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MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO'S APPLICATION  
FOR APPROVAL OF NEW ELECTRICITY RATES  
FOR 2010/11 AND 2011/12

Before Board Panel:

- Graham Lane - Board Chairman
- Robert Mayer, Q.C. - Board Member
- Len Evans - Board Member

HELD AT:

Public Utilities Board  
400, 330 Portage Avenue  
Winnipeg, Manitoba  
January 24, 2011  
Pages 1701 to 1892

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1 --- Upon commencing at 9:37 a.m.

2

3 THE CHAIRPERSON: Okay. Good morning,  
4 everyone. Ms. Ramage, I believe you've got some  
5 undertakings about to be converted into exhibits.

6 MS. PATTI RAMAGE: That is correct, Mr.  
7 Chairman, and good morning. The first of these  
8 undertakings was actually distributed at the end of the  
9 day on Friday, but wasn't entered onto the record, and  
10 that's Manitoba Hydro Undertaking number 4, which is the  
11 provision of the net result of merchant trading function  
12 on an annual basis for the last five (5) years.

13 That undertaking has been assigned Exhibit  
14 number Manitoba Hydro-23.

15

16 --- EXHIBIT NO. MH-23: Response to Undertaking 4

17

18 MS. PATTI RAMAGE: The next undertaking  
19 in the package, and this was dis -- this package was  
20 distributed this morning, is Manitoba Hydro Undertaking  
21 number 15, and that deals with the terminal date of  
22 Pointe du Bois, and that is Exhibit Manitoba Hydro number  
23 24.

24

25 --- EXHIBIT NO. MH-24: Response to Undertaking 15

1 MS. PATTI RAMAGE: Manitoba Hydro  
2 Undertaking number 17 is the actual payment to the  
3 province of -- or it's the -- it's the payments to the  
4 province for fiscal year 2010 and that's Exhibit Manitoba  
5 Hydro-25.

6

7 --- EXHIBIT NO. MH-25: Response to Undertaking 17

8

9 MS. PATTI RAMAGE: Manitoba Hydro  
10 Undertaking number 18 is an explanation of why hot water  
11 fees, or the hot water tank rental or purchase pri --  
12 revenues, why did they show up under, "Other Income,"  
13 rather than, "General Consumers Revenue," that's Exhibit  
14 Manitoba Hydro number 26.

15

16 --- EXHIBIT NO. MH-26: Response to Undertaking 18

17

18 MS. PATTI RAMAGE: Manitoba Hydro  
19 Undertaking number 20, which is with respect to the costs  
20 of eastside studies related to Bipole 3 is Exhibit  
21 Manitoba Hydro-27.

22

23 --- EXHIBIT NO. MH-27: Response to Undertaking 20

24

25 MS. PATTI RAMAGE: Manitoba Hydro

1 Undertaking 11 is -- is information regarding the number  
2 of gas plants that have come on in the last three (3)  
3 years in the MISO market, and that's Exhibit Manitoba  
4 Hydro-28.

5

6 --- EXHIBIT NO. MH-28: Response to Undertaking 11

7

8 MS. PATTI RAMAGE: And then lastly we  
9 have Manitoba Hydro Undertaking number 25, which is  
10 projected electric operating statements and that has been  
11 assigned Exhibit Manitoba Hydro-29.

12

13 --- EXHIBIT NO. MH-29: Response to Undertaking 25

14

15 MS. PATTI RAMAGE: Oh, and I have just  
16 been passed a late breaking undertaking, and that is  
17 Manitoba Hydro Undertaking number 26, and that has been  
18 assigned Exhibit Manitoba Hydro-30.

19

20 --- EXHIBIT NO. MH-30: Response to Undertaking 26

21

22 MS. PATTI RAMAGE: And you're going to  
23 have to excuse me because I was just handed it, so I --  
24 it is --

25

THE CHAIRPERSON: It's just being

1 delivered to us, too.

2 MS. PATTI RAMAGE: Okay. This is the  
3 undertaking dealing with what portion of Keeyask would  
4 not fit on Bipoles 1 and 2.

5 THE CHAIRPERSON: Thank you very much.  
6 We certainly won't have a lack of reading material.

7 Mr. Peters, any time.

8

9 MANITOBA HYDRO PANEL RESUMED:

10 VINCE WARDEN, Resumed

11 DAVID CROMIE, Resumed

12 HAROLD SURMINSKI, Resumed

13 LLOYD KUCZEK, Resumed

14

15 CONTINUED CROSS-EXAMINATION BY MR. BOB PETERS:

16 MR. BOB PETERS: I'm just looking at your  
17 -- and good morning, Mr. Chairman, Board members, ladies  
18 and gentlemen. I'm looking at Manitoba Hydro's Exhibit  
19 29, Undertaking 25, projected electric operating  
20 statement. Mr. Warden, can you just enlighten the Board  
21 as to what this is to depict?

22 MR. VINCE WARDEN: Yes, Mr. Peters. This  
23 relates to the forty (40) year outlook. So we had the  
24 twenty (20) year out for -- outlook for 2009. This is an  
25 extension of that twenty (20) year base case outlook for

1 forty (40) years.

2

3

(BRIEF PAUSE)

4

5

MR. BOB PETERS: Mr. Warden, does this  
6 come with the assumptions for the last -- for the last  
7 ten (10) years?

8

MR. VINCE WARDEN: Well, the assumptions  
9 have not been provided, but they are the assumptions that  
10 would be an extension of what is included in Manitoba  
11 Hydro's twenty (20) year outlook for 2009.

12

13

(BRIEF PAUSE)

14

15

MR. BOB PETERS: Mr. Warden, the  
16 assumptions for the last ten (10) or twelve (12) years of  
17 that IFF have not yet been provided, is that true?

18

MR. VINCE WARDEN: No, I -- I believe all  
19 the assumptions have been provided in the twenty (20)  
20 year outlook, Mr. Peters. It does show the generation  
21 sequence that is assumed in that outlook. The -- all the  
22 escalation has been provided, the corresponding  
23 assumptions with respect to interest and foreign cor --  
24 cur -- foreign currency exchange rates, so, yes, all the  
25 assumptions have been pro -- provided.

1                   MR. BOB PETERS:    I'm going to need some  
2 help on that last answer, Mr. Warden.  I'm looking at  
3 book of documents Tab 6 from Board counsel's book of  
4 documents, PUB Exhibit 15.  That's the tab in the book of  
5 documents that contained the IFF-09 export revenue  
6 assumptions.  Do you recall that document, sir?

7                   MR. VINCE WARDEN:   Yes, I do.  You'd have  
8 to refer though, Mr. Peters, and I can get that for you,  
9 the appendix, which would include the twenty (20) year  
10 outlook with all the assumptions included with that  
11 filing.

12                   MR. BOB PETERS:    I think it was appendix  
13 15, Mr. Warden.  We'll check at the break as well and let  
14 you know if there's something further that would help us.

15                   MR. VINCE WARDEN:    Sure.  Thanks.

16                   MR. BOB PETERS:    Tha -- thank you.

17

18                                   (BRIEF PAUSE)

19

20                   MR. BOB PETERS:    Goo -- good morning, Mr.  
21 Kuczek.  In the IFF-09 that's before this Board at Tab 4  
22 of the book of documents there's a forecast of general  
23 consumers revenue at existing rates.  And as I understand  
24 it, Mr. Kuczek, that forecast would be premised on  
25 Manitoba Hydro's load forecast.

1 MR. LLOYD KUCZEK: Correct.

2 MR. BOB PETERS: And IFF-09 would be  
3 based on the 2008/'09 load forecast, sir?

4  
5 (BRIEF PAUSE)

6  
7 MR. LLOYD KUCZEK: It'd be based on the  
8 '09 forecast.

9 MR. BOB PETERS: You call it the '09. I  
10 said '08/'09; the same thing?

11  
12 (BRIEF PAUSE)

13  
14 MR. LLOYD KUCZEK: I'll correct that.  
15 It's based on the 2008 load forecast, 2008/09.

16 MR. BOB PETERS: The 2008/09 load  
17 forecast was downgraded by about 1,000 gigawatt hours per  
18 year as compared to the previous load forecast, correct?

19 MR. LLOYD KUCZEK: Correct.

20 MR. BOB PETERS: If we take 1,000  
21 gigawatt hours a year, Mr. Kuczek, I had assumed the  
22 average revenue would be in the five (5) cents a kilowatt  
23 hour range, and so that means it's a \$50 million dollar  
24 approximate reduction in general consumers revenue as a  
25 result of the downgrade in the forecast?

1 MR. LLOYD KUCZEK: I'll trust your  
2 calculations are correct.

3 MR. BOB PETERS: Yeah, and I -- I picked  
4 five (5) cents a kilowatt hour, and I'm not sure if Mr.  
5 Warden agreed with me, but it depends whether it's  
6 residential, it depends whether it's industrial, and that  
7 would influence what the exact amount is, correct?

8 MR. LLOYD KUCZEK: Yes, but the -- the  
9 reduction was primarily our large -- larger customers.

10 MR. BOB PETERS: So rather than closer to  
11 seven (7) cents, it'd be closer to four (4) to five (5)  
12 cents?

13 MR. LLOYD KUCZEK: Or lower, I guess.

14 MR. BOB PETERS: Three and a half (3 1/2)  
15 cents?

16 MR. LLOYD KUCZEK: Yes.

17 MR. BOB PETERS: So three and a half (3  
18 1/2) cents would be a \$35 million reduction in -- in  
19 revenues, correct?

20 MR. LLOYD KUCZEK: Again, trusting your  
21 math.

22 MR. BOB PETERS: And so while the '08/'09  
23 load forecast that underpinned IFF-09 was downgraded by a  
24 thousand gigawatt hours, the '09/'10, the subsequent load  
25 -- load forecast, was further downgraded by approximately

1 500 gigawatt hours, would that be correct?

2

3

(BRIEF PAUSE)

4

5

MR. LLOYD KUCZEK: Mr. Warden has just informed me that we did IFF-09 in November of '09, so that would have been -- been based on the '09/'10 load forecast.

9

10

(BRIEF PAUSE)

11

12

MR. BOB PETERS: Did the IFF-09 take into account the thousand gigawatt hour reduction that occurred between the '08/'09 load forecast and the previous one?

16

MR. LLOYD KUCZEK: It would have.

17

MR. BOB PETERS: But it wouldn't have taken into account the further downgrading of about 500 gigawatt hours from the '08/'09 to the '09/'10?

20

MR. LLOYD KUCZEK: That's correct.

21

MR. BOB PETERS: In terms of load growth by sector, Mr. Kuczek, looking at -- I suppose to some extent, page 54 at Tab 31 of the book of documents gives some historical -- or some perspective on the test years, but the residential load had been about two and a half (2

25

1 1/2) percent growth per year in the preceding ten (10)  
2 years. Would you -- would you be able to confirm that?

3

4

(BRIEF PAUSE)

5

6 MR. LLOYD KUCZEK: That's about right.

7

8 MR. BOB PETERS: And prior to those last  
9 ten (10) years, and probably in the period from 1990 to  
10 2000, the residential load forecast was essentially flat?

11

MR. LLOYD KUCZEK: Correct.

12

13 MR. BOB PETERS: And would the Board be  
14 correct interpreting the forecast to be a growth of about  
15 1.3 percent for the residential class?

16

MR. LLOYD KUCZEK: Correct.

17

18 MR. BOB PETERS: Turning to the mass  
19 market, first of all mass market, what rate classes are -  
20 - are included in the mass market forecast, Mr. Kuczek?

21

22

(BRIEF PAUSE)

23

24 MR. LLOYD KUCZEK: That includes the  
25 general service, small, medium, large, and excludes the  
top consumers.

26

27 MR. BOB PETERS: Excludes residential as  
well, correct?

1 MR. LLOYD KUCZEK: Correct.

2 MR. BOB PETERS: And in terms of the  
3 forecast, approximately 1.3 percent annual load growth is  
4 what's forecast for the mass market?

5

6 (BRIEF PAUSE)

7

8 MR. LLOYD KUCZEK: I believe that's  
9 correct.

10 MR. BOB PETERS: And that would be  
11 similar to historic trends, as far as you're aware?

12 MR. LLOYD KUCZEK: Yes.

13 MR. BOB PETERS: Turning to the top  
14 consumers, we've had some discussion, but these are the  
15 industrial customers, by and large?

16 MR. LLOYD KUCZEK: Correct.

17 MR. BOB PETERS: And these would be the  
18 general service greater than 30 kV?

19

20 (BRIEF PAUSE)

21

22 MR. LLOYD KUCZEK: It includes the  
23 customers that are approximately sixty (60) -- greater  
24 than 60 gigawatt hours per year.

25 MR. BOB PETERS: Those would include the

1 mining, the pipelines, the chemical industry?

2 MR. LLOYD KUCZEK: Correct.

3 MR. BOB PETERS: And 1.9 percent growth  
4 was forecast?

5 MR. LLOYD KUCZEK: It's in that range.  
6 I'm thinking more -- of the more current forecast, which  
7 I thought was 2 percent, but it's -- it's generally in  
8 that range, yes.

9 MR. BOB PETERS: But that again is a  
10 forecast; it's not based on hard numbers at this point in  
11 time.

12 MR. LLOYD KUCZEK: It's a forecast.

13 MR. BOB PETERS: And the past trendline  
14 of actual growth has been relatively flat, would you  
15 agree, at least since 2005?

16

17 (BRIEF PAUSE)

18

19 MR. LLOYD KUCZEK: Yes, since 2005.  
20 There's about a four (4) year period that there was  
21 fairly flat.

22 MR. BOB PETERS: And now you've indicated  
23 that in 2009/'10 the top consumers are expected to drop  
24 by about 850 gigawatt hours a year?

25 MR. LLOYD KUCZEK: Correct.

1                   MR. BOB PETERS:    That 850 gigawatt hour  
2 load reduction, Mr. Kuczek, that's approximately 14  
3 percent of total load for the top consumers?  Would you  
4 also agree?

5

6                                   (BRIEF PAUSE)

7

8                   MR. LLOYD KUCZEK:    Correct.

9                   MR. BOB PETERS:    And if the top consumers  
10 load has dropped by about 14 percent, that would be  
11 approximately eight (8) years of normal load growth  
12 protect -- projections?

13

14                                   (BRIEF PAUSE)

15

16                   MR. LLOYD KUCZEK:    Repeat the question,  
17 please.

18                   MR. BOB PETERS:    Well, I was just trying  
19 to ballpark the -- the load that has dropped in the  
20 latest load forecast relative to top consumers load, and  
21 we're in the area of eight hundred and fifty (850)  
22 gigawatt hours of load reduction, which is about 14  
23 percent of total load for those top consumers.

24                   MR. LLOYD KUCZEK:    That's correct.

25                   MR. BOB PETERS:    And I was suggesting to

1 you, sir, that that represents about eight (8) years of  
2 normal load growth projections being lost in one (1)  
3 year.

4 MR. LLOYD KUCZEK: It's in that range,  
5 seven (7), eight (8) years.

6

7 (BRIEF PAUSE)

8

9 MR. BOB PETERS: From what you told me  
10 this morning, sir, IFF-09 has a lower load forecast than  
11 the previous load forecast with -- filed with this Board,  
12 correct?

13 MR. LLOYD KUCZEK: Correct.

14 MR. BOB PETERS: And the economic  
15 downturn that we've talked about previously, that was  
16 reflected in IFF-09 to the extent of approximately a  
17 thousand gigawatt hours total.

18 MR. LLOYD KUCZEK: Correct.

19 MR. BOB PETERS: And so in addition to  
20 that thousand gigawatt total reduction, what is not  
21 reflected is the further 850 gigawatt hour reduction,  
22 correct?

23 MR. LLOYD KUCZEK: No, I think that eight  
24 hundred (800), if you're talking of the top consumers  
25 list, part of that thousand, what's not reflected is the

1 -- the following year we dropped it by, I think we talked  
2 about it just earlier, about 500 gigawatt hours.

3 MR. BOB PETERS: All right, thank you for  
4 the clarification. In addition to the thousand gigawatt  
5 hour reduction there's a five (5) or 600 gigawatt hour  
6 further reduction that's now forecast, correct?

7 MR. LLOYD KUCZEK: That's correct.

8 MR. BOB PETERS: And that 600 gigawatt  
9 hour further decline in load forecast for 2011, that's  
10 the current fiscal year, correct, the year we're in?

11 MR. LLOYD KUCZEK: Correct.

12 MR. BOB PETERS: That comes, essentially,  
13 from the top producer sector.

14 MR. LLOYD KUCZEK: Yes.

15 MR. BOB PETERS: And about 200 gigawatt  
16 hours of that is from primary metals, sir?

17 MR. LLOYD KUCZEK: That's how I recall  
18 it, yes.

19 MR. BOB PETERS: And close to 450  
20 gigawatt hours of reduced load would have come from the  
21 pulp and paper industry.

22 MR. LLOYD KUCZEK: Correct.

23 MR. BOB PETERS: And if we're going to  
24 quantify that 650 gigawatt hour load reduction, that's  
25 approximately \$25 million a year.

1                   MR. LLOYD KUCZEK:    I'll trust your math  
2 again.  And again, we do know that's from domestic  
3 revenues.  We -- we'd spoke about this the last time I  
4 was here and the reduction in revenues is due to our lost  
5 revenues domestically, but they're offset by our export  
6 revenues.

7                   MR. BOB PETERS:    Fair enough.  You said  
8 "domestic."  I was equating that to residential, but  
9 you're just meaning Manitoba load, and this time -- this  
10 -- in this case from the top producer sector.

11                  MR. LLOYD KUCZEK:    Correct.

12                  MR. BOB PETERS:    And I think you told the  
13 Board that about 450 gigawatt hours of that reduced load  
14 has been shed, at least at this point, on a permanent  
15 basis.

16                  MR. LLOYD KUCZEK:    Yes.

17                  MR. BOB PETERS:    And that represents five  
18 (5) to six (6) years of lost load growth.

19                  MR. LLOYD KUCZEK:    Well, for Manitoba's  
20 load growth, that would only be just over a year, maybe a  
21 year and a third.

22                  MR. BOB PETERS:    It's a year and a third  
23 for total Manitoba load, but for the top producers it  
24 would be five (5) to six (6) years of load growth that's  
25 shed.

1 MR. LLOYD KUCZEK: Yes.

2 MR. BOB PETERS: Is the assumption made  
3 by Manitoba Hydro that, while the 450 gigawatt hours may  
4 be a permanent reduction in load, the remaining 200  
5 gigawatt hours is only a temporary reduction in load?

6 MR. LLOYD KUCZEK: Yeah. There's a lot  
7 of puts and takes, but that's generally true.

8 MR. BOB PETERS: But Manitoba Hydro will  
9 expect that, if that 200 gigawatt hour was coming from  
10 the primary metals industry, it could take an extra  
11 couple of years, two (2) years, maybe three (3) years, to  
12 recover from that?

13 MR. LLOYD KUCZEK: Yes.

14 MR. BOB PETERS: And for the decline in  
15 the pulp and paper sector being permanent, there's no  
16 replacement load for that load that has vanished from the  
17 system?

18 MR. LLOYD KUCZEK: No replacement load  
19 that we're forecasting in that sector, and -- and of  
20 course our forecast includes the aggregate of all our  
21 forecasts in the various sectors.

22 MR. BOB PETERS: So as I understood one  
23 (1) of your answers, with the permanent load reduction,  
24 that represented one and a third (1 1/3) years of total  
25 load growth for the Manitoba customers that has -- that

1 has disappeared?

2 MR. LLOYD KUCZEK: In that range, yes.

3 MR. BOB PETERS: And it could be as high  
4 as four (4) to five (5) years of regular load growth for  
5 the top consumers category that's lost permanently?

6 MR. LLOYD KUCZEK: Yes.

7 MR. BOB PETERS: One (1) of your previous  
8 suggestions to the Board was that, with the 450 gigawatt  
9 hours of permanent load reduction, as well as the  
10 temporary load reduction that we've talked of, Hydro  
11 would have more energy available for Mr. Cormie to use?

12 MR. LLOYD KUCZEK: Yes.

13 MR. BOB PETERS: And he'd be able to sell  
14 that on the export market?

15 MR. LLOYD KUCZEK: That's correct.

16 MR. BOB PETERS: Mr. Cormie, can Manitoba  
17 Hydro sell this new-found surplus energy at other than  
18 off-peak prices?

19 MR. DAVID CORMIE: To the extent that  
20 domestic load, which is load that's served from  
21 dependable energy, Manitoba Hydro can find replacement  
22 customers for that dependable energy in the export  
23 market.

24 MR. BOB PETERS: Did Manitoba Hydro this  
25 last year find replacement customers for that firm or

1 dependable energy that was not used by Manitoba Hydro's  
2 customers?

3 MR. DAVID CORMIE: No, we didn't. Our  
4 export market for dependable energy is a -- a market that  
5 is looking to displace the construction of new  
6 generation, so we would -- it would take us -- these  
7 would have to be long-term reductions in -- in domestic  
8 demand that would be replaced by long-term increases in  
9 export sales. To the extent that the domestic load is  
10 down in the current year, those would only be offset by  
11 opportunity sales.

12 MR. BOB PETERS: Thank you for that, Mr.  
13 Cormie. What you're telling the Board is that, when  
14 Manitoba load is reduced, perhaps unexpectedly, the best  
15 Manitoba Hydro can do with that is to sell it into the  
16 opportunity market.

17 MR. DAVID CORMIE: Yes, because the same  
18 conditions, economic conditions that are resulting in a  
19 decline in the domestic market are also affecting the  
20 export markets and there'll be load reductions in the  
21 short term in that market, and there's not really a -- a  
22 short-term demand for -- for firm power.

23 MR. BOB PETERS: And so back in Tab 6 of  
24 the book of documents -- and I know we'd like to get past  
25 that, Mr. Cormie, but there was some average pricing put

1 out in terms of Manitoba Hydro's opportunity sales. And  
2 I'm taking from your answer, the load that was shed in  
3 Manitoba was sold on the opportunity market probably for  
4 around two (2) cents a kilowatt hour.

5

6 (BRIEF PAUSE)

7

8 MR. BOB PETERS: I'm on page 27 back in  
9 Tab 6 of the book of documents, if -- if that helps you,  
10 sir.

11

12 (BRIEF PAUSE)

13

14 MR. DAVID CORMIE: I think it's fair to  
15 say that it would go to the -- the day-ahead and the --  
16 and the real-time market. A reduction in domestic demand  
17 will just add to the surplus that will be sold in the --  
18 in the very short-term markets.

19 MR. BOB PETERS: Would it be correct, Mr.  
20 Warden, or perhaps Mr. Cormie, that by selling that load  
21 that was previously earmarked for Manitoba as domestic  
22 dependable load, Manitoba Hydro has -- has lost some  
23 money on that.

24

25 (BRIEF PAUSE)

1                   MR. DAVID CORMIE:    I -- I think that's a  
2 -- a fair comment, Mr. Peters.  We -- we've had very high  
3 water conditions in the last several years and so  
4 incremental reduction in -- in domestic energy just  
5 increases the amount of energy that's available in the  
6 off-peak market given the current water conditions, and I  
7 -- I don't believe that we've had 100 percent offset in  
8 our -- in our revenues as a result of our export  
9 activities.

10                   MR. VINCE WARDEN:    We do -- we do have to  
11 recognize, however, that we are selling into a depressed  
12 market at this time.  So the indicative rate of two (2) -  
13 - two (2) cents that you indicated, Mr. Peters, is -- is  
14 low by historical standards, and low by what we expect we  
15 can get for that energy in the export market in the  
16 future.

17                                We have seen some pickup in the -- the  
18 rates we're getting in December of this year, so I think  
19 I indicated earlier in testimony, we were averaging  
20 around two point three (2.3) cents in the opportunity  
21 market.

22                                I -- I'm seeing some pickup.  It's around  
23 two (2) -- two point seven (2.7) cents in December.  So,  
24 you know, there are signs that the economic conditions  
25 may be turning around somewhat.  We'll see what happens

1 in the next several months.

2 But I wouldn't -- I wouldn't look at the  
3 difference between two (2) cents and three and a half (3  
4 1/2) cents, and think that's a permanent loss to Manitoba  
5 Hydro.

6 MR. BOB PETERS: Well, it is a permanent  
7 loss for the -- for the -- for the days that you sell it.  
8 You seel it for less than what you would otherwise sell  
9 it for in Manitoba Hydro.

10 MR. VINCE WARDEN: Yeah. I -- my only  
11 point was, I think, you have to recognize that we are  
12 selling into a market that is depressed, and if we have  
13 that energy to sell -- for sale over the longer term, two  
14 (2) cents is probably on the low side.

15 MR. BOB PETERS: Again, Mr. Warden, that  
16 export market is something over which Manitoba Hydro has  
17 no control. Would you agree with that?

18 MR. VINCE WARDEN: Well, we have no  
19 control over the opportunity pr -- the price that we're  
20 getting on the opportunity market, that's right.

21 MR. BOB PETERS: Previously, Manitoba  
22 Hydro took the position that energy intensive industry  
23 has, or will reduce Manitoba Hydro's export revenues by  
24 consuming cheap domestic energy that commands a greater  
25 price on the export market. Correct?

1 MR. VINCE WARDEN: Yes. We were looking,  
2 though, not at the opportunity market; we were looking at  
3 the dependable market.

4 MR. BOB PETERS: All right. So the  
5 argument that Manitoba Hydro was looking to charge  
6 consumers more, that argument doesn't apply to the 2010  
7 load reduction of energy, does it?

8 MR. VINCE WARDEN: With res -- just to  
9 clarify, Mr. Peters, you're -- you're speaking with  
10 respect to the proposed energy intensive rate?

11 MR. BOB PETERS: I -- I was, Mr. Warden,  
12 but I -- I know there's nothing -- there's no proposal  
13 before the Board, as I understand it, but the Board --  
14 the Board saw, in 2010, Manitoba Hydro had 650 gigawatt  
15 hours of additional energy that it didn't think it was  
16 going to have, and then it sold it on the export market  
17 at a price lower than what it would have achieved had it  
18 been sold in Manitoba.

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

20 MR. BOB PETERS: And so from the energy  
21 intensive industrial rate perspective, the argument that  
22 Manitoba Hydro can command a greater share on the export  
23 market doesn't apply when selling that energy on the  
24 opportunity market.

25 MR. VINCE WARDEN: Under these conditions

1 that we're selling into, that is correct.

2 MR. BOB PETERS: Does that mean, Mr.  
3 Warden, that Manitoba Hydro would have to have a firm,  
4 dependable long-term contract to -- to avoid what  
5 happened this year in terms of opportunity prices being  
6 so low?

