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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

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
April 5, 2011
Pages 4956 to 5135

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24

25

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1 --- Upon commencing at 9:36 a.m.

2

3 MS. MARLA BOYD: Good morning, Mr. Chair.

4 Just before we begin, perhaps I could file the -- or

5 formally file the material that's been distributed.

6 There's the --

7 THE CHAIRPERSON: Please.

8 MS. MARLA BOYD: -- answer to a number of

9 undertakings filed by Manitoba Hydro.

10 THE CHAIRPERSON: Thank you, Ms. Boyd.

11 MS. MARLA BOYD: Just to run through

12 them, the first one is Manitoba Hydro Undertaking number

13 57 from transcript page 2,779, which we would propose to

14 file as Manitoba Hydro Exhibit 83.

15

16 --- EXHIBIT NO. MH-83: Response to Undertaking 57

17

18 MS. MARLA BOYD: The second is Manitoba

19 Hydro Undertaking number 61 from transcript page 2,896,

20 which we would propose to file as Manitoba Hydro Exhibit

21 85.

22

23 --- EXHIBIT NO. MH-85: Response to Undertaking 61

24

25 MS. MARLA BOYD: I'm sorry, I missed 84.

1 THE CHAIRPERSON: I wondered if it was a
2 last-minute cut.

3 MS. MARLA BOYD: Manitoba Hydro
4 Undertaking 59 from transcript page 2,883, which we would
5 propose to be Exhibit 84. So then eighty-five (85) is
6 the response to Undertaking 61.

7

8 --- EXHIBIT NO. MH-84: Response to Undertaking 59

9

10 MS. MARLA BOYD: Manitoba Hydro
11 Undertaking number 63 from transcript page 2,996 we
12 propose to file as Manitoba Hydro Exhibit 86.

13

14 --- EXHIBIT NO. MH-86: Response to Undertaking 63

15

16 MS. MARLA BOYD: And the response to
17 Manitoba Hydro Undertaking number 64 from transcript
18 pages 277 -- 20 -- 2,997 to 2,999 we'd propose to file as
19 Exhibit number 87.

20

21 --- EXHIBIT NO. MH-87: Response to Undertaking 64

22

23 MS. MARLA BOYD: We would propose to file
24 what wasn't a formal undertaking, but a table with
25 recommendations from transcript page 3,916 we'd propose

1 to file as Manitoba Hydro Exhibit 88.

2

3 --- EXHIBIT NO. MH-88: Table with recommendations
4 from transcript page 3,916

5

6 MS. MARLA BOYD: And the response to
7 Manitoba Hydro Undertaking number 89 from transcript page
8 4,388 we would propose to file as Manitoba Hydro Exhibit
9 89.

10

11 --- EXHIBIT NO. MH-89: Response to Undertaking 89

12

13 MS. MARLA BOYD: And Manitoba Hydro --
14 and response to Undertaking number 90 from transcript
15 page 4,399 we'd propose to file as Manitoba Hydro Exhibit
16 number 90.

17

18 --- EXHIBIT NO. MH-90: Response to Undertaking 90

19

20 MS. MARLA BOYD: The response to Manitoba
21 Hydro Undertaking number 92 from transcript pages 4,461
22 through 4,463 we would propose to file as Manitoba Hydro
23 Exhibit number 91.

24

25 --- EXHIBIT NO. MH-91: Response to Undertaking 92

1 MS. MARLA BOYD: And the response to
2 Manitoba Hydro Undertaking number 94, transcript pages
3 4,507 and 08, we'd propose to file as Exhibit Manitoba
4 Hydro number 92.

5

6 --- EXHIBIT NO. MH-92: Response to Undertaking 94

7

8 MS. MARLA BOYD: And response to Manitoba
9 Hydro Undertaking number 95 from transcript pages 4,518
10 through 19 we would propose to file as Exhibit Manitoba
11 Hydro number 93.

12

13 --- EXHIBIT NO. MH-93: Response to Undertaking 95

14

15 MS. MARLA BOYD: The response to Manitoba
16 Hydro Undertaking number 98 from transcript page 4,615 we
17 would propose be filed as Manitoba Hydro Exhibit number
18 94.

19

20 --- EXHIBIT NO. MH-94: Response to Undertaking 98

21

22 MS. MARLA BOYD: And the response to
23 Manitoba Hydro Undertaking number 102 from transcript
24 page 4,712 we would propose be filed as Exhibit Manitoba
25 Hydro number 95.

1 --- EXHIBIT NO. MH-95: Response to Undertaking 102

2

3 MS. MARLA BOYD: The response to Manitoba
4 Hydro Undertaking number 103 from transcript page 4,719
5 we would propose be filed as Manitoba Hydro Exhibit
6 number 96.

7

8 --- EXHIBIT NO. MH-96: Response to Undertaking 103

9

10 MS. MARLA BOYD: The response to Manitoba
11 Hydro Undertaking number 87 from transcript page 4,371 we
12 would propose be filed as Manitoba Hydro Exhibit 97.

13

14 --- EXHIBIT NO. MH-97: Response to Undertaking 87

15

16 MS. MARLA BOYD: And the response to
17 Manitoba Hydro Undertaking number 104 from transcript
18 page 4,855 we would propose be filed as Exhibit Manitoba
19 Hydro number 98.

20

21 --- EXHIBIT NO. MH-98: Response to Undertaking 104

22

23 MS. MARLA BOYD: The response to Manitoba
24 Hydro Undertaking number 105 from transcript page 4,861
25 we would propose be filed as Exhibit Manitoba Hydro

1 number 99.

2

3 --- EXHIBIT NO. MH-99: Response to Undertaking 105

4

5 MS. MARLA BOYD: And again, not a formal
6 undertaking, but from transcript page 4,869, the
7 Executive Committee recommendation, dated September 11th,
8 2009 we propose be filed as Manitoba Hydro Exhibit 100.

9

10 --- EXHIBIT NO. MH-100: Executive Committee
11 recommendation, dated
12 September 11th, 2009

13

14 MS. MARLA BOYD: The response to ex --
15 Undertaking number 106 from transcript page 4,864 and 65
16 we propose be filed as Exhibit Manitoba Hydro 101.

17

18 --- EXHIBIT NO. MH-101: Response to Undertaking 106

19

20 MS. MARLA BOYD: The response to Manitoba
21 Hydro Undertaking number 107, transcript page 4,891, we
22 would propose be filed as Exhibit Manitoba Hydro 102.

23

24 --- EXHIBIT NO. MH-102: Response to Undertaking 107

25

1 MS. MARLA BOYD: The response to Manitoba
2 Hydro Undertaking 108 from transcript page 4,941 we would
3 propose be filed as Manitoba Hydro Exhibit 103.

4

5 --- EXHIBIT NO. MH-103: Response to Undertaking 108

6

7 MS. MARLA BOYD: The response to Manitoba
8 Hydro Undertaking number 66 from transcript pages 3,142
9 through 3,143 we would propose be filed as Exhibit
10 Manitoba Hydro 104.

11

12 --- EXHIBIT NO. MH-104: Response to Undertaking 66

13

14 MS. MARLA BOYD: The response to Manitoba
15 Hydro Undertaking number 67 from transcript pages 3,143
16 and 44 we would propose be filed as Exhibit Manitoba
17 Hydro 105.

18

19 --- EXHIBIT NO. MH-105: Response to Undertaking 67

20

21 MS. MARLA BOYD: The response to Manitoba
22 Hydro Undertaking number 68 from transcript pages 3,144
23 through 45 we would propose be filed as Exhibit Manitoba
24 Hydro 106.

25

1 --- EXHIBIT NO. MH-106: Response to Undertaking 68

2

3 MS. MARLA BOYD: And I think I've
4 exceeded my quota of numbers for the morning. Thank you.

5 THE CHAIRPERSON: Thank you. Obviously,
6 you were not idle last week.

7 Mr. Williams...?

8 MR. BYRON WILLIAMS: Yes, and, Mr.
9 Chairman, I had -- I had intended and do intend to start
10 with some questions on Bipole 3, but I do note that
11 Manitoba Hydro in Exhibit Manitoba Hydro number 99 has
12 filed revised addendums dated March 31st, 2011. And just
13 for the purposes of efficiency, I wonder if I might stand
14 down for perhaps ten (10) minutes and just review them.

15 And the reason being, Mr. Chairman, some
16 of these -- these questions we may be able to do more
17 efficiently if I have just a few moments to review this
18 document.

19 THE CHAIRPERSON: Very good, Mr.
20 Williams.

21

22 --- Upon recessing at 9:42 a.m.

23 --- Upon resuming at 9:52 a.m.

24

25 MR. BYRON WILLIAMS: Mr. Chairman, I

1 appreciate the -- the adjournment. I -- it may be a bit
2 of a -- a go on the run this morning, but I -- I -- I
3 certainly think it would be useful to proceed in this
4 area. Perhaps I could -- there are some exhibits that I
5 do wish to introduce this morning, and I believe I have
6 my learned friend's consent for that.

7 And the three that I'd -- I'd ask Mr.
8 Singh to present are the CAC/MSOS second book of
9 documents, which should be marked as Exhibit 16.

10

11 --- EXHIBIT NO. CAC/MSOS-16:

12 CAC/MSOS' second book of documents

13

14 MR. BYRON WILLIAMS: Secondly, a news
15 release dated March 31st, 2011, "Moving Forward With New
16 Capital Projects and Bipole 3," which I would suggest be
17 marked as Exhibit 17.

18

19 --- EXHIBIT NO. CAC/MSOS-17:

20 News release, dated March 31st, 2011:
21 "Moving Forward with New Capital Projects
22 and Bipole 3"

23

24 MR. BYRON WILLIAMS: It may have been
25 superceded to some degree by material filed today. And -

1 - and then CAC -- the next one (1) should be a -- a table
2 Bipole 3 Capital Cost Estimates, which I'd ask be marked
3 as CAC/MSOS Exhibit 18.

4

5 --- EXHIBIT NO. CAC/MSOS-18:

6 Table: Bipole 3 Capital Cost Estimates

7

8 MR. BYRON WILLIAMS: And my friend Mr.
9 Peters has been kind enough to distribute it. I've
10 distributed those to Intervenors, and I believe the Board
11 has them as well.

12 And, Mr. Chairman -- for Ms. Fernandes,
13 that's CAC/MSOS-16. Mr. Chairman, in terms of the
14 undertakings that Manitoba Hydro has filed today that the
15 Board might want to have near at hand, also -- Exhibit
16 Manitoba Hydro number 99.

17 THE CHAIRPERSON: Mr. Williams, there's
18 two (2) others that we've got here, your Exhibits 19 and
19 20. Are you going to introduce them later, or --

20 MR. BYRON WILLIAMS: Yes, and I'm not
21 sure that they should be before the Board just yet, so
22 I'll ask Mr. Singh to take those -- those -- those --
23 those back.

24 THE CHAIRPERSON: They're -- they're ours
25 now, Mr. Williams.

1 MR. BYRON WILLIAMS: And I -- I want to
2 assure Ms. -- Ms. Boyd, I -- I think we've discussed
3 them, but I wasn't trying to pull a fast one. There was
4 a miscommunication. So, Mr. Singh, if you'd take them
5 back for right now, and I'll confer with my friend.

6

7 (BRIEF PAUSE)

8

9 THE CHAIRPERSON: They have been returned
10 reluct -- reluctantly.

11 MR. BYRON WILLIAMS: And I do apologize
12 for the bra -- barrage of paper that I'm providing you
13 with. I'm not apologizing for Manitoba Hydro, of course.
14 Of the undertakings filed today, the Board might just
15 want to keep nearby, Exhibits 89, 98, and 99. Eighty-
16 nine (89), ninety-eight (98), and ninety-nine (99).

17

18 (BRIEF PAUSE)

19

20 MR. BYRON WILLIAMS: Eighty-nine (89) --
21 Exhibit 89, Exhibit 98, and Exhibit 99.

22 THE CHAIRPERSON: We have them.

23

24 (BRIEF PAUSE)

25

1 MR. BYRON WILLIAMS: Exhibit 89 should be
2 the consultants who were employed on the project.
3 Exhibit 98 should be information whether the CPJ addendum
4 was brought to the attention of the audit committee, and
5 Exhibit 99 should be the revi -- or the CPJs assigned as
6 of March 31st, 2011.

7 And -- and finally, with -- with apologies
8 for -- for the paper burden, there are two (2) other
9 documents that -- that I'd like the Board to have at
10 hand, and I -- one (1) is Exhibit 19, PUB Exhibit 19,
11 which is the -- the CPJ addendum number 6, which was not
12 ultimately approved.

13 MR. ROBERT MAYER: I'm correct, Mr.
14 Williams, you looked at Exhibit 99, and -- or yeah, that
15 -- I can't find in there the document we actually asked
16 to see the fi -- the signed copy of, which was the one
17 (1) we reviewed last time we were here.

18 Is it in there --

19 MR. BYRON WILLIAMS: I would --

20 MR. ROBERT MAYER: -- because all these
21 seem to be dated March 30th.

22 MR. BYRON WILLIAMS: -- I would check
23 with My Learned Friend. I did not observe it there.

24 MS. MARLA BOYD: No, Mr. Vice-Chair, it's
25 not there, and the reason for it not being there is -- is

1 as stated in the undertaking, that the -- that document
2 has been superceded at this point, and the ones that are
3 relevant and have been approved by executive committee
4 are the ones that are before you.

5

6 (BRIEF PAUSE)

7

8 MR. BYRON WILLIAMS: Just -- and again, I
9 apologize for the barrage of papers, but PUB Exhibit 19
10 is the unsigned version. I would like the -- the
11 tribunal, if it would, to have that near at hand.

12 And finally, from PU -- from the PUB book
13 of documents, which I believe is Exhibit 18, Tab 70, page
14 182.

15

16 (BRIEF PAUSE)

17

18 MR. BYRON WILLIAMS: And Mr. Warden, I
19 don't know if you -- you got that last one or not.

20

21 (BRIEF PAUSE)

22

23 MR. BYRON WILLIAMS: Thank you. And Mr.
24 Chairman, just in terms of my hopeful schedule for today,
25 I do have a series of questions regarding Bipole 3. I

1 don't know if they've been shortened, or increased, by
2 the material filed today by Manitoba Hydro.

3 And then I have a series of questions on
4 finance information, which hopefully we'll get to either
5 later this morning or for the bulk of the afternoon.

6 I anticipate being up for most, perhaps
7 all of tomorrow. I'll certainly try and shorten it, but
8 I can't be confident of that.

9 I've been advised by My Learned Friend
10 that Mr. Cormie is not here tomorrow, so there is the
11 possibility that I may have some questions for Mr. Cormie
12 on the Thursday, even if I've stood down my cross-
13 examination, and I've agreed with My Learned Friend that
14 she -- if that's the case, she would bring back up the
15 Hydro -- Hydro panel, and we'll accommodate Mr. Cormie's
16 schedule.

17

18 MANITOBA HYDRO PANEL:

19 VINCE WARDEN, Resumed

20 DAVID CORMIE, Resumed

21 HAROLD SURMINSKI, Resumed

22

23 CONTINUED CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

24 MR. BYRON WILLIAMS: Mr. Warden, good
25 morning.

1 MR. VINCE WARDEN: Good morning, Mr.
2 Williams. Good morning, Mr. Chairman, Mr. Vice-Chairman.

3 MR. BYRON WILLIAMS: So, Mr. Warden, the
4 question everyone's dying to know is, What are you going
5 to do with your Autopac rebate cheque?

6 MR. VINCE WARDEN: Many good uses for
7 that.

8 MR. BYRON WILLIAMS: And, Mr. Warden,
9 just -- just for you, I -- I won't pose this as a
10 question, just to give you some guidance in -- in what I
11 -- I hope to do this morning, there have been a number of
12 figures put on the -- on the record in terms of Bipole 3
13 costs, some of them have been approved by the executive
14 committee, some have not.

15 And so for a little while this morning I'm
16 going to walk through some of those documents, and
17 certainly in terms of the ones that are -- that are not
18 approved, I won't be asking you to endorse those -- those
19 documents, but I am trying to get certain bits of
20 information from them.

21 And -- and so you understand that, Mr.
22 Warden?

23 MR. VINCE WARDEN: Yes.

24 MR. BYRON WILLIAMS: Thank you. And in
25 terms of major capital projects currently being planned

1 or con -- built by Manitoba Hydro, I would be correct in
2 suggesting that the big four (4) in terms of cost are
3 Wuskwatim, Bipole 3, Keeyask, and Conawapa.

4 Would that be fair, sir?

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

6 MR. BYRON WILLIAMS: And I would also be
7 correct in suggesting that built into IFF-09 and IFF-10
8 are expectations as to the current and/or future impact
9 of these projects on the current and/or future costs of
10 Manitoba Hydro. Would that be fair?

11 MR. VINCE WARDEN: Yes, current at the
12 time those documents, those IFFs, were prepared.

13 MR. BYRON WILLIAMS: And that's exactly
14 where I was going. And what we find in IFF-09 and '10
15 are estimates of the impact on the current and future
16 costs of Manitoba Hydro based on the most recent approved
17 estimates that were available at that time, correct?

18 MR. VINCE WARDEN: Correct.

19 MR. BYRON WILLIAMS: And in the case of
20 Bipole 3, and focussing on IFFs '09 and '10, the most
21 recent approved forecast at that point in time was a
22 forecast approved by the Manitoba Hydro Board of
23 Directors CPJ Addendum 5 from May of 2007, would that be
24 correct, sir?

25 MR. VINCE WARDEN: Yes.

1 MR. BYRON WILLIAMS: And would I be
2 correct in suggesting to you that the predecessor to CPJ
3 Addendum 5, again which -- which I'll suggest to you was
4 CPJ 4, was signed off by the executive committee of
5 Manitoba Hydro, not the Manitoba Hydro-Electric Board?

6 Would that be fair, sir?

7 MR. VINCE WARDEN: Yes, all CPJs are
8 approved by the executive committee and not specifically
9 approved -- at least not the CPJ documents, are not
10 approved by the Manitoba Hydro-Electric Board.

11 MR. BYRON WILLIAMS: And that's -- that's
12 helpful. And just for -- for clarity for me, sir, and if
13 I'm testing your memory too much, you'll -- you'll seek
14 additional support. But if I were to look at the
15 Wuskwatim CPJ that was built into the IFF-09, would that
16 have been approved by the executive committee or the --
17 the Board, or would that have been signed off by the
18 executive committee or the board of Manitoba Hydro?

19 MR. VINCE WARDEN: Would have been
20 approved by the executive committee. All -- all
21 projects, though, all major capital projects, are
22 ultimately approved by the board as part of the
23 integrated financial forecast presentation.

24 MR. BYRON WILLIAMS: Thank you for that.
25 And the CPJ for Keeyask that was built into IFF-09, would

1 that have been signed off by the executive committee?

