
14 customers that were coming to Manitoba with no economic
15 benefits to the province. So -- so it's a little more
16 complicated than just any customer coming to the
17 province. But, essentially, you are right, yes.

18 MR. BOB PETERS: Yeah, the economic
19 benefits they bring outside of the regulatory field,
20 though, those are matters more for a provincial
21 government to be concerned of as opposed to the
22 Utility. Would that be correct?

23 MR. VINCE WARDEN: Yes, although as a
24 Crown Corporation we can't ignore those issues.

25 MR. BOB PETERS: Can you tell this

1 Board, Mr. Warden, whether Manitoba Hydro still has a
2 similar concern that a large, a very large industrial
3 customer, could come to Manitoba to consume
4 approximately 1,500 gigawatt hours a year?

5 MR. VINCE WARDEN: It's still an issue
6 -- actually is the time-of-use rate proposal that we
7 filed and will be, I understand, addressing at a future
8 proceeding, addresses that issue to some extent; not
9 totally, but to some extent.

10 MR. BOB PETERS: You've successfully
11 put it over to a hearing that I think I heard you say
12 you may not be attending. So, we'll -- we'll take that
13 answer and thank you for that, Mr. Warden.

14 Am I correct though, Ms. Morrison,
15 included in the load survey -- I'm sorry, the Manitoba
16 Hydro's load forecast, you already include a mythical
17 hypothetical customer coming to Manitoba between
18 2010/'11 and '11/'12 of some 400 gigawatt hours of
19 annual consumption?

20 MS. LOIS MORRISON: I don't believe
21 they are mythical. It's the -- the increase that we
22 are projecting in the -- as we mentioned in the top
23 consumers sector is related to actual customer growth,
24 where they have identified that they are increasing
25 their loads and they are increasing their requirements.

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MR. BOB PETERS: I thought I read that you also have an assumed factor for a hypothetical new customer coming in -- an "unidentified", maybe is the better word.

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MS. LOIS MORRISON: Are you referring to our potential load -- what we've referred to as our PLIL, the potential large industrial loads coming into the future which is a forecast that starts four (4) years after the beginning of the forecast, where we are projecting approximately a hundred gigawatt hours a year to reflect unidentified or not specifically identified load?

14

15

16

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MR. BOB PETERS: That's what I was alluding to, but I was taking it cumulatively that you build in an extra hundred gigawatt hours a year over and above what your forecast is just to allow for such a customer?

19

20

21

MS. LOIS MORRISON: Yes but it's -- it's -- it doesn't come into play in our forecast until...

22

23

24

25

The first year that it shows up in the 2012 forecast is in 2015/'16. And what it reflects is -- and it accumulates a thousand gigawatt hours a year, and it is based on past history of what we've seen

1 happen, in terms of unexpected industrial growth, new
2 customers that come into the marketplace or unexpected
3 plant expans -- sorry, plant expansions related to
4 existing customers that may be planning but have not
5 yet divulged it to us.

6 But it's that passed the four (4) year
7 or three (3) year forecast period where we work with
8 the individual cus -- top consumers to identify what
9 they are specifically doing.

10 MR. BOB PETERS: Just so that I'm sure
11 that you did not misspeak, could you, again, quantify
12 the amount of energy that you build into the load
13 forecast starting in 2015/'16 for this unexpected
14 industrial growth?

15 MS. LOIS MORRISON: So in 2015/'16,
16 there's a hundred gigawatt hours. 2016/'17 it would be
17 two hundred (200). 2017/'18 it would be three hundred
18 (300).

19 MR. BOB PETERS: Thank you, I thought I
20 heard something different in your other testimony but--

21 MS. LOIS MORRISON: Yes, apparently I
22 did.

23 MR. BOB PETERS: That's fine, I just
24 want to make sure the record was clear for the Board.

25 Mr. Chairman, I would like to thank Ms.

1 Morrison, primarily, because she came to address these
2 questions for the Board on the issue of load
3 forecasting and fuel switching, and I have now
4 concluded my questions and -- which really means I --
5 I'll have no more questions of her tomorrow and I think
6 we'll be talking more with Mr. Cormie and Mr. Miles
7 tomorrow. Thank you.

8 MR. RAYMOND LAFOND: I just have one
9 (1) question. I think, Madam Morrison, you indicated
10 that there was no GHG impact on hydro-power production
11 versus, for instance, gas. Do we not consider the
12 embedded energy in such a plant, or station, and the
13 cost of maintaining, for instance, such a plant and
14 transmission lines for thousands of kilometres, and
15 travelling, et cetera; like, none of this is
16 considered?

17 MS. LOIS MORRISON: I probably over
18 spoke my area of expertise. We -- we have an area of
19 the Corporation that looks at GHG's in more -- impacts
20 more specifically. For the purposes of our analysis,
21 we assumed the electric GHG impact to be zero; however,
22 I'm sure they have a much more detailed analysis that
23 they undertake.

24 THE CHAIRPERSON: There are no more
25 questions from the panel. Now, I wonder if there are

1 any matters to attend -- any administrative matters
2 before we adjourn?

3 MS. PATTI RAMAGE: No, I don't believe
4 so.

5 THE CHAIRPERSON: Therefore, let's
6 adjourn now and we'll see each other again tomorrow
7 morning at nine o'clock. And I believe Ms. Morrison
8 has been excused, so thank you very much.

9

10 (PANEL RETIRES)

11

12 --- Upon adjourning at 4:33 p.m.

13

14

15 Certified Correct,

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19 _____

20 Cheryl Lavigne, Ms.

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