7 MR. VINCE WARDEN: Well, as Mr. Cormie  
8 has testified earlier, it's important to have a balance  
9 between dependable, firm long-term and opportunity sales  
10 in our portfolio.

11 MR. DAVID CORMIE: And -- and, Mr.  
12 Peters, you know, this is again one of the highest water  
13 flow years on record. Had the water conditions been  
14 adverse this year, I think the situation could have been  
15 quite different.

16 MR. BOB PETERS: And, Mr. Cormie, don't  
17 get me wrong; I'm not disagreeing with you, and I also  
18 won't take you to be wishing for low water conditions,  
19 but what you're simply saying is here was a year in  
20 2010/'11 where Manitoba Hydro was blessed with an  
21 abundance of water but it still couldn't get a high  
22 enough export price to -- to make it more profitable,  
23 selling opportunity sales on the export market than it  
24 would have selling it to Manitobans.

25 MR. DAVID CORMIE: That -- that's true.

1 But there have been many years in the recent ten (10)  
2 where the opportunity market was stronger than -- than  
3 what we were getting in Manitoba, and so it -- it goes --  
4 prices go up and down with the economy. There will be  
5 years when we do make more and there'll be years like  
6 this, where we make less. The factors will vary whether  
7 it's water flows or -- or market demand or gas prices.

8 And our -- our long-term forecast reflects  
9 the -- the average of -- of all conditions, and in any  
10 particular year it'll be higher or lower than -- than  
11 what we'd forecast.

12 MR. BOB PETERS: All of those factors are  
13 factors over which Manitoba Hydro has no control.

14 MR. DAVID CORMIE: Oh, absolutely; the  
15 weather, the market prices, what's happening in the  
16 global economy.

17

18 (BRIEF PAUSE)

19

20 MR. BOB PETERS: Just in terms of the IFF  
21 that's before the Board, the general cons -- the general  
22 consumers revenue line item that appears at the top of  
23 the IFF, I think we've understood that there -- probably  
24 for 2011 there's been 600 gigawatt hours of lower load  
25 than IFF-09 forecast. Have I got that right, Mr. Kuczek?

1 MR. LLOYD KUCZEK: I'm sorry, I was --

2 MR. BOB PETERS: All right, let me  
3 rephrase that. Yeah. I just want to make sure the Board  
4 is clear on the projections.

5 The IFF-09 found at Tab 4 of the book of  
6 documents for -- for the first test year, 2011, shows  
7 general consumer revenue, that'll be Manitoba revenue, at  
8 \$1.159 billion, correct?

9 MR. LLOYD KUCZEK: Yes.

10 MR. BOB PETERS: And if we understand  
11 from your evidence, the 600 or 650 gigawatt hours of  
12 revenue that was -- sorry, the 600 or 650 gigawatt hours  
13 of energy that was not sold to Manitoba customers would  
14 have resulted in that top line coming down by about \$25  
15 million less.

16 MR. LLOYD KUCZEK: Yes.

17 MR. BOB PETERS: And we also know from, I  
18 think, earlier on in the testimony that there's no energy  
19 intensive industry rate that should be included in that  
20 top line item, and that was another \$5 million, correct?

21 MR. LLOYD KUCZEK: Correct.

22 MR. BOB PETERS: And so for 2011 the  
23 expected domestic revenue would be probably \$30 million  
24 lower than what's shown on the line item in the IFF-09.

25 MR. LLOYD KUCZEK: Correct.

1                   MR. BOB PETERS:    In the general service  
2 top consumers category -- and I think I put this in Tab  
3 31 of the book of documents.  Yes, on page -- it's on the  
4 top right-hand corner, page 56.  It's also -- it's a  
5 narrative about general service top consumers.

6                   Mr. Kuczek, included in Manitoba Hydro's  
7 2010/'11 load forecast is speculation that a new top  
8 consumer will come along to Manitoba after 2014, correct?

9                   MR. LLOYD KUCZEK:    Correct.

10                  MR. BOB PETERS:    And I'm looking at the  
11 second-last paragraph on the page that in the top right-  
12 hand corner is marked fifty-six (56), found at Tab 31 of  
13 the book of documents.

14                  MR. LLOYD KUCZEK:    Yeah.  I was just  
15 thinking about whether or not you had the right year when  
16 you -- when you mentioned it because it's usually the  
17 fourth year out that we start adding that speculative  
18 load, as we call it.

19                  MR. BOB PETERS:    Did I get the year  
20 right?

21                  MR. LLOYD KUCZEK:    Well, you said 2014,  
22 but I -- I believe it's 2013/14.  So when you say '14,  
23 I'm not sure if you mean the same thing as we do.

24                  MR. BOB PETERS:    It'd be a lot easier if  
25 you could convince Mr. Warden to go to a calendar year

1 end, but I -- I think we're speaking the same thing.  
2 When I -- when I refer to a year, it's your fiscal year  
3 ending in 2014.

4 MR. LLOYD KUCZEK: Correct then.

5 MR. BOB PETERS: All right. Now, that  
6 speculation that Manitoba Hydro uses is based on seven  
7 (7) new major industrial loads that have located to  
8 Manitoba since 1981, correct?

9 MR. LLOYD KUCZEK: Correct.

10 MR. BOB PETERS: And because seven (7)  
11 new major industrial loads have come to Manitoba in the  
12 last thirty (30) years, Manitoba Hydro is assuming or  
13 speculating that there will be 100 gigawatt hours a year  
14 increase in load post 2014.

15 MR. LLOYD KUCZEK: That's correct.

16 MR. BOB PETERS: Is it also correct, Mr.  
17 Kuczek, that Manitoba Hydro has also lost major loads  
18 since 1981?

19 MR. LLOYD KUCZEK: The only one -- the  
20 only major one that -- that comes to mind is the one we  
21 were referring to earlier today.

22 MR. BOB PETERS: You've forgotten my  
23 favourite. Didn't major breweries -- have left the city?

24 MR. LLOYD KUCZEK: I -- I don't think  
25 they made the top twenty-five (25) customers, if I'm not

1 mistaken.

2 MR. BOB PETERS: Oops. What about the  
3 cement production. That's left the city as well?

4 MR. LLOYD KUCZEK: Again, I don't believe  
5 they were part of that top twenty-five (25).

6 MR. BOB PETERS: All right. What about -  
7 - there was a mine up at Lynn Lake area, another consumer  
8 that's no longer there.

9

10 (BRIEF PAUSE)

11

12 MR. LLOYD KUCZEK: There was -- there was  
13 a mine that shut down for a couple of years, but it's  
14 either back up and operating or in the process of  
15 operating again.

16 MR. BOB PETERS: And what about the  
17 Sherridon mine?

18 MR. LLOYD KUCZEK: I'm not familiar with  
19 that one.

20 MR. BOB PETERS: Mr. -- Mr. Kuczek, does  
21 Manitoba Hydro track the gigawatt hours lost as a result  
22 of companies making business decisions not to continue  
23 business in Manitoba, or at least to the extent they had  
24 previously done business in Manitoba?

25 MR. LLOYD KUCZEK: Well, we track all

1 load that was in Manitoba, as well as load that is no  
2 longer here, and that's part of how we come up with that  
3 100 gigawatt hours is looking at the past load growth and  
4 determining what is reasonable to assume as expective  
5 load growth into the future based on that aggregate of  
6 information.

7 MR. BOB PETERS: Could you then, Mr.  
8 Kuczek, undertake to file with the Board a listing of the  
9 gigawatt hours of load that has been lost in Manitoba  
10 since 1981, the same period of time in which you  
11 referenced the seven (7) new customers have come to  
12 Manitoba?

13 MR. LLOYD KUCZEK: Will do.

14 MR. BOB PETERS: And we're not looking  
15 for identification of the specific customer names, but  
16 you can identify them in a way that doesn't provide that?

17 MR. LLOYD KUCZEK: Will do.

18

19 --- UNDERTAKING NO. 27: Manitoba Hydro to provide a  
20 listing of the gigawatt hours  
21 of load that has been lost in  
22 Manitoba since 1981

23

24 CONTINUED BY MR. BOB PETERS:

25 MR. BOB PETERS: Would it not be the

1 case, Mr. Kuczek, that while the locating of seven (7)  
2 new major loads to Manitoba may give the Corporation a  
3 view that there's -- there's somebody else possibly  
4 coming, but you have to also then factor in those  
5 customers that have left the province and that may temper  
6 the speculation?

7

8

(BRIEF PAUSE)

9

10 MR. LLOYD KUCZEK: Maybe it's best that  
11 we take that as an undertaking to make sure that we are  
12 responding accurately to your question.

13 MR. BOB PETERS: All right. That would  
14 be appreciated.

15 MS. PATTI RAMAGE: Mr. Peters, if I could  
16 just also add, just a caveat for the record. We may have  
17 to compile information into groupings so as to avoid  
18 revealing customer consumption information when there's a  
19 relatively few number of customers we're dealing with.

20 MR. BOB PETERS: I think that'll be  
21 acceptable, Ms. Ramage, and if the Board has any  
22 concerns, I'm sure they'll -- they'll let us know.

23

24 --- UNDERTAKING NO. 28: Manitoba Hydro to provide the  
25 specifications of the loads

1 of customers that have left  
2 the province or closed down  
3

4 MR. ROBERT MAYER: How could we not know  
5 who left Manitoba? I mean, as soon as you tell us where  
6 or what, or what it was we're talking about, I'm sure one  
7 (1) of us is going to figure out what went missing.

8 MR. BOB PETERS: The -- the issue is more  
9 that that cus -- that's that customer's information, and  
10 it's not to -- ours to really disclose, so if we can  
11 aggregate it somehow into -- into a decade or something  
12 like that. When we see the information, we'll determine  
13 if there's a problem. I just wanted to alert the Board  
14 to it.

15 I think, Mr. Mayer, your -- your concern -  
16 - or your comment points to the concern.

17 MR. ROBERT MAYER: But I'm not convinced  
18 it's information that proprietary. The fact is is if  
19 somebody's left the province they usually tell us about  
20 it in advance. A plan 'B' is, somebody finds out about  
21 it, and its on the front page of one (1) of our local  
22 newspapers.

23 I -- I don't understand where the  
24 proprietary right comes. I mean, I know Tembec left. I  
25 know that -- that -- that Vale is off -- is offering to

1 leave with a good chunk of power in five (5) years.

2 I mean, this is not secret, and I don't  
3 know how the fact that pe -- other people or other  
4 corporations have left can somehow be proprietary to  
5 them. The amount of energy they used to use could  
6 somehow be proprietary, maybe.

7 MS. PATTI RAMAGE: And that's what I was  
8 getting at. That was the only thing I was getting at.

9

10 CONTINUED BY MR. BOB PETERS:

11 MR. BOB PETERS: Speculation can be both  
12 upside and downside, can it not, Mr. Kuczek?

13 MR. LLOYD KUCZEK: Correct.

14 MR. BOB PETERS: And perhaps as the Vice  
15 Chair has alluded to, Manitoba Hydro has known, I would  
16 take it, for several years that one of its customers is  
17 closing a smelting operation largely for environmental  
18 reasons.

19 MR. LLOYD KUCZEK: We knew there was a  
20 risk of them closing, yes.

21 MR. BOB PETERS: And is that risk real?

22 MR. LLOYD KUCZEK: Well, they've  
23 announced closing, yes.

24 MR. BOB PETERS: When will that load  
25 reduction be reflected in the load forecast?

1 MR. LLOYD KUCZEK: When we do our 2011  
2 load forecast this summer.

3 MR. BOB PETERS: And also treading  
4 carefully where the Vice Chair was, since mid-November of  
5 2010 there have been public reports of the shutdown of  
6 another northern Manitoba smelter, correct?

7 MR. ROBERT MAYER: I -- I think Mr.  
8 Kuczek was missing your first question. I think he  
9 assumed that you were referring to Vale.

10 MR. LLOYD KUCZEK: Thank you, Mr. Mayer.

11

12 CONTINUED BY MR. BOB PETERS:

13 MR. BOB PETERS: All right. I was trying  
14 to be a bit more obtuse than that, and maybe -- maybe I  
15 managed to fool the witness and my -- and myself. No,  
16 Mr. Kuczek, there is -- let -- let me put my  
17 understanding forward. Yes, I'll give you a minute.

18

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: Mr. Kuczek, are we back?

22 MR. LLOYD KUCZEK: Yeah, and I'll wait  
23 for your question.

24 MR. BOB PETERS: All right. It would be  
25 correct that there are two (2) major smelters in northern

1 Manitoba that have publicly announced plans to close down  
2 their smelting operations.

3 MR. LLOYD KUCZEK: Correct.

4 MR. BOB PETERS: And this may not do it  
5 justice, but one of them was for environmental reasons,  
6 another one was for business reasons in terms of the ore  
7 production and ore availability.

8 MR. LLOYD KUCZEK: I believe that's what  
9 was publicly reported.

10 MR. BOB PETERS: And in terms of the  
11 smelter that indicated for environmental reasons they  
12 would be closing down, I had asked when that load loss  
13 would be for -- reflected in the load forecast for  
14 Manitoba Hydro. And you told the Board the 2011 load  
15 forecast.

16 Is that answer still the same even though  
17 it's a different -- a different customer?

18 MR. LLOYD KUCZEK: No, I was -- gave you  
19 an incorrect answer. That load was taken out of our --  
20 or incorporated -- load reduction was incorporated in our  
21 2009 load forecast.

22 MR. BOB PETERS: In what year does --  
23 does Manitoba Hydro assume that load for that one smelter  
24 will be shed?

25 MR. LLOYD KUCZEK: 2010.

1                   MR. BOB PETERS:    And in terms of the  
2 second smelter that is closing that was announced mid-  
3 November, that closing isn't anticipated for  
4 approximately five (5) years.

5                   MR. LLOYD KUCZEK:    Yes, 2015 roughly.

6                   MR. BOB PETERS:    And is that load  
7 reduction going to be included in the next load lor --  
8 load forecast?

9                   MR. LLOYD KUCZEK:    Correct.

10                  MR. BOB PETERS:    Can you advise the  
11 Board, Mr. Kuczek, how long in advance has Manitoba  
12 Hydro's key customer contact and/or Manitoba Hydro's  
13 executive known of the smelter shutdown that was  
14 announced publicly only in November of 2010?

15                  MR. LLOYD KUCZEK:    We didn't have much  
16 more notice than the public did on that one.

17                  MR. BOB PETERS:    So Manitoba Hydro's key  
18 customer account representatives aren't privy to that  
19 kind of information so that you can build it into your  
20 load forecasts?

21                  MR. LLOYD KUCZEK:    They were not.

22                  MR. ROBERT MAYER:   It was alleged and  
23 continues to be alleged, that local management at that  
24 operation wasn't told until literally days before the  
25 announcement was made public.

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: When we talk about the  
3 capacity and the energy sales losses from those smelters,  
4 Mr. Kuczek, I was trying to find on the transcript if we  
5 had talked about this previously, and there was some  
6 suggestion that the -- the loss of the smelter energy  
7 would be comparable to what the Corporation has lost  
8 relative to pulp and paper.

9 Do you recall discussing that the first  
10 time we were speaking?

11 MR. LLOYD KUCZEK: It's in the same  
12 range, yes.

13 MR. BOB PETERS: Now, is that same range  
14 for both of the smelter losses cumulatively, or is it  
15 individually: each of them would be about the same as  
16 the pulp and paper loss?

17 MR. LLOYD KUCZEK: Each customer in  
18 aggregate's about the same.

19 MR. BOB PETERS: So in essence, the pulp  
20 and paper loss would be tripled as a result of these  
21 three (3) customers; that is, the pulp and paper, the  
22 smelter number 1 and smelter number 2 going down?

23

24 (BRIEF PAUSE)

25



1 Mr. Kuczek, that the load forecast then for 2010/'11  
2 would be overstated by approximately 1,000 gigawatt hours  
3 going forward?

4 MR. LLOYD KUCZEK: Yeah. Our current  
5 estimate is only about 200 megawatts because we're  
6 expecting some load increases in that industry as well,  
7 so 200 gigawatt hours.

8 MR. BOB PETERS: And are those  
9 assumptions of -- or assumed new loads, are those  
10 confirmed?

11

12 (BRIEF PAUSE)

13

14 MR. LLOYD KUCZEK: It's based on the best  
15 available information that we have.

16 MR. BOB PETERS: The load forecast for  
17 2010/'11 was filed as Appendix 62 in these proceedings  
18 and dated August 10th of 2010, correct?

19 MR. LLOYD KUCZEK: Correct.

20 MR. BOB PETERS: And is it also correct  
21 that, to prepare IFF-10, found at Appendix 76 of these  
22 proceedings, in that document dated November of 2010, can  
23 the Board assume that Hydro used the twenty (20) -- the  
24 August 2010 load forecast to prepare the IFF-10?

25 MR. LLOYD KUCZEK: Yes.

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(BRIEF PAUSE)

MR. BOB PETERS: Mr. Kuczek, and perhaps Mr. Warden, with Hydro previously acknowledging that the August 2010 load forecast, I believe, was reduced from the May 2009 load forecast, I've got that right, correct, that the load's lower in the newer one?

MR. LLOYD KUCZEK: Which years again?

MR. BOB PETERS: Well, if you -- if you turn to page 50 found at Tab 31 of the book of documents, the very first document under Tab 50 (sic), the difference between the August '10 load forecast, and the '09 forecast shown in the far right-hand column, it averages out to around 500 gigawatt hours a year lower.

Would that be -- would that be fair?

MR. LLOYD KUCZEK: Correct.

MR. BOB PETERS: And if that's the case, Mr. Kuczek and Mr. Warden, how does Manitoba Hydro explain the increase revenue in IFF-10 for general consumers of about \$100 million over the next ten (10) years?

Is there something in there that should be jumping out at me that isn't?

1 (BRIEF PAUSE)

2

3 MR. VINCE WARDEN: Mr. Peters, there is -  
4 - I -- believe as Mr. Kuczek indicated earlier, there --  
5 there is an assumption -- albeit there is some load loss  
6 that you've been referring to, there's still an  
7 assumption of load growth over that period of time.

8 MR. BOB PETERS: So we -- Manitoba Hydro  
9 assumes -- and the rate increases, I think, are identical  
10 in the IFF-09 and the IFF-10, correct?

11 MR. VINCE WARDEN: Correct.

12 MR. BOB PETERS: So even at 3 1/2 percent  
13 rate increases in each of them, on top of that there's,  
14 on average, about another \$10 million a year of  
15 additional revenue that appears to be included.

16 MR. VINCE WARDEN: Yes. As I mentioned,  
17 that would be attributable to normal load growth -- an  
18 assumption of load growth over that period of time.

19 MR. BOB PETERS: IFF-10 has no energy  
20 intensive industrial rate ener -- revenue shown in the  
21 general consumers revenue line, Mr. Warden?

22 MR. VINCE WARDEN: Actually I believe  
23 there is an assumption of energy intensive revenue. I  
24 believe we quantified that earlier. I'd have to revisit  
25 that to find out exactly how much that is, but -- but

1 yes, there is an assumption of energy intensive revenue.

2 MR. BOB PETERS: Sorry, and I -- I was  
3 just -- I think I'll have to check as well, but I think  
4 Mr. Rainkie was telling us he pulled it out of the  
5 general consumers line and put it into perhaps a  
6 different line item.

7 MR. VINCE WARDEN: That could very well  
8 be that it's -- it -- that it's been moved to the  
9 additional line of the IFF, but there -- there is -- I  
10 guess the point is, there is a provision between the  
11 general consumers at approved rates and additional --  
12 there is a provision for energy intensive revenue.

13 MR. BOB PETERS: Do you recall the  
14 quantification of that, Mr. Warden?

15

16 (BRIEF PAUSE)

17

18 MR. VINCE WARDEN: Approximately --  
19 approximately \$7.5 million per year.

20 MR. BOB PETERS: Starting --

21 MR. VINCE WARDEN: Comm -- commencing in  
22 -- in fiscal year '11/'12.

23

24 (BRIEF PAUSE)

25

1                   MR. BOB PETERS:   Where was that recorded,  
2 Mr. Warden, in terms of the line items?

3                   Do you recall?

4                   MR. VINCE WARDEN:   Yeah.  We'll -- we'll  
5 confirm that, Mr. Peters, at -- at the break, as to  
6 whether it's included in the approved rates line or the  
7 additional line.

8                   MR. BOB PETERS:   All right.  Back in the  
9 book of documents at Tab 31, the top right-hand corner,  
10 page 57, the Board will see -- again, this relates to a  
11 narrative from Appendix 62 -- there's a -- there's a  
12 graph, Mr. Kuczek, showing top consumers?

13                   MR. LLOYD KUCZEK:   Correct.

14                   THE CHAIRPERSON:   Mr. Peters, do you want  
15 to give us that reference again.

16                   MR. BOB PETERS:   Yes, sir.  At Tab 31 of  
17 the book of documents, sir, and in the top right-corner  
18 of page 57.

19

20 CONTINUED BY MR. BOB PETERS:

21                   MR. BOB PETERS:   You have -- do you have  
22 that, Mr. Kuczek?

23                   MR. LLOYD KUCZEK:   I do.

24                   MR. BOB PETERS:   Mr. Kuczek, could --  
25 could we ask an undertaking of -- of the Corporation to

1 refile that Figure 7, but to show the top consumers  
2 forecasts for three (3) different load forecasts all in  
3 the same chart; all in the same graph, if you will. And  
4 that would be the May '08 load forecast, the May '09  
5 forecast, and the August '10 forecast.

6 MR. LLOYD KUCZEK: We'll do that.

7 MR. BOB PETERS: And if you could enlarge  
8 the graph, that would be most helpful. And in addition  
9 to that, if you could provide the data points for each  
10 year similar to the middle column on Table 8, page 29 of  
11 the August 2010 load forecast, that would be helpful to  
12 the Board.

13 MR. LLOYD KUCZEK: We'll do that.

14 MR. BOB PETERS: Thank you.

15

16 --- UNDERTAKING NO. 29: Manitoba Hydro to refile  
17 Figure 7, but to show the top  
18 consumers forecasts for three  
19 (3) different load forecasts  
20 all in the same chart: May  
21 '08 load forecast, the May  
22 '09 forecast, and the August  
23 '10 forecast. Enlarge the  
24 graph. Provide the data  
25 points for each year similar

1 to the middle column on Table  
2 8, page 29 of the August 2010  
3 load forecast

4

5 CONTINUED BY MR. BOB PETERS:

6 MR. BOB PETERS: Mr. Kuczek, before leave  
7 this subject entirely, are you one of the executives who  
8 gets to zip around town in an electric car?

9 MR. LLOYD KUCZEK: I did for one (1)  
10 week.

11 MR. BOB PETERS: You have to plug them  
12 in.

13 MR. LLOYD KUCZEK: Yes, I didn't enjoy  
14 that part.

15 MR. ROBERT MAYER: And I have to plug my  
16 car in from just about December on. When -- how do you  
17 get away with that down at -- without doing that down  
18 here?

19 MR. LLOYD KUCZEK: Well, the interesting  
20 thing is the cords get very dirty, and so that was the  
21 issue I didn't enjoy with plugging this vehicle in. And  
22 it really -- you know, we were sharing the vehicle with a  
23 number of employees, so I guess somebody was plugging it  
24 in somewhere where it was fairly dirty before I got it,  
25 so the cord was quite filthy.

1                   MR. ROBERT MAYER:    You -- you can't  
2   disconnect them before you start driving, or is somebody  
3   wrapping them around their mirrors?

4                   MR. LLOYD KUCZEK:    I can't imagine where  
5   they'd put it.

6

7   CONTINUED BY MR. BOB PETERS:

8                   MR. BOB PETERS:    Mr. Kuczek, can you  
9   explain to the Board what Manitoba Hydro's studies have  
10  determined, relative to electric cars coming to Manitoba.

11

12                                   (BRIEF PAUSE)

13

14                   MR. LLOYD KUCZEK:    The studies that we've  
15  und -- have undertaken are I guess of two (2) kind. One  
16  (1) is just market research to see what the issues are in  
17  terms of adoption rates with the vehicles, and the  
18  other's with regards to just using them, and behavioural  
19  as well as mileage consumption impacts with the vehicles.  
20  In the latter case, I -- I'm not familiar with what the  
21  results are.

22                                   In terms of the market research on the  
23  adoption of these vehicles. We took that into account,  
24  and that's included in our load forecast.

25                   MR. BOB PETERS:    Just so that the record

1 is clear, Mr. Kuczek, when I refer to an electric car, as  
2 I understand the technology, these are battery-powered  
3 vehicles that can be recharged by plugging them into  
4 electricity?

5 MR. LLOYD KUCZEK: Yes, and there's two  
6 (2) types. There's the one (1) type that's all electric  
7 that requires lea -- lead power from batteries to run,  
8 and the other type is the hybrid that has the -- the  
9 motor as well as the battery to power the car.

10 MR. BOB PETERS: And -- all right. And  
11 there's a number of the hybrid type on the market today,  
12 where the battery is recharged by a gas engine as well as  
13 the -- the movement of the vehicle and the braking?

14 MR. LLOYD KUCZEK: Correct.

15 MR. BOB PETERS: The ones that we see on  
16 the market today do not require and cannot be plugged  
17 into a power supply to recharge the battery, can they?

18 MR. LLOYD KUCZEK: Actually, they can be,  
19 and they are.

20 MR. BOB PETERS: What in general has been  
21 the uptake in Manitoba with respect to the hybrids, first  
22 of all, and what does Hydro forecast will happen with the  
23 -- the all-electric vehicle?

24

25 (BRIEF PAUSE)

1

2                   MR. LLOYD KUCZEK:    In terms of adoption  
3 of the hybrids, in 2010 there was twenty-three hundred  
4 (2,300) that were purchased or sold, and -- which  
5 represented .33 percent of the sales in Manitoba that  
6 year. And in terms of what we're forecasting over the  
7 next twenty (20) years, we're forecasting that about  
8 seventy-nine (79) -- I think it's seventy-nine thousand  
9 (79,000) vehicles will be purchased in the market.

10

11   (BRIEF PAUSE)

12

13                   MR. BOB PETERS:    Does Manitoba Hydro see  
14 these electric cars reducing the energy available to be  
15 exported from the province?

16                   MR. LLOYD KUCZEK:    To the extent that the  
17 -- the electricity be used in Manitoba, that's correct.  
18 We're forecast -- our assumptions are that it's just  
19 under 2,500 kilowatt hours per vehicle.