2 MR. VINCE WARDEN: Yes.

3 MR. BYRON WILLIAMS: And for Conawapa,
4 the CPJ that was built into the IFF-09, that would have
5 been signed off by the executive committee as well,
6 correct?

7 MR. VINCE WARDEN: Yes.

8 MR. BYRON WILLIAMS: And I recognize your
9 comment, Mr. Warden, about ultimately the IFFs being
10 approved. Can you identify for my clients the criteria
11 that are used in terms of whether executive committee or
12 the Manitoba Hydro-Electric board should sign off on --
13 on CPJs?

14 MR. VINCE WARDEN: Well, Mr. Williams,
15 the executive committee approves all CPJs. CPJs are not
16 specifically approved by the Manitoba Hydro-Electric
17 board, but the quantum of the dollars associated with any
18 -- any project, any major project, is approved by the
19 Manitoba Hydro-Electric board as part of the capital
20 expenditure forecast, which is a part of the integrated
21 financial forecast.

22 MR. BYRON WILLIAMS: And so when we look
23 back to CPJ Addendum fi -- 5 and see, under the sign-off,
24 being the Manitoba Hydro Electric board as opposed to the
25 execu -- executive committee, that would be a -- not the

1 usual signature we would expect on that CPJ.

2 Would that be fair, sir?

3 MR. VINCE WARDEN: Well, again, a CPJ
4 document does not -- is not presented to the Manitoba
5 Hydro-Electric board for approval, not to say that the
6 board can't directly approve capital projects outside of
7 the IFF process, so there are occasions. Certainly there
8 are exceptions to the rule that I just described whereby
9 the board typically would approve capital projects as --
10 as part of the IFF. There are exceptions and -- and this
11 is one (1) of those exceptions.

12 MR. BYRON WILLIAMS: Are they relatively
13 rare exceptions, sir?

14 MR. VINCE WARDEN: Yes. Yes, normal
15 process is every fall the integrated financial forecast
16 is approved -- or sorry, presented to the board for
17 approval, and -- and that is the -- the process that is
18 typically followed.

19 MR. BYRON WILLIAMS: And in terms of
20 these relatively rare exceptions whereby on occasion the
21 Board might sign off on a CPJ, is there any -- are they -
22 - is -- are there any criteria for when that would take
23 place, or is it on a case-by-case basis, sir?

24 MR. VINCE WARDEN: It would be on a case-
25 by-case basis. I want to be clear though that -- that

1 ultimately the objective is to get board approval on all
2 major capital projects. The vehicle for getting them
3 there, to the board, is typically the integrated
4 financial forecast, but that doesn't necessarily mean it
5 has to be the only way.

6 MR. BYRON WILLIAMS: Thank you for that.
7 I wonder if you could turn to the -- it's -- it's found
8 in the PUB book of documents which is marked as Exhibit
9 18, Tab 70, and that is, I believe, at page 182. That is
10 the document dated in the bottom right-hand corner
11 2010.10.05. Do you have that, Mr. Warden?

12 MR. VINCE WARDEN: I do, yes.

13 MR. BYRON WILLIAMS: And, Mr. Warden,
14 without asking you to elaborate, you'll recall having at
15 least a brief discussion with Mr. Peters about this
16 document, sir?

17 MR. VINCE WARDEN: Yes.

18 MR. BYRON WILLIAMS: And my recollection
19 of that discussion, and you'll confirm to me if I'm
20 correct, is that you agreed that this was in all
21 likelihood a Manitoba Hydro-developed document, but you
22 were clear to point out that it -- it was not one which
23 was approved by the executive committee. Would that be
24 fair, sir?

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

1 MR. BYRON WILLIAMS: And I'm not
2 particularly interested in the numbers from this table,
3 Mr. Warden, with one (1) exception, but I am interested
4 in the format. And looking -- directing your attention
5 to the left-hand side of the table, and without asking
6 you to comment on the accuracy of this table, you could
7 confirm that the costing for the Bipole 3 western
8 converter route is broken down into five (5) major
9 categories. Would that be fair?

10 MR. VINCE WARDEN: Yes.

11 MR. BYRON WILLIAMS: And the first
12 category would be, "Licensing and properties," which is
13 further broken down into seven (7) subcategories,
14 correct?

15 MR. VINCE WARDEN: Correct.

16 MR. BYRON WILLIAMS: And the second
17 category is transmission lines, which is broken down into
18 a couple of categories, correct?

19 MR. VINCE WARDEN: Yes.

20 MR. BYRON WILLIAMS: And the Keewatinoow
21 -- Keewatinoow converter station is the third category,
22 and it is further broken down into two (2) subcategories,
23 correct?

24 MR. VINCE WARDEN: Yes.

25 MR. BYRON WILLIAMS: And then we see the

1 AC collector system related to Keewatinoow, which is
2 broken down into three (3) cate -- subcategories,
3 correct?

4 MR. VINCE WARDEN: Yes.

5 MR. BYRON WILLIAMS: And finally we see
6 the Riel Converter Station, and it is broken down into
7 four (4) subcategories, correct?

8 MR. VINCE WARDEN: Yes.

9 MR. BYRON WILLIAMS: And again without
10 asking you to comment on the accuracy, would it be fair
11 to suggest that this type of breakdown, this detailed
12 breakdown, in -- including base, contingency, et cetera,
13 in terms of the respective elements of the western Bipole
14 3 project would be consistent with the level of detail
15 that -- that you would expect in terms of the cost
16 estimates of Bipole 3 that are generated by the
17 Corporation?

18 The Corp -- and Mr. Warden, if you're won
19 -- if I can rephrase it if you're struggling with the
20 question, this is the type of analysis and the type of
21 detail that the Corporation would have in its possession
22 with regards to Bipole 3 and would be able to generate,
23 correct?

24 MR. VINCE WARDEN: Yes, there would be a
25 lot more detail than this, of course, but this is a

1 summary document that breaks down the estimate into total
2 cost, base dollars, contingency, interest, and
3 escalation.

4 MR. BYRON WILLIAMS: And why I asked you
5 that question, Mr. Warden, when I refer to the level of
6 detail of -- of this document in future conversations,
7 you'll understand that I'm referring to the level of
8 detail presented at PUB Exhibit 18, Tab 70. As we move
9 along, you'll understand that with me, sir?

10 MR. VINCE WARDEN: Okay.

11 MR. BYRON WILLIAMS: Okay. Just before
12 we leave this -- this page, again, without asking you to
13 comment on the accuracy, if -- if I go down that
14 contingency line for -- and see the total for Bipole 3, I
15 would see a -- a figure in the range of \$688 million.
16 Would that be right, sir?

17 MR. VINCE WARDEN: Yes.

18 MR. BYRON WILLIAMS: And again, without
19 asking you to comment on its accuracy, the biggest item
20 there would -- in terms of contingency would be
21 associated with the Riel Converter Station. Would that
22 be right? Being some \$266 million?

23 MR. VINCE WARDEN: Yes.

24 MR. BYRON WILLIAMS: And again, when we
25 look at -- at this table, not expecting an opinion on its

1 accuracy, the three (3) biggest contingencies would be
2 Riel Converter, Keewatinoow Converter and the Bipole 3
3 transmission.

4 Would that be fair?

5 MR. VINCE WARDEN: Yes.

6

7 (BRIEF PAUSE)

8

9 MR. BYRON WILLIAMS: Now in the CAC/MSOS
10 book of documents handed out today, which is marked as
11 CAC-16, we don't have tabs, Mr. Warden, but we have put
12 the page number -- a page number in the top right-hand
13 corner. So I'd ask you to turn to top right-hand corner
14 page number 1. Do you have that, sir?

15 MR. VINCE WARDEN: Yes.

16 MR. BYRON WILLIAMS: That's the response
17 to PUB Manitoba Hydro 1-59, Mr. Warden.

18 MR. VINCE WARDEN: Yes, I have that.

19 THE CHAIRPERSON: Mr. Williams, could you
20 hold it for one (1) second, we're -- we're wondering
21 whether we both got this. I have it. Okay, we do.

22 MR. BYRON WILLIAMS: And page 1 in the
23 top right-hand corner is where I'm referring.

24

25 (BRIEF PAUSE)

1 CONTINUED BY MR. BYRON WILLIAMS:

2 MR. BYRON WILLIAMS: And, Mr. Warden, as
3 I understand it, and you'll -- and I'll ask you to
4 confirm, the estimated costs of Bipole 3 that was
5 incorporated into IFF-09 was about \$2.248 billion. Is
6 that correct, sir?

7 MR. VINCE WARDEN: Yes.

8 MR. BYRON WILLIAMS: And again, that was
9 incorporated as well into IFF-10, correct?

10 MR. VINCE WARDEN: Correct.

11 MR. BYRON WILLIAMS: And if we went back
12 in time to our capital expenditure forecast for Manitoba
13 Hydro, would I be correct in -- in suggesting to you that
14 that number has been there since Capital Expenditure
15 Forecast '07?

16 MR. VINCE WARDEN: Yes.

17 MR. BYRON WILLIAMS: Would that be right?

18 MR. VINCE WARDEN: Yes.

19 MR. BYRON WILLIAMS: And I want to just
20 look at the derivation or how you -- how this figure was
21 estimated. So turning your attention to PUB 1-59, we see
22 an estimate of transmission, base estimate of -- in the
23 range of \$800 million, Mr. Warden. Is that correct?

24 MR. VINCE WARDEN: Yes.

25 MR. BYRON WILLIAMS: And coupled with the

1 escalation and interest of about 319/320 million, that
2 yields a total for transmission of about \$1.13 million,
3 sir?

4 MR. VINCE WARDEN: Correct.

5 MR. BYRON WILLIAMS: And then we see
6 beneath that an estimate for the northern converter, base
7 estimate of \$388 million, correct, sir, approximately?

8 MR. VINCE WARDEN: Yes.

9 MR. BYRON WILLIAMS: And then the
10 southern converter base estimate of about 485 million,
11 correct, sir?

12 MR. VINCE WARDEN: Correct.

13 MR. BYRON WILLIAMS: And then escalation
14 interest of in the range of \$240 million, correct?

15 MR. VINCE WARDEN: Correct.

16 MR. BYRON WILLIAMS: Totalling about
17 \$1.114 billion, correct?

18 MR. VINCE WARDEN: Correct.

19 MR. BYRON WILLIAMS: Now, Mr. Warden, if
20 you'll turn to the next page of the book of documents,
21 and I apologize if the photo -- the photocopying is not
22 as clear as it should be, you'll see an excerpt from the
23 Capital Expenditure Forecast '10.

24 Do you see that, Mr. Warden?

25 MR. VINCE WARDEN: Yes, I do.

1 MR. BYRON WILLIAMS: And if one were
2 looking for the -- the costs of Bipole 3 on this page, we
3 would -- we would focus down about halfway down the
4 document, first of all to bipole licensing and properties
5 at \$1.23.5 million. Do you see that, sir?

6 MR. VINCE WARDEN: I do.

7 MR. BYRON WILLIAMS: And then we see
8 additional costs of bipole transmission line of about 958
9 million, Keewatinoow -- Keewatinoow Converter Station
10 \$466 million, the collector system 80 million, and the
11 Riel Converter Station 618.7 million.

12 Do you see that, sir?

13 MR. VINCE WARDEN: Yes, I do.

14 MR. BYRON WILLIAMS: And you'll agree
15 with me, subject to check, that that -- that equals the
16 same \$2.247 billion, as we see on the previous page.

17 MR. VINCE WARDEN: Yes.

18 MR. BYRON WILLIAMS: Mr. Warden, the --
19 the only question we -- we have further about these two
20 (2) -- two (2) documents is, if we add the converters
21 together on this page, being the 466.3 billion plus the
22 618.7 billion for Riel, we get about \$1.085 billion.

23 Would you accept that, subject to check?

24 MR. VINCE WARDEN: Yes.

25 MR. BYRON WILLIAMS: And if -- and if we

1 flip back to the previous estimate, which arrives at the
2 same bottom line number, we see that the total is a bit
3 different, being \$1.1 billion. Do you see that, sir?

4 MR. VINCE WARDEN: I do.

5 MR. BYRON WILLIAMS: And likewise, I'll
6 suggest to you, and we don't need to do the math, that if
7 we added licensing and permits, plus transmission, plus
8 the correct -- corrector line, we would get a figure of
9 about \$1.16 billion.

10 Would you accept that, subject to check?

11 MR. VINCE WARDEN: Yes.

12 MR. BYRON WILLIAMS: And again, if we
13 flip back to the previous page, we get a slightly
14 different figure. Would you agree with that, sir?

15 MR. VINCE WARDEN: Yes.

16 MR. BYRON WILLIAMS: Any view in terms of
17 which is the more appropriate breakdown, Mr. Warden?

18 MR. VINCE WARDEN: There was a
19 reclassification, I believe, which we -- of some collect
20 --the license -- I believe it was the licensing and
21 properties to do with the collector system.

22 So it was just a fairly simple
23 reclassification. The total didn't change, but the --
24 the -- there was a flip in the -- from transmission to
25 the -- or from the convertor stations, I believe, to the

1 transmission.

2 So which is more accurate? I believe the
3 response to PUB Manitoba Hydro 159 that is on page 1 of
4 your book of documents reflects the updated numbers.

5 MR. BYRON WILLIAMS: Okay. Thank you for
6 that. I appreciate that.

7 To your knowledge, is the breakdown of the
8 CPJ estimate of \$2.248 billion currently on the record at
9 the level of detail that we discussed with regard to PUB
10 Exhibit 18, Tab 70?

11 MR. VINCE WARDEN: No, I don't believe
12 so.

13 MR. BYRON WILLIAMS: I wonder if the
14 Corporation would be prepared to undertake to provide
15 that?

16 MR. VINCE WARDEN: Yes, we could do that.

17

18 --- UNDERTAKING NO. 109: Manitoba Hydro to provide a
19 detailed breakdown of the CPJ
20 estimate of \$2.248 billion

21

22 CONTINUED BY MR. BYRON WILLIAMS:

23 MR. BYRON WILLIAMS: Mr. Warden, I wonder
24 if you could turn to PUB Exhibit 19, which is the un --
25 unsigned Capital Project Justification Addendum number 6.

1 Do you have that, sir?

2 MR. VINCE WARDEN: I have it here, yes.

3 MR. BYRON WILLIAMS: And, Mr. Warden, I
4 realize that this was not ultimately approved, but
5 there's -- there's some matters about this document that
6 I -- I do want to run through with you.

7 And -- and, Mr. Warden, without asking you
8 to comment on whether you ever actually saw this
9 document, we know that by September 2009 this document
10 had made it -- a -- signed with certain signatures on it
11 had made its way to your office, would that be fair?

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

13 MR. BYRON WILLIAMS: And to get there
14 required the recommendations of a number of individuals,
15 correct?

16 MR. VINCE WARDEN: Yes.

17 MR. BYRON WILLIAMS: And those
18 individuals include the VP Transmission and the VP power
19 supply, correct?

20 MR. VINCE WARDEN: Correct.

21 MR. BYRON WILLIAMS: And again, without
22 seeking any further elaboration, this document was not
23 presented to executive committee, and that followed
24 certain deliberations be -- between yourself and the
25 president, would that be fair?

1 MR. VINCE WARDEN: Yes.

2 MR. BYRON WILLIAMS: Mr. Warden, I -- in
3 terms of this document, being PUB-19, I'd ask you to turn
4 over one (1) page to the page marked page 1 of 7 in the
5 bottom right-hand corner. Do you have that, sir?

6 MR. VINCE WARDEN: I have it.

7 MR. BYRON WILLIAMS: And you'll agree
8 with me, Mr. Warden, that this document provides a fairly
9 extensive discussion of changes to cost estimates on
10 pages 1 of -- all the way up through pages -- page 6,
11 would that be fair, sir?

12 MR. VINCE WARDEN: Yes. This kind of
13 documentation is typical for a -- for a CPJ.

14 MR. BYRON WILLIAMS: Yeah, and a --
15 again, I'm not asking you to comment on its accuracy, but
16 it's essentially -- if we look at this document, it's
17 essentially divided into two (2) major categories, one
18 (1) being transmission-related a -- items, which appears
19 at the bottom of page 1, and the second being converter-
20 related items, which appears at the bottom of page 2 of
21 7, would that be fair?

22 MR. VINCE WARDEN: Yes.

23 MR. BYRON WILLIAMS: And, Mr. Warden,
24 just turning to the -- to page 2 of 7, towards the top,
25 you'll see a -- a reference to Sectionalize 230kV

1 Transmission Line R49 (sic) at Riel. Do you see that,
2 sir?

3 MR. VINCE WARDEN: Yes, I do.

4 MR. BYRON WILLIAMS: And it's -- it's not
5 a huge dollar item, but it's -- it's estimated at this
6 point in time at about \$2 million, would that be fair?

7 MR. VINCE WARDEN: Yes.

8 MR. BYRON WILLIAMS: And, Mr. Warden, I
9 don't know if you still have the 2010 document, and you
10 probably don't need to turn there, but if you wish, PUB
11 Exhibit 18, tab 70, near at hand. Ms. -- Ms. Boyd, you
12 might want to keep that up just...

13 If I look at -- on that document, towards
14 the bottom I'll see the Riel R49R TL Sectionalization
15 under Converter Station. Would that be correct, sir?

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

17 MR. BYRON WILLIAMS: And again, I'm not
18 sure that much turns on this, but for the point of
19 clarity, it would be fair to say that that item, at some
20 point in time in certain documents has been classified
21 under transmission, at other points in time has been
22 classified under converters. Would that be fair?

23 MR. VINCE WARDEN: Yes, it appears that
24 way, Mr. Williams.

25 MR. BYRON WILLIAMS: If you could turn to

1 page 4 of this document, sir, page 4 of 7, towards the
2 bottom you'll see a -- a heading called Contingency.

3 Do you see that, Mr. Warden?

4 MR. VINCE WARDEN: I do.

5 MR. BYRON WILLIAMS: And this is under
6 the section Risk Analysis. And again, recognizing that
7 this was never approved, you'll agree that the
8 contingency associated with this draft addendum was 525
9 million in base 2009 dollars. Would that be fair?

10 MR. VINCE WARDEN: Yes, a very large
11 number, \$525 million of contingency.

12 MR. BYRON WILLIAMS: And you -- you
13 actually referenced that in your discussion with Mr.
14 Peters a couple -- couple weeks ago, and -- and we'll
15 come to that in -- in a second. And just turning onto
16 the next page, page 5 of 7, and you'll see under
17 Converter-related Items the Riel Converter Station having
18 a total contingency of 200 million or 39 percent of the
19 base cost. Do you see that, sir?

20 MR. VINCE WARDEN: I do.

21 MR. BYRON WILLIAMS: And it would be fair
22 to say in terms of that \$525 million con -- contingency,
23 the biggest contingency related to the -- the Riel
24 Converter Station. Would that be fair?

25 MR. VINCE WARDEN: Yes.

1 MR. BYRON WILLIAMS: And, Mr. Warden, in
2 terms of looking at major capital projects, it would be
3 fair to suggest that ge -- it is generally the case that
4 Manitoba Hydro would want to build in a contingency into
5 their estimates as they move along.

6 Would that be fair, sir?

7 MR. VINCE WARDEN: Yes.

8 MR. BYRON WILLIAMS: And in terms of the
9 appropriate level of contingency, is there any guidance
10 in terms of written policy, sir?

11 MR. VINCE WARDEN: Not really. It
12 depends a lot on the circumstances how -- what type of
13 asset is being constructed, when it's being constructed,
14 the inputs to that asset, be it commodity type in --
15 influenced by commodity prices, so there's a lot of
16 variables that go into assigning a contingency, and a lot
17 of judgment as well. And that -- that's -- when we -- as
18 we proceed, that is really the -- the reason we have such
19 variance in -- in the estimates that we have before us,
20 is the judgment that is involved with respect to the
21 contingency.

22 MR. BYRON WILLIAMS: And I -- I thank you
23 for that -- that answer. And -- and, Mr. Warden, in
24 terms of the factors you outlined, one (1) of them was
25 type of assets, correct, tha -- that goes into the

1 judgment in terms of assessing the nature of the -- an
2 appropriate contingency?

3 MR. VINCE WARDEN: Yes.

4 MR. BYRON WILLIAMS: And by type of
5 asset, I -- I'm going to ask you to elaborate, and let's
6 take an example of a hydro-electric generating station
7 versus a big bipole transmission line.

8 The nature of that asset, how does that
9 affect the level of contingency that one would expect to
10 see, sir?

11 MR. VINCE WARDEN: Well, a transmission
12 line, one (1) of the obvious variables is the cost of
13 steel for -- for towers, and that has been quite
14 variable, quite volatile in terms of price, copper,
15 labour -- labour, certainly labour depending on whether
16 or not we have a contract for constructing of that asset
17 fixed or whether that's still uncertain at the time the
18 estimate is put together. So there's a number of
19 different variables like that that go into the estimate.

20 MR. BYRON WILLIAMS: And in terms of big
21 hydro-electric generation station, what are the big
22 variables in terms of that type of asset, sir?

23 MR. DAVID CORMIE: Mr. Williams, I think
24 similar to the items that Mr. Warden talked about, the
25 commodities, there's also the issue of what the scope of

1 the project is and to the extent that regulations may
2 change, and whether you have a fish ladder or not at the
3 generating station may be subject to regulatory -- or may
4 -- maybe a future regulatory, so the scope of the project
5 may change, and there may be some items put in as a
6 contingency because there could be potential changes in
7 the scope, and those items are different than the
8 uncertainty associated with the quantities or the prices of
9 the actual material. So the -- the two (2) types of
10 uncertainties are covered in that contingency.

11 MR. BYRON WILLIAMS: And thank you for
12 that, Mr. Cormie and Mr. Warden. And just in terms of
13 your answer, Mr. Cormie, in terms of the two (2) types of
14 contingencies you outlined, one (1) is almost a
15 regulatory contingency in terms of changes in the --
16 what's -- what's required, for example, fish ladders or
17 things like that, sir.

18 Would that be fair?

19 MR. DAVID CORMIE: Yes.

20 MR. BYRON WILLIAMS: And the other would
21 be in terms of input of -- of products and labour?

22 MR. DAVID CORMIE: Yes, the -- the unit
23 costs as opposed to the scope of the project.

24 MR. BYRON WILLIAMS: And in terms of the
25 unit costs, are steel and copper the -- the big two (2)

1 or are there other ones that are -- the -- the -- and if
2 -- if that's beyond what you feel comfortable answering,
3 Mr. Cormie, that's fine.

4 MR. DAVID CORMIE: Well, the -- the --
5 the biggest -- one (1) of the biggest costs is the cost
6 of cement. And -- now you've got me at the limit of my
7 knowledge.

8 MR. ROBERT MAYER: Mr. -- Mr. Cormie, do
9 we have any fish ladders around any of our generating
10 stations?

11 MR. DAVID CORMIE: No, we don't, Mr.
12 Mayer, mainly because we don't have any migratory
13 species. The fish that are in the rivers that Manitoba
14 Hydro has affected generally don't migrate, and so
15 there's no requirement for fish ladders, but for the new
16 projects that is -- is a risk, and we may -- may be faced
17 with that -- building that facility.

18 MR. ROBERT MAYER: I -- I've seen the one
19 (1) at Whitehorse. I can understand why that would be a
20 major cost to build into any of our generating stations.

21 MR. DAVID CORMIE: Yeah, and I think in
22 our case we may affect habitat and we may be required to
23 build replacement habitat, and so there's the -- but
24 that, you know, that's a subject of evolving standards
25 and that kind of uncertainty has to be built into the

1 estimate.

2

3 CONTINUED BY MR. BYRON WILLIAMS:

4 MR. BYRON WILLIAMS: You never know when
5 fish ladders are going to come up in a conversation do
6 you, Mr. Cormie.

7 MR. DAVID CORMIE: Especially when we're
8 talking about Bipole 3.

9 MR. BYRON WILLIAMS: Mr. -- Mr. Warden, I
10 don't want to talk about fish ladders anymore.

11 MR. VINCE WARDEN: I thought that was
12 quite interesting.

13 MR. BYRON WILLIAMS: And, Mr. Warden, if
14 you feel comfortable answering this question, that would
15 be helpful. In terms of again, going to type of asset,
16 would one expect the contingency associated with a
17 transmission line to be smaller or greater than a -- a
18 hydro-electric generating station or -- of the magnitude
19 -- let's take a bipole versus a -- a Keeyask.

20 And if you can't answer that, sir, that's
21 fine.

22 MR. VINCE WARDEN: Well, Mr. Williams, I
23 can only answer in a general way, and I think it depends
24 a lot on the timing of -- of construction, how far ahead
25 that transmission line is being planned for and the

1 forward prices of certain commodities.

2 So we would look at the commodity prices
3 and try -- come up with the estimate as best we can based
4 on those prices. And contracts that are being let
5 elsewhere in the world for transmission. So there are a
6 lot of variables as we talked about earlier that go into
7 coming up with a -- with an estimate. But at the end of
8 the day it -- it -- there is a lot of judgment involved.

9 Is there more associated with the
10 transmission line than the generating station? I
11 wouldn't say so. I -- I -- I -- but again, I don't
12 really know. At this point in time if we were building a
13 transmission line and -- and a generating station, the
14 extent of the contingency is probably based more so on
15 timing.

16 MR. BYRON WILLIAMS: And by timing, the
17 factor out in the planning horizon a particular project
18 is, generally we would expect a larger contingency,
19 correct?

20 MR. VINCE WARDEN: Yes. The -- the --
21 another element that enters into the equation is also the
22 competitiveness in the market, the number of suppliers
23 that are out there and how -- how competitive the market
24 is at any given time.

25 MR. BYRON WILLIAMS: And thank you for

1 that, Mr. Warden. If you could turn to page 6 of 7 of
2 the document PUB-19, the -- which is -- do you have that,
3 sir?

4 MR. VINCE WARDEN: I have it, yes.

5 MR. BYRON WILLIAMS: And at the top --
6 page 6 of 7. At the top of that page there is a
7 reference to management reserve total of 334 -- 334
8 million in base 2009 dollars.

9 Do you see that, sir?

10 MR. VINCE WARDEN: I do.

11 MR. BYRON WILLIAMS: And I -- I'm going
12 to ask for an elaboration on that, but there's a -- there
13 is a statement under -- under, Management Reserve,
14 saying:

15 "Also identified during the risk
16 assessment, but not included in the
17 contingency estimate at this time, are
18 the management reserve items listed
19 below."

20 Do you see that, sir?

21 MR. VINCE WARDEN: Yes.

22 MR. BYRON WILLIAMS: And so first of all,
23 a question of clarification, Mr. Warden. Two (2)
24 questions of clarification.

25 First of all, my understanding of that is

1 that the management reserve would not be included in the
2 contingency. Would that be fair, sir?

3 MR. VINCE WARDEN: Yes, that's correct.

4 MR. BYRON WILLIAMS: And is the
5 management reserve included in the base estimate, sir, or
6 is it excluded?

7 MR. VINCE WARDEN: It would -- I was
8 going to say it would typically be excluded, but man --
9 the concept of a management re -- reserve is new to
10 Manitoba Hydro, and it's something that we haven't
11 actually used yet, so we don't have a -- we don't have
12 any projects that have management reserves associated
13 with them.

14 The idea of a management reserve, though,
15 is it's something that's held over and above the project
16 estimate. So the project would be estimated, including
17 all base costs, interest escalation, and contingency.
18 Over and above that there are a number of additional
19 variables that can be held in reserve, and used at the
20 discretion of management, added at the discretion of
21 management.

22 As I mentioned, it's something that we
23 haven't actually used yet at Manitoba Hydro, but that's
24 essentially the -- the concept of -- of how it would
25 work.

1 MR. BYRON WILLIAMS: Thank you for that,
2 and -- and I'm going to stay with this answer for just a
3 second. And again, realizing the Corporation does not
4 accept the accuracy of this estimate, it's not its best
5 estimate, but of the total of around \$3.9 billion that
6 was in this proposed addendum, I would be correct in --
7 in suggesting that there was a contingency in the range
8 of half a billion dollars, some \$525 million, correct?

9 MR. VINCE WARDEN: Yes.

10 MR. BYRON WILLIAMS: And referenced in
11 this document is a \$334 million management reserve, which
12 based upon your prior answer, was not included in the 3.9
13 billion total. Is that right, sir?

14 MR. VINCE WARDEN: Well, Mr. Williams,
15 I'd have to confirm that. I'd have to look at this
16 estimate in more detail to absolutely confirm that.

17 The concept I described to you was one (1)
18 that would -- management -- of management reserve would
19 be something that would be a set-aside not yet used by
20 Manitoba Hydro. It would, though, still have to be --
21 whether it's a set-aside or not, it would still have to
22 be -- if it was deemed to be appropriate, that -- that is
23 if management determined that this was, in fact, costs
24 that were likely to be incurred, then it would have to be
25 incorporated in the project, either as a -- part of that

1 project, or as a separate line item in the capital
2 expenditure forecast.

3 So again, as I mentioned, something we
4 haven't used yet. I suspect, without checking, but I --
5 I suspect that this has -- management reserve has been
6 included in the 3.954 billion, but that would be subject
7 to check.

8 MR. BYRON WILLIAMS: Mr. Warden, if I
9 could ask you, because you'll agree with me that the --
10 the reading could go either way, it's not necessarily
11 absolutely clear at first reading whether it's in or out
12 --

13 MR. VINCE WARDEN: I agree.

14 MR. BYRON WILLIAMS: -- of management
15 reserve.

16 MR. VINCE WARDEN: I agree with you, yes.

17 And --

18 MR. BYRON WILLIAMS: And would --

19 MR. VINCE WARDEN: -- we --

20 MR. BYRON WILLIAMS: -- would --

21 MR. VINCE WARDEN: -- we will.

22 MR. BYRON WILLIAMS: -- would you be so
23 kind to do that?

24 MR. VINCE WARDEN: You bet.

25 MR. BYRON WILLIAMS: The -- Mr. Warden

1 is -- is undertaking to confirm whether the \$334 million
2 management reserve set out at page 6 of 7 of the document
3 is included in the total cost of \$3.9 billion.

4 MR. VINCE WARDEN: Yes.

5
6 --- UNDERTAKING NO. 110: Manitoba Hydro to confirm
7 whether the \$334 million
8 management reserve is
9 included in the total cost of
10 \$3.9 billion

11

12 CONTINUED BY MR. BYRON WILLIAMS:

13 MR. BYRON WILLIAMS: And, Mis -- Mr.
14 Warden, the -- the concept of management reserve, you've
15 indicated, is -- is new to Manitoba Hydro?

16 MR. VINCE WARDEN: That's right. We
17 haven't -- we haven't used it before, or to date.

18 MR. BYRON WILLIAMS: So if I were to look
19 to the CPJs for Conawapa or Keeyask, there would be no
20 management reserve document -- there would no -- be no
21 management reserve figure identified?

22 MR. VINCE WARDEN: I believe that to be
23 the case, Mr. Williams. Again, I would have to -- I
24 would have to check that, and I can do that, if you like.

25 MR. BYRON WILLIAMS: Yes. And -- and,

1 Mr. Warden, let's -- let's hold off on that because I'll
2 come to it in a more complete way in -- in just a --
3 well, okay. Fair enough.

4 If you will undertake to con -- to
5 consider whether a management reserve has been identified
6 in the most recent approved forecasts, capital forecasts,
7 for Keeyask, Conawapa, and I'm going to add Wuskwatim,
8 sir, and -- and then whether or not that figure is
9 included in the -- in the -- the approved number or
10 excluded?

11 MR. VINCE WARDEN: Yes, we'll do that.

12

13 --- UNDERTAKING NO. 111: Manitoba Hydro to confirm
14 whether a management reserve
15 has been identified in the
16 most recent approved capital
17 forecasts for Keeyask,
18 Conawapa, and Wuskwatim, and
19 whether or not that figure is
20 included in the approved
21 number

22

23 CONTINUED BY MR. BYRON WILLIAMS:

24 MR. BYRON WILLIAMS: And, Mr. Warden --
25 Mr. Warden, in terms of that -- your discussion of

1 management reserve, as I understood it, and you will
2 correct me if I'm wrong, the approved forecast for a
3 certain project would include a base cost escalation in
4 interest and contingency, but, going forward, if this
5 concept is employed, would not exclude -- not include the
6 management reserve. Do I have that concept correct, sir?

7 MR. VINCE WARDEN: May or may not include
8 the management reserve, depending on whether management
9 makes the determination whether it's appropriate to
10 include it or not. So the management reserve, as --
11 using this as an example on pages -- on page 6,
12 management would review each of the items that are listed
13 there and make a determination as to whether or not any
14 of them should be included within the -- within the
15 estimate.

16 MR. BYRON WILLIAMS: And in the event
17 that they're not included in the estimate, sir, what's
18 the consequence? Once has a notional management reserve
19 that's --

20 MR. VINCE WARDEN: Well, the -- the
21 process, I expect, would be -- is that the items that may
22 have been excluded from the capital expenditure forecast
23 would be reviewed on a regular basis. So the management
24 reserve items, items that are listed within the
25 management reserve, could be added or potentially

1 subtracted at any time.

2 MR. BYRON WILLIAMS: And a -- assuming
3 that they're not included into the estimates, am I
4 correct in suggesting that they would not be included in
5 the rates, the proposed rates?

6 MR. VINCE WARDEN: Well, the proposed
7 rates? That's right. The -- what's included in the
8 proposed rates is only the approved capital expenditure
9 forecast, items that are approved within the capital
10 expenditure forecast.

11

12 (BRIEF PAUSE)

13

14 MR. BYRON WILLIAMS: Thank you for -- for
15 that, Mr. Warden. That was very interesting, almost as
16 interesting as fish ladders.

17 I wonder if I could turn you back to the
18 cover page of this document, PUB Exhibit 19.

19 THE CHAIRPERSON: I think we'll take the
20 break right now. Thanks.

21

22 --- Upon recessing at 10:46 a.m.

23 --- Upon resuming at 11:05 a.m.

24

25 THE CHAIRPERSON: Okay, folks, time's a

1 MR. BYRON WILLIAMS: And, Mr. Warden, I
2 guess when -- when you're going back to check to see
3 whether the -- the management reserve was included in the
4 \$3.9 million -- this \$3.9 billion base, I wonder as you
5 do so if I could ask you to check whether the total
6 amount was included, any amount was in -- included, or
7 some portion of it.

8 MR. BYRON WILLIAMS: Yes, we'll do that.

9
10 --- UNDERTAKING NO. 112: Manitoba Hydro to indicate
11 what portion, if any, of the
12 management reserve was
13 included in the \$3.9 billion
14 base

15
16 CONTINUED BY MR. BYRON WILLIAMS:

17 MR. BYRON WILLIAMS: Turning to the front
18 page still of this document, PUB-19, so this is the cover
19 page, sir. Do you have that?

20 MR. VINCE WARDEN: I do.

21 MR. BYRON WILLIAMS: And there is a box
22 in the -- on the right-hand side of -- of this document
23 about a third of the way down, and towards the bo -- just
24 one (1) second. Towards the bottom of that box you'll
25 see a heading, Risk -- Risk Matrix. Do you see that, Mr.

1 Warden?

2 MR. VINCE WARDEN: Yes.

3 MR. BYRON WILLIAMS: And you see that
4 this particular project is classified as having a Tier 2
5 risk matrix with nine hundred and fifty (950) points.

6 Is that right, sir?

7 MR. VINCE WARDEN: That's what it says
8 here, yes.

9 MR. BYRON WILLIAMS: And I wonder if you
10 can explain the reference to Tier 2. How many tiers of
11 risk are there, sir?

12

13 (BRIEF PAUSE)

14

15 MR. VINCE WARDEN: Yeah. No, I'm sorry,
16 I don't have the answer to that, unless anybody else on
17 the panel does. But, no, this would be something that's
18 used within the divisions for -- for ranking their --
19 their estimates, but I don't have personal know --
20 knowledge of that.

21 MR. BYRON WILLIAMS: And it looks like
22 your -- your other panel members are not prepared to
23 assist you on that either, Mr. Warden.

24 MR. VINCE WARDEN: No, nobody on the
25 panel has information on that, Mr. Williams.

1 MR. BYRON WILLIAMS: And -- and, Mr.
2 Warden, just so you know, thi -- this risk -- this same
3 ranking appears on the approved document, so I wonder if
4 for this particular business unit if you could provide an
5 explanation of the risk matrix and how the calculation of
6 nine hundred and fifty (950) points was derived, and an
7 explanation of where Tier 2 fits within the broader spec
8 -- so -- spectrum of risk for this particular unit, sir?

9 MR. VINCE WARDEN: Okay, we can do that.

10

11 --- UNDERTAKING NO. 113: Manitoba Hydro to provide an
12 explanation of the risk
13 matrix and how the
14 calculation of nine hundred
15 and fifty (950) points was
16 derived, and an explanation
17 of where Tier 2 fits within
18 the broader spectrum of risk
19 for this particular unit, to
20 get a greater sense of how
21 many tiers of risk, which is
22 the highest, how is the tier
23 of risk determined, and what
24 is the source of the nine
25 hundred and fifty (950)

1 points

2

3 CONTINUED BY MR. BYRON WILLIAMS:

4 MR. BYRON WILLIAMS: And just for greater
5 specificity, Mr. Warden, I'm trying to get a greater
6 sense of how many tiers of risk, which is the highest,
7 how is the tier of risk determined, and what is the
8 source of the nine hundred and fifty (950) points.