20                   MR. BOB PETERS:    2,500 kilowatt hours per  
21 year?

22                   MR. LLOYD KUCZEK:    Correct.

23                   MR. BOB PETERS:    And that's for the full  
24 -- one (1) -- the fully rolled-out seventy-nine thousand  
25 (79,000) new vehicles?

1                   MR. LLOYD KUCZEK:    Yeah.  That's an  
2 average that we're assuming.

3                   MR. BOB PETERS:    Manitoba Hydro treats  
4 the hybrids the same as it does the all-electrics, in  
5 terms of the plug-in requirements?

6                   MR. LLOYD KUCZEK:    The number that I gave  
7 you was an average of -- of both vehicles.

8                   MR. BOB PETERS:    Can these vehicles, Mr.  
9 Kuczek, be charged on a 120 volt system?

10                  MR. LLOYD KUCZEK:    They can, yes.

11                  MR. BOB PETERS:    Is that optimal?

12                  MR. LLOYD KUCZEK:    It really depends on  
13 the -- how fast you want to charge it.  If you want to  
14 charge them at a faster rate, you need a higher voltage.

15                  MR. BOB PETERS:    And if you need a higher  
16 voltage, are most homes equipped to provide that?

17                  MR. LLOYD KUCZEK:    Most homes have 120  
18 volts in their garage or attached to their garage on the  
19 outside.

20                  MR. BOB PETERS:    So there'd need to be  
21 some home upgrades?

22                  MR. LLOYD KUCZEK:    Not necessarily.  You  
23 -- you can still use the 120 volts; it just takes longer  
24 to charge.

25                  MR. BOB PETERS:    And if the homeowner

1 wanted to go to 220 volts, the costs for upgrading the  
2 home would be at the homeowner's expense?

3 MR. LLOYD KUCZEK: That's correct.

4 MR. BOB PETERS: No Manitoba Hydro  
5 contribution to that?

6 MR. LLOYD KUCZEK: We -- we haven't  
7 really assessed that, but I don't think we'd be  
8 contributing to that.

9 MR. BOB PETERS: Does Manitoba Hydro have  
10 to bolster its distribution system in any way to take  
11 into account people purchasing electric-charged cars?

12 MR. LLOYD KUCZEK: Well, that -- that's  
13 kind of an open-ended question, because within our  
14 distribution system, there are some areas that are  
15 starting to reach their maximum capacity. So as you add  
16 more load, whether it's electric vehicles or electric hot  
17 water tanks, there could be some issues, but those would  
18 be isolated in certain areas. There -- there might be  
19 some also -- some other issues associated with high speed  
20 charging and that would have to be addressed as well.

21 MR. BOB PETERS: I don't follow the que -  
22 - the answer about the high speed charging.

23 MR. LLOYD KUCZEK: Oh, this is -- they're  
24 looking at developing systems where you can actually stop  
25 into a station, like a gas station and charge your car at

1 a faster rate than you would at your own home.

2 MR. BOB PETERS: Even faster than 220  
3 volts?

4

5 (BRIEF PAUSE)

6

7 MR. LLOYD KUCZEK: So -- so the -- what  
8 the industry is looking at doing to accommodate electric  
9 vehicles should they come about or be adopted at a  
10 significant market share, is installing these fast  
11 charging stations so that customers can charge them much  
12 quicker, as I mentioned. And so those would be located  
13 in -- in similar places that gas stations are located.

14 MR. BOB PETERS: When you answered the  
15 question about the distribution system upgrades, I take  
16 it it would be so incremental you wouldn't be able to  
17 determine whether it's attributable to electric cars  
18 versus any other normal upgrades to the distribution  
19 system?

20 MR. LLOYD KUCZEK: We, in the residential  
21 area, that's true, because electric hot water tank uses,  
22 on average, say 3,500 kilowatt hours, and a car uses  
23 twenty-four hundred (2,400). So -- and depending on when  
24 you're going to be charging the vehicles, but presumably  
25 most vehicles might be charged overnight, or you can at

1 least set it up that way, so the impact would be less to  
2 the distribution system if that was the case.

3 MR. BOB PETERS: So perhaps that's a good  
4 analogy. It's like having an extra hot water tank in the  
5 house?

6 MR. LLOYD KUCZEK: And -- and a little  
7 less, and, so.

8 MR. BOB PETERS: If I do the quick math,  
9 on your 24/2500 kilowatt hours a year for those eighty  
10 thousand (80,000), that's about 200 gigawatt hours less  
11 per year that you'll be turning over to Mr. Cormie to  
12 sell?

13 MR. LLOYD KUCZEK: Correct.

14 MR. BOB PETERS: Okay. In rural Manitoba  
15 do you see any additional challenges or costs for  
16 Manitoba Hydro if electric cars become in vogue in the --  
17 in -- outside the -- the cities?

18 MR. LLOYD KUCZEK: Well, we're currently  
19 assessing that right now. But, again, it's similar to a  
20 customer adding something smaller than a hot water tank,  
21 so that's the impact. And we have customers using more  
22 computers these days.

23 And all these things add up. And so there  
24 might be isolated areas within our distribution system  
25 that we might have some costs to upgrade our system, but

1 that's generally the case with -- no matter what the use  
2 is.

3 MR. BOB PETERS: Thank you, Mr. Cormie  
4 (sic), and just before I ask for the morning recess, I  
5 asked for an undertaking relative to that Figure 7, on  
6 page 57, at Tab 31 of the book of documents.

7 Do you recall that?

8 MR. LLOYD KUCZEK: Yes.

9 MR. BOB PETERS: And when the Board looks  
10 at the forecast from 2010 out for the next five (5) years  
11 or so, there's a -- it appears that there's an  
12 expectation that the growth of top customers is going to  
13 be 1,500 gigawatt hours.

14 Is that correct?

15 MR. LLOYD KUCZEK: Correct.

16 MR. BOB PETERS: And what is the basis  
17 for that now assumed load increase?

18 MR. LLOYD KUCZEK: So -- so that is based  
19 on the aggregate of all the information we can get from  
20 our customers. As we described in our load forecast,  
21 what we do is we talk to our customers and we get the  
22 best information that we can, in terms of what their  
23 current plans are. And based on that -- and then we add  
24 that hundred gigawatt hours starting the fourth year out,  
25 and that's the aggregate of all that information and

1 that's what we're assuming for a forecast.

2 MR. BOB PETERS: Do you -- I'm not sure  
3 how to word this politely, but do you ever take those  
4 customer reports with a grain of salt? That is, don't  
5 always accept them at a hundred cents on the dollar, and  
6 ratchet them back a bit?

7 MR. LLOYD KUCZEK: I -- I think that's  
8 true, but I couldn't speak for the individual reps, and  
9 how they interpret it, but I -- I'm fairly confident that  
10 they would take that information and know that it's not  
11 100 percent accurate. And our load forecasting  
12 department would also take that information, and take  
13 those issues, or the risks associated with the load  
14 growth, into account.

15 MR. BOB PETERS: But you're forecasting 3  
16 1/2 percent growth for the general service top consumers  
17 in the next five (5) years.

18 MR. LLOYD KUCZEK: Yes.

19 MR. BOB PETERS: Mr. Chairman, perhaps  
20 this would be an appropriate time for the morning recess,  
21 sir.

22 THE CHAIRPERSON: Very good, Mr. Peters.

23 MR. BOB PETERS: Thank you.

24

25 --- Upon recessing at 10:57 a.m.

1 --- Upon resuming at 11:18 a.m.

2

3 THE CHAIRPERSON: Anytime you're ready,  
4 Mr. Peters.

5 MR. BOB PETERS: Thank you.

6

7 (BRIEF PAUSE)

8

9 MR. VINCE WARDEN: Mr. Peters, maybe --  
10 just before we get started I'll clarify the -- where the  
11 energy intensive industrial rate is forecast in the IFF.

12 If we look at IFF-09 first, it is in the  
13 app -- at -- in the line, "At Approved Rates." So in  
14 IFF-09 starting in fiscal year '11/'12, there is 7.5  
15 million per year in the line, "At Approved Rates."

16 However, when we go over to IFF-10, the  
17 amount is -- has been moved into the additional line.  
18 And that amount is -- has been reduced in -- in the  
19 fiscal year '11/'12 to 5 million, and 5.8 million in  
20 fiscal year '12/'13.

21 So I hope that clarifies that.

22

23 CONTINUED BY MR. BOB PETERS:

24 MR. BOB PETERS: It does, Mr. Warden.

25 And I'm not sure if you're able to answer these

1 questions, but in terms of the energy intensive  
2 industrial rate, is it still being considered by Manitoba  
3 Hydro along the same veins as it was last time it was  
4 before the Board?

5 MR. VINCE WARDEN: No. We are in  
6 extensive con -- consultations with -- with customers,  
7 large and -- customers on this. We are looking at a time  
8 of use concept, and see whether that makes sense to serve  
9 the -- or at least to accomplish the same objectives that  
10 we -- we had set out in the original Application.

11 But we're not quite there yet in terms of  
12 being able to file an Application. We hope -- hopefully  
13 that will be soon, though.

14 MR. BOB PETERS: Is it going to focus  
15 then on on peak energy only, by way of either a rate, or  
16 a time of use program?

17 MR. VINCE WARDEN: Well, it's probably a  
18 little premature to comment on that, Mr. Peters. We are  
19 looking at the value of on-peak energy to us in the  
20 export market, versus off-peak. And -- and whether it's  
21 appropriate to construct a rate around that is -- is  
22 probably, as I mentioned, a little premature.

23 MR. BOB PETERS: Is it also premature to  
24 discuss whether there's still 150 megawatt cap on the  
25 load for customers?

1 MR. VINCE WARDEN: Yeah, I think we've --  
2 there -- there will be some kind of a threshold, but --  
3 but not necessarily a cap.

4

5 (BRIEF PAUSE)

6

7 MR. BOB PETERS: Mr. Surminski, in terms  
8 of energy supply, would it be correct for the Board to  
9 conclude that there are three (3) sources of supply of  
10 Manitoba Hydro's energy?

11 The first being you generate it, either  
12 from water or natural gas.

13 The second would be you either -- you buy  
14 it, either as import from a counterparty or from a wind  
15 generator.

16 And the third would be you save  
17 electricity probably, so you don't have to generate it by  
18 way of a DSM approach.

19 MR. HAROLD SURMINSKI: Yes, generally,  
20 those are categories.

21 MR. BOB PETERS: I haven't left anything  
22 out that you can think of?

23 MR. HAROLD SURMINSKI: Coal generation.  
24 Coal fired.

25 MR. BOB PETERS: Didn't we agree that was

1 only going to be used in terms of emergency?

2 MR. HAROLD SURMINSKI: It is. We are --  
3 we have the right to use it to support existing export  
4 sales. We cannot use it to negotiate new export sales.

5 MR. BOB PETERS: Just help the Board  
6 understand that. Do -- can it support existing export  
7 sales in times of non-emergency?

8 MR. HAROLD SURMINSKI: Yes, we -- we will  
9 declare an emergency when we have extremely low water.  
10 So part of the regulation does allow the utilization of  
11 the coal fired generation to support extremely low water  
12 conditions.

13 MR. BOB PETERS: All right. Perhaps my  
14 question wasn't clear.

15 The coal plant can only support existing  
16 exports in times of emergency, is that correct?

17 MR. HAROLD SURMINSKI: And "emergency"  
18 being defined extremely -- extremely low water  
19 conditions.

20 MR. ROBERT MAYER: Which, of course,  
21 Hydro's denied is an emergency because you always know  
22 you're going to get one of those, right? At least that's  
23 an answer I read in at least one (1) IR.

24 MR. HAROLD SURMINSKI: Yes, we have an  
25 expectation if our -- if our flow record is repeated that

1 we would be operating that plant full-out for the worst  
2 year, and maybe the second lowest year, half or so. So  
3 in our average estimates of operation we have a year  
4 where it's almost operated at maximum for the very lowest  
5 flow condition.

6

7 CONTINUED BY MR. BOB PETERS:

8 MR. BOB PETERS: Mr. Surminski, if you  
9 were one of the chosen few you received a blown-up copy  
10 of a document that's at Tab 32 of the book of documents.  
11 It's a copy of Manitoba Hydro's "System Firm Energy  
12 Demand and Dependable Resources" table, both the -- on  
13 the recommended development plan, both Table 1(a) and  
14 1(b).

15 MR. HAROLD SURMINSKI: Yes, I'm one of  
16 the fortunate ones that got that.

17 MR. BOB PETERS: All right. And I  
18 sprinkled it around the room. You can still look at it  
19 in the book of documents if you like, but this one might  
20 be easier to focus on from afar, sir. This is a  
21 theoretical power resource plan designed in conditions of  
22 years of low flow, correct?

23 MR. HAROLD SURMINSKI: This a supply  
24 demand summary based on our dependable flow condition,  
25 which is the lowest flow that we designed for.

1                   MR. BOB PETERS:    It's not designed on  
2 actual flow conditions in any particular year; it's just  
3 your low-flow -- your theoretical low-flow conditions?

4                   MR. HAROLD SURMINSKI:   Yes, correct.

5                   MR. BOB PETERS:    And the word "dependable  
6 resources" in the title -- the words "dependable  
7 resources" indicates that it sets the minimum levels for  
8 firm or dependable exports, correct?

9                   MR. HAROLD SURMINSKI:   Yes, correct.

10                  MR. BOB PETERS:    And this power resource  
11 plan summary does not form the basis of the integrated  
12 financial forecast, does it?

13                  MR. HAROLD SURMINSKI:   No, this is --  
14 this is the des -- the design condition, and the IFF  
15 assumes the full range of flow conditions.

16                  MR. BOB PETERS:    Well, the IFF assumes in  
17 the first year your actual flow conditions. In the  
18 second in the IFF it assumes, I think, median with some  
19 actual information know. And the third year in the IFF  
20 is based on -- on a mean forecast.

21                  Have I got that right?

22                  MR. HAROLD SURMINSKI:   Close enough, yes.

23                  MR. BOB PETERS:    Okay. Thank you. In  
24 the Power Resource Plan that's depicted in the book of  
25 documents, Tab 32, starting on page 62 -- and that's

1 enlarged -- it shows that Wuskwatim is coming on not  
2 quite 50 percent in 2011/12 fiscal year, correct?

3 MR. HAROLD SURMINSKI: Yes, that's  
4 correct.

5 MR. BOB PETERS: And Mr. Warden, I think,  
6 provided the Board with an indication that by fiscal --  
7 by the beginning of the fiscal '12/'13 year, 100 percent  
8 of Wuskwatim is expected to be in service.

9 MR. HAROLD SURMINSKI: Yes, it's expected  
10 if the schedule is maintained.

11 MR. BOB PETERS: And the reason that it's  
12 shown as less than a full output from Wuskwatim is to  
13 take into account that it's not fully online in the -- in  
14 that fiscal year, it's only partially online for some of  
15 the months.

16 MR. HAROLD SURMINSKI: Yes. As I  
17 indicated last week, the schedule was for October,  
18 December, February units coming online.

19 MR. BOB PETERS: In this power resource  
20 plan, if we go down the left-hand margin, we can find  
21 demand-side management as a line item. Are you there,  
22 sir?

23 MR. HAROLD SURMINSKI: Yes.

24 MR. BOB PETERS: And for fiscal 2011, the  
25 first test year before the Board, Manitoba Hydro

1 estimates that its demand-side management can be  
2 quantified at 440 gigawatt hours, correct?

3 MR. HAROLD SURMINSKI: Correct.

4 MR. BOB PETERS: That's not a metered  
5 measurement, is it, Mr. Surminski?

6

7 (BRIEF PAUSE)

8

9 MR. HAROLD SURMINSKI: No, it's not  
10 metered.

11 MR. BOB PETERS: And that's a cumulative  
12 total in that year?

13 MR. HAROLD SURMINSKI: That is the DSM  
14 potential over and above what's included in the load  
15 forecast. This is the poten -- the -- the discretionary  
16 or the additional DSM, other than what's already built  
17 into the load forecast.

18 MR. BOB PETERS: When you say  
19 discretionary, what do you mean by that?

20 MR. HAROLD SURMINSKI: It means they're -  
21 - they're new programs. It means that there may be  
22 additional dollars associated with that. Some programs  
23 in the load forecast, such as codes and standards, are  
24 ongoing, so there's no -- no dollars associated with  
25 that.

1 (BRIEF PAUSE)

2

3 MR. BOB PETERS: Because the number grows  
4 as it does, Mr. Surminski, do we take from that that it  
5 is a cumulative total?

6 MR. LLOYD KUCZEK: It's a cumulative  
7 total, correct.

8 MR. BOB PETERS: And DSM quantity would  
9 be different in winter versus summer, would it not?

10 MR. LLOYD KUCZEK: Correct. This is  
11 gigawatt hours, this table, right?

12 MR. BOB PETERS: Yes. I'm looking at  
13 Table A-1 under the -- the energy side, the gigawatt  
14 hours.

15 MR. LLOYD KUCZEK: Yes, so gigawatt hours  
16 is an annual number. The -- there is a difference in  
17 terms of winter and summer, though, usage.

18 MR. BOB PETERS: How do you quantify  
19 that, Mr. Kuczek?

20 MR. LLOYD KUCZEK: Well, some measures --  
21 actually, we capture the -- the savings in the winter  
22 such as insulation measures within a home, and savings is  
23 -- from electric-heated homes would occur during the  
24 winter, not the summer.

25 MR. BOB PETERS: How does Manitoba Hydro

1 account for the customer, maybe by way of a loose  
2 example, who buys a CFL bulb and, for whatever reason,  
3 goes back to an incandescent when the CFL, the compact  
4 fluorescent light, no longer works or serves the  
5 customer's purpose?

6 MR. LLOYD KUCZEK: We -- we use  
7 assumptions on the number of customers that -- we call it  
8 persistence, that don't continue to use that technology  
9 into the future.

10 MR. BOB PETERS: You build into your  
11 assumptions that some people won't continue with the DSM  
12 measures that they embark on?

13 MR. LLOYD KUCZEK: That's correct.

14 MR. BOB PETERS: Do you make that same  
15 assumption for industrial customers?

16 MR. LLOYD KUCZEK: We do. Assumptions  
17 are different, of course.

18 MR. BOB PETERS: But you also factor in  
19 the persistence of industrial customers?

20 MR. LLOYD KUCZEK: Yes.

21 MR. BOB PETERS: Would it be true to  
22 consider demand-side management energy as Manitoba  
23 Hydro's not certain that it's going to be available?

24 MR. LLOYD KUCZEK: There is a certain  
25 amount of risk associated with that, yes.

1 MR. BOB PETERS: And perhaps it's in Mr.  
2 Cormie's words that he's taught us that it's not  
3 dispatchable?

4 MR. LLOYD KUCZEK: That's true.

5 MR. BOB PETERS: And -- and by that -- I  
6 mean, he'll speak for himself of course, but the  
7 understanding is that it's not -- it's not identifiable  
8 and quantified with certainty and you can -- you can then  
9 package it up and export it?

10 MR. LLOYD KUCZEK: We do forecast what  
11 we're going to achieve but there is a risk associated  
12 with achieving those specific numbers, yes.

13 MR. BOB PETERS: And -- but the risk and  
14 the uncertainty is such that it's not -- it's not  
15 considered a -- a -- is it considered a firm product or a  
16 -- a product that could be exported as a firm product?

17 MR. LLOYD KUCZEK: We -- we actually  
18 assume that it's firm.

19 MR. BOB PETERS: If it's firm it's still  
20 not dispatchable?

21 MR. LLOYD KUCZEK: Well, it's not  
22 dispatchable in that sense, no.

23 MR. BOB PETERS: Turning to thermal  
24 resources, I want to look at the thermal plants that are  
25 shown. And from 2009/'10 to 2010/'11, if you trust my

1 math there's a -- there's a 179 gigawatt hours lower  
2 total in the first year compared to the second year?

3 MR. HAROLD SURMINSKI: I cannot see that.  
4 The -- the first three (3) years are all the same.

5 MR. BOB PETERS: Sorry, I was thinking of  
6 the power resource plan that was shown for -- the 2009  
7 Power Resource Plan, compared to Appendix 47, the 2010  
8 Power Resource Plan.

9 If we look for the first test year, then  
10 it shows a lower -- lower thermal resources in the -- in  
11 the first test year before the Board?

12 MR. HAROLD SURMINSKI: Mr. Peters, I  
13 still don't see a difference.

14 MR. BOB PETERS: You're comparing the  
15 2011 year on the document that's in the book of  
16 documents, Tab 32, and you're comparing that with the  
17 previous power resource plan from 2009?

18

19 (BRIEF PAUSE)

20

21 MR. HAROLD SURMINSKI: Mr. Peters, can  
22 you provide the reference again, we cannot find it here.

23

24 (BRIEF PAUSE)

25

1 MR. BOB PETERS: Let me try it this way,  
2 Mr. Surminski, in the 2009 Power Resource Plan, the  
3 thermal resources were shown, according to my math, at  
4 4,297 gigawatt hours. Do you accept that subject to  
5 check?

6 MR. HAROLD SURMINSKI: Can you outline  
7 the -- the three (3) components that make that up?

8 MR. BOB PETERS: Actually, I can't. I  
9 don't have it in front of me, sir. I -- I'll have to --  
10 have to find it, but the power resource plan that is in  
11 front of you shows 4,118 gigawatt hours of energy in  
12 2011. Do you accept that subject to check?

13 MR. HAROLD SURMINSKI: I'll accept that.

14 MR. BOB PETERS: Now, my suggestion to  
15 you, sir, was that the previous power resource plan  
16 compared to this one (1) shows a lower total of thermal  
17 resources in the 2010/11 year. Would you be aware of  
18 that?

19 MR. HAROLD SURMINSKI: You are comparing  
20 to 2008 I would assume?

21 MR. BOB PETERS: I thought it was the  
22 2008/09 Power Resource Plan, the previous one (1)?

23 MR. HAROLD SURMINSKI: That's what I  
24 mean, yes.

25 MR. BOB PETERS: All right.

1 (BRIEF PAUSE)

2

3 MR. HAROLD SURMINSKI: Yes, the -- in the  
4 2008/09 Resource Plan, the sum in each of the components  
5 is -- is different.

6 MR. BOB PETERS: Can you explain in  
7 general terms why the thermal generation would be lower  
8 in the most recent power resource plan?

9 MS. HAROLD SURMINSKI: It's related to  
10 rating, new information, and -- and just a calculation  
11 based on -- sometimes a better calculation, sometimes new  
12 information. The Selkirk license review provided some  
13 guidelines on water utilization.

14 So it's -- it's related -- the -- the coal  
15 plant, there's a slight derate. It's -- it's just  
16 related to utilization, maintenance, several factors that  
17 can cause changes.

18 MR. BOB PETERS: We talked about the coal  
19 plant at the start of my questions after the morning  
20 recess, and Brandon Unit 5 is now subject to legislation  
21 and regulations regarding it's use, correct?

22 MS. HAROLD SURMINSKI: Yes, correct.

23 MR. BOB PETERS: And under emergency  
24 conditions, can Manitoba Hydro -- the maximum it can put  
25 out is 811 gigawatt hours? Would that be a correct

1 interpretation of your table?

2 MS. HAROLD SURMINSKI: It is, over the  
3 twelve (12) months of the year, considering maintenance  
4 outages.

5 MR. BOB PETERS: These are annual totals?

6 MS. HAROLD SURMINSKI: Correct.

7

8 (BRIEF PAUSE)

9

10 MR. BOB PETERS: Would it be correct, Mr.  
11 Surminski, that under the conditions where Manitoba Hydro  
12 would be allowed to fire up the Brandon Unit 5 coal  
13 plant, those would be considered, and you've called them  
14 here, drought operation, correct?

15 MS. HAROLD SURMINSKI: That would be the  
16 situation that would cause maximum utilization over a  
17 whole year. Their emergency operations could be for  
18 short periods of time for other purposes other than  
19 drought.

20 MR. BOB PETERS: But Manitoba Hydro won't  
21 know that it's in an emergency drought situation until at  
22 least part way through the -- the year in which it has  
23 the drought? Wouldn't that be true?

24 MS. HAROLD SURMINSKI: Yes.

25

1 (BRIEF PAUSE)

2

3 MR. BOB PETERS: One (1) of the -- one  
4 (1) of the definitions of emergency, and I don't have the  
5 regulation here, so you -- if you could remember it for  
6 the Board, Mr. Surminski.

7 Under what emergency conditions can  
8 Brandon be fired up?

9 MR. DAVID CORMIE: In -- in general, Mr.  
10 Peters, it -- it's when it's necessary to maintain a  
11 reliable supply of electricity to the Manitoba customer.

12 MR. BOB PETERS: Well, I thought we also  
13 agreed that it could be used to support existing export  
14 contracts, Mr. Cormie?

15 MR. DAVID CORMIE: In addition to that,  
16 yes.

17

18 (BRIEF PAUSE)

19

20 MR. BOB PETERS: Did Manitoba Hydro have  
21 to run the coal plant in this current fiscal year to  
22 maintain a reliable supply for Manitobans?

23 MR. DAVID CORMIE: Its operations in the  
24 last year were to maintain plant effic -- proficiency and  
25 training. It was not necessary to run for emergency

1 conditions, no.

2 MR. BOB PETERS: So in terms of the  
3 supporting exports or reliability for Manitobans when the  
4 water conditions are very low, Manitoba Hydro may not be  
5 aware that those conditions are into a drought at least  
6 until part way through the year.

7 Wouldn't that also be correct?

8 MR. DAVID CORMIE: Generally, the -- the  
9 drought that's of most concern to Manitoba Hydro is a  
10 drought that goes on for longer than a year, and the  
11 first year would be a transition into the drought as --  
12 as occurred in the historic drought of 1939 through 1941,  
13 and so drought conditions will commence. And -- and the  
14 last -- of the eighteen (18) month critical periods, the  
15 last twelve (12) months that are -- are the most severe,  
16 and we would have the station running for those last  
17 twelve (12) months.

18 MR. BOB PETERS: But you wouldn't know  
19 when the last twelve (12) months were.

20 MR. DAVID CORMIE: Tha -- that's always  
21 the problem. You -- that you may have to run it for --  
22 in order to protect the energy supply and find out after  
23 the fact that it wasn't the design condition and it was,  
24 in retrospect, not necessary to run it. What that means  
25 is that we'll run it more often than had we had perfect

1 information about the future.

2 MR. BOB PETERS: In that first year, in  
3 any event, Mr. Cormie, there would be less -- less energy  
4 to be exported as dependable energy because you wouldn't  
5 know that you're -- that you're in a drought situation.

6 MR. DAVID CORMIE: Well, the -- the first  
7 year of the drought is not as severe as the last year of  
8 the drought because of the -- of the nature of drought  
9 development.