9 You'll undertake to do that, sir?

10 MR. VINCE WARDEN: Yes.

11 MR. BYRON WILLIAMS: It would be one (1)
12 undertaking, yes. Mr. Warden, if I look to other major
13 projects such as Conawapa or Keeyask, would their
14 particular department generate some sort of calculation
15 of the risk matrix as well, sir?

16 MR. VINCE WARDEN: I expect so, Mr.
17 Williams. It's not something that I personally focus on,
18 but I expect they would do -- follow a similar process.

19 MR. BYRON WILLIAMS: Okay. I'll come to
20 a couple more questions about that in -- in just a second
21 then. Turning -- and I do apologize for making you flip
22 through this document, but turning back to page 6 of 7 of
23 Exhibit 19, Mr. Warden, and this is under Management
24 Reserve, not necessarily properly under that heading, but
25 you'll see a reference towards the bottom of that box to

1 some of the schedule-related risks associated with
2 meeting an October 27 -- 2017 in-service. Do you see
3 that, sir?

4 MR. VINCE WARDEN: Yes, I do.

5 MR. BYRON WILLIAMS: And this document
6 suggests that:

7 "The detailed route selection must be
8 finalized by December 2010."

9 Do you see that as well, sir?

10 MR. VINCE WARDEN: Yes.

11 MR. BYRON WILLIAMS: And can you advise -
12 - to your understanding, is the detailed route selection
13 completed, sir?

14 MR. VINCE WARDEN: Well, the route
15 selection is completed. Detailed, there are still some
16 details yet to finalize with respect to route selection.
17 But essentially, the route selection is -- is finalized.

18 MR. ROBERT MAYER: The last time I looked
19 at that, Mr. Warden, there were three (3) and there was
20 the preferred and two (2) alternatives. Has there been a
21 selection between those or is the preferred to be assumed
22 and therefore it's detailed?

23 MR. VINCE WARDEN: Well, the focus, Mr.
24 Mayer, has been on the preferred. There are some land
25 owner issues yet to resolve. So there may be some minor

1 changes, but what stage that is at exactly at this point
2 in time, I'm not 100 percent sure.

3

4 CONTINUED BY MR. BYRON WILLIAMS:

5 MR. BYRON WILLIAMS: There's also a -- a
6 reference to an environmental licence must be received by
7 September 2012. Do you see that, Mr. Warden?

8 MR. VINCE WARDEN: Yes, I do.

9 MR. BYRON WILLIAMS: And at a high level,
10 how are we doing on that?

11 MR. VINCE WARDEN: It is my understanding
12 that we are still targeting that date and that date is
13 attainable.

14 MR. ROBERT MAYER: Has an application
15 been filed?

16

17 (BRIEF PAUSE)

18

19 MR. VINCE WARDEN: Again, we'd have to
20 check that for sure, Mr. Mayer. If -- if that's
21 important, we can find out.

22 MR. ROBERT MAYER: Well, Mr. Warden, if I
23 recall correctly, transmission lines are optional as to
24 whether a public hearing will be held. My last
25 involvement with the Clean Environment Commission, you'll

1 recall how long it took to get approval for Wuskwatim
2 licence. If the application hasn't yet been filed or if
3 the Minister -- I don't know whether any decision has
4 been made with respect to public hearings.

5 But if there's a public hearing, your
6 chances of getting a -- a decision from the Clean
7 Environment Commission by September, quite frankly, in my
8 opinion, is the square root of you know what.

9 MR. VINCE WARDEN: I know we are on a --
10 on a tight timeline to meet the 2017 in-service date, but
11 there's no reason at -- at this point that I'm aware of
12 that that date won't be met.

13

14 CONTINUED BY MR. BYRON WILLIAMS:

15 MR. BYRON WILLIAMS: And I thank you and
16 the -- you, Mr. Warden, and -- and the Vice-Chair for
17 that exchange.

18 To -- if -- if the 2000 -- September time
19 deadline is not met, that would no doubt have some impact
20 on the estimated capital costs associated with this
21 project, correct?

22 MR. VINCE WARDEN: Well, any day -- any
23 delay in the in-service date will have an impact on the
24 capital costs, yes, but again, to my knowledge, we're on
25 track towards achieving that 2017 in-service date.

1 development fund, and/or adverse --
2 adverse effects policies that may be
3 recommended for the complex."

4 Do you see that, sir?

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

6 MR. BYRON WILLIAMS: To -- to date, Mr.
7 Warden, are there any changes in the project scope, such
8 as the -- the three (3) set out here?

9 MR. VINCE WARDEN: I'm sorry, changes in
10 the project scope as set out in this document?

11 MR. BYRON WILLIAMS: Yes. This -- this
12 document outlines three (3) potential changes to the
13 scope --

14 MR. VINCE WARDEN: Oh, I -- I'm sorry --

15 MR. BYRON WILLIAMS: -- do you see that?

16 MR. VINCE WARDEN: -- yes, I do. Yes.

17 So you're --

18 MR. BYRON WILLIAMS: Have any of those
19 three (3) -- are they -- have any of those three (3)
20 changes been implemented, or are they being actively
21 considered at this point in time, sir?

22 MR. VINCE WARDEN: Well, there have been
23 some technical changes related to the design of the
24 transmission line, and -- and converter stations for that
25 matter, but they've had the -- well, I'll back up. The -

1 - all those -- any changes that there have been made to
2 scope have been reflected in the updated CPJ that's been
3 filed this morning.

4 MR. BYRON WILLIAMS: Thank you for that.
5 And are there any changes of this nature that are set out
6 in this project scope on this document, are there any
7 over and above those that have been set out in the CPJ
8 that are currently under active consideration?

9

10 (BRIEF PAUSE)

11

12 MR. VINCE WARDEN: Well, the project
13 scope has been defined -- has been updated, and is
14 reflected in the CPJ that was filed this morning. That's
15 the best answer I can give you on that, Mr. Williams.

16 MR. BYRON WILLIAMS: Fair enough, and for
17 -- and -- and just for further clarity, for example,
18 rating at 2,500 megawatts, that's not currently under --

19 MR. VINCE WARDEN: No. No --

20 MR. BYRON WILLIAMS: -- active
21 consideration.

22 MR. VINCE WARDEN: -- that -- that's not
23 currently part of the approved CPJ.

24 MR. BYRON WILLIAMS: And -- and that's
25 not under active consideration.

1 MR. VINCE WARDEN: I don't think it's
2 been entirely ruled out, but it's not part of the
3 approved CPJ at this time.

4 MR. BYRON WILLIAMS: And just for my
5 clients' edification, Mr. Warden, who is the authority to
6 determine a change in -- in scope? At what level does
7 that take place, sir?

8 MR. VINCE WARDEN: Well, if it was deemed
9 the right thing to do, it would originate within the
10 responsible division, would go through the process that
11 we've discussed earlier whereby a vice-president would
12 bring it forward to executive committee for -- for
13 approval. It would be considered there and, if approved,
14 taken forward to the board.

15 MR. BYRON WILLIAMS: Thank you for that.
16 I wonder if I could turn you now to CAC/MSOS Exhibit 17,
17 which is the news release that was provided by Manitoba
18 Hydro on March 31st, 2011. And, Mr. Warden, you might as
19 well have at hand as well the -- the res -- Hydro's
20 response to Undertaking 105, which is Exhibit MH-99. And
21 because I was running off of two (2) exhibit lists, I'm
22 looking for the exhibit, the press release, which is
23 CAC/MSOS Exhibit 17, as well as Hydro Exhibit 99, which
24 is their response to Undertaking 105.

25 Do you have both of those, Mr. Warden?

1 MR. VINCE WARDEN: Yes, I do.

2 MR. BYRON WILLIAMS: And, Mr. Warden, I
3 realize I have a more complete document in Exhibit fif --
4 Exhibit of Hydro 99, but I am going to take you for a few
5 moments through the -- the press release and -- and ask
6 some questions about that.

7 I would be correct in suggesting to you,
8 Mr. Warden, that the most recent hydro-electric --
9 Manitoba Hydro-Electric board approved estimate of the
10 projected costs of Bipole 3 is 3.28 billion? Would that
11 be right?

12 MR. VINCE WARDEN: Yes.

13 MR. BYRON WILLIAMS: And recall -- I'm
14 presuming that that figure -- let me -- let me try that
15 again. What year are the base dollars in? I'm presuming
16 they're 2009, but I wonder if you could clarify that for
17 me, sir.

18

19 (BRIEF PAUSE)

20

21 MR. VINCE WARDEN: Yes. The base dollars
22 have been updated from 2007 to 2010.

23

24 (BRIEF PAUSE)

25

1 MR. BYRON WILLIAMS: You're -- you're --
2 I just see you flipping, Mr. Warden. It's 2010, then?

3 MR. VINCE WARDEN: Yes. I was --

4 MR. BYRON WILLIAMS: I apologize for the
5 --

6 MR. VINCE WARDEN: I was -- I was
7 flipping to confirm that all of the estimates were
8 consistently 2007 to 2010, and -- and, yes, I -- I can --
9 I can confirm that.

10 MR. BYRON WILLIAMS: And, Mr. Warden,
11 I'll -- I'll come to the Exhibit 99 in just a second, but
12 if one refers to the press release, the -- the fourth
13 full -- full paragraph, the suggestion is -- the fourth
14 paragraph, sir -- the suggestion is that the -- the
15 converter station aspect of the budget has been increased
16 by about 600 million over the latest approved 1.1 billion
17 estimate. Do you see that, sir?

18 MR. VINCE WARDEN: Yes, I do see that.

19 MR. BYRON WILLIAMS: And perhaps it's
20 explained in more detail in -- in Exhibit 99 of Hydro,
21 but -- but, Mr. Warden, you'll see, just a couple of
22 paragraphs down, that the HVDC converter stations are
23 listed at -- in the press release at 1.829 million?

24 MR. VINCE WARDEN: Yes.

25 MR. BYRON WILLIAMS: And -- and just at a

1 high level, what I'm looking for is an explanation of --
2 if I look at an increase in the order of 600 million over
3 1.1 billion, I get to about 1.7 billion, while the number
4 reported in total is 1.829 million. So I wonder if you
5 can clarify what the source of that is, sir.

6

7 (BRIEF PAUSE)

8

9 MR. VINCE WARDEN: Well, Mr. Williams,
10 there are a number of different components that we would
11 have to compile in order to come up with that -- that
12 number you're looking for, which -- which we can do if --
13 if you need that.

14 MR. BYRON WILLIAMS: Okay. And, Mr.
15 Warden, it's just -- just a simple question of
16 clarification. Like if I see in -- on your press release
17 you have the con -- converter station budget increasing
18 in the order of 600 million to 1 point (1.) -- over and
19 above the one point one (1.1) approved estimate. And
20 I'll suggest to you that that gets us to about 1.7
21 billion, right?

22 MR. VINCE WARDEN: Yes.

23 MR. BYRON WILLIAMS: And then if I see
24 two (2) paragraphs down I see the 1.829 million figure,
25 or 1.829 -- 1.829 billion figure, correct? And I -- and

1 I'm just trying to get at the different -- why it's one
2 point seven (1.7) in one (1) paragraph and one point
3 eight two nine (1.829) in the next.

4 MR. VINCE WARDEN: Well, it -- it -- the
5 press release does re -- refer to the project budget
6 being increased in the order of 600 million, so I don't
7 think it was intended to be precise in the press release.

8 MR. BYRON WILLIAMS: I'm going to move to
9 Exhibit 99 in a second. But, Mr. Warden, you'll recall
10 right near the start of our conversation we had a
11 discussion about the level of detail that was provided in
12 PUB Exhibit 18, Tab 70. That's that 2010 document, sir?

13 MR. VINCE WARDEN: Yes.

14 MR. BYRON WILLIAMS: And Hydro's already
15 under -- undertaken to provide a -- at that level of
16 detail, a breakdown of the -- of the two point two four
17 eight (2.248) figure that was set out in Addendum number
18 5. Do you recall that, sir?

19 MR. VINCE WARDEN: Yes, I do recall the
20 undertaking.

21 MR. BYRON WILLIAMS: Yes. And I'm just
22 wondering if Manitoba Hydro could undertake to provide a
23 breakdown of the most recent approved estimate, being
24 3.28 billion, at that level of detail as presented in PUB
25 Exhibit 18, Tab 70. Could you do that, sir?

1 MR. VINCE WARDEN: Yes. Well, Mr.
2 Williams, I am not 100 percent -- percent sure that it's
3 available in this format at this time. The \$3.280
4 billion estimate was derived partly with input from the
5 outside consultant. So whether this was reworked back to
6 this level of detail, I'm not absolutely certain. I
7 would have to confirm that. So the -- the \$2.2 billion
8 number should be no problem, but the three point two
9 eight zero (3.280) number probably not available, I would
10 say.

11 MR. BYRON WILLIAMS: It will be available
12 at some time, sir.

13 MR. VINCE WARDEN: It would be available
14 at some time, yes, but probably not timely enough for
15 your requirements. We -- we can -- we can certainly look
16 at that and do our best to put it together. I guess my
17 only -- my only caution was that it may not be readily
18 available at this time.

19 MR. BYRON WILLIAMS: And I thank you for
20 -- for that. So you will get back to me in terms of
21 whether a breakdown of the \$3.28 billion revised estimate
22 is available at the level of detail presented in PUB
23 Exhibit 18, Tab 70. That's right, sir?

24 MR. VINCE WARDEN: Yes, is -- is that the
25 way you wanted to handle it, I'll just get back to you,

1 or do you want to take it as undertaking. If it's not
2 available, I'll indicate as such?

3 MR. BYRON WILLIAMS: We'll take it as an
4 undertaking, sir. Thank you for that.

5 MR. VINCE WARDEN: Okay.

6

7 --- UNDERTAKING NO. 114: Manitoba Hydro to provide a
8 breakdown of the \$3.28
9 billion revised estimate is
10 available at the level of
11 detail presented in PUB
12 Exhibit 18, Tab 70

13

14 CONTINUED BY MR. BYRON WILLIAMS:

15 MR. BYRON WILLIAMS: Wouldn't one expect
16 that level of analysis, being the analysis set out in PUB
17 Exhibit 18, Tab 70, to have already been undertaken by
18 Manitoba Hydro prior to approving the revised budget,
19 sir?

20 MR. VINCE WARDEN: Well, Mr. Williams,
21 I'm not saying it's not -- the -- the major difference
22 between the -- the larger number that we just reviewed in
23 Exhibit number 19 and the budget that is now executive
24 committee-approved and board-approved relates to
25 contingency, so the -- the amount of the contingency was

1 the big factor that -- that changed.

2 So whether that contingency is reflected
3 in a document similar to this -- the reduced contingency
4 is reflected in a document similar to this, I'm just not
5 certain.

6 MR. BYRON WILLIAMS: Okay. And I'll come
7 to condin -- contingency in just one (1) second, Mr.
8 Warden. I've provided to you, through your -- your
9 counsel, a document that I think we've marked as CAC/MSOS
10 Exhibit number 18. Do you see that, Mr. Warden? It's a
11 table that has Bipole 3 Capital Cost Estimates.

12 MR. VINCE WARDEN: Yes, I do.

13 MR. BYRON WILLIAMS: And, Mr. Warden,
14 you've already told me your view that PUB Manitoba -- let
15 me back up a -- a second. Currently on this table across
16 the top we have four (4) headings, one (1) being the PUB
17 Manitoba Hydro 1-59 estimate. Do you see that, sir?

18 MR. VINCE WARDEN: Yes.

19 MR. BYRON WILLIAMS: Secondly being
20 numbers from CEF 10-1. Do you see that?

21 MR. VINCE WARDEN: I do.

22 MR. BYRON WILLIAMS: And third we've --
23 we've mislabeled this as the 2009 CPJ addendum, and I
24 wonder if we could change that label to Not Approved, you
25 know, Mr. Warden, just out of fairness to Manitoba Hydro.

1 Do you see that, though?

2 MR. VINCE WARDEN: Yes, I do.

3 MR. BYRON WILLIAMS: And finally, we see
4 the new March 31st, 2011 costs. Do you see that column
5 as well, sir?

6 MR. VINCE WARDEN: Yes.

7 MR. BYRON WILLIAMS: And, Mr. Warden,
8 you've already told me that in -- in terms of the two (2)
9 breakdowns of the \$2.248 billion, you prefer the estimate
10 set out on PUB Manitoba Hydro 1-59, you though it was
11 more current. That was your evidence earlier this
12 morning? Do you recall that?

13 MR. VINCE WARDEN: Yes, I do.

14 MR. BYRON WILLIAMS: So I'm -- I'm going
15 to 'X' out the CEF 10-1, save us a bit of work --

16 MR. VINCE WARDEN: Okay.

17 MR. BYRON WILLIAMS: -- I hope, in terms
18 of this. And, Mr. Warden, you'll see what we've done on
19 the left-hand side of this table is put out -- set out an
20 estimate for Bipole 3 in a format similar to what was
21 presented in PUB Manitoba Hydro 1-59. Do you see that,
22 sir?

23 MR. VINCE WARDEN: Yes.

24 MR. BYRON WILLIAMS: And essentially
25 we've set out lines with the base cost, interest and

1 escalation, then a total. Do you see that, sir?

2 MR. VINCE WARDEN: Yes.

3 MR. BYRON WILLIAMS: And then we've set
4 out converters with the base cost, interest and
5 escalation, and total as well. Do you see that?

6 MR. VINCE WARDEN: Yes.

7 MR. BYRON WILLIAMS: And what we've -- be
8 -- because there's not a separate entry in PUB 1-59 for
9 northern collector lines we've -- that -- tho -- that
10 figure would be represented in the -- the line base
11 costs. Would that be right, sir?

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

13 MR. BYRON WILLIAMS: And what we've added
14 to the table at the bottom, you'll see is a -- a heading
15 called "Contingency," a heading called "Management
16 Reserve," and a heading called "Dollar of Base Year."

17 Do you see that, Mr. Warden?

18 MR. VINCE WARDEN: I do see that.

19 MR. BYRON WILLIAMS: And I wonder if we
20 could, for the purposes of comparison, if we could fill
21 out this table either right now through cross-examination
22 or by way of -- by way of undertaking.

23 Would you be able to do that, Mr. Warden?

24 MR. VINCE WARDEN: We would prefer to do
25 that by way of undertaking. I -- again, if I had my

1 preference, I'd rather not spend too much time on the
2 unapproved CPJ.

3 We -- we have a previously approved CPJ,
4 and we've gone to the new one (1). It would seem to be
5 more efficient, better use of our time to spend it
6 looking at the approved numbers, rather than the
7 unapproved, which really don't have any relevance now.