10 MR. BOB PETERS: Later on in the drought  
11 years, Mr. Cormie, Hydro will use the coal plant to  
12 replace hydraulic energy that may have been sold in the  
13 summer before Manitoba Hydro was even aware they were in  
14 a drought situation.

15 MR. DAVID CORMIE: The -- the energy that  
16 is sold in -- under those circumstances would be energy  
17 that is available under the dependable flow conditions.  
18 I -- I strongly believe that that -- that would be the  
19 case, yeah.

20

21 (BRIEF PAUSE)

22

23 MR. DAVID CORMIE: We're -- we're not --  
24 we're -- under the legislation we're not permitted to  
25 enter into new export transactions that depend upon the

1 energy capability of Brandon 5.

2 MR. BOB PETERS: Can you tell the Board  
3 how often Manitoba Hydro anticipates running the Brandon  
4 coal plant?

5 MR. DAVID CORMIE: The station runs --  
6 this last year it has run almost every month for -- to  
7 maintain proficiency at the station. During the --  
8 during November this year we converted the generator to a  
9 synchronous condenser and it's operating as a synchronous  
10 condenser until the end of February. And at that point,  
11 it will return to being a generator and we will  
12 recommence monthly training at that time.

13 MR. BOB PETERS: I think I thank you for  
14 that. I don't even know what that means, Mr. Cormie.

15 MR. ROBERT MAYER: Me neither. What's --  
16 what's the middle word there?

17 MR. DAVID CORMIE: You can disconnect the  
18 generator from the -- from the turbine and operate the  
19 generator as a motor; that provides voltage support for  
20 the Brandon area and the system performs more reliable --  
21 reliably with -- with the unit. If it's not generating  
22 it can operate as a synchronous condenser and -- and  
23 provide electrical benefits to the Brandon area.

24

25 CONTINUED BY MR. BOB PETERS:

1                   MR. BOB PETERS: I was actually trying to  
2 find out, Mr. Cormie, how often Hydro anticipates running  
3 Brandon coal for exporting of energy, not just for  
4 proficiency and -- and synchronous condenser mode.

5                   MR. DAVID CORMIE: I don't anticipate  
6 that we will be running it to support exports, Mr.  
7 Peters. I anticipate that it'll run very rarely.  
8 Because of the risk of drought it has the capability, but  
9 it's -- at the -- at the time that it will be running, it  
10 will be running to maintain reserves in reservoir storage  
11 or to -- after having some catastrophic system event that  
12 requires us to bring it on to serve load in Manitoba.

13                   MR. BOB PETERS: Mr. Cormie, when the  
14 Brandon Unit 5 is being running as a synchronous  
15 condenser, is it still emitting greenhouse gas?

16                   MR. DAVID CORMIE: No, it's -- it's not  
17 hooked up to the -- to the turbine, so it's not --  
18 doesn't need any fuel and it doesn't burn any coal.

19                   MR. BOB PETERS: If it doesn't need any  
20 fuel and it doesn't burn any coal, how does it still  
21 provide electricity to the residents of Brandon?

22                   MR. DAVID CORMIE: Oh, it doesn't provide  
23 electricity; it actually consumes it. It -- there's --  
24 several megawatts of energy is consumed to make the  
25 generator or the motor go around as -- as a normal motor

1 would. But that provides inertia, and should there be  
2 some kind of transmission line outage in the Brandon  
3 area, having that generator online helps the -- maintain  
4 the -- the voltage in the Brandon area and avoids the  
5 curtailment or potential curtailment of load to  
6 customers.

7 MR. BOB PETERS: Why will Manitoba Hydro  
8 be taking out of -- taking that out of that mode come  
9 February?

10 MR. DAVID CORMIE: The -- the -- the  
11 benefits of having the unit running as a synchronous  
12 condenser in the wintertime are -- are -- are there  
13 because it's under high loading conditions like we're  
14 experiencing this last week, where if we were to lose a  
15 transmission line or a transformer, if it were to go out  
16 of service suddenly, having that unit running as a  
17 synchronous condenser would provide benefits to the -- to  
18 the -- to the customers.

19 MR. ROBERT MAYER: Does that mean  
20 February's the end of winter down here?

21 MR. DAVID CORMIE: By the end of  
22 February, Mr. Mayer, the Manitoba load demand is  
23 significantly down from where it is now. There's about  
24 1,000 megawatts of heating load in the province, and --  
25 and the peak -- the peak is rare -- rarely occurs in

1 February, and by the end of February it's likely that  
2 we're out of the high-load season.

3

4 CONTINUED BY MR. BOB PETERS:

5 MR. BOB PETERS: From your previous  
6 answers, Mr. Cormie, will the Board correctly then  
7 understand that, under the emergency conditions when  
8 Brandon 5 will be operational, that is for domestic load  
9 only?

10

11 (BRIEF PAUSE)

12

13 MR. DAVID CORMIE: And -- that's true,  
14 and to the extent that we need to operate it in order to  
15 support the existing export contracts we have.

16 MR. BOB PETERS: When you say to support  
17 existing contracts, I take from that answer you would run  
18 Brandon Coal to provide energy for Manitobans and you  
19 would ship hydraulic energy out to your export customers?

20 MR. DAVID CORMIE: We don't differentiate  
21 where the production goes, Mr. Peters, but generally what  
22 would happen is that we would be able to settle our  
23 export obligations in the market; however, if that  
24 weren't possible at the time of the drought for some  
25 reason, we're allowed to run Brandon to -- to serve that

1 incremental load as well.

2                   But there's a -- when -- when we're doing  
3 our -- our drought planning, there's a complication with  
4 running Brandon 5 having to do with arranging for railway  
5 cars and mining capability that requires you to mobilize  
6 all the infrastructure months in advance of when you  
7 actually need it. And so, as we do our drought planning,  
8 we only rely on the firm resources that are available in  
9 order to trigger the mining and the delivery of the coal.  
10 And once that -- that coal supply is activated, we will  
11 then put Brandon 5 online. Otherwise, the whole  
12 transportation and mining system will bog down. It needs  
13 to run based on a forecast.

14                   And -- and that forecast is predicated on  
15 the assumption that we're -- that we're providing firm  
16 power and we're not relying on spot market energy. So  
17 triggering the deliveries of the coal will be done on a -  
18 - on a relatively conservative basis.

19                   MR. BOB PETERS:   Manitoba Hydro has  
20 stockpiled some coal?

21                   MR. DAVID CORMIE:   There's some --  
22 there's some coal stockpiled at the station. But given  
23 that there's competition for railway cars and for mining  
24 capacity, we need to -- and recognizing we do have some  
25 time available to bring the station on immediately, and

1 then we will mobili -- during that period of time we'll -  
2 - we'll mobilize the delivery of the coal.

3 And then once the drought is -- is -- is  
4 over, there will be coal that will be in the system that  
5 will have to go -- that we'll have to take continued  
6 delivery of, and that will be used to re -- replenish the  
7 stockpile. So the stockpile is necessary to manage the -  
8 - the operation and -- and -- the operation of the rails  
9 and the mines and the delivery process.

10 MR. BOB PETERS: That stockpile will get  
11 Manitoba Hydro through what, the first month?

12 MR. DAVID CORMIE: I believe we have a  
13 ninety (90) day supply of coal in the summer, and because  
14 of frozen coal issues, in the winter it's somewhat less  
15 than that.

16

17 (BRIEF PAUSE)

18

19 MR. BOB PETERS: On the issue of wind in  
20 the Power Resource Plan, the Board will see that under  
21 the wind column it's shown in 2010 -- 2009/10 as 320  
22 gigawatt hours, and that would relate to the St. Leon  
23 wind farm. Would that be correct?

24 MR. HAROLD SURMINSKI: Yes, correct, Mr.  
25 Peters.

1 MR. BOB PETERS: And that was 100  
2 megawatt capacity there?

3 MR. HAROLD SURMINSKI: Yes.

4 MR. BOB PETERS: But if we go out to 2012  
5 we see on this chart the wind is shown as 1,254 gigawatt  
6 hours, but we know that's incorrect because that's the  
7 incorrect information for St. Joseph, isn't it?

8 MR. HAROLD SURMINSKI: Yes, this -- this  
9 corresponded to an additional 300 megawatts of wind  
10 energy.

11 MR. BOB PETERS: But that 300 megawatts  
12 is not the correct number, it's more like 235 megawatts,  
13 238?

14 MR. HAROLD SURMINSKI: Two thirty-eight  
15 (238), an additional one thirty-eight (138) for the St.  
16 Joseph wind farm.

17

18 (BRIEF PAUSE)

19

20 MR. BOB PETERS: When the Board looks at  
21 -- I guess on page 66 of the Tab 32 of the book of  
22 documents, just looking at wind in the top part of the  
23 page there's a chart showing the Board the wind resource,  
24 its dependable energy, and it's shown as 320 gigawatt  
25 hours. It shows then that the average energy from that

1 is 375 gigawatt hours. Correct, Mr. Surminski?

2 MR. HAROLD SURMINSKI: Yes, correct.

3 MR. BOB PETERS: Does that mean that the  
4 low flow, or the low -- the -- the dependable level, the  
5 -- the low wind level is 85 percent of average?

6 MR. HAROLD SURMINSKI: Yes, we assume  
7 that the -- the worst year of wind generation is 85  
8 percent of average.

9 MR. BOB PETERS: And if the Board did the  
10 same calculations relative to the hydraulic resources, it  
11 would be 72 percent of average?

12 MR. HAROLD SURMINSKI: If that's what it  
13 falls out to be, it could be, yes.

14 MR. BOB PETERS: That suggests then that  
15 wind is more dependable than water?

16 MR. HAROLD SURMINSKI: It's a completely  
17 different measure when you're -- the megawatts that --  
18 that Hydro can install for hydro generation is -- is  
19 completely different than -- than the design of megawatts  
20 for a wind resource.

21 MR. BOB PETERS: Okay. Can you help the  
22 Board understand why a megawatt isn't a megawatt?

23

24

(BRIEF PAUSE)

25

1 MS. HAROLD SURMINSKI: It's -- first of  
2 all, Mr. Peters, how did you derive the -- can I ask how  
3 you derived the seventy (70) -- was it 72 percent for the  
4 hydraulic energy?

5 MR. BOB PETERS: I -- I took the ratio of  
6 the dependable to the average. I did the same for hydro  
7 and --and wind, and compared them, and it -- it looks  
8 like wind is more reliable than -- than the hydro  
9 resource. And that's not inconsistent with what Mr.  
10 Cormie said earlier.

11 MS. HAROLD SURMINSKI: Yes, the -- the  
12 variation in -- in hy -- in water is greater than the  
13 variation in wind over a whole year. You could conclude  
14 that, yes.

15 MR. BOB PETERS: Manitoba Hydro is  
16 considering wind energy as dependable energy?

17 MS. HAROLD SURMINSKI: Yes, over a year  
18 we can count on this 85 percent of average.

19 MR. BOB PETERS: But not to the point  
20 where you can dispatch it.

21 MS. HAROLD SURMINSKI: Yes, certainly  
22 not.

23 MR. BOB PETERS: And that's because it's  
24 intermittent.

25 MS. HAROLD SURMINSKI: Yes.

1                   MR. BOB PETERS:    And in cold weather, do  
2 the wind farms operate?

3                   MS. HAROLD SURMINSKI:   It has to be very  
4 extremely cold.  We've found very few hours where the  
5 Manitoba turbines are actually shut down because of  
6 temperature.

7                   MR. BOB PETERS:    But it has happened for  
8 -- for cold reasons?

9                   MS. HAROLD SURMINSKI:    Yes.

10                  MR. BOB PETERS:    Has it happened because  
11 it's been too windy, as well?

12                  MS. HAROLD SURMINSKI:    Yes, that's --  
13 that's automatic.  The shut down occurs automatically for  
14 excessive winds.

15                  MR. BOB PETERS:    When you say they shut  
16 down, that means the turbines actually stop spinning, or  
17 the blades, I'm sorry, on the -- on the fans stop  
18 spinning?

19                  MS. HAROLD SURMINSKI:    Yes, we believe  
20 so.

21                  MR. BOB PETERS:    If the wind isn't  
22 blowing, or it's too cold, does Hydro curtail exports on  
23 account of having less dependable energy available?

24                  MR. DAVID CORMIE:    No, we don't.

25                  MR. BOB PETERS:    Did the wind generators

1 shut down this last year because it was too cold or too  
2 windy?

3 MR. DAVID CORMIE: I don't -- I don't  
4 know that answer, Mr. Peters. I would assume that was  
5 the case.

6 MR. BOB PETERS: You assume it did  
7 happen?

8 MR. DAVID CORMIE: Well, I'm -- I'm  
9 assuming -- I think it's a safe assumption that it --  
10 that -- that -- on -- on one (1) particular day it was  
11 too windy.

12 I know the shut down in -- in the  
13 wintertime occurs when the temperature drops below about  
14 minus 30. It was minus 33 when I went running the other  
15 morning, and I'm pretty sure they weren't running at that  
16 time.

17 That's -- that, again, like Mr. Surminski  
18 says, those are -- are controlled automatically by  
19 sensors, and the cut off temperature is fixed, and the  
20 machines will automatically shut down when it gets cold.

21 MR. BOB PETERS: And just to confirm then  
22 that even though Manitoba Hydro stops buying energy under  
23 those conditions while you're still out running, Mr.  
24 Cormie, Manitoba Hydro doesn't stop or reduce any export  
25 sales on account of that.

1                   MR. DAVID CORMIE:    No, we -- because we  
2    have water in -- in reservoir storage immediately  
3    upstream of our generating stations, we can draw energy  
4    out of storage during the hours when the -- when the wind  
5    turbines are underperforming relative to forecast.

6                   So the -- the process is that our control  
7    centre gets a -- a wind forecast a day ahead, and based  
8    on that wind -- that wind forecast they predict the  
9    output from the wind turbines and they schedule the  
10   production of the remaining resources in Manitoba Hydro's  
11   system around that -- that schedule.

12                   And then in real-time, if there's  
13   variations in -- in the output from the -- the wind --  
14   wind facilities, just as there are variations in the  
15   Manitoba load from what's predicted a day ahead,  
16   adjustments are made to the production plans for the  
17   generating system or in the marketplace to -- to ensure  
18   that the loads that Manitoba Hydro is contracted for can  
19   be served.

20                   MR. ROBERT MAYER:    Just -- just as a  
21   matter of interest, CBC very lately has been arguing they  
22   probably have better equipment to forecast weather and  
23   whatever than Environment Canada.

24                   Do you get your forecast from Environment  
25   Canada or do you get them from John Sauder?

1                   MR. DAVID CORMIE: I believe get our  
2 forecasts from Environment Canada as well as several  
3 other service providers. And then we have a cons -- we -  
4 - we use a consensus forecast in order to predict the  
5 load.

6                   A change in the weather forecast of -- the  
7 temperature forecast of 1 degree means the demand for  
8 power will vary abou -- about 30 megawatts from what was  
9 forecast. So if a forecast is off by 2 degrees or 3  
10 degrees we'll have to either -- we'll have extra 30 to 50  
11 megawatts, or we'll have to buy an extra 30 or 50, and  
12 that's -- those adjustments can be made, you know, in the  
13 hour that it's actually happening, in the Real-Time  
14 Market.

15

16 CONTINUED BY MR. BOB PETERS:

17                   MR. BOB PETERS: Just a -- Mr. Surminski,  
18 just the last question maybe before the lunch recess. On  
19 the recommended development plan going forward, the wind  
20 power shown in the second test year at 1,254 gigawatt  
21 hours, that number would be more correct to be seven  
22 hundred and eighty-three (783) going forward?

23                   MR. HAROLD SURMINSKI: Yes, I have just  
24 looked at that and confirmed that.

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

1 And, Mr. Chairman, that might be an appropriate time for  
2 the lunch recess.

3 THE CHAIRPERSON: Very good, Mr. Peters.  
4 We'll be back at 1:15.

5

6 --- Upon adjourning at 12:04 p.m.

7 --- Upon resuming at 1:23 p.m.

8

9 THE CHAIRPERSON: Okay, Mr. Peters.

10 MR. BOB PETERS: Thank you, Mr. Chairman.  
11 I just want to tidy up a couple of small matters on the  
12 power resource plan that remain from this morning.

13

14 CONTINUED BY MR. BOB PETERS:

15 MR. BOB PETERS: Mr. Surminski, we were  
16 looking at Tab 32 of the book of documents, in particular  
17 page 62, and you even had an enlarged version just to  
18 bring it into better focus.

19 Have you located that, sir?

20 MS. HAROLD SURMINSKI: Yes, I have, Mr.  
21 Peters.

22 MR. BOB PETERS: You show an item on  
23 here, on the power resource plan as, Kelsey Rerunning.  
24 And while it's shown on the power resource plan it  
25 provides no additional dependable energy, does it?

1 (BRIEF PAUSE)

2

3 MS. HAROLD SURMINSKI: Yes, that's  
4 correct, Mr. Peters.

5 MR. BOB PETERS: Why is it shown on the  
6 power resource plan?

7

8 (BRIEF PAUSE)

9

10 MS. HAROLD SURMINSKI: Because it is --  
11 it does provide capability, it provides the capacity and  
12 provides energy -- average energy.

13 MR. BOB PETERS: Well, the -- the average  
14 energy -- what you're telling the Board is that having  
15 done, or doing the major rerunning work will provide  
16 more output at volumes that are average -- at flows that  
17 are average.

18 MS. HAROLD SURMINSKI: Average and  
19 higher, yes.

20 MR. BOB PETERS: All right. And -- but  
21 not at dependable flows, which is your lowest flow on  
22 record.

23 MS. HAROLD SURMINSKI: Yes, correct.

24 MR. BOB PETERS: Okay. I didn't check  
25 the capacity side. I'll look at that, and see if that's

1 where its major contribution flows.

2 But on the Pointe du Bois, we've already  
3 talked about that so we're not going to repeat those.  
4 The 150 megawatts of additional capacity from Pointe du  
5 Bois are not going to materialize as indicated in the  
6 2010 power resource plan, are they?

7 MS. HAROLD SURMINSKI: These are energy  
8 units, gigawatt hours, but that's correct, there will be  
9 no energy until much later in time.

10 MR. BOB PETERS: And I -- I flipped  
11 ahead. I apologize. But I think there was some  
12 indication that it was supposed to provide also some  
13 additional capacity, and I -- it's not as much as I'd  
14 indicated; you're correct.

15 It's 43 megawatts, but that's not going to  
16 materialize?

17 MS. HAROLD SURMINSKI: Yes.

18 MR. BOB PETERS: In the power resource  
19 plan filed as Appendix 84, Mr. Surminski, the Board will  
20 see that the Pointe du Bois redevelopment surfaces again  
21 but not until 2030. Do you recall that?

22 MS. HAROLD SURMINSKI: Yes, I do.

23 MR. BOB PETERS: What's going to happen  
24 that's going to make it -- that's going to make it --  
25 provide some more additional incremental dependable

1 energy in 2030, that -- that -- why is it pushed out that  
2 far?

3 MR. HAROLD SURMINSKI: A decision was  
4 made not to -- not to rebuild the powerhouse or to  
5 upgrade the existing unit until much later in time.

6 MR. BOB PETERS: I see. So you're  
7 telling the Board that Manitoba Hydro can't make a case  
8 to redevelop the powerhouse now, but it might be able to  
9 do it in the future?

10 MR. HAROLD SURMINSKI: Replace the  
11 powerhouse was -- was our recommended plan, yes. And in  
12 the future it's a -- it's -- it's a -- it's very much a  
13 possibility.

14 MR. BOB PETERS: With all of the new  
15 generation that you're planning on bringing on, why --  
16 why is the redevelopment of the powerhouse at Pointe du  
17 Bois even a possibility in 2030?

18 MR. HAROLD SURMINSKI: Well, I think all  
19 hydraulic -- all hydraulic generation is -- is a  
20 possibility for our system. It's -- it's at a location  
21 that has -- has had generation for over one hundred (100)  
22 years. It would be -- it would not be appropriate to --  
23 to abandon that site.

24 MR. BOB PETERS: So I take it your answer  
25 is that even though you will have additional and perhaps

1 surplus capacity and surplus energy from the new builds  
2 of Conawapa and Keeyask, you're still -- you're not going  
3 to ever mothball a hydraulic plant?

4 MR. HAROLD SURMINSKI: I -- I could not  
5 see it being mothballed no.

6

7 (BRIEF PAUSE)

8

9 MR. BOB PETERS: Is the redevelopment  
10 then of the Pointe du Bois powerhouse dependent on higher  
11 export prices in the future?

12

13 (BRIEF PAUSE)

14

15 MR. HAROLD SURMINSKI: It could be a  
16 partial consideration, but it -- it -- the economics are  
17 -- are not the -- the only situation. Maintaining  
18 generation at the site, and maintaining water regime, and  
19 there's a -- there's a lot of other reasons why  
20 sustaining generation there is attractive.

21

22 (BRIEF PAUSE)

23

24 MR. BOB PETERS: Will the expenditure of  
25 monies out that far have to be justified against the

1 existing surplus capacity, Mr. Surminski?

2

3

(BRIEF PAUSE)

4

5

MR. HAROLD SURMINSKI: Yes, the economics  
6 would be one (1) of the major considerations in -- in  
7 further development.

8

9

(BRIEF PAUSE)

10

11

MR. BOB PETERS: What I'm struggling  
12 with, Mr. Surminski, is right now it's \$800 million to  
13 redevelop that powerhouse, right? That was what was  
14 built into the capital budget and then removed?

15

16

MR. HAROLD SURMINSKI: Yes, in that  
order.

17

18

19

20

MR. BOB PETERS: And so we know it's  
going to be a number bigger -- or larger than that if  
Manitoba Hydro decides to reconstruct the powerhouse some  
twenty (20) years from now?

21

22

23

24

MR. HAROLD SURMINSKI: Well, yes. Well,  
equal, as Mr. Warden said. Things could go down also,  
but I -- you shouldn't assume automatically that it's  
greater.

25

MR. BOB PETERS: You don't have a number

1 out to 2030 as to what that's going to cost you?

2 MR. HAROLD SURMINSKI: No, I don't.

3 MR. DAVID CORMIE: Mr. Peters, I think  
4 one (1) of the considerations is that it's not that the  
5 existing station can't continue to produce power, it's --  
6 it -- it hasn't been shut down completely. It is  
7 capable, although, it does -- it has more maintenance  
8 issues because of its age, and it's has -- units have  
9 lower efficiency. But the incremental amount of energy  
10 that would be produced today by investing that \$800  
11 million makes it a very expensive source of incremental  
12 supply.

13 So I think what the -- the plan is to push  
14 that redevelopment of the powerhouse out to the future  
15 and -- and at that time a -- an economic decision could  
16 be made at that time compared to the alternative resource  
17 costs.

18 MR. BOB PETERS: Turning to the import  
19 line on Table 1(a) found at page 62 in Tab 32 of the book  
20 of documents, the import line is Manitoba Hydro's  
21 indication of what it intends to import rather than to  
22 fire up Manitoba Hydro's thermal plants.

23 MR. HAROLD SURMINSKI: This is the -- how  
24 much Manitoba Hydro can count on in dependable flow  
25 conditions.

1                   MR. BOB PETERS:    But the amount of the  
2 imports isn't directly proportional to the flow  
3 conditions in Manitoba.

4                   MR. HAROLD SURMINSKI:   But this resource  
5 would only be utilized in -- in very extreme low flow  
6 conditions.

7                   MR. BOB PETERS:    Is this import in lieu  
8 of some other resource being used in Manitoba?

9                   MR. HAROLD SURMINSKI:   It's not -- it  
10 depends on the relative economics of -- of our own  
11 thermal relative to the cost of this.

12                   MR. BOB PETERS:    Is it conceived, Mr.  
13 Surminski, in the power resource plan that Manitoba Hydro  
14 would import energy rather than generate it?

15                   MR. HAROLD SURMINSKI:   I'm not quite sure  
16 of your question, Mr. Peters, but we do -- we do count in  
17 our lowest, and -- and for several of the low flow  
18 conditions out of the ninety-four (94) we count on non-  
19 hydraulic resources, and import is one (1) of those.

20                                If we can use our hydro resource 90  
21 percent of the time and count on imports for 10 percent,  
22 it's -- it's very economic.

23                   MR. BOB PETERS:    This importing would  
24 likely be US-based imports of their thermal generation?

25                   MR. HAROLD SURMINSKI:    Yes.

1                   MR. BOB PETERS:    This suggests that it  
2 would be less expensive to purchase it from the -- a  
3 vendor in the United States than to generate it from  
4 natural gas in Manitoba?

5                   MR. HAROLD SURMINSKI:   We count on both  
6 in our very -- we plan the system with our maximum  
7 utilization of non-hydro, and we include all the thermal  
8 that we have listed there and all the import that's in  
9 the -- that's the criteria, our planning criteria and our  
10 lowest flow counts on both our own thermal and import.

11                  MR. BOB PETERS:    This import, Mr.  
12 Surminski, is to allow for additional exports by Manitoba  
13 Hydro; that is to allow Manitoba Hydro to create a  
14 quantity of dependable energy to support their firm  
15 exports?

16                  MR. HAROLD SURMINSKI:   Yes.

17                  MR. BOB PETERS:    When it shows as 2,796  
18 gigawatt hours, how much of that is the diversity  
19 agreement, sir, do you know?

20

21                                       (BRIEF PAUSE)

22

23                  MR. DAVID CORMIE:    I believe that's about  
24 2,280 gigawatt hours as measured at the border, Mr.  
25 Peters.

1 MR. BOB PETERS: And the balance of that,  
2 Mr. Cormie, Mr. Surminski, is that made up of -- it's not  
3 made up of any firm bilateral dependable import, is it?

4 MR. DAVID CORMIE: No, these -- these are  
5 energy guarantees that exist under the export sale  
6 contracts; they're part and parcel of the contract.

7 MR. BOB PETERS: All right. If we know  
8 that 2,280 comes from the diversity agreements, the bal -  
9 - the balance --

10 MR. DAVID CORMIE: I think we'll have to  
11 check on that number, Mr. Peters. All right, let me do  
12 that. But I'll correct it later if necessary.

13 MR. BOB PETERS: Okay. What I'm trying  
14 to get at, Mr. Cormie, is the difference between whatever  
15 amount is for diversity and the total, where does that  
16 difference come from?

17

18 (BRIEF PAUSE)

19

20 MR. HAROLD SURMINSKI: We're having  
21 difficulty finding it. Can we undertake to do it at the  
22 break?

23 MR. BOB PETERS: Certainly, certainly. I  
24 didn't want to bog down the proceedings over it, Mr.  
25 Surminski and Mr. Cormie.