8 MR. BYRON WILLIAMS: Mr. -- Mr. Warden,
9 I'm going to ask you to bear with me. I've all -- we
10 will stroke out CEF 10-1, but I'm going to ask you to
11 undertake to fill out all three (3) columns, because
12 there may -- I'm going to suggest to you, there may be
13 some insight we might gain by looking at the contingency
14 and management reserve numbers.

15 Would you be prepared to go to that little
16 bit of additional ex -- effort with me, Mr. Warden,
17 recognizing that the 2009 one (1) was not approved?

18 MR. VINCE WARDEN: We can do that, Mr.
19 Williams. Just to confirm, are you implying by you --
20 the way you set out the schedule that the contingency is
21 over and above the three point nine point one (3.9.1)?

22 MR. BYRON WILLIAMS: We're -- we're
23 certainly not doing that, Mr. Warden.

24 MR. VINCE WARDEN: Okay.

25 MR. BYRON WILLIAMS: We broke it out

1 separately, especially because we weren't sure whether
2 the management reserve was in or -- in or out, and we
3 just wanted to -- and so Mr. Warden, certainly if you
4 wanted to rework the table to put contingency above, for
5 example. I -- I certainly leave that out -- open to you.

6 You've got the concept that we're trying
7 to -- to achieve, Mr. Warden?

8 MR. VINCE WARDEN: I do, and it might be
9 better if we're going to complete this table and discuss
10 this table, to have the contingency for the lines
11 separate from the converter stations, so --

12 MR. BYRON WILLIAMS: The level of detail,
13 Mr. Warden, certainly if Manitoba Hydro wishes to add
14 some, we're -- our clients are quite open to that. We're
15 seeking greater clarity here, sir, okay?

16 MR. VINCE WARDEN: Okay.

17 MR. BYRON WILLIAMS: So that's an
18 undertaking?

19 MR. VINCE WARDEN: Yes, it is.

20

21 --- UNDERTAKING NO. 115: Manitoba Hydro to fill in the
22 table provided in CAC/MSOS
23 Exhibit number 18 concerning
24 Bipole 3 Capital Cost
25 Estimates

1 CONTINUED BY MR. BYRON WILLIAMS:

2 MR. BYRON WILLIAMS: Mr. Warden, I am
3 going to come to Exhibit Hydro 99 in just a second, but I
4 do have a couple questions about your external
5 consultants.

6 You've -- and you have provided an
7 undertaking, Exhibit Manitoba Hydro 89, that sets out the
8 three (3) con -- external consultants engaged to provide
9 estimates of the Bipole 3 costs, sir. Do you see that?

10 MR. VINCE WARDEN: Yes, we provided the
11 names of the con -- external consultants.

12 MR. BYRON WILLIAMS: And I see one (1) is
13 Dr. Dr. Mohamed Rashwan, of Rashwan Consulting, is that
14 right?

15 MR. VINCE WARDEN: Yes.

16 MR. BYRON WILLIAMS: And according to
17 your press release, Dr. Rashwan led the independent panel
18 review, is that correct?

19 MR. VINCE WARDEN: That's my
20 understanding, yes.

21 MR. BYRON WILLIAMS: And a second
22 individual named is Mr. Lorden, and the third is Mr.
23 Railing, is that correct, sir?

24 MR. VINCE WARDEN: Correct.

25

1 (BRIEF PAUSE)

2

3 MR. BYRON WILLIAMS: In your discussion
4 with Mr. Peters from a couple weeks ago, I -- I believe
5 you made -- you -- you certainly were quite forthcoming
6 in indicating that some members of the bipole consulting
7 team had had prior experience working on projects with
8 Mr. -- with Manitoba Hydro. Would that be fair, or do
9 you recall that conversation?

10 MR. VINCE WARDEN: Sorry, would you just
11 repeat that question?

12 MR. BYRON WILLIAMS: Yes, and I'm
13 suggesting to you that in your conversation with Mr.
14 Peters of a couple weeks ago, you were -- you indicated
15 that some members of the consulting team had had a prior
16 relationship with Manitoba Hydro --

17 MR. VINCE WARDEN: Oh, yes.

18 MR. BYRON WILLIAMS: -- in one (1) form
19 or another.

20 MR. VINCE WARDEN: Yes, absolutely. Dr.
21 Rashwan has extensive experience with Manitoba Hydro.

22 MR. BYRON WILLIAMS: And he's indeed a
23 former employee of Manitoba Hydro.

24 Would that be correct, sir?

25 MR. VINCE WARDEN: He is, that's right.

1 MR. BYRON WILLIAMS: And he's also -- and
2 if you can -- would it also be your knowledge that he's
3 also the president of TransGrid Solutions, sir? Are you
4 aware of that?

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

7 MR. BYRON WILLIAMS: And apart from being
8 a former employee of Manitoba Hydro, has Dr. Rash --
9 Rashwan, either through -- in a personal capacity or
10 through TransGrid Solutions or Rashwan Consulting,
11 performed any additional consulting work for Manitoba
12 Hydro over the last five (5) years?

13 MR. VINCE WARDEN: Yes.

14 MR. BYRON WILLIAMS: And could you, at a
15 high level, detail the number of ass -- assignments and -
16 - and the total dollar value associated with them, sir?

17 MR. VINCE WARDEN: I don't have that
18 information readily available, Mr. Williams.

19 MR. ROBERT MAYER: What does "high level"
20 mean, Mr. Williams, in the question you asked?

21 MR. BYRON WILLIAMS: Mr. -- Mr. Mayer, I
22 wanted to just get some sense of had -- had there been a
23 frequent relationship with -- with Manitoba Hydro. The
24 question was not very well phrased, I'll accept that.

25

1 CONTINUED BY MR. BYRON WILLIAMS:

2 MR. BYRON WILLIAMS: Mr. Warden, it -- it
3 would be fair to say that Dr. Rashwan has -- has
4 undertaken a number of projects for Manitoba Hydro in
5 recent years?

6 MR. VINCE WARDEN: Yes.

7 MR. BYRON WILLIAMS: And how about Mr.
8 Lorden? Has he done as well?

9 MR. VINCE WARDEN: No, I'm not familiar
10 with Mr. Lorden or Mr. Railing. I assume that he's well
11 known to Dr. Rashwan, though, or both of the -- those
12 individuals.

13 MR. BYRON WILLIAMS: It would be accurate
14 to say that the independent panel was lead by a former
15 Manitoba Hydro employee who has had an ongoing business
16 relationship with Hydro through consulting contracts over
17 the past few years? Would that be fair, sir?

18 MR. VINCE WARDEN: Well, I -- I don't
19 know whether it's fair if it's implying that he may have
20 some kind of a vested interest. He's an extremely
21 competent, knowledgeable, highly trustworthy, world-
22 renowned expert in HVDC.

23 MR. BYRON WILLIAMS: Whether or not it's
24 fair, would it be accurate to say that?

25 MR. VINCE WARDEN: Accurate to say that

1 he's had a number of engagements with Manitoba Hydro over
2 the past number of years? Absolutely, yes. We rely on
3 his expertise for a number of projects.

4 MR. BYRON WILLIAMS: Mr. Warden, I want
5 to talk about the approval process for the revised
6 estimates that were presented on -- in Exhibit Manitoba
7 Hydro number 99. Just before I go there, in terms of PUB
8 Exhibit 19, which was the document that was ultimately
9 not approved by the executive committee, or not submitted
10 to the executive committee of Manitoba Hydro, in terms of
11 the approval process for that document, would I be
12 correct in saying to you it was prepared by the complex
13 owner, reviewed by department managers, recommended by
14 the division managers and by the VPs of transmission and
15 power supply?

16 Would that be appropriate for the PUB
17 Exhibit number 19, sir?

18 MR. VINCE WARDEN: Yes.

19 MR. BYRON WILLIAMS: And then -- it then
20 made its way to executive com -- committee or -- or at
21 least your office. That's right, sir?

22 MR. VINCE WARDEN: That's right.

23 MR. BYRON WILLIAMS: And based upon one
24 (1) of your other undertaking responses, being Exhibit
25 Manitoba Hydro number 98, Hydro indicates that that add -

1 - addendum was not brought to the attention of the audit
2 committee, though. That would be fair?

3 MR. VINCE WARDEN: That's right, and it -
4 - it wouldn't be normal to -- to do so.

5 MR. BYRON WILLIAMS: And -- and just in
6 terms of normal, it would be fair to say that before a --
7 a CPJ is signed off on, it would go up the ru -- the
8 ranks of Manitoba Hydro employees to the executive
9 committee, but that it would not be referred out to the
10 audit committee. Would that be fair, sir?

11 MR. VINCE WARDEN: That's right. The CPJ
12 is -- is the vehicle that's used for executive -- to
13 obtain executive committee approval of capital projects.

14 MR. BYRON WILLIAMS: Now, turning to
15 Exhibit Manitoba Hydro number 99, you'll agree that the
16 original undertaking was to file a copy of the signed
17 version of PUB Exhibit 19?

18 MR. VINCE WARDEN: Yes.

19 MR. BYRON WILLIAMS: And Manitoba Hydro
20 has not filed a copy of that signed version. Would that
21 be fair, sir?

22 MR. VINCE WARDEN: That's fair. Nothing
23 -- no particular reason other than the fact that it has
24 been superceded and just no value in doing so.

25 MR. ROBERT MAYER: There we go. Mis --

1 Mr. Warden, the documents that were filed in response to
2 that undertaking did not exist at the time the
3 undertaking was given. They are -- they -- they are,
4 therefore, not responsive to the undertaking by anybody's
5 stretch of the imagination. And I, for one, and I think
6 I'm joined with the Chair, want to see the original paper
7 trail that you told us about, I believe it was a
8 Wednesday, and we want to see the document, please.

9 MR. VINCE WARDEN: Mr. Mayer, we -- I can
10 certainly do that. But can I ask a question? For what
11 purpose?

12 MR. ROBERT MAYER: Mr. Warden, it was a
13 dramatic statement you made on Wednesday, and you advised
14 the Board of something a little different than what we'd
15 been told on Monday. You also mentioned that there --
16 the vice-presidents -- I think you mentioned that the two
17 (2) vice-presidents' signatures were on the document.
18 I'm trying to remember what the rest of it is because I
19 haven't gone back into the transcript, but it was a
20 document that was undertaken to be provided.

21 The Board, I think, wants to see it, and,
22 quite frankly, Mr. Warden, I don't honestly know why, but
23 we do. And, firstly, it's in a different -- although it
24 appears to be on the same format, we note that the three
25 (3) that have been filed are 'A', 'B', and 'C'. They've

1 now -- the -- the justification, the forms, are now three
2 (3) rather than one (1).

3 Instead of requiring the vice-president of
4 power supply and transmission on the document, power
5 supply, if I look at these correctly, the ones that have
6 been filed, 'A' and 'C', is the -- only has the signature
7 of the vice-president of transmission. 'B', which I
8 believe deals with the converter stations, only has the
9 signature of the vice-president in charge of power
10 supply.

11 There are bits and pieces of little
12 differences. I'd like to see the original document so we
13 can compare that to the document that was originally
14 "leaked" and the documents that have now been filed as
15 6A, 6B, and 6C.

16 MR. VINCE WARDEN: Well, certainly, Mr.
17 Mayer, we can do that. And with all respect, you do
18 refer to that as a dramatic statement. I simply made the
19 statement to -- to clear -- make sure the record was
20 clear. It was characterized otherwise in the press, but
21 I -- it was only to -- to ensure that this Board was
22 absolutely clear. I had a -- I -- I -- if I'd had have
23 said initially I didn't recall having seen that document,
24 that would have been accurate, but I was quite adamant
25 that I hadn't seen that document.

1 There were a num -- number of other things
2 going on at Hydro at the time, like a strike of the
3 Labour Union. And so, you know, I'm not apologizing for
4 that. I just wanted to -- I wanted to clarify the
5 record. If you'd like to see the paper trail, sure,
6 we'll provide it, but it's going to be very
7 underwhelming, I'm afraid.

8 MR. ROBERT MAYER: I certainly hope so.

9 MR. VINCE WARDEN: I can assure you.

10 MS. MARLA BOYD: Manitoba Hydro has
11 undertaken to file a signed copy of PUB Exhibit 19.

12

13 --- UNDERTAKING NO. 116: Manitoba Hydro to file a
14 signed copy of PUB Exhibit 19

15

16 CONTINUED BY MR. BYRON WILLIAMS:

17 MR. BYRON WILLIAMS: Mr. -- Mr. Warden,
18 just taking you through Exhibit Manitoba Hydro 99, sir,
19 and let's -- let's start with the Addendum number 06A.
20 Do you see that, sir? That would be the second page in.

21 MR. VINCE WARDEN: Yes, and maybe for --
22 just for further clarification of Mr. Mayer's comments,
23 it -- it does indicate that it -- or Mr. Mayer indicate -
24 - indicated it was only signed by one (1) VP. This VP is
25 responsible for transmission, the page you referred to.

1 The other vice-president is responsible for the converter
2 stations and he has signed that document. So that's the
3 reason for the split, just to be clear on that.

4 MR. BYRON WILLIAMS: And -- and certainly
5 to the Vice-Chair, I intend to get through all three (3).
6 If I may interrupt your conversation for just one (1)
7 second. Mr. Warden, the vice-president for this business
8 unit signed this document on March 30th, 2011.

9 Is that right, sir?

10 MR. VINCE WARDEN: Yes.

11 MR. BYRON WILLIAMS: And am I correct in
12 suggesting to you that this document had actually been
13 presented to audit committee of Manitoba Hydro before the
14 vice-president signed it? Is that correct, sir?

15 MR. VINCE WARDEN: Sorry, this document?

16 MR. BYRON WILLIAMS: Yes.

17 MR. VINCE WARDEN: No, no, that is --
18 that is not correct.

19 MR. BYRON WILLIAMS: Then -- then let me
20 back up. On -- on or about March 14th, 2011, the audit
21 committee was presented with -- with a document which
22 provided the preliminary conclusions of the external
23 consultants engaged to review the Bipole 3 estimates. Is
24 that right, sir?

25 MR. VINCE WARDEN: Yes, that is right.

1 MR. BYRON WILLIAMS: And on or about
2 March 27th, the hydro-electric -- let me back up. In
3 terms of the external consultant estimates, what happened
4 to them after that in terms of the corporate process,
5 sir?

6

7 (BRIEF PAUSE)

8

9 MR. VINCE WARDEN: Sorry, I just wanted
10 to confirm the date of the board meeting. It was the
11 24th actually, not the 27th. The 24th, right? Thursday,
12 yeah. Yeah.

13 MR. BYRON WILLIAMS: And what --

14 MR. VINCE WARDEN: Yes, the Board --
15 sorry, so between -- your question, I think, relates to
16 what happened to the documents between the audit
17 committee date of the 14th and the board meeting date of
18 the 24th I believe?

19 MR. BYRON WILLIAMS: Yes, sir.

20 MR. VINCE WARDEN: Well, there were a
21 number of discussions that were taking place internally.
22 Certainly the audit committee was apprised of the
23 situation and a number of discussions were taking place
24 between the president, the vice-president of
25 transmission, the vice-president of power supply, and I

1 believe the consultants may have been involved in some of
2 those discussions. I wasn't personally involved.

3 MR. BYRON WILLIAMS: When would the vice-
4 president of transmission have reviewed the estimates for
5 -- prepared by the external consultants?

6 MR. VINCE WARDEN: Well, the document
7 that was prepared by the external consultants related to
8 the converter stations only. They -- they weren't --
9 they didn't have an interest -- or at least they -- they
10 did not review the transmission line estimates.

11 MR. BYRON WILLIAMS: And -- okay, then
12 let's stay with the external consultants for one (1)
13 second. The -- the report that was present to -- on
14 March 24th, and did you say that was to the board or to
15 the executive committee, sir?

16 MR. VINCE WARDEN: To the board, to the
17 board on -- on March 24th.

18 MR. BYRON WILLIAMS: And was that a -- a
19 report prepared by the external consultants?

20 MR. VINCE WARDEN: Yes, it was.

21 MR. BYRON WILLIAMS: And is that document
22 on the record of -- of this proceeding?

23 MR. VINCE WARDEN: No, it's not.

24 MR. BYRON WILLIAMS: And are -- is
25 Manitoba Hydro prepared to file it on the record of this

1 hearing?

2 MR. VINCE WARDEN: No, prefer not to.
3 There is information in -- in there that's somewhat
4 confidential, and could affect the bids that we receive
5 on -- on those contracts that are to be let, so -- so,
6 no, we would not be prepared to file that document.

7 MR. BYRON WILLIAMS: I'll reflect on
8 that. Thank you for that. Now, in terms of this -- this
9 document being Addendum number 06A, if I turn to page 2
10 of 4, I see a contingency of about \$50 million. Is that
11 right, sir? Forty-nine point three five three (\$49.353)
12 million dollars.

13 Sorry, Mr. Warden, I'm directing your
14 attention to project risk analysis towards the bottom of
15 Addendum 6A. Do you see that?

16

17 (BRIEF PAUSE)

18

19 MR. VINCE WARDEN: And you were referring
20 to the contingency amount of --

21 MR. BYRON WILLIAMS: I'll ask you to --

22 MR. VINCE WARDEN: -- 4 -- 49.353
23 million?

24 MR. BYRON WILLIAMS: I'll ask you to
25 confirm that that was the contingency amount, sir.

1 MR. VINCE WARDEN: Yes.

2 MR. BYRON WILLIAMS: And this was -- this
3 addendum is related to the transmission line, correct?

4 MR. VINCE WARDEN: That's right.

5 MR. BYRON WILLIAMS: And if -- if I were
6 to compare this document to the unimproved -- unapproved
7 document from Exhibit 19, the contingency for the
8 transmission line would have been in the range of \$143
9 million? Would that be correct, subject to check?

10 MR. VINCE WARDEN: It -- it might be of
11 value for us to file the undertaking that you requested,
12 that lines up the -- the components of -- of the
13 estimates, Mr. Williams, so we're not flipping back and
14 forth. So we would have the contingency from the
15 original -- or from -- sorry -- from the earlier estimate
16 compared to the current approved estimate.

17 MR. BYRON WILLIAMS: Would you be able to
18 do that -- when would you be able to do that, sir?

19

20 (BRIEF PAUSE)

21

22 MR. VINCE WARDEN: It -- it should be
23 relatively straightforward, Mr. Williams, so we should be
24 able to do that over the lunch --

25 MR. BYRON WILLIAMS: Okay.

1 MR. VINCE WARDEN: -- break.

2 MR. BYRON WILLIAMS: Thank you.

3

4 --- UNDERTAKING NO. 117: Manitoba Hydro to compare the
5 components from the earlier
6 estimate to the current
7 approved estimate

8

9 MR. BYRON WILLIAMS: And Mr. Chairman, I
10 think it would be a convenient time to give Mr. Warden
11 and myself a break.

12 THE CHAIRPERSON: Very good, sir. See
13 you back at 1:15.

14

15 --- Upon recessing at 11:58 a.m.

16 --- Upon resuming at 1:26 p.m.

17

18 THE CHAIRPERSON: Okay. Welcome back,
19 everyone. Manitoba Hydro has distributed that signed
20 document that the Vice-Chair was calling for. Could we
21 just call it 19A? It might make some sense.

22 MS. MARLA BOYD: Certainly, if that's the
23 -- the most efficient, from your perspective, that's
24 fine.

25 THE CHAIRPERSON: Keep -- keeps them both

1 together.

2

3 --- EXHIBIT NO. PUB-19A: Signed document

4

5 THE CHAIRPERSON: Mr. Williams...?

6 MS. MARLA BOYD: Sorry, Mr. Chairman,
7 there was one (1) more document circulated at the same
8 time, which is the details of Mr. Williams' chart that he
9 asked be filled out. So that's -- that's also been
10 distributed.

11 I -- I hope you all have it. It's a
12 separate one (1) page. It's headed, "Bipole 3 Capital
13 Costs Estimates." Yes, thank you. Perhaps you'd like
14 that marked as an exhibit, as well.

15 THE CHAIRPERSON: Please. Do you know
16 what number it would be?

17

18 (BRIEF PAUSE)

19

20 MS. MARLA BOYD: Exhibit 100 --

21 THE CHAIRPERSON: One-o-seven (107) ?

22 MS. MARLA BOYD: yeah, thank you.

23 THE CHAIRPERSON: One hundred and seven
24 (107).

25

1 --- EXHIBIT NO. MH-107: Chart, headed "Bipole 3
2 Capital Costs Estimates"
3

4 THE CHAIRPERSON: We're into the triple
5 digits now. Okay.
6

7 (BRIEF PAUSE)
8

9 MS. MARLA BOYD: Vice-Chair Mayer, that
10 would be -- PUB-19A would be in response to your inquiry
11 this morning, so I trust that will satisfy the -- the
12 inquiry.

13 MR. ROBERT MAYER: Yes, thank you.

14 THE CHAIRPERSON: Okay, Mr. Williams,
15 whenever you're ready.
16

17 (BRIEF PAUSE)
18

19 MR. VINCE WARDEN: Maybe, Mr. Williams,
20 just before you start, if I could clarify a couple of
21 things on -- on Exhibit number 107 that was just
22 distributed.

23 First of all, it turns out in looking into
24 this that the CEF-10 was the latter of the undertaking --
25 or sorry, the IR. So IR-59 preceded CEF-10, so CEF-10 is

1 -- is the most recent estimate of costs, or -- or a split
2 of costs, that is, between -- between those two (2).

3 So we modified your schedule by -- rather
4 than dropping CEF-10, we dropped PUB/Manitoba Hydro-1 --
5 Round One-59. There's that clarification.

6 The other clarification is that in no case
7 is the management reserve included with any of the
8 estimates.

9

10 (BRIEF PAUSE)

11

12 MR. VINCE WARDEN: And maybe just for
13 further clarification, that last column, new March 31st,
14 2011, rather than costs that should be estimate.

15 MR. BYRON WILLIAMS: Yes, thank you, Mr.
16 Chairman, and -- and good afternoon, as well, to the
17 Vice-Chair.

18 Just in terms of timing for this
19 afternoon, Mr. Chair, I -- I probably have half an hour
20 or so more on -- on bipole, and then I -- I intend to
21 move to finance issues. I just had some discussions with
22 My Friends in terms of exhibits, and so I would ask for
23 an opportunity to briefly stand down once the Bipole
24 cross is done, just to make sure that I have all my ducks
25 in a row, if I can throw a -- a cliché at you.

1 THE CHAIRPERSON: That's fine.

2

3 CONTINUED BY MR. BYRON WILLIAMS:

4 MR. BYRON WILLIAMS: Mr. -- Mr. Warden,
5 the -- thank you for providing Manitoba Hydro 107. As I
6 understand it, first of all, in terms of the management
7 reserve which was referenced in the C -- 2009 CPJ
8 Addendum of 334 million, first of all, you recall that
9 discussion, that that was the -- the total that was
10 referenced in that reserve?

11 MR. VINCE WARDEN: Yes, I do.

12 MR. BYRON WILLIAMS: And just to make
13 sure I have your evidence on -- on the record, that was
14 not included in the three point nine five three (3.953)
15 estimate?

16 MR. VINCE WARDEN: That's correct.

17 MR. BYRON WILLIAMS: Thank you. And in
18 terms of the new March 31st, 2011 estimate, you've
19 confirmed as well that there was no management reserve
20 included in that number, correct?

21 MR. VINCE WARDEN: Correct.

22 MR. BYRON WILLIAMS: Is there still a
23 management reserve in existence, sir?

24 MR. VINCE WARDEN: With respect to the
25 Bipole, no.

1 MR. BYRON WILLIAMS: If one was
2 searching, and recognizing that the 2009 document was not
3 approved, is -- if one was searching for an explanation
4 of how a management reserve could move from 334 million
5 to zero, what would it be, sir?

6 MR. VINCE WARDEN: Well, I think it's the
7 fact that, with the assistance of the consultants, we
8 were able to obtain a lot more current intelligence about
9 what's going on the marketplace right now with respect to
10 the supply of converter station equipment. So we have a
11 -- a lot more confidence now in -- in the estimate that
12 we've submitted this morning, than previous estimates.

13 MR. BYRON WILLIAMS: Is there -- is there
14 something about the skill set of the external consultants
15 which leaves them better positioned than Manitoba Hydro's
16 internal staff to arrive at those estimates, sir?

17 MR. VINCE WARDEN: No. I should make it
18 very clear that the -- the estimate that we have before
19 the Board now, the updated estimate, was -- was with the
20 input of the external consultants, it's still very much
21 based on Manitoba Hydro's estimate, so is Manitoba
22 Hydro's document. The skill sets of Manitoba Hydro
23 people was supplemented with the use of consultants, but
24 in no way displaces that skill set. So the -- the
25 consultants re -- relied very much on the compilation of

1 information and estimates prepared by Manitoba Hydro.

2 MR. BYRON WILLIAMS: Thank you for that.

3 And if I -- if I try to quickly sum the contingencies
4 captured in the new March 31st, 2011 estimate, you'd
5 agree that if I added the contingency estimate of 49.3
6 million under transmission, the contingency estimate
7 under -- for converters of 138.9 million and the
8 contingency estimate of 17.2 million for converter --
9 collector lines, you'd get a total of about \$205 million.

10 Would that be correct, sir, subject to
11 check?

12 MR. VINCE WARDEN: Yes.

13 MR. BYRON WILLIAMS: And I believe you
14 referenced earlier today that a -- a material difference
15 between the not-approved CPJ addendum of 2009 and the new
16 estimate is in terms of contingencies, correct?

17 MR. VINCE WARDEN: Yes.

18 MR. BYRON WILLIAMS: And in essence what
19 you're telling us is that the contingency -- if we were
20 to compare the two (2) lines, the contingency for the new
21 March 31st, 2011 estimate in the range of \$205 million is
22 about \$320 million less than the contingency in -- in the
23 addendum of 2009, which was not approved, correct?

24

25 (BRIEF PAUSE)

1 MR. VINCE WARDEN: Mr. Williams, that's
2 what this schedule does show; however, I believe there
3 were also some contingencies built into base costs which
4 are also reduced in the -- in the current estimate.

5 MR. BYRON WILLIAMS: Okay. Thank you.
6 I'm going to come back to contingencies in -- in just one
7 (1) second, Mr. Warden. You -- you indicated this
8 morning that it was the -- the focus of the external
9 consultants was on the convertor issue.

10 Is that right, sir?

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

12 MR. BYRON WILLIAMS: And that they made a
13 presentation to the Audit Committee on or about March
14 14th, 2011, correct?

15 MR. VINCE WARDEN: It was on March 14th,
16 yes.

17 MR. BYRON WILLIAMS: And from your -- our
18 prior discussion just a couple minutes ago, I take it
19 then that power supply -- the staff at power supply would
20 have re -- reviewed the -- the estimates of the external
21 consultants prior to it -- to it being presented to the
22 external audit committee?

23 MR. VINCE WARDEN: Yes.

24 MR. BYRON WILLIAMS: Okay.

25 MR. VINCE WARDEN: To be clear, the --

1 that's the audit committee of the Board, yeah.

2

3

(BRIEF PAUSE)

4

5

MR. BYRON WILLIAMS: Mr. Warden, in terms
6 of Manitoba Hydro 107, the exhibit, the -- the difference
7 between the CPJ addendum that was not approved and the
8 new March 31st, 2011 estimate is a bit less than \$700
9 million.

10

Is that right, sir?

11

MR. VINCE WARDEN: Yes.

12

MR. BYRON WILLIAMS: And acknowledging
13 that the CPJ addendum was not approved at a -- are you
14 able to articulate, apart from the difference in
15 contingencies, some of the other major differences in the
16 two (2) estimates, sir?

17

MR. VINCE WARDEN: Well, if we refer to
18 the Exhibit -- Manitoba Hydro Exhibit number 99, page 1
19 of 4, and the transmission line towards the bottom of the
20 page, par -- Item number A, it refers to a base increase
21 of 140 million -- 140.7 million as a redu -- partly, at
22 least, as a par -- result of a design change from double
23 to triple conductor. So that was one (1) of the changes
24 that did occur between the two (2) estimates; that is
25 between the approved -- two (2) approved estimates.

1 With respect to -- so that was the major
2 change on the transmission line. With respect to the
3 converter stations, there wasn't a major difference
4 between the base estimates, the -- the -- other than --
5 other than contingency. So contingency made up the major
6 difference between the -- the two (2) estimates that we
7 have before us, or -- or at least the current approved
8 estimate compared to the previous estimate. So, the
9 major difference was in the -- in the contingency.

10 Sorry, you know, maybe I should back up.
11 The -- if we're looking at the -- and it does get a
12 little bit confusing, when we -- when we look at the
13 higher estimate between the 2009 CPJ that wasn't approved
14 and the current approved estimate, the major difference
15 there was because of reduced contingency on the convertor
16 stations.

17 MR. BYRON WILLIAMS: And another
18 significant difference flowing out of that would be
19 reduced interest in es -- escalation.

20 Would that be fair, sir?

21 MR. VINCE WARDEN: Yes, reduced interest
22 in escalation because of the updated base year,
23 primarily.

24 MR. BYRON WILLIAMS: Okay. Thank you for
25 that. Turn, if you would, to Manitoba Hydro Exhibit 99.

1 And that -- that is the three (3) CPJs brought into
2 effect on March 31st, 2011. And if I turn to page 2 of 4
3 under 6A -- so that's on transmission lines -- and under
4 -- Mr. Warden, do you have that?

5 MR. VINCE WARDEN: I do, yes.

6 MR. BYRON WILLIAMS: And under project
7 risk analysis, we see a contingency of -- as also stated
8 in the table of \$49.3 million, correct?

9 MR. VINCE WARDEN: Yes.

10 MR. BYRON WILLIAMS: And that's
11 approximately 6 percent of the base estimate, correct?

12 MR. VINCE WARDEN: Yes.

13 MR. BYRON WILLIAMS: And I guess at a
14 high level, Mr. Warden, does that leave Manitoba Hydro a
15 bit thin in terms of being only 6 percent of the base
16 estimate, sir?

17

18 (BRIEF PAUSE)

19

20 MR. BYRON WILLIAMS: You're eight (8)
21 years out.

22 MR. VINCE WARDEN: Mr. Williams, I
23 wouldn't -- I really wouldn't be qualified to answer that
24 question with any kind of authority. I -- 6 percent, is
25 it thin? We do know that the contracts, even though

1 we're -- the in-service date is eight (8) years out, or
2 thereabouts -- no, we're not talking eight (8) years,
3 actually. It would -- we're 2017 --

4 MR. BYRON WILLIAMS: Six (6).

5 MR. VINCE WARDEN: Six (6) years, yes.
6 So even though we're six (6) years out, those contracts
7 will be let well before that. And once -- one (1) of the
8 -- one (1) of the recommendations of the consultants
9 actually was that a lot of these projects now, especially
10 if we're back to converter stations, but -- but it
11 applies to transmission lines as well, is a lot of these
12 projects today are being let on a turnkey basis. And
13 that is, the contracts are let early in -- in the process
14 and a lot of the risk is taken out of the contracts.

15 So that's part of the reason why, you
16 know, although it may appear low, 6 percent, given that
17 approach, it -- it may very well be on the high side.

18 MR. BYRON WILLIAMS: Turning to 6A -- 6B,
19 excuse me, which is the addendum for the converters, and
20 I'll direct your attention to page 3 of 4 and project
21 risk analysis as well, sir.

22 MR. VINCE WARDEN: Yes.

23 MR. BYRON WILLIAMS: And we see that the
24 contingency of \$138.9 million is about 11 percent of the
25 base estimate.

1 Is that right, sir?

2 MR. VINCE WARDEN: Yes.

3 MR. BYRON WILLIAMS: And for the Riel
4 Converter Station, going down a couple lines, we see that
5 it's only 11 percent of the base estimate.

6 Would that be right?

7 MR. VINCE WARDEN: Yes.

8 MR. BYRON WILLIAMS: And that would
9 contrast with the contingency in PUB Exhibit 19A,
10 somewhere in the range of 39 percent, correct, sir?

11 MR. VINCE WARDEN: Yes, and that --
12 that's what I indicated earlier. The main change was in
13 the -- in the amount -- the level of the contingency.

14 MR. BYRON WILLIAMS: Now, there's an
15 interesting couple of sentences at the bottom of page 3
16 of 4. I'll read them to you and you can confirm that
17 I've read them correctly.

18 "The assumed use of new technology in
19 the form of voltage source converters
20 at both the Keewatinoow and Riel
21 Converter Station represents an
22 additional risk factor. Confirmation
23 or otherwise of the feasibility of this
24 technology is expected by late 2011."

25 Do you see that, sir?

1 MR. VINCE WARDEN: Yes.

2 MR. BYRON WILLIAMS: First of all, can
3 you explain what is meant by these two (2) sentences?

4 MR. VINCE WARDEN: Well, it is a
5 technical issue, and perhaps one (1) of the other members
6 on the panel can explain that more readily than I can,
7 but the discussion was -- was around this technology,
8 such that would allow a lower cost estimate than what was
9 previously in the -- in the forecast.

10 So, you know, it's -- it's very technical.
11 It's something that I wouldn't be able to speak to much
12 more than that. But it -- it does represent an
13 opportunity, and it was recognized by the people at
14 Manitoba Hydro that this was an opportunity to re --
15 reduce costs.

16 MR. BYRON WILLIAMS: Mr. Cormie, I see
17 you're just aching to touch the mic.

18 MR. DAVID CORMIE: Mr. Williams, the --
19 you'll notice in the "potential risks," just above, it
20 says:

21 "The potential requirement for
22 synchronous condensers exists at Riel."

23 And through the use of voltage source
24 converter technology, we can avoid the installation of
25 synchronous condensers, approximately \$400 million for

1 those machines. We have synchronous condensers at the
2 existing converter stations, and if we changed the type
3 of converter to a voltage source converter, then we'll
4 avoid having to purchase that equipment.

5 And this was another of the results of the
6 independent consultants saying that this is a -- an area
7 where Manitoba Hydro could save a significant amount of
8 money, and but we need to confirm that.

9 MR. BYRON WILLIAMS: And just so I
10 understand, that the voltage -- let me back up. Current
11 technology in -- in other converters would be synchronous
12 condensers.

13 Is that right, sir?

14 MR. DAVID CORMIE: No, the existing
15 converter technology requires additional equipment called
16 synchronous condensers. If we use voltage source
17 converters in the -- the new converter stations, we don't
18 need to have the synchronous condensers installed at --
19 at Riel, and that results in a significant cost saving.

20 MR. BYRON WILLIAMS: And in terms of the
21 ability, in terms of the technological feasibility of the
22 voltage source technology, that is not currently
23 confirmed, is that right, sir?

24 MR. DAVID CORMIE: It's a technology that
25 is used throughout the world. The confirmation is

1 whether at this -- at this voltage whether it can be --
2 can be applied. And the independent consultants have
3 indicated that it can be, but we're -- we're doing the
4 confirmation of that, and we'll expect by the end of this
5 year to know whether that will actually be the design
6 that we go with.

7 MR. BYRON WILLIAMS: Is the current
8 estimate of \$3.28 billion based upon the assumption that
9 the voltage source technology is feasible at -- you know,
10 for these par -- particular converters?

11 MR. DAVID CORMIE: Yes, it is.

12 MR. BYRON WILLIAMS: And in the event
13 that it is not, the estimated cost consequences would be
14 \$400 million?

15 MR. DAVID CORMIE: I -- I'm not sure if
16 that's the entire cost consequence, but I understand that
17 use of this technology avoids the use -- installation of
18 synchronous condensers, and probably all the switching
19 gear associated with that. And, yeah, so I don't know
20 what the total amount is, but our consultants have
21 confirmed that this is a technology that Hydro should be
22 considering, and we're looking at it. And have built the
23 estimate based on that.

24 MR. BYRON WILLIAMS: So you -- in or --
25 on or around \$400 million, that's the number?

1 MR. DAVID CORMIE: That's the number I've
2 been told, yes.

3

4 (BRIEF PAUSE)

5

6 MR. BYRON WILLIAMS: And Mr. Warden, just
7 in terms of the judgment calls that go into
8 contingencies, recognizing the -- the additional risk
9 factor of -- associated with this voltage source
10 technology, how -- what does this tell us about this
11 contingency that's currently assigned for converters?

12 Is it optimistic?

13 MR. VINCE WARDEN: No, I wouldn't say so.
14 We're advised by the consultants, and -- and again, this
15 was the major area of difference between the consultants
16 and -- and Manitoba Hydro. And their -- their view is
17 that, if anything, it's high. It's on the high side.
18 The contingency is on the high side. That a lot of these
19 contracts are being let -- let today for -- for less than
20 what we've assumed in our estimate.

21 So they're very confident that the number
22 is probably, if anything, on the high side.

23 MR. BYRON WILLIAMS: Would the major
24 driver in the reduction of the converter base cost in the
25 new March 31st, 2011 estimate be the assumed use of this

1 new technology in the form of voltage-source converters?

2 MR. DAVID CORMIE: The issue, Mr.
3 Williams, is not that voltage-source converter technology
4 is not feasible; it's whether the voltage-source
5 converter technology, in combination with the existing
6 converter technology, as a system will work together.
7 And so it's -- there are many installations using this
8 technology around the world, but they are -- they are --
9 we're not talking about multi-terminal DC systems.