1                   Conceptually -- can I ask a question this  
2 way: Would Manitoba Hydro be importing non-firm -- would  
3 it be non-firm energy? That's a possibility?

4                   MR. DAVID CORMIE: In the -- in the  
5 supply and demand tables, there's no non-firm energy  
6 included in that table --

7                   MR. BOB PETERS: All right.

8                   MR. DAVID CORMIE: -- although non-firm  
9 energy may be available at the time, and depending on the  
10 price of that non-firm energy relative to Manitoba  
11 Hydro's own cost of generation, that non-firm energy  
12 would -- if we can take delivery of it and it's useful,  
13 we'll -- we'll purchase that energy and displace our own  
14 more expensive generation.

15                  MR. BOB PETERS: All right. Then I guess  
16 we are going to have to have your undertaking as to  
17 identify the components of the 2,796 gigawatt hours of  
18 imported energy.

19                  MR. BOB PETERS: That's something you can  
20 obtain, Mr. Surminski?

21                  MR. HAROLD SURMINSKI: Yes. We should be  
22 able to do it at the break.

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

24

25 --- UNDERTAKING NO. 30: Manitoba Hydro to identify

1 components of the 2,796  
2 gigawatt hours of imported  
3 energy  
4

5 CONTINUED BY MR. BOB PETERS:

6 MR. BOB PETERS: The power resource plan  
7 shows -- again on page 62 of Tab 32 of the book of  
8 documents -- shows Manitoba Hydro's dependable exports  
9 for 2011 as being 3,404 gigawatt hours, correct?  
10

11 (BRIEF PAUSE)  
12

13 MR. DAVID CORMIE: Mr. Peters, can we  
14 just go back? I have the answer to the diversity. Maybe  
15 it'll help if we -- if we do this in order.

16 MR. BOB PETERS: All right. Please.

17 MR. DAVID CORMIE: For 2010, we have  
18 three (3) diversity agreements in place that provide for  
19 2,705 gigawatt hours of dependable energy, and, in  
20 addition to that, we have a contract with a -- a third  
21 utility in Minnesota that provides 91 gigawatt hours of  
22 energy under an adverse water clause, which brings the  
23 total to the twenty-seven ninety-six (2,796) that you  
24 were talking about.

25 Now, the -- the -- the one with the

1 smaller Minnesota utility is not a diversity contract;  
2 it's -- it's -- it's just we have the right under adverse  
3 water conditions to -- to call on adverse water energy  
4 from that company.

5 MR. BOB PETERS: Will that be at market  
6 prices? Are you able to determine that?

7 MR. DAVID CORMIE: I can't -- that --  
8 that pricing information is confidential, Mr. Peters.

9

10 (BRIEF PAUSE)

11

12 MR. DAVID CORMIE: But maybe this would  
13 be helpful, Mr. Peters. Because we do have access to  
14 market priced energy, if the energy that is priced under  
15 the adverse water clause is not attractive financially we  
16 would go to market and buy market-priced energy.

17 So because it's not a take or pay  
18 obligation, we don't have to buy it. We have the right  
19 to buy it and we would exercise that right if it was  
20 economic.

21 MR. BOB PETERS: All right. I think we  
22 have your point on that, thank you. Turning to the  
23 Manitoba Hydro dependable exports, which are shown for  
24 2011 on the line item near the bottom of the page to be  
25 3,404 gigawatt hours, Mr. Cormie.

1                   That was a forecast, correct?

2                   MR. DAVID CORMIE:    That's the -- the  
3   number that our customers have the right to call on under  
4   all the terms of the contract.

5                   MR. BOB PETERS:    And so we know from what  
6   your actual dependable exports were of 3,263 gigawatt  
7   hours, that not all of your -- your customers didn't  
8   require all that they apparently could have under the  
9   contracts.

10                  MR. DAVID CORMIE:    Right. Under the  
11   diversity contracts these are options for the customers.  
12   They can purchase the energy if they require it. They're  
13   not obligated to purchase it.

14                  So there will be years when the -- they  
15   have alternatives in the market that are less expensive  
16   than the Manitoba Hydro option and they would take  
17   market-priced energy rather than take energy under the  
18   diversity.

19                  MR. BOB PETERS:    Do bilateral exports as  
20   defined -- I think I included some definitions in Tab 33  
21   of the book of documents, but do -- do bilateral exports  
22   also come from dependable energy, Mr. Cormie?

23                  MR. DAVID CORMIE:    The -- the long term  
24   contracts are bilateral contracts, and they would be  
25   sourced out of dependable energy but we can also have op

1 -- opportunity contracts that are bilateral in nature but  
2 don't -- aren't sourced from dependable energy. They --  
3 they're, you know, more -- they're more near term.

4 MR. BOB PETERS: Okay. Sorry, I may have  
5 used my words inappropriately there, but I -- I  
6 appreciate your long term contracts are certainly  
7 bilateral.

8 I was looking at the -- the opportunity  
9 sales bilateral, and there's a -- a number of  
10 subcategories of those, but do those also come from  
11 dependable energy?

12 MR. DAVID CORMIE: No.

13 MR. BOB PETERS: Can you quantify for the  
14 Board, Mr. Cormie, of that 3,404 gigawatt hours of  
15 exports in 2011, how much of that is a firm contract or  
16 dependable contract, and how much of that is diversity?

17 MR. DAVID CORMIE: They're all dependable  
18 -- that's all dependable energy, so Manitoba Hydro has to  
19 be in a position at all times to be able to supply that.

20 And I would suggest that over 90 percent  
21 of it is must -- must take -- must sell/must take energy  
22 that Manitoba Hydro must make available and the customer  
23 must purchase whereas the diversity energy is -- is --  
24 they have the option.

25 MR. BOB PETERS: The purchaser under a

1 diversity agreement has the option whether or not to buy.

2 MR. DAVID CORMIE: That's correct.

3 MR. BOB PETERS: The bottom line that we  
4 get to on the power resource plan, Mr. Surminski, is that  
5 when we get down to the surplus lines, the last two (2)  
6 lines on the chart, the surplus will show that all  
7 commitments can be met under dependable low flow  
8 conditions?

9 MS. HAROLD SURMINSKI: Yes, for the 2009  
10 power resource plan that you're looking at.

11 MR. BOB PETERS: And where something is  
12 either a negative or in brackets, I'm not sure how you  
13 depict it, but it shows that there's a -- a supply  
14 deficit under -- under minimum flow conditions?

15 MR. HAROLD SURMINSKI: And there's no  
16 such item in this table.

17 MR. BOB PETERS: And the purpose of the  
18 table is to show Manitoba Hydro, as well as the opposed  
19 counterparties, how it will meet dependable commitments?

20 MR. HAROLD SURMINSKI: For us the purpose  
21 of the table is to ensure we have adequate resources to  
22 meet our firm commitments.

23 MR. BOB PETERS: And when using the  
24 bottom line, which bottom line does Manitoba Hydro use,  
25 is that the surplus with Brandon Unit number 5, or is it

1 the exportable surplus without Brandon number 5?

2 MR. HAROLD SURMINSKI: It depends on --  
3 on your utilization, what purpose. If -- if we're  
4 negotiating new sales we will not count on the Brandon  
5 output.

6 MR. BOB PETERS: So that's the reason you  
7 break it out separately?

8 MR. HAROLD SURMINSKI: Yes.

9 MR. BOB PETERS: So for new contracts --  
10 would the Board be correct in understanding that the new  
11 contracts would include the NSP, the Minnesota Power, and  
12 the Wisconsin Public Service Agreements? They cannot  
13 rely on Brandon Unit 5 as dependable energy?

14

15 (BRIEF PAUSE)

16

17 MR. DAVID CORMIE: I think -- I think  
18 you're correct, Mr. Peters, yes.

19 MR. BOB PETERS: The -- ex -- except that  
20 the existing NSP sale expires in 2015 and so the  
21 extension past that date we -- we are -- we're not using  
22 Brandon to serve that sale?

23 MR. HAROLD SURMINSKI: And that's be --  
24 and further, Mr. Peters, our -- our undertaking on the  
25 NSP sale will indicate that the sale is energy neutral,

1 very close to energy neutral under dependable flow  
2 conditions, so it does not require any support from the  
3 Manitoba Hydro system.

4 MR. BOB PETERS: I'm not sure I  
5 understand that fully, Mr. Surminski. You're -- you're  
6 telling the Board that, in essence, the diversity can --  
7 can match the requirements under the -- under what  
8 Manitoba Hydro has to sell, you don't need Manitoba Hydro  
9 resources?

10 MR. DAVID CORMIE: I think the other day,  
11 Mr. Peters, I indicated to you that the three (3) sale  
12 agreements have to be viewed as a package. And together  
13 they provide for enough energy under dependable flow  
14 conditions that -- that more than meet the needs of the  
15 export sales. So under dependable flow conditions no  
16 Manitoba resources are needed to serve the -- to serve  
17 the sale of this. The dependable resources are provided  
18 in the worst case by -- by the -- by NSP.

19 MR. BOB PETERS: Sorry for being a bit  
20 thick on that, Mr. Cormie. Under dependable flow  
21 conditions, Manitoba Hydro can meet the NSP sale as  
22 presently constituted and as expected to be constituted  
23 when it's renewed in -- for 2015?

24 MR. DAVID CORMIE: We -- without relying  
25 on Manitoba resources, yes.

1                   MR. BOB PETERS:    It's the without relying  
2 on Manitoba resources that I can't seem to understand.  
3 You're suggesting then that it wouldn't even be a factor  
4 on the -- on this table, it wouldn't be part of the  
5 export volume because you wouldn't have to meet it under  
6 dependable load?

7                   MR. HAROLD SURMINSKI:   In effect, that's  
8 what happens. The -- the export obligation is cancelled  
9 by the import ability that we have in the -- in the low  
10 flow case.

11

12   (BRIEF PAUSE)

13

14                   MR. BOB PETERS:    Okay. I think the  
15 light's going on. You're -- you're suggesting under --  
16 under the low flow conditions that's -- that'll be the  
17 situation, that you won't need to rely on any of the  
18 Manitoba resources to serve that because of the  
19 contractual arrangements?

20                   MR. HAROLD SURMINSKI:    That's correct.

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

22

23   (BRIEF PAUSE)

24

25                   MR. BOB PETERS:    I want to totally switch

1 gears, and it's appropriate that Ms. Boyd is at the helm  
2 on the hydro side, Mr. Chairman. And I want to talk a  
3 little bit with Mr. Warden about natural gas. And I will  
4 promise to bring it back to the electric side of the  
5 business relatively shortly.

6 But, Mr. Warden, I want to compare how  
7 Manitoba Hydro does some things on the gas side of the  
8 business, and then I want to come back and explore that  
9 on the electric side if you're -- if you're ready.

10 MR. VINCE WARDEN: Okay.

11 MR. BOB PETERS: We know that Centra's  
12 shares are owned by Manitoba Hydro and that the gas  
13 utility under the Centra legal corporation is operated by  
14 Manitoba Hydro, correct?

15 MR. VINCE WARDEN: Correct.

16 MR. BOB PETERS: And on the gas side  
17 Centra's providing natural gas to Manitobans in all the  
18 service territories that Centra has identified.

19 MR. VINCE WARDEN: Yes.

20 MR. BOB PETERS: And Centra sources most  
21 of its natural gas from Alberta and brings it to Manitoba  
22 via pipeline.

23 MR. VINCE WARDEN: Yes.

24 MR. BOB PETERS: And to ensure there's  
25 enough gas in Manitoba available for January 24th or any

1 other day in dead of Manitoba Hydro -- or Manitoba's  
2 winters, Centra has a storage arrangement in northern  
3 Michigan to -- to call upon.

4 MR. VINCE WARDEN: Correct.

5 MR. BOB PETERS: In theory, if Manitobans  
6 need more natural gas than is available on Centra's share  
7 of the pipeline, Centra releases natural gas from storage  
8 to replace the gas that it takes off the TransCanada  
9 Pipeline in excess of its regular contractual quantity.

10 MR. VINCE WARDEN: Yes.

11 MR. BOB PETERS: If Centra needs more  
12 than it has available under TransCanada Pipeline's  
13 contracted amount there's this notional back haul  
14 arrangement which notionally provides natural gas from  
15 storage to Manitoba.

16 MR. VINCE WARDEN: Well, Centra contracts  
17 for, in effect, close to the coldest day on record and  
18 makes up the difference between that amount with what is  
19 called supplemental gas.

20 MR. BOB PETERS: Correct. And as we --  
21 as we look at the arrangement, the gas in northern  
22 Michigan, the molecules of that gas may never make their  
23 way to Winnipeg.

24 MR. VINCE WARDEN: They would not make  
25 their way -- their way to Winnipeg, that's correct.

1                   MR. BOB PETERS:    There's this -- I call  
2   it a notional back haul arrangement, where Centra will  
3   release the gas from storage in northern Michigan to a  
4   counterparty to put it on a pipeline to say let's say for  
5   eastern Canada, and in exchange, Centra will take  
6   additional supplies off the TransCanada Pipeline coming  
7   through Winnipeg.

8                   MR. VINCE WARDEN:    That's right.

9                   MR. BOB PETERS:    And in dollars -- or  
10  sorry.  In -- in quantity, it's my recollection that  
11  there's about 15.5 million gigajoules of storage capacity  
12  in Michigan.

13                  MR. VINCE WARDEN:    That's right.

14                  MR. BOB PETERS:    And the Manitoba load is  
15  about, I guess, 55 million gigajoules a year.  That'll  
16  exclude --

17                  MR. VINCE WARDEN:    yes.

18                  MR. BOB PETERS:    That excludes the T-  
19  service and special contract customer.

20                  MR. VINCE WARDEN:    Yes, I agree with  
21  that, yeah.

22                  MR. BOB PETERS:    And the general premise  
23  is that Manitoba Hydro, through Centra, doesn't want to  
24  be without natural gas to heat homes in Manitoba; it  
25  wants to have it under contract or some way to get it.

1 MR. VINCE WARDEN: Yes.

2 MR. BOB PETERS: And in some years,  
3 Centra has more capacity on its pipeline systems than it  
4 needs.

5 MR. VINCE WARDEN: Yes, that's fair.

6 MR. BOB PETERS: And likewise, in some  
7 years Centra has more natural gas under contract than it  
8 actually needs for that -- for that gas year for  
9 Manitobans.

10 MR. VINCE WARDEN: Well, the forecast of  
11 natural gas is such that we don't end up with firm  
12 service that's surplus to Manitoba's requirements.

13 MR. BOB PETERS: Rather, you assume that  
14 each year at the start, at least, is going to be equal to  
15 the coldest day on record and plan accordingly.

16 MR. VINCE WARDEN: That's a starting  
17 point, yes.

18 MR. BOB PETERS: And if the actual  
19 weather is warmer than the coldest day on record, Centra  
20 will have a surplus in their pipeline capacity and their  
21 gas volumes.

22 MR. VINCE WARDEN: Yes.

23 MR. BOB PETERS: And so, in many of those  
24 years, Centra would sell off the excess capacity to third  
25 parties, if they can.

1 MR. VINCE WARDEN: Yes.

2 MR. BOB PETERS: And by selling off that  
3 excess capacity, some of that money is then used to help  
4 defray the fixed costs that Centra had to pay to have  
5 that capacity in the first place.

6 MR. VINCE WARDEN: That's right.

7 MR. BOB PETERS: Centra does not sell any  
8 excess capacity unless and until Centra is 100 percent  
9 positive and certain that the weather will not equal the  
10 coldest year on record.

11 MR. VINCE WARDEN: Yes, supplying the  
12 Manitoba load under the coldest day scenario is the  
13 priority.

14 MR. BOB PETERS: And to supply the  
15 Manitoba load on the coldest day on record, sometimes  
16 Manitoba Hydro has to wait well into the winter before it  
17 can mathematically satisfy itself that it's not having  
18 one (1) of the coldest years on record.

19 MR. VINCE WARDEN: Well, that -- the cold  
20 -- one (1) of -- the coldest day on record can occur well  
21 into February, that's right.

22 MR. BOB PETERS: Well, the coldest day  
23 can occur even in February. Don't tell the Vice Chair  
24 that we're experiencing spring at that time. To  
25 determine whether it's the coldest year on record, you

1 need to wait. And -- and coldest year meaning the -- the  
2 year in which the company would need the gas. You may  
3 not know that until January, maybe even into February,  
4 that you're not ending up into the coldest year on -- on  
5 record.

6 MR. VINCE WARDEN: Well, Mr. Peters, I  
7 think you're describing a scenario that doesn't really --  
8 isn't really the way Centra operates because it's not  
9 like we're holding gas back waiting for the coldest day  
10 on record. We do have arrangements with counterparties  
11 to -- to make sure that we can supply gas for the coldest  
12 day on record, but we're not holding back capacity for  
13 that -- for that coldest day event.

14 MR. BOB PETERS: I'm not talking the  
15 coldest day event, Mr. Warden; I'm talking the coldest  
16 year event, that Manitoba Hydro's not going to sell off  
17 its extra capacity on the pipelines and extra gas in  
18 storage until it knows it's not going to need it for  
19 Manitobans.

20 MR. VINCE WARDEN: Yeah, and -- and I  
21 think what I'm trying to convey is that Centra doesn't  
22 know whether it's going to have a record cold year or  
23 not, so it -- it forecasts what the capacity requirements  
24 will be recognizing that it -- it may have to pick up  
25 some additional capacity if that coldest year event is --

1 is in fact encountered. So as long as we have those  
2 arrangements that we can draw on then we don't have to  
3 have the firm capacity reserved on TransCanada up to the  
4 coldest day on record at all times.

5 MR. BOB PETERS: And -- and Manitoba  
6 Hydro doesn't have firm capacity on TransCanada Pipeline  
7 up to the coldest day on record; rather, it relies on its  
8 storage arrangements to help improve the load factor on  
9 its pipeline deliveries.

10 MR. VINCE WARDEN: Well, storage --  
11 storage arrangements plus arrangements with other  
12 counterparties that would make up that difference.

13 MR. BOB PETERS: All right, and the other  
14 counterparties, those are the delivered services that you  
15 will purchase from other parties to make sure that  
16 there's enough gas available for Manitobans if they need  
17 it.

18 MR. VINCE WARDEN: Yes.

19 MR. BOB PETERS: Is it correct that  
20 Centra will only sell off surplus capacity if and only if  
21 Centra will not lose money on the transaction?

22 MR. VINCE WARDEN: Well, sometimes it's  
23 necessary to sell off capacity rather than hold onto it  
24 for which you would receive zero. So there would be some  
25 situations under which capacity would be sold off to

1 recover some of those fixed costs.

2 MR. BOB PETERS: But it would never be  
3 sold at a -- at a loss to Centra. Centra would always be  
4 gaining something on the transaction?

5 MR. VINCE WARDEN: There would always be  
6 a -- a net gain to Centra on the transaction, yes.

7 MR. BOB PETERS: Would you agree that  
8 Centra will not speculate that if -- as to whether or not  
9 it will be profitable in the selling of its surplus,  
10 rather Centra needs the certainty that the capacity  
11 management transactions will be profitable?

12 MR. VINCE WARDEN: There's no speculation  
13 involved.

14 MR. BOB PETERS: Centra needs the  
15 certainty that its capacity management transactions will  
16 result in positive revenues to the Corporation.

17 MR. VINCE WARDEN: Capacity management  
18 transactions always result in revenues to the  
19 Corporation, yes.

20 MR. BOB PETERS: So let's go -- let's  
21 move over to the electric side of Manitoba Hydro, and  
22 from your direct evidence earlier on, Mr. Warden, would  
23 you agree that water resources is seen by Manitoba Hydro  
24 as one (1) of its largest risks?

25 MR. VINCE WARDEN: Yes.

1                   MR. BOB PETERS:    I wasn't sure if you  
2 were putting the water resources in priority to or -- or  
3 behind infrastructure risks.

4                   MR. VINCE WARDEN:    I would put in --  
5 infrastructure as the number 1 risk.

6                   MR. BOB PETERS:    And the infrastructure  
7 risk that you talk about is having presumably a  
8 generating station that for whatever reason is not able  
9 to operate and generate.

10                  MR. VINCE WARDEN:    Well, it's more so  
11 related to an interruption in the delivery of service or  
12 transmission from northern generation to the -- to the  
13 southern load.

14                  MR. BOB PETERS:    Mr. Cormie, I think you  
15 provided some evidence earlier that -- are you able to  
16 confirm that in the past eighteen (18) years Manitoba  
17 Hydro has experienced average to above average water  
18 flows in approximately fifteen (15) of those eighteen  
19 (18) years?  
20

21                                       (BRIEF PAUSE)

22  
23                  MR. DAVID CORMIE:    Sounds credible. I  
24 haven't checked the exact numbers, Mr. Peters.

25                  MR. BOB PETERS:    Your point earlier was

1 that in recent memory, the above water -- the above  
2 average flows and the average flows have certainly been  
3 more plentiful than the below average flows.

4 MR. DAVID CORMIE: Yes, especially in the  
5 -- in the recent past.

6 MR. BOB PETERS: Okay, and recent past is  
7 since 2000?

8 MR. DAVID CORMIE: 2003.

9 MR. BOB PETERS: We don't want to include  
10 2003.

11 MR. DAVID CORMIE: That wasn't a good  
12 year, no.

13 MR. BOB PETERS: All right. Well, we'll  
14 -- we'll talk about that in a few minutes. But would it  
15 be correct when I look at the -- the information provided  
16 in this filing by Manitoba Hydro that the long term  
17 average of generation from hydraulic flows in Manitoba  
18 would be around 29,000 gigawatt hours?

19 MR. DAVID CORMIE: Yes, that sounds  
20 approximately right.

21 MR. BOB PETERS: And as we've just seen  
22 by going through the power resource plan, when water  
23 flows are above average Hydro can supply 100 percent of  
24 domestic requirements and 100 percent of their long term  
25 exports from the hydraulic generation here in Manitoba?

1 (BRIEF PAUSE)

2

3 MR. DAVID CORMIE: I don't know if that's  
4 exactly right, Mr. Peters. During peak loading  
5 conditions like we're experiencing now, when the weather  
6 is extremely cold, we will at times be running our  
7 combustion turbines or purchasing in order to meet our  
8 Manitoba load obligations.

9 MR. BOB PETERS: You're talking  
10 operationally, Mr. Cormie. That is how you -- how you  
11 manage day to day, correct, in your last answer?

12 MR. DAVID CORMIE: Yes.

13 MR. BOB PETERS: All right. I was going  
14 to take that back a step, and say that on an annual  
15 basis, if on an annual basis you -- you have 29,000  
16 gigawatt hours of hydraulic generation, from our power  
17 resource plan we should be able to conclude that that  
18 would be sufficient on an annual basis to serve the -- to  
19 serve the load in 2009/'10, and 2010/'11.

20 MR. DAVID CORMIE: Subject to all the  
21 hydraulic capacity being available, Mr. Peters, but it is  
22 normal for there to be hydro units out of service year  
23 round. And you may not be able to produce all the hydro  
24 energy at the time when the Manitoba load peaks. So --  
25 but generally with -- if I had certainty there would be

1 29,000 gigawatt hours of hydro I'd be pretty happy.

2 MR. BOB PETERS: You'd be happy because  
3 you knew you'd have a relatively easy time in meeting the  
4 Manitoba load and your export commitment load with  
5 hopefully minimal reasons to fire up the gas turbines or  
6 to import to support the exports?

7 MR. DAVID CORMIE: That's correct.

8 MR. BOB PETERS: When pow -- when water  
9 supplies are lower than average then the power to supply  
10 some portions of the long-term contracts has to come from  
11 purchase power?

12 MR. DAVID CORMIE: Yes.

13 MR. BOB PETERS: And when hydraulic flows  
14 drop below 25,000 gigawatt hours looking at the Power  
15 Resource Plan then Manitoba Hydro would have to buy power  
16 to meet the export obligations?

17

18 (BRIEF PAUSE)

19

20 MR. DAVID CORMIE: That's pretty normal,  
21 yes.

22 MR. BOB PETERS: And that's normal  
23 because if you're -- if your base load requirement, or  
24 your base load forecast is about 25,000 gigawatt hours a  
25 year and your hydraulic flows match that then anything

1 and above that for the exports has to be sourced through  
2 -- through imports or other generation?

3 MR. DAVID CORMIE: Yes.

4 MR. BOB PETERS: And would you accept,  
5 subject to check, that seven (7) times in the past thirty  
6 (30) years hydraulic flows dropped below 2,500 gigawatt  
7 hours per year? Somebody's yelling at me that I used the  
8 wrong measure here. Let me repeat the question. Would  
9 you accept, subject to check, that Manitoba hydraulic  
10 flows dropped below 25,000 gigawatt hours per year  
11 approximately seven (7) times in the last thirty (30)  
12 years?

13 MR. DAVID CORMIE: That sounds fair, Mr.  
14 Peters.

15 MR. BOB PETERS: And the last time was  
16 that 2003/04 year that we don't want to remember?

17 MR. DAVID CORMIE: I remember it, but,  
18 yes, I agree with that.

19 MR. BOB PETERS: All right. And in those  
20 years of below average water flows, Manitoba Hydro would  
21 be subject to prevailing market prices in terms of  
22 importing?

23 MR. DAVID CORMIE: Yes.

24 MR. BOB PETERS: It does follow then that  
25 to meet an export obligation Hydro may have to purchase

1 the power for a higher cost than it receives from the  
2 export sale?

3 MR. DAVID CORMIE: It's subject to that  
4 risk, yes.

5 MR. BOB PETERS: And would it be correct  
6 that in 2003/04, as well as 2006/07, Hydro had to buy  
7 power in excess of six (6) cents a kilowatt hour, and  
8 maybe up as high as ten (10) cents a kilowatt hour, to  
9 meet its export obligations?

10

11 (BRIEF PAUSE)

12

13 MR. DAVID CORMIE: I would agree with the  
14 first part of your question, Mr. Peters, that we -- we  
15 entered into purchase transactions. But again, we don't  
16 differentiate between our -- our export -- firm export  
17 obligations and our domestic load obligations. For  
18 example, in the winter of -- in February of 2006 it  
19 wasn't our export obligations that caused us to purchase,  
20 it was near record cold weather that caused the Manitoba  
21 demand to go up an excessive amount, and -- and we were  
22 purchasing to serve the Manitoba load.