10 Where Manitoba Hydro has four (4) terminal
11 sta -- three (3) terminal stations now, we -- we will
12 have, if we put in Bipole 3, or when we put it in, we'll
13 have another two (2) terminal stations. And to have a
14 voltage-source converter technology at the new ones and
15 having the existing technology at the existing sites,
16 those are the technical studies that need to be done to
17 make sure that, as a whole, the system will continue to
18 function. And we -- we've led to believe that that is
19 possible, but those -- those detailed engineering
20 investigations still need to be done before we make a
21 final decision.

22 MR. BYRON WILLIAMS: And, Mr. -- Mr.
23 Cormie, I had understood that point previously from your
24 answer, and -- and just -- my question wasn't very
25 precise, and I apologize for that. If I compare the base

1 costs for the 2009 CPJ addendum not approved and the new
2 March 31st, 2011 estimate, I see a -- a difference of
3 about 120 million/\$119 million.

4 Do you see that, sir?

5 MR. DAVID CORMIE: Yes.

6 MR. BYRON WILLIAMS: And my question was:
7 Is a significant part of that different estimate, in
8 terms of the base costs for conser -- converters, the
9 assumed use of the new technology in the form of voltage-
10 source converters, thereby avoiding the potential
11 requirement for synchronous condensers?

12 MR. DAVID CORMIE: I'm not sure where the
13 -- the synchronous condensers would fall into the cost
14 estimates, Mr. Williams, but it is a -- a major change in
15 -- in -- in the overall estimate.

16

17 (BRIEF PAUSE)

18

19 MR. BYRON WILLIAMS: And, Mr. Warden,
20 just for the purposes of clarity, if we look at the
21 change, again focussing on the 2009 CPJ addendum not
22 approved, versus the new March 31st, 2011 one, can we
23 point to two (2) significant drivers, one (1) being
24 reduced contingency, and the second being the assumed use
25 of the new technology?

1 MR. VINCE WARDEN: Yes, I think that
2 would be fair.

3 MR. BYRON WILLIAMS: Okay. I thank you
4 for that.

5

6 (BRIEF PAUSE)

7

8 MR. BYRON WILLIAMS: Mr. Warden, I wanted
9 to use the -- the descriptor "at a high level," but I'm
10 afraid to do so anymore.

11 But if we look at -- recently, Manitoba
12 Hydro filed a twenty (20) year IFF update on the record
13 of this proceeding.

14 Would that be fair, sir?

15 MR. VINCE WARDEN: Yes.

16 MR. BYRON WILLIAMS: And would I be
17 correct in suggesting to you that built into that update
18 was the old Bipole 3 estimate of 2.248 billion, as
19 opposed to the March 31st estimate of \$3.28 billion.

20 Would that be fair?

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

22 MR. BYRON WILLIAMS: So that's about a
23 bit over a \$1 billion difference, sir?

24 MR. VINCE WARDEN: Yes.

25 MR. BYRON WILLIAMS: And in the context

1 of the proposed significant expenditures during the next
2 decade, however we describe it, that's an extra \$1
3 billion on top of \$16 billion or so, sir?

4 MR. VINCE WARDEN: Yes.

5 MR. BYRON WILLIAMS: And it would be fair
6 to say that from a consumer's perspective, all else being
7 equal, this will put more pressure on the bottom line of
8 Manitoba Hydro?

9 MR. VINCE WARDEN: Yes, all else being
10 equal, those capital costs will be recovered over the --
11 over the life of that facility, so tho -- those increased
12 capital costs will definitely put that upward pressure,
13 yes.

14 MR. BYRON WILLIAMS: And \$1 billion would
15 amount to about what, a 6 percent of the \$16 billion
16 capital expenditure previously estimated?

17 MR. VINCE WARDEN: Yes. Yes.

18 MR. BYRON WILLIAMS: So would you expect
19 the inclusion of that \$1 billion to have a material
20 impact on the twenty (20) year IFF update that was
21 recently filed with the Board?

22 MR. VINCE WARDEN: Well, it -- it will
23 have an impact on the ratios for sure. I mean, a billion
24 dollars is significant, and that billion dollars will be
25 spent over the next six (6) years, as we discussed. So

1 in as much as much of that incremental cost will be
2 financed through long-term debt, the debt ratio will
3 decline. We spoke earli -- earlier of upward pressure on
4 consumers, but it does -- but the other option, of
5 course, is to allow the debt ratio to decline from --
6 from the previous projection -- or the debt ratio to
7 increase, that is, the equity ratio to decline.

8 And I don't think there's anything
9 especially wrong with that as long as we have confidence
10 in the returns coming in the next decade. Bipole 3
11 though is not discretionary. We have to build Bipole 3
12 for reliability, so it's not a -- it's unlike the other
13 investments we're making with an expectation of -- of a
14 return.

15 MR. BYRON WILLIAMS: Mr. Warden, I -- I'm
16 just going to reflect, and perhaps I'll chat with your
17 counsel over the break, on whether or not we should
18 request an updated IFF.

19 Mr. Warden, I -- I want to move from
20 Bipole 3 for just a second, and I want to direct your
21 attention to the other big -- three (3) of the big four
22 capital projects, being Wuskwatim, Conawapa, and Keeyask.
23 To your knowledge, are -- are there any capital project
24 justification for these major hydro-electric generating
25 station pro -- projects on the record of this proceeding?

1 MR. VINCE WARDEN: No, I don't believe
2 so. I don't believe we filed any CPJs for other capital
3 projects other -- other than Bipole 3.

4 MR. BYRON WILLIAMS: Would the
5 Corporation have any particular concerns in terms of
6 filing CPJs related to these three (3) major projects?

7 MS. MARLA BOYD: Yes, we would, Mr.
8 Williams. The -- the concern is, of course, and well
9 known in this room that the jurisdiction of the Board is
10 -- it does not extend to capital projects, and we're
11 getting far beyond the scope of what this Hearing is to
12 be about. And I appreciate that Bipole 3 has been a
13 matter of some interest, and we've certainly gone a long
14 way down the road beyond what the lawyers would normally
15 have thought was appropriate in terms of what would be
16 acceptable and -- and the questions that have been
17 responded to by our panel, but to start on a pattern of
18 filing CPJs is to go beyond what the mandate of this
19 Board is.

20 MR. BYRON WILLIAMS: Mr. -- Mr. Chairman,
21 just in -- and I appreciate my friend's comments, I
22 anticipated them. Certainly reading the Board's interim
23 Order 40/'11, the impact of these major capital projects
24 seems to be a significant factor in influencing the board
25 -- it's a factor underlying much of the Board's reasoning

1 in terms of rate increases.

2 I -- I will reflect over the break on
3 whether we require the CP -- CPJs and I'll consult with
4 My Friend in greater detail.

5

6 CONTINUED BY MR. BYRON WILLIAMS:

7 MR. BYRON WILLIAMS: Mr. Warden, in the
8 alternative, would -- would Manitoba Hydro be prepared to
9 file the risk matrix level of contingency and ma -- level
10 of management reserve, if any, associated with each of
11 those three (3) big projects, Wuskwatim, Conawapa, and
12 Keeyask?

13 MS. MARLA BOYD: Mr. Williams, I think
14 we're going to have to take that one (1) away. As Mr.
15 Warden indicated, the risk matrix is not something that
16 he's personally been reviewing. And I'm not sure whether
17 it's fair to assume at this point that those management
18 reserves even exist for some of the other projects given
19 the evidence that's been given today for it. So we'll
20 take that under advisement and get back to you.

21 MR. BYRON WILLIAMS: That's satisfactory.

22

23 --- UNDERTAKING NO. 118: UNDER ADVISEMENT - Manitoba
24 Hydro to file the risk matrix
25 level of contingency and

1 level of management reserve,
2 if any, associated with each
3 of Wuskwatim, Conawapa, and
4 Keeyask

5

6 CONTINUED BY MR. BYRON WILLIAMS:

7 MR. BYRON WILLIAMS: Mr. Warden, just a
8 last couple questions on Bipole 3 for you. One (1) of
9 them might more properly be put to Mr. Wiens, but I don't
10 think we need to turn it there, and Mr. Cormie has been
11 here all day, so he might be able to answer one (1) of
12 them as well, but...

13 Mr. Warden, you -- you confirmed, first of
14 all, that Manitoba Hydro's perspective, that it requires
15 Bipole 3 for reliability purposes, correct?

16 MR. VINCE WARDEN: Yes.

17 MR. BYRON WILLIAMS: And in terms of the
18 Corporation's proposed allocation of the cost of Bipole
19 3, would I be correct in -- and for the purposes of the
20 cost of service study, would I be correct in suggesting
21 that for the purposes of the COSS, the Corporation will
22 not allocate these costs to the export cl -- class.
23 Would that be fair, will not?

24 MR. VINCE WARDEN: Well, Mr. Williams, as
25 -- as you know, we have a -- a cost of service study

1 review under way at this time. And there will be
2 recommendations coming forth from that study. So I think
3 it would be premature to indicate at this time as to what
4 the export class might bear in terms of costs going
5 forward. I think the -- the -- and -- and the reason I
6 say that is because the export class has been the area
7 that's been most contentious with respect to how costs
8 are allocated.

9 And I think the consultants that we've
10 engaged for this review have a number of recommendations
11 that will affect the export class. So I'd rather not
12 speculate on how the bipole would be allocated or not to
13 an export class.

14 MR. BYRON WILLIAMS: Mr. Cormie, this is
15 probably best for you, but certainly anyone from the
16 panel feel free. In terms of the pricing of Hydro's
17 export products, it would not -- I -- I'm going to
18 suggest to you that it would not be accurate to suggest
19 that the cost of the bipole will be built into the price
20 of the product being sold into the American marketplace.
21 Would that be fair?

22 MR. DAVID CORMIE: That's fair, Mr.
23 Williams.

24 MR. BYRON WILLIAMS: And indeed, the
25 price rec -- received from the export market, from export

1 market sales, will be a function both of the price you
2 achieve through fixed-price export contracts as well as
3 what the market suggests on any particular day?

4 MR. DAVID CORMIE: That's correct.

5 MR. BYRON WILLIAMS: Mr. Chairman, I'm
6 going to just suggest a very -- well, we can either
7 altern -- take a -- the early afternoon break, or -- or
8 just a brief adjournment to make sure that I -- I have
9 our -- our message is consistent in terms of documents.

10 THE CHAIRPERSON: If we take the brief
11 break, will you be needing another break before we
12 conclude, or...?

13 MR. BYRON WILLIAMS: I -- I'll carry on,
14 sir. It'll be up to the Board, I guess, in terms of how
15 I test their patience.

16 THE CHAIRPERSON: Well, I'm just
17 inquiring as to how long a break you want now.

18 MR. BYRON WILLIAMS: It might be ju --
19 just because -- ten (10) -- ten (10) minutes would be
20 very helpful.

21 THE CHAIRPERSON: Okay. Very good.

22 MR. ANTOINE HACAULT: Mr. Chairman, just
23 a brief comment. It's Mr. Hacault here. There has been
24 an exchange between Manitoba Hydro counsel and Mr.
25 Williams on the CPJs for the other projects. If there's

1 going to be a ruling on that point, on behalf of MIPUG, I
2 would be intending to make some kind of a submission,
3 just to indicate for the record.

4 Right now, there isn't a formal request,
5 or a ruling requested, but if there will be, we would
6 like to have a chance to make submissions.

7 THE CHAIRPERSON: Yeah, we hear you.
8 Okay. We'll come back in about ten (10) minutes.

9
10 --- Upon recessing at 2:06 p.m.

11 --- Upon resuming at 2:26 p.m.

12
13 MS. MARLA BOYD: Perhaps, Mr. Chairman,
14 just before Mr. Williams gets back, I could file the
15 response to Manitoba Hyd -- Hydro Undertaking number 62?
16 It's been circulated during the break. It's from
17 transcript page 2,917, and we would propose that it be
18 marked as Manitoba Hydro Exhibit 108, please.

19 THE CHAIRPERSON: Very good.

20
21 --- EXHIBIT NO. MH-108: Response to Undertaking 62

22
23 THE CHAIRPERSON: Okay, Mr. Williams.

24 MR. BYRON WILLIAMS: Yes, and -- and
25 thank you. And Mr. Chairman and Mr. Vice-Chair, I

1 neglected to note that Ms. DeS -- DeSorcy was here for
2 most of the morning, and was so intrigued by the -- by
3 the discussion that she's decided to return for part of
4 the afternoon, as well, and I certainly welcome her.

5 In terms of documents to distribute, there
6 is one (1) additional CAC/MSOS exhibit at this point in
7 time, which Hydro, my understanding, has kindly consented
8 to agree to, which is the long term -- an excerpt from
9 the TD Economics long-term economic forecast. And I'd
10 suggest that be marked as CAC/MSOS Exhibit 19.

11 THE CHAIRPERSON: Very good.

12

13 --- EXHIBIT NO. CAC/MSOS-19:

14 Excerpt from the TD Economics long-term
15 economic forecast

16

17 MR. BYRON WILLIAMS: And Mr. Peters,
18 who's fulfilling many roles today, there is one (1)
19 document that's already on the record, but that I'm going
20 to be making reference to, and then rather -- rather than
21 have the Board dig around for it, that is Exhibit
22 Manitoba Hydro 44, which is their Undertaking 13.

23 THE CHAIRPERSON: We have it.

24 MR. BYRON WILLIAMS: And finally, Mr.
25 Chairman, just to start off with, I'm going to be

1 directing Mr. Warden's attention to the PUB book of
2 documents, Exhibit 15, so that's probably the first book,
3 and Tab 4, specifically page 14.

4

5 DARREN RAINKIE, Resumed

6 MANFRED SCHULZ, Resumed

7

8 CONTINUED BY MR. BYRON WILLIAMS:

9 MR. BYRON WILLIAMS: Mr. Warden, do you
10 have that reference?

11 MR. VINCE WARDEN: Yes, Mr. Williams, I
12 do.

13 MR. BYRON WILLIAMS: Thank you. And as I
14 understand this response, it is a excerpt from Manitoba
15 Hydro's response to PUB Information Request First Round 1
16 -- 199(a), correct? You'll see that in the top left
17 corner, sir.

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

19 MR. BYRON WILLIAMS: And essentially what
20 this excerpt does is set out the projected operating
21 statement flowing from IFF-09-01 over a certain period in
22 time, correct?

23 MR. VINCE WARDEN: Correct.

24 MR. BYRON WILLIAMS: And I want to just
25 focus on expenses for a -- a brief moment. You'll see

1 that, in the '09/'10 year, under Total Expenses, the
2 Corporation indicates \$1.46 billion, sir, is that right?

3 MR. VINCE WARDEN: Yes.

4 MR. BYRON WILLIAMS: And moving up a few
5 lines, under Expenses, you'll see two (2) references to
6 final -- finance expense, one (1) being before corporate
7 allocation and one (1) afterwards. Do you see that, sir?

8 MR. VINCE WARDEN: I do.

9 MR. BYRON WILLIAMS: And the finance
10 expense on the -- line 3 suggests that the finance ex --
11 expense in that particular year was \$417 million,
12 correct, sir?

13 MR. VINCE WARDEN: Yes.

14 MR. BYRON WILLIAMS: And that would be
15 about between 28 and 29 percent of total expenses in that
16 particular year, sir, achieved by -- by dividing four one
17 seven (417) by one point four six zero (1.460)?

18 MR. VINCE WARDEN: Yes, I agree with
19 that.

20 MR. BYRON WILLIAMS: And indeed, it is
21 the biggest single expenditure in the '09/'10 year set
22 out on this table, correct?

23 MR. VINCE WARDEN: It is, yes.

24 MR. BYRON WILLIAMS: And if we move out
25 to 2020 on the extreme right-hand side of the table,

1 we'll see that the total corporate expenses in that year
2 are -- are around \$2.617 billion projected. Do you see
3 that, sir, in IFF-09?

4 MR. VINCE WARDEN: Yes.

5 MR. BYRON WILLIAMS: And going up to the
6 third line, we see finance expense is projected to be in
7 the range of \$878 million, correct?

8 MR. VINCE WARDEN: Yes.

9 MR. BYRON WILLIAMS: And roughly, that's
10 somewhere between 33 and 34 percent of total corporate
11 projected expenses in that particular year. You'll
12 accept that, subject to check?

13 MR. VINCE WARDEN: It is, yes.

14 MR. BYRON WILLIAMS: So it's still the
15 single biggest expense item identified, correct?

16 MR. VINCE WARDEN: Yes.

17 MR. BYRON WILLIAMS: And it's accounting
18 as well for an increased percentage of total expenses as
19 compared to '09/'10, would that be fair, moving from 28
20 percent to 33 or 34 percent, sir?

21

22 (BRIEF PAUSE)

23

24 MR. VINCE WARDEN: Yes, Mr. Williams. I
25 was just looking to see what other variables were

1 changing. Of course, the total expenses have to come to
2 a hundred (100), so -- but, yes, I'll agree with your --
3 your calculations of the ratio of finance expense to the
4 total.

5 MR. BYRON WILLIAMS: And that it's
6 growing from '09/'10 through -- as compared to '19/'20,
7 correct?

8 MR. VINCE WARDEN: Yes. Not -- not --
9 not surprisingly, given the -- the amount of capital
10 that's being added to the system.

11 MR. BYRON WILLIAMS: And, Mr. Schulz and
12 Mr. Warden, you -- you always of course are welcome to --
13 to jump in, as is Mr. Rainkie, but I've never spoken to
14 Mr. Schulz on the record before, so I -- I may have a few
15 questions for him. And if I -- if I've misdirected them,
16 you'll -- you'll correct me, correct?

17 MR. VINCE WARDEN: I will.

18 MR. BYRON WILLIAMS: Mr. Schulz, I'm --
19 I'm going to get into the area in the next few moments of
20 forecasting of -- of financing expenses to -- and before
21 we do so, though, I wanted to agree -- see if we could
22 agree on some common definitions. And I wonder if you'll
23 agree with me -- and I'm citing -- you don't need to turn
24 here, I'm certain of it -- but CAC/Manitoba Hydro 1-146E.
25 That Manitoba Hydro defines short-term debt as debt

1 issued with maturities of less than one (1) year. Would
2 that be fair, sir?

3 MR. MANFRED SCHULZ: I'm delighted to
4 have this conversation with you, too, Mr. Williams, and,
5 yes, that is correct.

6 MR. BYRON WILLIAMS: You're sounding very
7 confident, Mr. Schulz. I don't like that.

8 MR. MANFRED SCHULZ: I'm just being
9 friendly, Mr. Williams.

10 MR. BYRON WILLIAMS: We'll -- we'll come
11 back to that definition of -- well, let me -- let me move
12 to -- would the corollary of that definition be that
13 Hydro devi -- defines long-term debt as debt that would
14 be -- be debt issued with maturities of more than one (1)
15 year?