23 MR. BOB PETERS: Again, on an operational  
24 basis, that was the situation that confronted you at that  
25 time?

1 MR. DAVID CORMIE: Yes.

2 MR. BOB PETERS: And if on an an --  
3 annual basis Manitoba Hydro had a specific amount of  
4 hydraulic resource available that was sufficient to meet  
5 the domestic Manitoba requirements but not the firm  
6 export requirements, Manitoba Hydro wouldn't  
7 differentiate between who should be responsible for  
8 whatever costs of the imports were.

9 MR. DAVID CORMIE: Well, I -- I think,  
10 Mr. Peters, the thing to remember is that it may appear  
11 on an annual perspective that we should have adequate  
12 supplies of hydraulic energy. But it's also important to  
13 remember that Manitoba Hydro doesn't control over 70  
14 percent of the water supply; it's controlled by others.  
15 And, for example, the flows on Winnipeg River are  
16 controlled by control boards and regulatory bodies in  
17 Ontario, and Manitoba Hydro's subject to those  
18 regulation.

19 And if upstream regulators decide to  
20 release water in the summertime that Manitoba Hydro would  
21 rather have kept in storage for a subsequent winter and  
22 then we're required -- and then -- and then in the  
23 wintertime we're short because there was regulation that  
24 didn't match the hydro demand we could be caught short.

25 And so, it -- it's not just about an

1 annual quantity; it's about the timing and -- and whether  
2 Manitoba Hydro has control over the situation. And on --  
3 in -- with regard to the winter of 2006/07, that was the  
4 situation. We didn't con -- we didn't control the flows  
5 on the Winnipeg River. We had record low flows; they  
6 were outside of our control, and that created -- added to  
7 the shortfall that -- that we experience and caused us to  
8 purchase.

9                   So 2006/07, if -- if you look at it from  
10 on an annual perspective, it doesn't look like a  
11 significant year; it's slightly below median. But a lot  
12 of the surplus came early in the spring as a result of  
13 the snow melt -- high snow-melt runoff. We had full  
14 storages. We couldn't store it. We had to release the  
15 energy into the market or otherwise it would be spilled.

16                   And subsequent that winter we had to buy  
17 back a bunch of energy from the market because we don't  
18 have infinite amounts of storage and we don't control the  
19 -- we control the -- some of the river flows. And that  
20 creates a situation where it appears that we sold energy  
21 in the summer for, you know, off-peak prices and had to  
22 buy it back in the winter at on-peak prices, but that's  
23 something that Manitoba Hydro didn't control.

24                   MR. BOB PETERS: All right, we'll --  
25 we'll come to those examples and we'll take the Board

1 through that, explain that, Mr. Cormie, but thank you for  
2 that answer.

3 MR. ROBERT MAYER: Before we leave this,  
4 you said 70 percent of your storage capacity's not  
5 controlled by you, but you mentioned the Winnipeg River.  
6 Is wi -- is there something more than the Winnipeg River?  
7 Surely the Winnipeg River does not provide 70 percent of  
8 our water.

9 MR. DAVID CORMIE: No, what I meant, Mr.  
10 Mayer, and -- was that 70 percent of the water that flows  
11 in Manitoba is controlled upstream of Manitoba. So if  
12 you -- the Saskatchewan River rises in Alberta and  
13 Saskatchewan and it gets to the border and it's regulated  
14 by the regulatory authorities outside of Manitoba.

15 The same thing in -- in the Winnipeg  
16 River. All the reservoirs and most of the water supply  
17 rises in northern Minnesota and in northwest Ontario, and  
18 those are controlled by -- by Ontario hydro and other  
19 regulatory bodies. And Manitoba Hydro doesn't control  
20 those river flows so we're at the mercy of what the  
21 reservoir operators do upstream. So 70 percent of the  
22 river flow is not controlled by Manitoba Hydro.

23 MR. ROBERT MAYER: Well, okay.

24 MR. DAVID CORMIE: So that's -- that's  
25 what I was explaining.

1                   MR. ROBERT MAYER:   Well -- but le --  
2   looking at them somewhat individually, I recognize what  
3   happens coming out of northwestern Ontario. I don't know  
4   what kind of control structures exist on the Red River or  
5   Assiniboine River, although I do know of the diversion  
6   that just puts -- puts that still back into our  
7   reservoirs because it goes up into Lake Manitoba. I  
8   don't know what kind of control is on the Saskatchewan.

9                   I know that there's some -- there's  
10  something up around Nipawin or Pelican Rapids; I'm not  
11  sure. And then I'm aware that there's some control on  
12  the Churchill coming out of Island Falls. Have I missed  
13  some?

14                  MR. DAVID CORMIE:   No, you've described  
15  it correctly. The -- the Churchill River is controlled  
16  by the dam that's at the outlet of Reindeer Lake, and  
17  there's a large reservoir there, and -- and SaskPower  
18  operates that, and so they -- they determine what the  
19  flows are on the -- on the Churchill River. We don't --  
20  we have very little control over that.

21                  On the Saskatchewan River there -- there  
22  are several reservoirs in the mountains in Alberta which  
23  are relatively minor, but there is the Lake Diefenbaker  
24  dam on the South Saskatchewan, and that's controlled  
25  again by the Saskatchewan government. And again,

1 Manitoba Hydro is at the mercy of those -- those -- those  
2 control structures, and we don't -- we don't determine  
3 what those river flows are.

4 MR. ROBERT MAYER: Is there -- maybe I'm  
5 incorrect here. I thought the major portion of the water  
6 in the Saskatchewan was coming out of the North  
7 Saskatchewan, not the South Saskatchewan. And I do  
8 recognize that the Gardiner Dam and Diefenbaker -- that's  
9 not -- I think that's the one. In any event, the -- that  
10 is on -- on the South Saskatchewan and the relatively  
11 small weir at Saskatoon itself.

12 Is there any controls on the North  
13 Saskatchewan River?

14 MR. DAVID CORMIE: And again, you're --  
15 you're -- you're correct, Mr. Mayer. About a third of  
16 the water on the Saskatchewan River at Grand Rapids comes  
17 from the North Saskatchewan River. A third of the water  
18 comes from the South Saskatchewan River, mainly in the  
19 foothills of Alberta. The balance of the flow on the  
20 Saskatchewan River flows into the Saskatchewan River  
21 downstream at Prince Albert, and so the central portion  
22 of Saskatchewan and the prairies of Alberta contribute  
23 next to nothing to the -- to the river flow.

24

25 CONTINUED BY MR. BOB PETERS:

1                   MR. BOB PETERS:    Mr. Cormie, when we were  
2 talking about Manitoba Hydro buying power in excess of  
3 certain prices -- I think I used six (6) cents and all  
4 the way up to ten (10) cents -- you cautioned that the  
5 purchase would have been used either for domestic or for  
6 export.

7                   MR. DAVID CORMIE:    Yes.

8                   MR. BOB PETERS:    And in any event, no  
9 matter the use of the -- of the electrons, the returns  
10 from those sales were less than the cost to meet them.  
11 Would that also be correct?

12                  THE CHAIRPERSON:   We'll await your reply  
13 after. We're going to have to have a short break, Mr.  
14 Peters. We'll be back shortly after 2:30.

15  
16 --- Upon recessing at 2:19 p.m.

17 --- Upon resuming at 2:37 p.m.

18

19                  THE CHAIRPERSON:   Okay, Mr. Peters. Any  
20 time.

21                  MR. BOB PETERS:    Thank you, Sir.

22

23 CONTINUED BY MR. BOB PETERS:

24                  MR. BOB PETERS:    Mr. Cormie, I can't  
25 remember if you answered my last question. I can barely

1 remember my last question, but I was suggesting to you  
2 that Manitoba Hydro had to, in '03/'04 and '06/'07,  
3 purchase power in excess of six (6) cents, and maybe up  
4 as high as ten (10) cents a kilowatt hour to meet its  
5 firm or dependable obligations.

6                   You agreed with that, did you?

7                   MR. DAVID CORMIE:    Yes.

8                   MR. BOB PETERS:    And I suggested then  
9 that those -- that energy was purchased at a cost higher  
10 than what Manitoba Hydro would receive in return for that  
11 energy.

12                   MR. DAVID CORMIE:    Both in the domestic  
13 and the export market, yes.

14                   MR. BOB PETERS:    I -- I wasn't going to  
15 differentiate, in light of your previous comment, but --  
16 but in essence what you're telling the -- the Board and --  
17 - is that to provide the electricity Manitoba Hydro had  
18 to purchase it, and when it went to sell it to its  
19 customers it didn't make as much money on it as it cost,  
20 and therefore, in my words, Manitoba Hydro lost money on  
21 the -- on it -- on the -- on the transactions.

22                   MR. DAVID CORMIE:    And then I think  
23 that's where I'd disagree with you, Mr. Peters, your  
24 conclusion that we lost money on the transactions because  
25 the transactions, these long-term, dependable contracts,

1 aren't for a particular hour, or a month, or a year.  
2 Generally they're five (5) to ten (10) to fifteen (15)  
3 years in duration.

4                   And so when Manitoba Hydro evaluates those  
5 transactions, it looks at them from the long term  
6 perspective, and knows that there will be times when it  
7 will cost money to serve the sale, but it also knows that  
8 -- that the majority of the time the river flows are  
9 going to be such that the sale can be served from  
10 hydraulic resources.

11                   And it -- it -- it is careful to not --  
12 it's careful to make sure that over the life of the sale  
13 that the transaction brings benefits to its customers,  
14 not just financially but also through the transmission  
15 that's associated with the sale agreements.

16                   And a lot of these long term sales are --  
17 are entered into not for the purpose of specifically  
18 beating the market at that particular moment in time, but  
19 to facilitate the market access.

20                   And so I -- I don't like the -- the  
21 suggestion that we may have lost money on the  
22 transaction, because I think it's more complicated than  
23 that.

24                   MR. BOB PETERS: All right. We're going  
25 to get into that as well. The only reason we got into it

1 right now, Mr. Cormie, is -- is you took my question to  
2 be focussed on the export contracts. And I was trying to  
3 get out of you a -- a general answer first of all that  
4 when Manitoba Hydro has to purchase electricity for  
5 between six (6) and ten (10) cents, and then sells it for  
6 something less than that, there is a -- there's a revenue  
7 loss. Would you go that far?

8 MR. DAVID CORMIE: No, there's just  
9 increased costs.

10 MR. BOB PETERS: And the revenues don't  
11 cover the costs in the short term.

12 MR. DAVID CORMIE: That -- that may be  
13 the case in the short term, right.

14 MR. BOB PETERS: I'm not sure if it's --  
15 if it's -- and I --

16 THE CHAIRPERSON: It's a bit of  
17 semantics, isn't it, in a sense? Mr. Cormie, you're  
18 looking at it from a present value sort of economic  
19 perspective, whereas in the audited accounts they're --  
20 they're period statements between, you know, April 1st  
21 and March the 31st that -- I think you'd grant -- from a  
22 period perspective you can make or lose economically. It  
23 could be something different.

24 MR. DAVID CORMIE: My -- my -- I think  
25 you're right, Mr. Chairman, that -- on an annual basis

1 that the sale agreement may -- may look unattractive but  
2 we don't have the choice of cherry picking the years of  
3 good water to serve the sale.

4                   We enter into a ten (10) year sale  
5 agreement, and we're happy to take the profits from those  
6 sales in nine (9) years out of the ten (10), and in the  
7 years that it -- it -- the transaction may not look  
8 profitable -- we shouldn't say that there's a bad  
9 transaction. We should just say that -- that over the  
10 life of the sale there were some costs associated with  
11 it, and -- and -- but overall the transaction needs to be  
12 judged on the long term perspective, not on an hourly,  
13 monthly, or weekly, or yearly basis.

14                   And -- and we do that calculation because  
15 we have a simulation model that simulates the operation  
16 under all ninety-four (94) flow years and -- and half of  
17 those years are below average. They're in the range of  
18 the hydraulic generation that Mr. Peters was alluding to,  
19 that -- so we know that there is going to be costs  
20 associated with these sales. And we build those into the  
21 decisions that we make when we agree that a transaction  
22 is -- is appropriate for Manitoba Hydro.

23

24 CONTINUED BY MR. BOB PETERS:

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

1 I -- I think part of what we were talking about was --  
2 was the time period in which you were going to assess the  
3 sale, and the thrust of your last few answers has been  
4 Manitoba Hydro looks over the long-term, the life of the  
5 sale, rather than at a snapshot in time.

6 MR. DAVID CORMIE: Yes. And -- and one  
7 (1) of our strategies is not to enter into one (1) year  
8 dependable sales, Mr. Peters, because then we're really  
9 subject to the -- the low flow year, whereas you -- if  
10 you spread the water risk out over five (5) to ten (10)  
11 years, then you're going to get that averaging effect.

12 And -- and -- whereas with a one (1) year  
13 sale you either make money or you lose money and there's  
14 no -- no years in which you can build up benefits in the  
15 bank that you can draw on in a -- if you unfortunately  
16 have a low water year.

17

18 (BRIEF PAUSE)

19

20 MR. BOB PETERS: When the costs are  
21 greater than the revenues, it means Manitoba Hydro's  
22 extraprovincial revenues would have been greater but for  
23 that particular transaction.

24 Would you accept that?

25

1 (BRIEF PAUSE)

2

3 MR. DAVID CORMIE: Yes.

4 MR. BOB PETERS: In the answer that you  
5 provided your second answer ago, you suggested to the  
6 Board that your firm sales are made on more than an  
7 annual basis so that you have a longer period of time in  
8 which to average out the effects of the water flows,  
9 correct?

10 MR. DAVID CORMIE: That's correct.

11 MR. BOB PETERS: What about Manitoba  
12 Hydro's summer sales where you do a -- a short -- a  
13 short-term summer sale out of firm capacity?

14 Do you judge that based on the revenues  
15 and the costs of the summer or do you amalgamate all of  
16 those after a period of five (5) or ten (10) years and  
17 see how they did?

18 MR. DAVID CORMIE: No, those transactions  
19 are different than the long-term dependable sales. Those  
20 transactions are entered into only once we have a clear  
21 idea of what the water supply is going to be. And I  
22 think this is an excellent year, as an example, Mr.  
23 Peters, where we have 6 million megawatt hours in  
24 reservoir storage above average, and we have a forecast  
25 of a flood coming down the Red River. So the -- the

1 likelihood, and I -- I don't want to bet my life on this,  
2 but -- but I would say I'm close to 100 percent sure that  
3 this year's not going to be a drought year. And -- and -  
4 - and so --

5 MR. ROBERT MAYER: Was there not a flood  
6 forecast today at 10:00? I didn't catch it.

7 MR. DAVID CORMIE: I didn't hear it  
8 either, but -- but under those circumstances where we  
9 have millions of megawatt hours in storage, to enter into  
10 a transaction that may involve a few hundred thousand  
11 megawatt hours and to sell forward on that basis is -- is  
12 not -- is not taking any risk, Mr. Peters.

13 These are -- these are transactions that  
14 are backed up by additional water that's in the system  
15 already. The snow is on the ground, the water's in the  
16 reservoir. And in the vast majority of the transactions  
17 for which I've been responsible -- well, all of the  
18 transactions, we've always been confident that we've been  
19 able to serve them -- serve them out of the -- out of  
20 resources that are above and beyond those that are  
21 available under dependable flow conditions.

22

23 CONTINUED BY MR. BOB PETERS:

24 MR. BOB PETERS: All right. So those  
25 summer sales are in a different category is what you're

1 telling the Board, and those you would gauge on whether  
2 it was profitable or not profitable?

3 MR. DAVID CORMIE: Yes, and then those  
4 are -- those are -- it's all about the money in -- in  
5 those transactions. It -- there's -- you know, we're not  
6 trying to build transmission projects with those. This  
7 is do we have a customer who is willing to purchase at a  
8 price that we -- well exceeds what we expect to get in  
9 the spot market.

10

11 (BRIEF PAUSE)

12

13 MR. BOB PETERS: Mr. Cormie, when  
14 Manitoba Hydro purchases that imported power, will you  
15 acknowledge that that can happen maybe months later in  
16 time after the export sales that resulted in Manitoba  
17 Hydro having to buy or import the energy?

18 MR. DAVID CORMIE: Yes, and I -- I think  
19 a seasonal diversity transaction might be of that nature  
20 where Manitoba Hydro has a commitment to sell summer --  
21 summer energy, and -- and may have to buy that energy  
22 back in the wintertime to -- to serve its other loads.

23 MR. BOB PETERS: Or it could be that  
24 Manitoba Hydro has to export pursuant to a long-term  
25 contract where there's a positive obligation on Manitoba

1 Hydro to deliver?

2

3

(BRIEF PAUSE)

4

5 MR. DAVID CORMIE: Yes. Yeah.

6

7 MR. BOB PETERS: And that may occur at a  
8 point in time when Manitoba Hydro is uncertain as to what  
9 energy supply it will have later on in the year?

10 MR. DAVID CORMIE: Yes, except that we --  
11 we have enough resources available to serve the sale even  
12 under dependable flow conditions. So there's always the  
13 dependable amount of energy available to -- now, it may  
14 not be -- that dependable energy may not be priced  
15 attractively compared to the sale revenues but it's  
16 always -- there's -- it's always backed by an energy  
17 resource.

18 MR. BOB PETERS: And that was the  
19 purpose, Mr. Surminski told us, of the power resource  
20 plan, was to provide that comfort to -- to management  
21 that there's a firm dependable resource that can be used  
22 to back up any of these long-term contracts.

23 MR. DAVID CORMIE: That's correct, we  
24 have to have the capability.

25 MR. BOB PETERS: Yes. But under -- my  
question to you was that to service a long-term contract

1 you may have to supply energy today that you're not sure  
2 if you're going to have it hydraulically available weeks  
3 or months from now but you do know that you will have it  
4 on this power resource plan somewhere available at some  
5 point in the year if needed.

6 MR. DAVID CORMIE: Yes, and -- and as we  
7 went through earlier today on the supply and demand  
8 tables for energy, you'll notice that in any particular  
9 year we have between imports and thermal, you know,  
10 probably 6 terawatt hours of -- of thermal energy, part  
11 of the dependable resources.

12 MR. BOB PETERS: Now, on the opportunity  
13 sales side of Manitoba Hydro's business you show the  
14 Board, and I think it was in book of documents Tab 23 --  
15 sorry, Tab 33, there's definitions of the various  
16 opportunity sales that take place, correct?

17 MR. DAVID CORMIE: Yes.

18 MR. BOB PETERS: And when we see Market  
19 Day-Ahead, Market Real-Time, aren't those also  
20 opportunity sales or am I putting them in the wrong  
21 basket?

22 MR. DAVID CORMIE: Yes, all market  
23 transactions are opportunity sales. They're just not  
24 bilateral transactions, Mr. Peters.

25 MR. BOB PETERS: Still opportunity, but

1 just not with a confirmed counterparty on the other end  
2 of them. You're just selling into the market and --

3 MR. DAVID CORMIE: We're selling into the  
4 market, yes.

5 MR. BOB PETERS: Whereas with a bilateral  
6 you've got a counterparty that's going to cut you the  
7 cheque.

8 MR. DAVID CORMIE: That's right.

9 MR. BOB PETERS: Now is it correct, Mr.  
10 Cormie, that on opportunity sales Hydro may sell in the  
11 first quarter of the year only to purchase or import  
12 power later on in the year; that happens?

13 MR. DAVID CORMIE: There -- there are  
14 years where we have -- we have sold in the opportunity  
15 market, but we haven't bought back those sales. We've --  
16 I don't think they're linked, no. There -- there are  
17 years where we have sold forward. We've sold forward in  
18 the short-term, but we haven't sold forward in the long-  
19 term and having to -- bought those back, no, and -- and I  
20 think last winter was a great example.

21 There was no snow on the ground. Manitoba  
22 Hydro sold no megawatts in the forward market for the  
23 year. It was -- it was just not a risk that we were  
24 willing to take, and that's been our strategy all along.

25 MR. BOB PETERS: Maybe my use of the word

1 "buy back" wasn't appropriate, Mr. Cormie. But you would  
2 acknowledge that Hydro may sell, and it's my example, in  
3 Quarter 1 of the year, and then import energy in Quarter  
4 3 of the year; that happens?

5 MR. DAVID CORMIE: Yes.

6 MR. BOB PETERS: When you said Manitoba  
7 Hydro doesn't buy back the energy, what you were  
8 suggesting, I take it, was that you don't go to the same  
9 counterparty that you sold the energy for and try to  
10 unwind the transaction or have them deliver back to you.

11 MR. DAVID CORMIE: I -- I think our --  
12 what I was saying, Mr. Peters, is that we don't enter  
13 into forward term transactions beyond a few months out  
14 where we know the water supply. After a few months out  
15 we don't know what the water supply is going to be. And  
16 for -- for Manitoba Hydro to enter into a transaction  
17 today for delivery next winter out of its opportunity  
18 transactions, we don't enter into those transactions  
19 because we're just speculating then.

20 We would have to have dependable energy  
21 resources available, but we don't enter into dependable  
22 energy transactions that are not of five (5) years  
23 duration and longer because we need to have the averaging  
24 effect. So we don't sell out of the opportunity -- in  
25 the opportunity market more than a few months in advance

1 unless we're confident that the water is already in  
2 storage or there's snow on the ground that will back the  
3 transaction up, as is the case this year.

4 MR. BOB PETERS: You hope. That was an  
5 attempt at humour. At least it got a smile, Mr. Cormie.  
6 Mr. Cormie, let me ask it this way: Is it correct that  
7 Manitoba Hydro would make an opportunity sale in Quarter  
8 1 only to import energy in, say, Quarter 4 of a -- of a  
9 year, and that import would be at a higher price than the  
10 export?

11 MR. DAVID CORMIE: That could be the  
12 case, but that implies that we had some ability to manage  
13 the water supply, the storage situation, so that we could  
14 avoid the -- avoid the subsequent purchase and -- and --  
15 and I don't think the tran -- those types of transactions  
16 exist or are related.

17 MR. BOB PETERS: Without relating them to  
18 each other, they do exist at least independent of each  
19 other.

20 MR. DAVID CORMIE: Yes. You can go back  
21 in the record and you can see that, yes.

22 MR. BOB PETERS: And with the benefit of  
23 hindsight -- and I'll grant you it's hindsight -- you can  
24 compare the average price of your exports on the  
25 opportunity market to the average price of your imports

1 on the opportunity market during the same fiscal period.

2 MR. DAVID CORMIE: You -- you could --  
3 you could do that, but -- but I -- I don't think that you  
4 can relate the transactions, though. I'm -- I'm just  
5 suggesting that you need to understand why the  
6 transaction was made in the first place, and if the  
7 transaction was made because reservoirs were full and  
8 there was no room to store the -- store the energy and it  
9 had to go to market, and subsequently water conditions  
10 dried up and you had to purchase energy, that there was  
11 no discretion involved. We -- we -- you know, it's not  
12 something that could -- it's not a situation that could  
13 have been avoided.

14 MR. BOB PETERS: And nothing in my  
15 question, sir, was to suggest it could have been or  
16 should have been, but I'm just trying to factually get on  
17 the record that that opportune -- that that situation  
18 could occur and has occurred.

19 MR. DAVID CORMIE: Yes.

20 MR. BOB PETERS: And would it also be  
21 correct that when an opportunity sale is made Manitoba  
22 Hydro may even be uncertain as to what any import prices  
23 would be six (6) or nine (9) months down the road?

24 MR. DAVID CORMIE: Yes.

25 MR. BOB PETERS: And when Manitoba Hydro

1 makes an opportunity export sale, Manitoba Hydro doesn't  
2 link that to any subsequent transactions because they're  
3 independent and unrelated.

4 MR. DAVID CORMIE: Yes.

5 MR. BOB PETERS: Manitoba Hydro doesn't  
6 go to a counterparty for any bilateral opportunity, or  
7 even to the MISO market, and say: We'll ship opportunity  
8 today, but six (6) months from now you've got to ship it  
9 back to us. That doesn't happen.

10 MR. DAVID CORMIE: No.

11 MR. BOB PETERS: In fact, Manitoba Hydro  
12 won't even be certainly in Quarter number 1 of a given  
13 year that it will even have to import in Quarter 3 or  
14 Quarter 4.

15 MR. DAVID CORMIE: Mr. Peters, when you  
16 refer to Quarter 1, is that fiscal Quarter 1 or the  
17 Quarter 1 of the calendar year?

18 MR. BOB PETERS: I was thinking of it as  
19 the fiscal -- fiscal year, which I think is most of  
20 Manitoba Hydro's filing before the Board, but if you want  
21 I can try to change my terminology.

22 MR. DAVID CORMIE: No, no. I -- that  
23 just -- the -- the -- the question is: Do we enter into  
24 transactions in the spring, in April, May, and June, that  
25 subsequently, in the third, fourth quarter, you know, the

1 following winter, we may have to make some purchases.

2 Yes, that -- that -- that's very possible.

3 MR. BOB PETERS: And if you did the sales  
4 in the first quarter of the fiscal year, you won't even  
5 know what the -- what the price is going to be on any  
6 purchases you make coming back, if they're opportunity  
7 purchases?

8 MR. DAVID CORMIE: That's correct.  
9 There's no certainty.

10 MR. BOB PETERS: Would it be fair to say  
11 that by the time you get to Quarter number 2 in your  
12 fiscal year, Hydro will have a better idea as to whether  
13 it will have to import later in the fiscal year?

14 MR. DAVID CORMIE: Yes, by the end of the  
15 second quarter, that would be the end of September, the  
16 water supply for the year is known, except for the last  
17 20 percent.

18 And that -- that water supply is the water  
19 that's mostly in reservoir storage, and so by the end of  
20 September we have a -- a very good idea of -- of where  
21 the -- what the hydraulic situ -- situation will be for  
22 the balance of the year.

23 MR. BOB PETERS: When you say all but 20  
24 percent is known, you don't know what the precipitation  
25 is going to be.

1                   MR. DAVID CORMIE:    Yes.  You know,  
2   October and portions of November there still can be  
3   rainfall that can result in a change in inflows.  After  
4   November the snow pack has very little effect and will  
5   only effect the subsequent year.

6                   MR. BOB PETERS:    Because the  
7   precipitation after the end of September is not liquid,  
8   it's snow, you're counting -- you won't count that until  
9   the following fiscal year in terms of its energy and  
10  storage impact.

11                  MR. DAVID CORMIE:    Yeah, the -- the water  
12  year really is from -- so November 1st to November 1st,  
13  and what happens after November the 1st generally doesn't  
14  have an impact on the water supply until the following  
15  spring.

16                  So you know, that's -- that's why --  
17  there's a misalignment between the water year and the  
18  fiscal year and the calendar year.

19                  MR. BOB PETERS:    You might want to ask  
20  Mr. Warden when the gas year is, if you don't already  
21  know, but we'll -- we'll -- we won't go there.

22                  You will, Mr. Cormie, know by the end of  
23  the second quarter whether or not Manitoba Hydro is short  
24  in its -- its supply capabilities?

25                  MR. DAVID CORMIE:    We have a good

1 estimate at that time, yes.

2 MR. BOB PETERS: Would you agree that if  
3 Manitoba Hydro continues its opportunity sales in the  
4 second quarter, it's adding to a financial risk that to  
5 meet those opportunity sales, Manitoba Hydro may have to  
6 buy the energy at a higher price later in the year?

7 MR. DAVID CORMIE: Yes, but that's  
8 generally not our practice. We -- you know, there --  
9 there needs to be customer demand for winter energy.  
10 Customers need to be wanting to hedge their winter  
11 purchase costs. That's -- we don't really get a lot of  
12 interest in -- in winter sales, and we're very reluctant  
13 to enter into transactions that -- that enter into the  
14 winter because of the -- most of our hydraulic resources  
15 are needed to serve Manitoba load.

16 And the other resources that we have  
17 available are very expensive relative to the market, so  
18 we're not an attractive market for the winter energy.  
19 Customers don't want it, and -- and they even want it  
20 less when we tell them our price. So I -- I think the --  
21 the number of oppor -- forward transactions that we enter  
22 into in the winter are few and far between. Most of the  
23 energy that is sold in the winter is sold in the spot  
24 market, day-ahead or real-time. I -- I'd say the vast  
25 majority is.

1                   MR. BOB PETERS:    Sold on the spot market  
2 or real time market rather than to -- on a bilateral  
3 arrangement.

4                   MR. DAVID CORMIE:    That's correct, yeah.

5                   MR. BOB PETERS:    And you're saying that  
6 your bilateral arrangements, your price is really out of  
7 the money, so to speak, for -- for the counterparties.

8                   MR. DAVID CORMIE:    That's right. Our --  
9 our combustion turbines are -- are very expensive and  
10 there are many other sellers in the market in the winter  
11 who can provide a better price than we can.

12                   MR. BOB PETERS:    Mr. Cormie, is there  
13 another possibility that Manitoba Hydro may sell  
14 opportunity sales in the first quarter or maybe the  
15 second quarter of a given year, but Manitoba Hydro may  
16 also be able to -- to hold off and make those later in  
17 the year if it has sufficient reservoir storage  
18 capability?

19                   MR. DAVID CORMIE:    No, the -- the term  
20 transactions are generally limited to the summer season  
21 and we don't really have an attractive product for the  
22 third and fourth quarter. So I'll -- holding off doesn't  
23 -- we -- whether we hold off or not we are not -- we're  
24 not in the money in those months.

25                   MR. BOB PETERS:    I was talking

1 opportunity sales. Was -- was your answer intended as an  
2 opportunity sale response?

3 MR. DAVID CORMIE: Well, opportunity  
4 sales are made up of the term transactions as well as the  
5 spot market sales, so I was talking about the term  
6 transactions. The spot market sales, those are generally  
7 whatever the water -- whatever surplus supply there is,  
8 they will go to market if the -- if they are surplus at  
9 the time that the water arrives at the generating  
10 station.

11 MR. BOB PETERS: Sorry for this, Mr.  
12 Cormie, but you introduced the word "term transactions;"  
13 is that -- is that meant to be a bilateral opportunity  
14 sale?

15 MR. DAVID CORMIE: Bilateral transactions  
16 can be term where we've sold forward, or they can be Day-  
17 Ahead or Real-Time, Mr. Peters.

18 MR. BOB PETERS: Well, when you said  
19 "term transaction," you're defining that as a -- as a  
20 dependable commitment, a firm commitment that has to be  
21 made?

22 MR. DAVID CORMIE: It's a short-term  
23 contract, Mr. Peters, but it's not a dependable sale, no.

24 MR. BOB PETERS: Okay. The purchaser's  
25 aware it's coming out of opportunity or surplus --

1 surplus energy?

2 MR. DAVID CORMIE: The purchaser doesn't  
3 -- we -- it -- it -- the purchaser is in -- indifferent  
4 to where we're getting the energy from. And that's a --  
5 a distinction that only Manitoba Hydro makes.

6 MR. BOB PETERS: Well, my question was  
7 whether, on the opportunity side -- and let's not use  
8 these -- these terms, but let's use it as the -- the Day-  
9 Ahead or the Real-Time Market -- in terms of those types  
10 of opportunity sales, it is possible that rather than  
11 make those sales in the first quarter of a year, Manitoba  
12 Hydro could make them in the third or fourth quarter of  
13 the year?

14 MR. DAVID CORMIE: This is where it  
15 becomes complicated, Mr. Peters, because of the nature of  
16 Lake Winnipeg as a reservoir and its ability to put water  
17 into storage and take it out in the wintertime. And you  
18 would think that we would have that choice if there was  
19 reservoir storage space, to be able to move the energy  
20 around within the year to capture a -- an opportunity  
21 sale in the summer or in the winter.

22 Unfortunately, in spite of the Lake  
23 Winnipeg regulation project where we increase the winter  
24 outflow capacity from the lake by 50 percent, Lake  
25 Winnipeg in the wintertime is really not a very effective

1 reservoir. So if we put a megawatt hour into storage in  
2 the summertime, hoping to take that megawatt hour out in  
3 the winter, it -- only a third of a megawatt hour will  
4 come out. And so the economic calculation that is done  
5 to determine whether it's better to store the energy in  
6 the summer for sale in the winter, has to be discounted  
7 by the probability that the energy will be carried over  
8 into a subsequent year and the energy that you thought  
9 you might be able to sell in the winter is ultimately  
10 spilled.

11                   And so it's -- it's -- in a -- in an ideal  
12 situation that's what we would like to do. We would like  
13 to avoid those low cost summer sales that are being made,  
14 save the energy for a market that would -- that would  
15 attract a higher price. And when we do that -- we do  
16 that calculation un -- unfortunately, we -- we have to  
17 then charge against the winter sale revenue the -- the  
18 risk of it -- of the water being spilled.

19                   And it -- that's a very similar situation  
20 that we have this winter on Lake Winnipeg. We would like  
21 to have taken that 6 million megawatt hours to -- to  
22 market already and -- and not have that water face the  
23 risk of spill next year. But we've been at maximum  
24 discharge out at Lake Winnipeg for -- since at least  
25 July. We can't get the lake down because there's too

1 much ice at the outlet and -- and they -- and -- and we  
2 can't get the water to the generating stations, so  
3 water's going to get carried over.

4                   And so if you're thinking of holding back  
5 water in the summertime because there may be a winter  
6 opportunity, the -- the efficiency of the reservoir needs  
7 to be considered, and that's a calculation that we do.

8                   MR. ROBERT MAYER:   Mr. Cormie, I've been  
9 wondering when this issue was going to come up. You've  
10 built two (2) channels to get the water out of Lake  
11 Winnipeg to basically Jenpeg, as I understand it. And  
12 flying over in turbo props you get a really good view of  
13 the north end of Lake Winnipeg, and it, quite frankly,  
14 looks pretty shallow. And I'm not surprised that maybe  
15 you got the water getting -- not a lot of water between  
16 the ice and the bottom of the lake in some of those  
17 spots.

18                   But would it not make some sense to dredge  
19 that north end of Lake Winnipeg, I mean, firstly right at  
20 the north end. But, also, secondly, I suspect that  
21 there's some silt, to put it mildly, between the Grand  
22 Rapids discharge and the -- and the inlet -- or outlet  
23 from Lake Winnipeg.

24                   Has any considera -- would that solve your  
25 problem or -- and has any consideration been given to

1 doing that?

2 MR. DAVID CORMIE: Mr. Mayer, when --  
3 when we built the Lake Winnipeg regulation project in the  
4 early '70s Manitoba Hydro removed all the very low-cost  
5 excavation. Everything that remains now is rock, and it  
6 -- and it stretches for tens of miles. From -- from Lake  
7 Winnipeg to Jenpeg is about 70 miles. And so now we  
8 would have to invest billions and billions of dollars to  
9 improve the outflow capacity further, and it's just not  
10 an economic project. The -- the -- we've captured all  
11 the low hanging fruit now; anything else would be very,  
12 very expensive.

13 MR. ROBERT MAYER: Thank you.

14

15 CONTINUED BY MR. BOB PETERS:

16 MR. BOB PETERS: Mr. Cormie, was the  
17 reason for discounting the megawatt that goes into  
18 storage by two thirds by the time it comes out, is that  
19 related to the ice on the lake? Is that what I gather  
20 from your answer?

21 MR. DAVID CORMIE: Yes, Mr. Peters. To -  
22 - to increase the outflow out of Lake Winnipeg in the  
23 wintertime you have to raise the level of the lake. So  
24 you have 10,000 square miles of lake that you have to  
25 raise. Every foot that you raise the elevation of the

1 lake you can increase the discharge capacity by ten (10)  
2 to 15,000 cubic feet per second.

3                   So you -- you do get additional water out,  
4 but you also have 10,000 square miles of lake that you  
5 have to hold at a higher level in order to get that  
6 discharge capacity. So if you -- if -- if you just think  
7 of it in terms of megawatt hours, if you put one (1) in  
8 there, some of it will flow out, but some of it will be  
9 just held back in storage and will be carried over into a  
10 subsequent year.

11                   And in the last few years we've been at  
12 discharge almost 65, 63 percent of the time, so any water  
13 that was voluntarily held back into storage has been  
14 spilled, and it will get -- continue to be spilled as we  
15 go into the summer of -- of 2011.

16                   And so in -- in high water cycles like  
17 we're in now, the -- for -- say for the last eighteen  
18 (18) years, the probability of spill is -- is really  
19 high. When you get into low water years like we had in  
20 the mid-'80s, there's less of a risk of spillage and you  
21 can -- you're more able to affect those winter/summer  
22 arbitrage transactions.

23                   But even in the low water years it's  
24 difficult to justify transferring surplus summer into the  
25 winter with the expectation that the winter market will

1 attract a better price overall than what you can get in  
2 the open water season.

3 MR. BOB PETERS: Does Manitoba Hydro  
4 anticipate average flow conditions at the beginning of  
5 each and every year, Mr. Cormie?

6 MR. DAVID CORMIE: I think our  
7 anticipation is only reflected in the IFF, Mr. Peters.  
8 It -- it -- median flow is assumed for the first year.  
9 And then all possible flows are assumed possible after  
10 that -- after that year. But our -- our an -- to the  
11 extent that we anticipate, it's based upon our assessment  
12 of current conditions.

13 Today our -- our assessment of the current  
14 conditions is that -- is that the spring is going to be a  
15 wet spring and -- and the likelihood of us backing off  
16 reservoir releases is very low until the threat of spring  
17 flooding is passed.

18 But in -- in -- last winter, when there's  
19 no snow on the ground, the likelihood of having a -- a  
20 low-water year is -- is -- is increased, and what that  
21 means from our perspective is that we don't enter into  
22 forward transactions; we wait until we actually see  
23 whether there's any snow-melt runoff or there's any  
24 rainfall before we commit the Corporation to additional  
25 sales transactions. But we don't -- like, we're not --

1 we're not betting on average, as I would -- if you wanted  
2 to ask it that way.

3 MR. BOB PETERS: Well, it sounds like you  
4 take -- you take the current situation into account and  
5 extrapolate based on what you know for a fact is in the  
6 reservoirs at this point in time.

7 MR. DAVID CORMIE: Yeah, and I -- and I  
8 think it's always with a very conservative perspective.

9 MR. BOB PETERS: Can you tell the Board  
10 what constraints on opportunity export sales volumes  
11 Manitoba Hydro's traders have to follow with respect to,  
12 let's say, April peak sales?

13 MR. DAVID CORMIE: Would you ask the  
14 question again? What constraints?

15 MR. BOB PETERS: Yeah. Let's -- let's  
16 just assume that we're in -- your -- your traders -- and  
17 these are people who -- who you have responsibility for,  
18 as I understood your direct evidence?

19 MR. DAVID CORMIE: That's correct.

20 MR. BOB PETERS: And they know what the  
21 situation is in terms of the water in the reservoirs,  
22 correct?

23 MR. DAVID CORMIE: I -- I think, Mr.  
24 Peters, we need to separate the water management people  
25 from the power traders, and the power traders don't

1 manage the -- are not -- are not managing the water  
2 supply and the reservoir releases.

3 MR. BOB PETERS: All right. Let me try  
4 to do that. Come April and your energy traders want to  
5 make some opportunity on peak sales, they come to you and  
6 say: Look it, I can sell a whole bunch of energy to a  
7 counterparty or maybe even into the market.

8 Can I do it? Will you let me do it? Who  
9 -- who says yes or not?

10 MR. DAVID CORMIE: Well, let me separate  
11 the opportunity transactions into those that occur a day  
12 ahead and real-time, and those that are term  
13 transactions. To the extent that there's an opportunity  
14 in the term market -- let's say we're in the middle of  
15 January and we have customers who would like to buy April  
16 power today, then the -- the -- our trading supervisor  
17 makes a recommendation through management that comes to  
18 me, and -- and I will approve the -- the term transaction  
19 several months in advance.

20 But the -- the -- the balance of the  
21 transactions, a day-ahead and real-time, are made at that  
22 moment, depending on how much water is in the river at  
23 that time and -- and what Manitoba load requirements are.

24 MR. BOB PETERS: In terms of the  
25 opportunity sales that are bilateral or term sales -- am

1 I using those -- can those be interchanged, sir?

2 MR. DAVID CORMIE: Yes, yeah.

3 MR. BOB PETERS: The opportunity sales  
4 that are bilateral or term sales, what percentage of your  
5 total opportunity sales fall into that category? It  
6 would be relatively small, would it not?

7 MR. DAVID CORMIE: I believe, Mr. Peters,  
8 we had a slide for that at the workshop, and I -- it --  
9 it -- it has varied over the last five (5) years between  
10 25 percent to zero, and it was zero last year and it's  
11 likely to be zero again this year.

12 In a rising market, when energy prices are  
13 rising, customers are wanting to hedge their purchase  
14 costs, and so they're -- they would approach Manitoba  
15 Hydro to fix the price of -- of future deliveries. And  
16 so 2005, '06, '07, into '08 were years where there was  
17 lots of forward activity, where up to a quarter of our  
18 opportunity sales would have been locked in several  
19 months in advance.

20 The other quarter would be the dependable  
21 sales, and then the balance, the 50 percent, would be  
22 energy that generally would be available in the spot  
23 market, Day-Ahead or Real-Time.

24 MR. BOB PETERS: All right. Let me --  
25 and I don't want to be dismissive of these bilateral

1 opportunity sales, but you're only going to make those if  
2 Manitoba Hydro thinks you can get more money on a  
3 bilateral sale than it could on the -- on the export  
4 price in the -- in the time frame in which it's selling  
5 that.

6 MR. DAVID CORMIE: Yes. Not only do we  
7 have to cover our costs, we have to think that we're  
8 going to do better than what will -- the energy will go  
9 in Real-Time or Day-Ahead.

10 MR. BOB PETERS: Well when you say,  
11 "cover the costs," Mr. Cormie, you want to cover the  
12 incremental costs of generation, if I understood your  
13 evidence from before in this hearing.

14 MR. DAVID CORMIE: That's correct.

15 MR. BOB PETERS: And that incremental  
16 cost of generation is one-third (1/3) of one (1) cent.

17 MR. DAVID CORMIE: Well, we may be buying  
18 the energy overnight, and there may be some price risks  
19 there, so we might buy it at night and sell it in the  
20 daytime. And so it may reflect the value of water in  
21 reservoir storage. There may be periods when we -- of  
22 extremely high Manitoba load where we have to run  
23 combustion turbines, and so the economic analysis is  
24 done.

25 We run -- have -- we have simulation

1 programs that simulate the transaction with fifty (50)  
2 years of weather data to determine the economics of the  
3 transaction, and so the ec -- the transaction has to be -  
4 - first we have to retrieve at least the cost of  
5 production, plus our margin, and then that -- and then  
6 ultimately we have to do better than we think we'll do if  
7 we just took it to the spot market.

8 MR. BOB PETERS: But I thought you didn't  
9 link the purchases with the exports, and it sounds from  
10 that last answer that's exactly what you did.

11 MR. DAVID CORMIE: Well, on those -- on  
12 those term transactions, we have to ensure ourselves of -  
13 - that -- that we've -- we're taking on an incremental  
14 obligation to serve and -- and we met -- we have to cover  
15 our costs.

16 MR. BOB PETERS: All right. And those  
17 bilateral opportunity term transactions, as we've been  
18 calling them, they've been in recent years very rare.

19 MR. DAVID CORMIE: In the last -- since  
20 the recession, yes. They're a very small percentage of  
21 the transactions.

22 MR. BOB PETERS: The two (2) -- 2008  
23 recession, is that what we're referring?

24 MR. DAVID CORMIE: Yes.

25 MR. BOB PETERS: All right. So let's --

1 let's dispense with discussing, unless you want to raise  
2 it specifically in answer to any of my questions, these  
3 bilateral term arrangements, and let's just talk the  
4 other opportunity sales.

5 Those other opportunity sales, Mr. Cormie,  
6 would be the market transactions for the day-ahead and  
7 the real-time market. You agree?

8 MR. DAVID CORMIE: Yes.

9 MR. BOB PETERS: And -- and let's talk  
10 about your traders who are sitting there saying, You  
11 know, Mr. Cormie, I can sell -- I can sell into the  
12 market on the day-ahead or maybe real-time, can I pull  
13 the trigger on this transaction.

14 What instructions does that trader have  
15 with respect to any constraints on the quantum of the  
16 sale that can be undertaken?

17 MR. DAVID CORMIE: The -- the process  
18 involves forecasting the Manitoba load, comparing that to  
19 the generation resources that Manitoba Hydro has  
20 available for each hour of the day and -- and then to the  
21 extent that Manitoba Hydro has surplus that surplus is  
22 offered to the MISO market at Manitoba Hydro's marginal  
23 cost to production.

24 And so the -- the limits are -- it has to  
25 be -- there has to be a surplus indicated relative to the

1 load forecast. The MISO market accepts Manitoba Hydro's  
2 offer, evaluates it with all the other offers that it has  
3 received, and -- and goes to those sellers who are low  
4 cost relative to their -- to the last megawatt that has  
5 been -- that has been offered, and -- and is needed.

6 And -- and at the end of 5 o'clock on the  
7 day-ahead basis MISO then tells Manitoba Hydro of its  
8 surplus that we have available which of those megawatts  
9 it would -- would -- that we have -- that we have sold.

10 And -- and as a simple example, we may  
11 have 200 megawatts of hydro, and we would offer in that  
12 at our --at our -- in effect our water rental cost, but  
13 we also may have 260 megawatts of gas turbines and we may  
14 offer in that at, you know, a couple hundred dollars a  
15 megawatt hour.

16 If the market clears at eighty dollars  
17 (\$80), our gas won't be economical so we won't be  
18 accepted on our offer from our gas, but our hydro will  
19 get accepted and we will be paid the market clearing  
20 price of eighty (80) for energy that is costing us our  
21 marginal cost to production of three dollars (\$3).

22 So that's -- so they -- they -- they --  
23 the power traders are restricted to selling only energy  
24 that we can produce and that's surplus.

25 MR. BOB PETERS: I appreciate the answer,

1 Mr. Cormie. Who will tell the trader how much is  
2 available to be sold?

3 MR. DAVID CORMIE: Our system control  
4 centre releases the megawatts to the power traders; tells  
5 them what the capacity available on the system is  
6 tomorrow. And then we compare that to the load forecast  
7 and it's the surplus that arises from that. So the power  
8 traders do that calculation.

9 MR. BOB PETERS: Is that a mathematical  
10 calculation or is that one that's run through the HERMES  
11 model?

12 MR. DAVID CORMIE: No, that's just a  
13 simple add and subtract calculation.

14 MR. BOB PETERS: And when you say you  
15 compare it to Manitoba Hydro's marginal cost of  
16 production, you also said that was quantified at three  
17 dollars (\$3)?

18 MR. DAVID CORMIE: The -- if -- if the  
19 energy is being sourced from Hydro then it would be at  
20 our -- at our water rental costs, plus our incremental  
21 operation and maintenance costs for the generation  
22 adjusted for losses so that they -- it's the price that  
23 we will rece -- that we -- we will -- our cost at the  
24 border.

25 And at times when that energy is energy

1 that we purchase at night it'll reflect the value of  
2 water in storage.

3

4 (BRIEF PAUSE)

5

6 MR. BOB PETERS: It sounded, in one (1)  
7 of your answers, Mr. Cormie, that the decision on whether  
8 there was energy available to be sold was one (1) that  
9 you could calculate, I suspect, in the front office, so  
10 to speak.

11 Is that true?

12 MR. DAVID CORMIE: Yes, it's calculated  
13 in the front office.

14 MR. BOB PETERS: All right. And is it  
15 verified anywhere else?

16

17 (BRIEF PAUSE)

18

19 MR. DAVID CORMIE: The -- the process of  
20 actually making delivery of the energy is controlled by  
21 the control centre. For every transaction there is  
22 what's called a "NERC tag." The NERC tag indicates the  
23 volume of energy that is associated with a particular  
24 transaction, and the control centre has to approve all  
25 the trans -- all the tags associated with the

1 transactions. To the extent that there is no surplus  
2 available at the time the energy is actually delivered,  
3 then the tag will be cut, because the -- the power will  
4 be needed to serve Manitoba.

5                   So the -- the control centre ultimately is  
6 responsible for the reliability of the supply to Manitoba  
7 customers.

8                   On a financial perspective, the  
9 transactions and the offers are -- are all -- are all  
10 controlled within the -- in if -- in the front office  
11 power traders work is subject to supervision and -- and  
12 management oversight.

13                   MR. BOB PETERS: All of that coming in  
14 the front office?

15                   MR. DAVID CORMIE: Yes.

16                   MR. BOB PETERS: When the control centre  
17 sends over its quantity available for sale, and I take it  
18 it now has a NERC tag on it, it is your front office that  
19 then calculates what is available to be sold by the  
20 traders as opportunity sales?

21                   MR. DAVID CORMIE: The NERC tag is a --  
22 process is associated after it's sold. So when actually  
23 we go to physical delivery then the tag, but the  
24 financial transactions are based on a forecast of what's  
25 available by the control centre, an offer made on that

1 basis, and then it's subject to real-time curtailment if  
2 it's not actually surplus.

3

4 (BRIEF PAUSE)

5

6 MR. BOB PETERS: Do you have any  
7 understanding as to how the control centre makes their  
8 forecast?

9 MR. DAVID CORMIE: The control centre has  
10 an energy management model that runs hourly for a week in  
11 advance and it optimizes the production schedules for  
12 each of the generating stations to determine what  
13 capacity is actually available, recognizing transmission  
14 and generation limitations at the particular facilities.

15 MR. BOB PETERS: And the acronym for that  
16 model is what?

17 MR. DAVID CORMIE: That's the -- the MOST  
18 model.

19

20 (BRIEF PAUSE)

21

22 MR. BOB PETERS: Mr. Chairman, I want to  
23 look at another example with Mr. Cormie. And if there  
24 was any desire for a further afternoon break this would  
25 be the opportunity. If not, I'll press forward.

1 THE CHAIRPERSON: The will appears to be  
2 to have a short afternoon break.

3 MR. BOB PETERS: Thank you, sir.

4

5 --- Upon recessing at 3:30 p.m.

6 --- Upon resuming at 3:53 p.m.

7

8 THE CHAIRPERSON: Okay, Mr. Peters.

9 MR. BOB PETERS: Thank you, Mr. Chairman.

10

11 CONTINUED BY MR. BOB PETERS:

12 MR. BOB PETERS: In the time remaining  
13 I'd like to look at another example and turn to page 71  
14 and 72 in the book of documents, Volume II, which has  
15 marked as PUB Exhibit 16. This is found under Tab 34.

16 Mr. Cormie, you've located that  
17 information, sir?

18 MR. DAVID CORMIE: Yes, I have.

19 MR. BOB PETERS: All right. Let's go  
20 back to 2006/'07 if we can. And would the Board be  
21 correct when it interprets the chart on page 71 of the  
22 second book of documents, to go down to the opportunity  
23 line in opportunity sales in Quarter 1 of that year,  
24 Manitoba Hydro sold 3,039 gigawatt hours of energy?

25 MR. DAVID CORMIE: Correct.

1                   MR. BOB PETERS:    And the average price  
2 for that worked out to about three point eight (3.8)  
3 cents a kilowatt hour?

4                   MR. DAVID CORMIE:    Yes.

5                   MR. BOB PETERS:    And would the Board be  
6 correct that half of those sales would have been on-peak  
7 and the other half would have been off-peak?

8

9                                   (BRIEF PAUSE)

10

11                   MR. DAVID CORMIE:    I -- I can't confirm  
12 that, Mr. Peters, mainly because the dependable sales are  
13 generally a non-peak sale and it -- and it -- and it  
14 doesn't leave a lot of room for additional on-peak sales,  
15 so they're -- most of those sales actually may be off-  
16 peak, but I -- I'd have to research that and find out  
17 whether that could be confirmed.

18                   MR. BOB PETERS:    There weren't a lot of  
19 dependable sales in Quarter 1 of that year, Mr. Cormie.  
20 Would that affect your answer?

21                   MR. DAVID CORMIE:    Again, I'm -- I'm  
22 confused.  What are you referring to Quarter 1?  This is  
23 quarter 1 of the fiscal year or quarter 1 of the calendar  
24 year?

25                   MR. BOB PETERS:    I have it as the fiscal

1 year 2006/'07.

2 MR. DAVID CORMIE: So that would have  
3 been April, May, and June of '06/'07?

4 MR. BOB PETERS: Correct, and if we look  
5 at the chart, the opportunity sales -- if -- if Manitoba  
6 Hydro had its druthers, it would prefer to sell on peak  
7 as opposed to off peak, wouldn't it?

8 MR. DAVID CORMIE: Oh, absolutely, yes.

9 MR. BOB PETERS: And so, when we look and  
10 see what you have for dependable sales, not a lot was  
11 sold as dependable energy in the quarter -- in the first  
12 quarter of that fiscal year, was there?

13 MR. DAVID CORMIE: As a percent of the  
14 total, no, you're -- you're absolutely right. The  
15 majority was opportunity sales.

16 MR. BOB PETERS: And so the dependable  
17 sales would have been on-peak sales, you would expect?

18 MR. DAVID CORMIE: Yes.

19 MR. BOB PETERS: And I was suggesting  
20 that you try to maximize your opportunity sales as much  
21 as possible, as much as you had room on the tie-lines to  
22 -- to sell opportunity -- sorry, to sell the opportunity  
23 as peak sales.

24 MR. DAVID CORMIE: Yes. We would have  
25 sold firstly in the on-peak and then the balance would

1 have been sold in the off-peak. I just don't know  
2 whether it's -- you can take that 3,000 gigawatt hours  
3 and say fifteen hundred (1,500) was on and fifteen  
4 hundred (1,500) was off. That's all I'm saying.

5 MR. BOB PETERS: All right, and if you do  
6 get clarification on that, you can feel to bring that  
7 back and let the Board know. Those opportunity sales, to  
8 the extent that there was -- certainly some of them would  
9 have been off-peak, correct?

10 MR. DAVID CORMIE: Absolutely, yeah.

11 MR. BOB PETERS: And to the extent that  
12 there was off-peak that would have probably also included  
13 overnight sales.

14 MR. DAVID CORMIE: Yes.

15 MR. BOB PETERS: And overnight sales in  
16 Quarter 1 of 2006/'07, those were returning approximately  
17 one (1) cent a kilowatt hour.

18 MR. DAVID CORMIE: Sounds reasonable,  
19 yes.

20 MR. BOB PETERS: And it sounds reasonable  
21 because, on the next page in the book of documents,  
22 there's a -- an extract from PUB Order 165 of '07 which  
23 shows that during this period in '06/'07 the surplus  
24 energy prices were -- were trading down at or below a  
25 penny.

1 MR. DAVID CORMIE: That's correct.

2 MR. BOB PETERS: And certainly, to the  
3 extent that there were overnight sales at a penny, that  
4 would bring down the average prices that we see on page  
5 71 in the second book of documents.

6 MR. DAVID CORMIE: That's correct.

7 MR. BOB PETERS: And when the Board looks  
8 at Quarter 3 and Quarter 4 of 2006/'07, and we look to  
9 the last line on the chart, Manitoba Hydro purchased or  
10 imported energy in Quarters 3 and Quarter 4, correct?

11 MR. DAVID CORMIE: Yes.

12 MR. BOB PETERS: And in those two  
13 quarters, collectively, close to 1,800 gigawatt hours of  
14 energy was purchased?

15 MR. DAVID CORMIE: Yes.

16 MR. BOB PETERS: And probably at or about  
17 five (5) cents a kilowatt hour?

18 MR. DAVID CORMIE: Yes.

19 MR. BOB PETERS: Now, here's -- here's an  
20 example of where we have these snapshots in time, Mr.  
21 Cormie.

22 We can acknowledge that there would have  
23 been some sales in Quarter 1 down at about one (1) cent a  
24 kilowatt hour, and there would have been purchases in  
25 Quarters 3 and 4 probably around five (5) cents a

1 kilowatt hour, correct?

2 MR. DAVID CORMIE: Correct.

3 MR. BOB PETERS: So when you net those  
4 against each other, it appears that there was a revenue  
5 loss, because the purchases were costing more than the  
6 exports.

7 MR. DAVID CORMIE: Assuming that -- that  
8 the sales weren't forced and there was an opportunity to  
9 avoid those sales and use the energy that would have been  
10 held back from market to displace those purchases, but  
11 that's not a good assumption, Mr. Peters.

12 MR. BOB PETERS: All right. You raised -  
13 - you raised it earlier --

14 MR. DAVID CORMIE: Yeah.

15 MR. BOB PETERS: -- and I think now  
16 you're calling them forced sales, and that's the --  
17 that's the internal terminology that Manitoba Hydro uses  
18 to -- to indicate that it feels it has limited options  
19 available and will go to market with the energy rather  
20 than try to put it into storage or something else with  
21 it?

22 MR. DAVID CORMIE: Yeah, and I think this  
23 is a -- a good example where I can explain why that was  
24 necessary. In the spring of 2006, Lake Winnipeg was full  
25 at the beginning of the spring. On April the 1st, the

1 elevation of the lake was about seven fourteen point five  
2 (714.5), half a foot from the top of the storage range.

3 Inflows to the lake were relatively high  
4 as a result of the spring runoff. The lake was rising  
5 and reached its maximum level of seven fifteen (715)  
6 approximately June the -- the middle of June. So --

7 MR. BOB PETERS: Just let me interrupt,  
8 Mr. Cormie, you're -- you're racing ahead, but if the  
9 Board would turn to page, and you would turn to page, 106  
10 in the book of documents, it's -- it's under Tab 43,  
11 sorry.

12 Tab 43, page 106, it's actually the last  
13 page in Tab 43 of the book of documents, and we're just  
14 looking -- you were mentioning the -- the lake storage  
15 levels in '06/'07.

16 Your indication to the -- to the Board was  
17 that in April you were about 714 plus feet?

18 MR. DAVID CORMIE: Yes, and I think this  
19 table actually has it in more detail than I -- I have it  
20 on my chart here.

21 Seven fourteen point three (714.3) feet on  
22 April the 1st, seven fourteen point six (714.6) at the  
23 highest which was in the middle of July, and then at the  
24 end of October somewhere in the seven thirteen (713)  
25 range.

1                   You -- you -- the -- the range of water  
2 levels on Lake Winnipeg is controlled under a Water Power  
3 Act licence that says that while the water level is  
4 between elevation seven eleven (711) and seven fifteen  
5 (715), Manitoba Hydro can regulate for power purposes, to  
6 do the things that we've been talking about, moving water  
7 from one (1) season to the other.

8                   What happens at elevation 715 feet,  
9 Manitoba Hydro's required under it's Water Power Act  
10 licence to open the dam up and effect the maximum  
11 possible discharge.

12                   And so as the lake rises and approaches  
13 the top of the power range, as it approaches seven  
14 fifteen (715), Manitoba Hydro has to increase the  
15 discharge so that at the moment that the lake does get to  
16 the full supply level of seven fifteen (715) it's passing  
17 150,000 cubic feet per second.

18                   And that was the situation in -- in the  
19 spring of -- of 2006. We were try -- we were -- we  
20 weren't regulating for power; we were managing the -- the  
21 reservoir for flood management purposes and trying to  
22 keep the lake below the elevation seven fifteen (715).

23                   As a result of that, we were at maximum  
24 discharge out of Lake Winnipeg until the middle of July,  
25 which resulted in flows on the Nelson River downstream at

1 Kettle, Long Spruce, and Limestone in the range of  
2 180,000 cubic feet per second, which is above the plant  
3 capacity, and spillage was occurring at those generating  
4 stations.

5                   So had we had more available reservoir  
6 storage at Lake Winnipeg, if we could use the storage  
7 above seven fifteen (715) for power purposes, we would  
8 have done exactly what you would have suggested, Mr.  
9 Peters.

10                   We would have held back the water, but the  
11 reservoir was full. And we were required under our  
12 licence to manage the -- the outflows for flood  
13 management purposes, not for power purposes, and so we  
14 didn't have the choice of storing that surplus water in  
15 spite of our best forecasts of what was to come because  
16 the licence doesn't consider future. It says, What's the  
17 level today, and -- and make sure that when you get to  
18 seven fifteen (715) you're at maximum discharge.

19                   And so it wasn't until the level dropped -  
20 - started to recede after the end of July that we were  
21 able to reduce the outflows from Lake Winnipeg, and start  
22 storing water for -- for subsequent periods.

23                   MR. ROBERT MAYER: Once you've reached  
24 the reservoir level, Mr. Cormie, it's my understanding  
25 that technically your facilities are in the hands of the

1 Minister of Water stewardship, is that correct?

2 MR. DAVID CORMIE: Only when the level  
3 goes to the lower limit does the Minister take control.  
4 Under the -- under the -- under high water conditions,  
5 the in -- the -- the limits in the licence are very  
6 explicit. We must be at maximum discharge.

7 And so that was the situation in the  
8 spring of -- and summer of 2006, and so there was no  
9 opportunity to store the surplus that was -- in -- that  
10 ended up showing up as off-peak sales and -- and low  
11 prices.

12

13 CONTINUED BY MR. BOB PETERS:

14 MR. BOB PETERS: It does appear, Mr.  
15 Cormie, on page 106 under Tab 43, that in that '06/'07  
16 line item that the energy and storage was at one (1)  
17 point only 18.5 terrawatts, or 18.5000 gigawatt hours of  
18 energy, correct?

19 MR. DAVID CORMIE: I'm sorry, I'm not  
20 sure which year you're referring to. Is it -- is it --

21 MR. BOB PETERS: '06/'07.

22 MR. DAVID CORMIE: -- is it the eleven  
23 point eight (11.8) or the twelve point four (12.4)?

24 MR. BOB PETERS: Twelve point four  
25 (12.4).

1                   MR. DAVID CORMIE:    Twelve point four  
2   (12.4).  That would be the total energy and reservoir  
3   storage for all the reservoirs in Western Canada, yes.

4                   MR. BOB PETERS:    And --

5                   MR. DAVID CORMIE:    Not the ones under  
6   Manitoba Hydro's control.

7                   MR. BOB PETERS:    Well, that's -- that's  
8   where I'm going is -- it shows 18.5 terrawatt hours at  
9   the peak, correct?

10                  MR. DAVID CORMIE:    Yes.

11                  MR. BOB PETERS:    And doesn't that imply  
12   that there would have been additional capacity in the  
13   reservoirs?

14                  MR. DAVID CORMIE:    But Manitoba doesn't  
15   control all those reservoirs.  We only control three (3)  
16   of the eighteen (18).

17                  MR. BOB PETERS:    And in terms of the  
18   three (3) that you controlled, was there no more room for  
19   additional energy to be stored?

20                  MR. DAVID CORMIE:    No.

21

22                                       (BRIEF PAUSE)

23

24                  MR. BOB PETERS:    One (1) of the comments  
25   that I'm not understanding is there still is 6 inches of

1 room before you hit the upper limit of your -- of your  
2 licence limit, I think is what you've called it. Is that  
3 correct?

4 MR. DAVID CORMIE: I would -- I would say  
5 it's less than 6 inches. There's probably point four  
6 (.4) of a foot, theoretically.

7 MR. BOB PETERS: All right, you're  
8 looking in the peak, correct?

9 MR. DAVID CORMIE: Right.

10 MR. BOB PETERS: Yeah.

11 MR. DAVID CORMIE: And -- and we have to  
12 operate that reservoir so -- we can't operate the  
13 reservoir at the maximum. One day the level can go over  
14 and you have to be at maximum discharge and the next day  
15 it would go back down, so you have to operate the level  
16 below that. So generally we consider the lake to be full  
17 at elevation seven fourteen point seven five (714.75) and  
18 we will pass inflows at that level.

19 And then we will use the top 3 inches of  
20 the storage to manage the transition -- or to avoid going  
21 to maximum discharge without -- without notice. So  
22 that's a -- a -- a buffer that's needed to maintain  
23 control over the reservoir.

24 MR. BOB PETERS: Was there any -- you'd  
25 also mentioned flood management versus storage management

1 I heard in one of your third-last answers to me, Mr.  
2 Cormie.

3 Does that impact the level at which you  
4 will put water into storage?

5

6 (BRIEF PAUSE)

7

8 MR. DAVID CORMIE: Well, we -- we believe  
9 that the seven fourteen and three-quarter (714 3/4) limit  
10 is a prudent maximum level given that we have -- that the  
11 people downstream see dramatic rises in water levels if  
12 we go from a low flow to maximum discharge, levels on  
13 Cross Lake and down the river can jump many feet, 6 to 8  
14 feet, as a result of opening the dam.

15 And we need to be considerate of -- of --  
16 of those people should there be a -- a significant rain  
17 storm or -- or turn around in water supply conditions.  
18 And that was the case this last summer. Up to May the  
19 22nd we were -- we had low flows and it -- and it -- and  
20 it took us several weeks to get up to maximum flow  
21 because we didn't want to cause problems in the  
22 downstream.

23 So we need to maintain a buffer to meet  
24 our citizenship obligations to the downstream  
25 communities.

1                   MR. BOB PETERS:    Well, from that answer  
2 you're saying you could have perhaps put more energy into  
3 storage but if you would have triggered the maximum level  
4 for any reason that could result in downstream problems?

5                   MR. DAVID CORMIE:    Yes, and I -- you  
6 know, I -- I think our most valuable assets are our  
7 licences.  And I think if Manitoba Hydro took a purely  
8 utility perspective in its water-management obligations,  
9 we would be putting our Water Power Act licence at risk.

10                   You've been hearing the debates in the  
11 newspaper over high water levels on Lake Winnipeg and  
12 shoreline erosion.  And -- and Manitoba Hydro is quite  
13 aware that unless it is sensitive to all these  
14 stakeholders both upstream and downstream, that our  
15 licences are at risk, so we're very, very careful not to  
16 ignore tha -- that there are other interests involved in  
17 the regulating -- regulation of the lake besides the  
18 power interest.

19                   MR. ROBERT MAYER:    Mr. Cormie, I've heard  
20 those arguments too, especially from around Lake  
21 Winnipeg.  I should tell you that I spent the first  
22 twenty-four (24) years of my life in a summer beach  
23 cottage on the bottom end of Traverse Bay.  I think I've  
24 mentioned before we lost several boats long before Lake  
25 Winnipeg regulation.  And my argument has always been to

1 people on Lake Winnipeg, Just a second, they couldn't get  
2 the water out of there before la -- before Hydro did the  
3 -- the modifications to the top end of Lake Winnipeg,  
4 which we discussed earlier today.

5 My suspicion would be that without your  
6 ability to move those -- to move the water as a result of  
7 the -- of the channels that were built and would -- would  
8 in -- what you were able to do, that that water would be  
9 a lot higher and they'd be whining a lot more.  
10 Apparently that doesn't seem to work though.

11 MR. DAVID CORMIE: Well, mi -- Mr. Mayer,  
12 there -- there are two (2) issues: one of them is flood  
13 damage reduction caused by overland flooding, and Lake  
14 Winnipeg regulation has been very successful in reducing  
15 levels. This last year they were up to 2 feet lower than  
16 they would otherwise have been.

17 But what causes the damage to shoreline  
18 property and beach property are the storm surges that  
19 occur because of -- of wind and -- and extreme weather,  
20 and there's nothing that Manitoba Hydro operation can do  
21 to -- to change those. But there's a perception that we  
22 are able -- that through regulation we can avoid those  
23 damages, and that's where there's some confusion and --  
24 and -- but you're right, I think the levels because of  
25 the project are -- are much lower than they would

1 otherwise have been.

2 MR. ROBERT MAYER: That was my point.  
3 They're -- they're just plain wrong when the issue --  
4 that blame Manitoba Hydro because of the storm surges.  
5 Well, I mean, the last I heard, you didn't have much  
6 control over the weather, and the amount of control you  
7 had over the water at that point in time is you were  
8 doing maximum outflow, and that was more than would have  
9 happened if the -- if there had never had been any such  
10 regulation.

11 MR. DAVID CORMIE: And -- and I think of  
12 more concern to us is that going to maximum discharge has  
13 -- in the short-term, has only minor effects on the lake  
14 level. We may be able to change it by an inch or 2 but  
15 it causes dramatic 8 feet water level changes downstream,  
16 and those have a serious impact on those downstream  
17 communities. And --

18 MR. ROBERT MAYER: Some of my clients,  
19 Mr. Cormie, mentioned that their fish counts were flooded  
20 out on the upper Nelson to the tune of 6 to 8 feet, yeah.

21 MR. DAVID CORMIE: So the -- the thing  
22 that Manitoba Hydro has to do is -- is we have to  
23 increase the river flows, but we have to do it in a  
24 manner that is sensitive and we can provide adequate  
25 notice to those people downstream, and that's why it's

1 necessary to keep a buffer in the top of the power range,  
2 so that we can transition from average flows to maximum  
3 flows over a period of time that allows those people  
4 downstream to accommodate.

5                   We can't avoid going to maximum discharge  
6 in some circumstances but at least we can give -- give  
7 those people downstream time to -- to adjust. Move their  
8 stuff; that's correct.

9                   MS. MARLA BOYD:    Mr. Peters, just before  
10 you resume, maybe you can help me a little bit. I was  
11 looking at the reference here. You've got this as PUB  
12 Manitoba Hydro 82E, which I see in part the information  
13 came from there. The April 1st EIS and the maximum  
14 manual EIS come from -- it's -- they are -- are ex --  
15 excerpted from that IR but I'm not sure where the balance  
16 of the information that's contained on page 106 came  
17 from, if that's otherwise on the record or if that's  
18 information that the Board advisors have compiled.

19                   MR. BOB PETERS:    I'll check the source  
20 and get back to you on that if that's fine.

21                   MS. MARLA BOYD:    Thank you.

22

23 CONTINUED BY MR. BOB PETERS:

24                   MR. BOB PETERS:    Mr. Cormie, do you have  
25 any reason to disagree with the information that's

1 contained on page 106, sir?

2 MR. DAVID CORMIE: We haven't verified  
3 that information, Mr. Peters, but I suggest it's  
4 approximately -- if -- at worst, it's approximately  
5 right.

6 MR. BOB PETERS: Mr. Cormie, the tie-line  
7 capacity per quarter would be in the range of 3,500  
8 gigawatt hours?

9  
10 (BRIEF PAUSE)

11  
12 MR. DAVID CORMIE: I would suggest at  
13 least that, yes.

14 MR. BOB PETERS: I was looking at it as  
15 seven thousand (7,000) a year on-peak, comparable amount  
16 off-peak. Am I being too -- too generous?

17 MR. DAVID CORMIE: We can schedule 1,965  
18 megawatts an hour, twenty-four (24) hours a day, works  
19 out to 47 gigawatt hours a day. In a quarter there are  
20 ninety (90) days. That's about 4,200 gigawatt hours, Mr.  
21 Peters, half of it on-peak and half of it off-peak.

22 MR. BOB PETERS: All right. Thank you.  
23 While your lake limit of Lake Winnipeg in '06/'07 wasn't  
24 yet at the seven fourteen point seven five (714.75)  
25 limit, Manitoba Hydro chose not to increase the level to

1 that limit.

2 MR. DAVID CORMIE: I think, for water  
3 management purposes, Mr. Peters, it was -- the lake was  
4 full. There is no additional room to store, and it's --  
5 it's not about being right; it's about not being wrong  
6 here, Mr. Peters, given the consequences to the people  
7 downstream. So if we came in slightly under the seven  
8 fourteen and three quarters (714 3/4) that's because we  
9 didn't want to have to go to maximum discharge.

10

11 (BRIEF PAUSE)

12

13 MR. BOB PETERS: Would the Board be  
14 correct, Mr. Cormie, that in Quarter 1 of 2006/'07,  
15 Manitoba Hydro knew what its water and storage limits  
16 were? You'd have a strong handle on that?

17 MR. DAVID CORMIE: Which water and  
18 storage limits are you referring to?

19 MR. BOB PETERS: In -- in all of Manitoba  
20 Hydro's reservoirs.

21 MR. DAVID CORMIE: We know what the  
22 licence limits are, yes.

23 MR. BOB PETERS: No, I meant you -- you  
24 know with certainty how much is in each of your  
25 reservoirs?

1                   MR. DAVID CORMIE:    On any particular day,  
2 we know it is, but the future is subject to rainfall.

3                   MR. BOB PETERS:    Of course, and once you  
4 know what the water is in storage, you can translate that  
5 into energy in storage.

6                   MR. DAVID CORMIE:    Yes.

7                   MR. BOB PETERS:    And if you know the  
8 precipitation, you can calculate the inflows into  
9 storage?

10                  MR. DAVID CORMIE:    We don't base it on  
11 precipitation, Mr. Peters.

12                  MR. BOB PETERS:    But you recognize that  
13 the precipitation is going to end up in storage  
14 reservoirs?

15                  MR. DAVID CORMIE:    No, not -- there are  
16 many more processes involved than just precipitation.  
17 There's the whole hydrologic cycle having to do with  
18 evaporation, evapotranspiration, groundwater flow, you  
19 name it. It's all very complicated. What Manitoba Hydro  
20 does is rely on the actual historic record of -- of river  
21 flows rather than trying to go through a complicated,  
22 much more uncertain process of starting through the  
23 hydrologic cycle.

24                  MR. BOB PETERS:    Manitoba Hydro would  
25 have known what its domestic customers would need, right?

1 MR. DAVID CORMIE: Yes.

2 MR. BOB PETERS: And, likewise, its firm  
3 export customers?

4 MR. DAVID CORMIE: Yes.

5 MR. BOB PETERS: When you say Manitoba  
6 Hydro relies on the historic river flows, Manitoba Hydro  
7 monitors the inflows, does it not?

8 MR. DAVID CORMIE: Yes.

9 MR. BOB PETERS: Daily?

10 MR. DAVID CORMIE: Yes.

11 MR. BOB PETERS: Would it be correct to  
12 say that Manitoba Hydro knew in Quarters 1 and 2 of  
13 2006/'07 that the inflows were declining?

14

15 (BRIEF PAUSE)

16

17 MR. DAVID CORMIE: I -- I -- I don't  
18 agree that we knew what the inflows were, that they were  
19 declining, until probably the middle of June, Mr. Peters,  
20 because up to that point the inflows were rising and --  
21 and we had no choice except to release the water from  
22 storage.

23 MR. BOB PETERS: So in Quarter 1 you  
24 didn't know but in Quarter 2 you did know that the  
25 inflows were declining?

1 MR. DAVID CORMIE: They will only decline  
2 until the next rainstorm, Mr. Peters.

3 MR. BOB PETERS: Agreed, and so you knew  
4 that in Quarter 2 that the inflows were declining?

5 MR. DAVID CORMIE: Well, every day that  
6 it doesn't rain the inflows will continue to decline;  
7 however, we don't know when the next rain storm is going  
8 to be so we don't know that the inflows are going to  
9 decline.

10 What we know is that on average it -- it  
11 rains through the summer. If we're in -- unfortunate and  
12 it doesn't rain then we'll have lower inflows, but to  
13 suggest that we know in advance that we're going into a  
14 low water condition, that's incorrect.

15 MR. BOB PETERS: Would the hydraulic  
16 information at Tab 43 of the book of documents,  
17 particularly on page 106, suggest to Manitoba Hydro that  
18 while Lake Winnipeg may be at seven fourteen point three  
19 (714.3), or getting up to seven fourteen point six  
20 (714.6), the energy in storage elsewhere in the system  
21 wasn't as great?

22

23 (BRIEF PAUSE)

24

25 MR. DAVID CORMIE: Well, you know, that

1 may be -- that may be true, Mr. Peters, but that doesn't  
2 tell you whether -- whether there's going to be  
3 subsequent rainfall or not. And on average it rains much  
4 more than it did in the second and third quarters of --  
5 of 2006.

6 MR. BOB PETERS: Why was it in Quarter 3,  
7 Mr. Cormie, that Manitoba Hydro cut back on its  
8 opportunity sales?

9 MR. DAVID CORMIE: Although we reached  
10 the maximum level of Lake Winnipeg at the -- at the end  
11 of June, and we began immediate flow reductions and --  
12 and continued those flow reductions, it takes a month, a  
13 month and a half, for the Nelson River to -- those flow  
14 reductions to work their way downstream.

15 And we didn't stop spilling water at the  
16 lower Nelson plants until probably middle of September.  
17 And so in spite of the -- the drying of conditions, the -  
18 - the regulation of the reservoir, those flow reductions  
19 that were implemented at -- at Jenpeg did not have an  
20 effect at the major hydro stations downstream for several  
21 weeks after that.

22 And -- and we continued to sell in the  
23 off-peak markets until the end of September, it appears,  
24 from my data, and if you went to that chart of SEP  
25 prices, that's probably very indicative of -- of when

1 actually we went -- we stopped spilling and we went -- we  
2 -- and we continued into the off peak market. And then  
3 ultimately we -- we got out of the off-peak market.

4 I'm not sure -- which -- which was the  
5 reference for that, Mr. Peters, again? I --

6 MR. BOB PETERS: Page 72, as the Vice  
7 Chair indicates, at Tab 34 of the book of documents.

8 MR. DAVID CORMIE: So that has to do with  
9 the travel time of water, and how quickly the reservoir  
10 flow reductions actually reach the -- reach the  
11 generating stations.

12 MR. BOB PETERS: Manitoba Hydro knew the  
13 time lag for the water to travel, did it not?

14 MR. DAVID CORMIE: Oh, yes. And we -- we  
15 knew that even after we were -- we had opportunity to  
16 store water in Lake Winnipeg that -- that it wouldn't  
17 have an effect on our market activities for weeks after  
18 that. Once the water is released into the river, there's  
19 no calling it back, Mr. Peters.

20

21 (BRIEF PAUSE)

22

23 MR. ROBERT MAYER: There is a lawyer in  
24 Toronto who thinks water can run up hill, however.

25 MR. DAVID CORMIE: That's why he -- no, I

1 -- no lawyer jokes.

2

3

(BRIEF PAUSE)

4

5 CONTINUED BY MR. BOB PETERS:

6

MR. BOB PETERS: From an operational  
7 point of view though, Mr. Cormie, Manitoba Hydro knew in  
8 advance of Quarter 3 that the water that it was coming  
9 down the river so to speak, was lower -- was lower flow?

10

MR. DAVID CORMIE: Well, I -- I -- in --  
11 in retrospect that appears to be possible, Mr. Peters,  
12 but there are -- in three (3) out of almost four (4)  
13 years, the Winnipeg River goes into flood into the fall  
14 because of the fall rains.

15

So a dry summer doesn't mean a dry fall  
16 and -- and all we know is that it's not raining at the  
17 current point in time, but that's not an indication of  
18 whether there will be normal rainfalls in the fall  
19 season.

20

So we don't know. I -- I think it's pres  
21 -- presumptuous to assume that we have any ability to  
22 forecast the weather out longer than a couple of days.  
23 It's -- it's -- precipitation forecasts are non-existent  
24 after three (3) days. They're just not -- they're just  
25 not reliable, and there's -- nobody in the weather

1 forecasting business will give us a forecast that has --  
2 has any value.

3

4 (BRIEF PAUSE)

5

6 MR. BOB PETERS: Mr. Chairman, I was  
7 going to turn to a new topic. And this might be an  
8 appropriate time to adjourn for the day and we'll pick it  
9 up tomorrow morning at 9:30.

10

11 (PANEL RETIRES)

12

13 THE CHAIRPERSON: Thank you. Thanks to  
14 the panel. Thank you, Mr. Peters. We'll see you all  
15 tomorrow at 9:30, God willing.

16

17 --- Upon adjourning at 4:26 p.m.

18

19 Certified Correct

20

21

22 \_\_\_\_\_

23 Cheryl Lavigne, Ms.

24

25