16 MR. MANFRED SCHULZ: Correct.

17 MR. BYRON WILLIAMS: And we'll come back
18 to the definition of short-term debt as it applies to the
19 calculation by Manitoba Hydro of its floating-debt rate
20 in a second. But at a high level -- there's that word
21 again. I wonder if we can agree that the term "floating
22 debt" is often used to describe debt whose interest rate
23 fluctuates with general market conditions.

24 MR. MANFRED SCHULZ: Well, in our case,
25 we talk about floating debt as being debt that in case of

1 long-term debt is subject to resetting on either a
2 quarterly or annual basis -- or semiannual basis rather.

3 MR. BYRON WILLIAMS: Thank you for that.
4 And so that would capture the short-term debt, for
5 example?

6 MR. MANFRED SCHULZ: Yeah. Though for
7 our definitions, for when we're calculating our fixed-
8 floating ratios for instance, we consider short-term debt
9 to be a component of floating-rate debt.

10 MR. BYRON WILLIAMS: And leaving aside
11 short-term debt just for a moment, in -- in terms --
12 well, in terms of floating debt, the interest rate paid
13 is often tied to a current money market rate. Would that
14 be fair, sir?

15 MR. MANFRED SCHULZ: In the case of
16 Canadian floating-rate debt, for instance, it -- the
17 reference rate is typically the three (3) month Bloomberg
18 BA rate.

19 MR. BYRON WILLIAMS: And by three (3)
20 month, in -- in the Canadian context in -- by BA rate,
21 you mean banker's acceptance. Is that fair, sir?

22 MR. MANFRED SCHULZ: Correct.

23 MR. BYRON WILLIAMS: And in the American
24 context, or we sometimes see the term used, I'm going to
25 spell it, LIBOR, L-I-B-O-R.

1 You're familiar with that term?

2 MR. MANFRED SCHULZ: Yes, I'm familiar
3 with LIBOR.

4 MR. BYRON WILLIAMS: And you pronounce it
5 quite well, sir. And would LIBOR refer to the London
6 International Bank Offering Rate?

7 Is that your understanding of -- of what
8 that term represents?

9 MR. MANFRED SCHULZ: Correct.

10 MR. BYRON WILLIAMS: And you use the
11 Canadian example of the three (3) months banker's
12 acceptance. And I'm going to suggest to you that the --
13 in the Canadian context a floating-debt instrument, the
14 interest payable on it might be tied in -- in some
15 fashion to that market rate payable, for example, a three
16 (3) months banker's acceptance plus, let's say, for
17 example, 0.175 percent. That's how that -- that interest
18 rate might be determined at a particular point in time,
19 sir?

20 MR. MANFRED SCHULZ: Right. So typically
21 our long-term floating-rate debt has both a variable
22 component and a fixed component to it. The variable
23 component in the case of Canadian debt is typically the
24 three (3) month Bloomberg BA rate. And, often, when
25 there's a pricing component to it, there's a fixed piece

1 to that. So, as you said, there would be three (3) month
2 BA rate plus a certain fixed component depending upon the
3 market conditions at that time and the term of the
4 floating-rate debt.

5 MR. BYRON WILLIAMS: And so just to
6 understand your answer, when we're looking at the long-
7 term floating debt there would be a variable co --
8 component, such as a three (3) month banker's acceptance,
9 plus a fixed component, such as that percentage I
10 presented to you previously?

11 MR. MANFRED SCHULZ: Correct. And then
12 every reset period, either quarterly or semiannually in
13 accordance with the term sheets, then what you do is
14 change the variable component of that. The -- the fixed
15 component remains the same. And then that new pricing
16 arrangement is what the coupon rates would be for that
17 next period of time.

18 MR. BYRON WILLIAMS: And that variable
19 component rate, it would still be based upon three (3)
20 months banker's acceptance, sir, but it might be at a
21 different actual percentage?

22 MR. MANFRED SCHULZ: Yes. So the
23 contractual reference point remains the same. It would
24 in the case that we are talking about still remain the
25 three (3) month Bloomberg BA, but as market conditions

1 change interest rates escalate or move down perhaps, the
2 overall blended new rate for the subsequent time period
3 would then be modified in accordance with that.

4 MR. BYRON WILLIAMS: And you've indicated
5 previously that in looking at the percentage of floating-
6 rate debt to total debt, Manitoba Hydro includes short-
7 term debt as well, correct, sir?

8 MR. MANFRED SCHULZ: Yes. I think we've
9 put that on the record with a bit of a nuance, Mr.
10 Williams, that for our case and for our calculation we
11 consider short-term debt to be floating, although
12 theoretically one might consider it to be fixed, but with
13 short terms that get rolled over. But that nuance aside,
14 for our calcul -- calculation purposes, we consider that
15 to be floating-rate debt.

16 MR. BYRON WILLIAMS: And I -- I believe
17 the definition that you employ involves a reset on a
18 quarterly or semiannual basis. Is -- is that what you
19 said previously, sir?

20 MR. MANFRED SCHULZ: Well, our floating
21 long-term debt is typically reset, recalibrated the next
22 period of -- of coupon payments on a quarterly or an -- a
23 semiannual basis again, depending on the term of the --
24 the financing. Short-term debt may be, you know,
25 overnight. It may be for a one (1) month period. So it

1 has various terms, but then presumably, say if we have a
2 one (1) month period of debt, we take it for one (1)
3 month and then we perhaps would roll it over for a
4 subsequent month. So it's fixed rate for one (1) month
5 increments, but rolled over, and it becomes to emulate,
6 in that case, like floating-rate debt for two (2) months.

7 MR. BYRON WILLIAMS: Thanks. Fixed debt,
8 would it be accurate to say that the rate of interest for
9 that particular instrument is fixed for a specific period
10 of time, is that a -- a good working definition of fixed
11 debt, sir?

12 MR. MANFRED SCHULZ: Fixed debt is one
13 (1) of those pieces of -- one (1) of those definitions
14 that makes a lot of sense and is easy to understand in
15 finance terms. And fixed means fixed. So in this case,
16 as you described, fixed-rate financing would have the
17 same rate of coupon payments throughout the entire term
18 of that piece of debt.

19 MR. BYRON WILLIAMS: Thank you. I want
20 to look at the historic composition of floating and fixed
21 debt of Manitoba Hydro, but I do want to make sure that
22 we're looking at the right numbers. So I'm going to ask
23 you to turn to the CAC book of documents, CAC/MSOS
24 Exhibit 16. And -- and pull up pages -- yeah, it's the
25 book of documents 16. Pull up pages 11 in the top right-

1 hand corner and page 13 in the right -- top right-hand
2 corner. You'll need to have two (2) fingers at least,
3 sir, for -- for this task.

4 MR. MANFRED SCHULZ: I've been blessed
5 with ten (10).

6 MR. BYRON WILLIAMS: And we're not going
7 to get into any great detail about the National Bank
8 paper for Manitoba Hydro at this point in time. But, Mr.
9 Schulz, you'll agree with me that presented on page 11 of
10 the book of documents is Table 14 from the NBF analysis
11 provided to Manitoba Hydro, you'll agree with that, sir?

12 MR. MANFRED SCHULZ: Correct.

13 MR. BYRON WILLIAMS: And what Table 14 of
14 the NBF analysis is trying to portray here or does
15 portray here on the top line is a total debt over a -- at
16 a number of -- of years ranging from the year 2000 across
17 to the year 2008. Is that right, sir?

18 MR. MANFRED SCHULZ: Correct.

19 MR. BYRON WILLIAMS: And going down one
20 (1) line, National Bank presents its calc -- its
21 assessment of the historical debt mix in terms of the
22 percentage of floating rate, correct?

23 MR. MANFRED SCHULZ: Correct.

24 MR. BYRON WILLIAMS: And the reason I
25 asked you to have your hand as well on page 13 is, you'll

1 agree with me, that that's an excerpt from the -- or that
2 is the response to CAC/MSOS Hydro First Round 164.

3 Do you see that, sir?

4 MR. MANFRED SCHULZ: I do.

5 MR. BYRON WILLIAMS: And what this Table
6 14 does is correct certain information that was presented
7 in the original National Bank analysis.

8 Would that be fair?

9 MR. MANFRED SCHULZ: Also correct.

10 MR. BYRON WILLIAMS: And just to make
11 sure we're working off the same numbers, if we look at
12 the original analysis of National Bank for the year 2000,
13 it had a floating rate mix of 15 percent. That has
14 subsequently been corrected to 18 percent.

15 Is that right, sir?

16 MR. MANFRED SCHULZ: Correct.

17 MR. BYRON WILLIAMS: And if we go to the
18 lec -- next line, next -- 2001, the 14 percent has been
19 corrected to 15 percent, would that be fair?

20 MR. MANFRED SCHULZ: I think it's fair to
21 say that the revised Table 14 in response to CAC/MSOS/MH-
22 1-164A reflects all of the corrections that previously
23 were articulated in the original National Bank table.

24 MR. BYRON WILLIAMS: And so if we can
25 just -- taking that, if we can just -- you'll perhaps

1 make the changes in pen, sir. In 2002, we're going to 18
2 percent as opposed to fourteen (14), correct?

3 MR. MANFRED SCHULZ: Our actual was 18
4 percent.

5 MR. BYRON WILLIAMS: In 2003, the actual
6 is 18 percent as compared to the 16 percent presented?

7 MR. MANFRED SCHULZ: Correct.

8 MR. BYRON WILLIAMS: In 2004, the actual
9 is 22 percent as opposed to the 15 -- the 17 percent
10 corrected?

11 MR. MANFRED SCHULZ: Again, correct.

12 MR. BYRON WILLIAMS: In 2005, the actual
13 is 19 percent as opposed to the 22 percent, correct?

14 MR. MANFRED SCHULZ: Correct.

15 MR. BYRON WILLIAMS: And 2006, the actual
16 is 17 percent as opposed to the 19 percent. Would that
17 be fair?

18 MR. MANFRED SCHULZ: Correct.

19 MR. BYRON WILLIAMS: In 2007, it's -- the
20 number is correct, that being 19 percent. And in 2008,
21 it should read 20 percent instead of 19 percent.

22 Would that be fair?

23 MR. MANFRED SCHULZ: Yes. As indicated,
24 the revised table is correct.

25 MR. BYRON WILLIAMS: And just one (1)

1 other -- if I looked at the figure for total debt
2 presented in the original National deb -- Bank analysis
3 for the year 2000, that figure of 7.134 billion should be
4 corrected to 6.609 billion, sir?

5 MR. MANFRED SCHULZ: Again, perhaps to
6 save time, but I would acknowledge that all of those
7 variances did occur between the original National Bank
8 report and the revised information as supplied in
9 response to the CAC question.

10 MR. BYRON WILLIAMS: And just to make
11 sure I have -- so for 2000, that's a 6.6 billion number
12 as opposed to the seven point one three four (7.134)
13 presented. Is that right, sir?

14 MS. MARLA BOYD: Mr. Williams, Mr. Schulz
15 has been quite clear, I think, now on a couple of
16 occasions that the corrected information that's contained
17 in Table 14 in the response to the IR is -- is the
18 correct information.

19 MR. BYRON WILLIAMS: Thank you for that.

20

21 CONTINUED BY MR. BYRON WILLIAMS:

22 MR. BYRON WILLIAMS: If we can turn to --
23 in the book of documents to the top right-hand corner
24 pages 14 and 15 -- pages 15, please. Page 15.

25 MR. MANFRED SCHULZ: I'm with you, sir.

1 MR. BYRON WILLIAMS: And Mr. Schulz, we
2 will get to Hydro Exhibit 44 in just one (1) second, but
3 what we see on -- on the page before you is the forecast
4 Manitoba Hydro cost of debt both for short-term interest
5 rates and long-term interest rates as presented in IFF-
6 09-01. Is that fair, sir?

7 MR. MANFRED SCHULZ: Correct.

8 MR. BYRON WILLIAMS: And that information
9 was current as of October 2009, would that be fair, sir?
10 It's right there in the -- it's right there in the notes,
11 sir, just...

12 MR. MANFRED SCHULZ: That's correct.

13 MR. BYRON WILLIAMS: And, Mr. Schulz,
14 directing your attention to the table that appears there,
15 under short-term interest rates, you'll see in the
16 2010/'11 year, a T-bill reference -- a reference to T-
17 bill at 1.2 percent, is that correct, sir? Do you see
18 that?

19 MR. MANFRED SCHULZ: I do.

20 MR. BYRON WILLIAMS: And by T -- T-bill -
21 - and I believe you referenced this earlier, sir -- I
22 take it you mean the three (3) month T-bill rate?

23 MR. MANFRED SCHULZ: That would be the
24 three (3) month Canadian T-bill rate, correct.

25 MR. BYRON WILLIAMS: And to get from that

1 rate to the Manitoba Hydro cost of debt of 2.4 percent,
2 I'll suggest to you add in two (2) -- two (2) items: one
3 is the debt-guarantee fee, and the other is the spread,
4 relevant credit spread. Would that be fair, sir?

5 MR. MANFRED SCHULZ: Yes. In this
6 particular case, on top of the 1.2 percent T-bill rate,
7 as identified here, there was twenty (20) basis points,
8 or .2 percent, added for a spread between the T-bill rate
9 and the three (3) month Bloomberg BA rate that we
10 previously spoke about, and then we added to that the 1
11 percent provincial debt-guarantee fee to arrive at 2.0
12 percent.

13 MR. BYRON WILLIAMS: Thank you for that.
14 And just moving over in terms of the long-term interest
15 rate, the forecast for '10/'11 for the ten (10) year plus
16 was 4 percent, correct, sir?

17 MR. MANFRED SCHULZ: Correct.

18 MR. BYRON WILLIAMS: And to get to -- to
19 the next item, being the Manitoba Hydro cost of debt,
20 what the Corporation did was add in a spread of .65
21 percent plus the debt-guarantee fee of 1 percent. That's
22 how we arrived at that number, sir?

23 MR. MANFRED SCHULZ: We agree.

24 MR. BYRON WILLIAMS: And if I look at the
25 numbers set out in this forecast, first of all, sticking

1 with the ten (10) year plus bonds, we see that, if I'm
2 comparing the 2010/'11 year to the 2009/'10 year, the
3 Corporation is expecting long-term interest rates to rise
4 somewhat from three point seven (3.7) to four (4), would
5 that be fair, sir? I'm referring you to the long-term
6 interest rates, sir --

7 MR. MANFRED SCHULZ: Yeah.

8 MR. BYRON WILLIAMS: -- going from
9 '09/'10 to 2010/'11.

10 MR. MANFRED SCHULZ: So you're
11 referencing the 3.7 percent up to the 4.0 percent?

12 MR. BYRON WILLIAMS: That's right, sir.

13 MR. MANFRED SCHULZ: Yes. So at the time
14 of the -- the fall update that was part of the IFF-09,
15 so, as you indicated, in October, when the forecast was
16 put together it was articulated and understood by way of
17 the forecasting methodology that this forecast on the
18 benchmark Government of Canada long bonds were as
19 reflected there.

20 MR. BYRON WILLIAMS: Excuse me. You're
21 projecting a rise in long-term bond interest rates from
22 '09/'10 through '10/'11, and then a slightly steeper rise
23 even in 2011/'12. Would that be fair, sir?

24 MR. MANFRED SCHULZ: Right. That's the
25 consensus view of the forecasters that we use in our --

1 at least for the IFF-09, that we used at that time for
2 the Government of Canada benchmark rates for the ten (10)
3 and thirty (30) years.

4 MR. BYRON WILLIAMS: And if we turn to
5 the short-term interest rates, focussing on the change
6 from 2010/'11 through 2011/'12, your forecast was for
7 quite a sharp rise in T-bill from 1.2 percent interest to
8 3.4 percent, sir. Would that be fair?

9 MR. MANFRED SCHULZ: Yes. In fact, it's
10 -- you can also see that the year preceding that was at
11 the -- the very bottom of the -- the economic downturn,
12 or near to it, at point two five (.25), then moving up to
13 one point two (1.2), and then escalating up to three
14 point four (3.4). At the time it was viewed that the
15 economic recovery would be more robust than it has turned
16 out to be, but certainly that was the view of the
17 consensus of the economic forecasters at that point in
18 time.

19 MR. BYRON WILLIAMS: And if we can turn
20 over the next -- to the next page, being page 16 at the
21 top right-hand corner. And we are going to come to Hydro
22 Exhibit 44 in just one (1) second, Mr. Schulz, but what
23 this response of the Corporation does, sir, is compares
24 the interest rate assumptions in -- contained in IFF-10
25 with those in IFF-09.

1 Would that be fair, sir?

2 MR. MANFRED SCHULZ: That's correct.

3 MR. BYRON WILLIAMS: And it excludes the
4 provincial guarantee fee of 1 percent, correct?

5 MR. MANFRED SCHULZ: Correct.

6 MR. BYRON WILLIAMS: But the spread would
7 still be in there. That -- that would be right, sir?

8 MR. MANFRED SCHULZ: Correct.

9 MR. BYRON WILLIAMS: And just for reading
10 purposes on this document, focussing on the 2010 year,
11 the IFF-10 fo -- forecast is the one not in brackets,
12 whereas the IFF-09 is in brackets, sir. Is that right?

13 MR. MANFRED SCHULZ: Correct.

14 MR. BYRON WILLIAMS: And so what we see
15 in the 2010/'11 year in terms of short-term forecast is
16 that the IFF-10 is somewhat shorter, .3 percent or --
17 would that be thirty (30) basis points, sir?

18 MR. MANFRED SCHULZ: Just so that we're
19 clear, so which numbers were you referencing?

20 MR. BYRON WILLIAMS: I'm comparing the
21 2010/'11 IFF-10 and IFF-09 short-term. There is -- the
22 forecast I'm suggesting to you in -- in IFF-10 is for
23 lower short-term debt rates by .3 percent or thirty (30)
24 basis points, correct?

25 MR. MANFRED SCHULZ: So the 2010/'11

1 short-term rates, the difference between 1.4 percent and
2 1.1 percent is point three (.3), which is thirty (30)
3 basis points, correct.

4 MR. BYRON WILLIAMS: And, likewise, for
5 the long-term debt in 2010/'11 IFF-10 was forecasting
6 lower interest rates than forecast by Manitoba Hydro in
7 IFF-09, correct?

8 MR. MANFRED SCHULZ: Forty-five (45)
9 basis points.

10 MR. BYRON WILLIAMS: And moving to
11 2011/'12. We won't go through the whole table, I assure
12 you. What we see is that in terms of the short-term
13 forecast there is a one hundred and fifty (150) basis
14 point difference with the two (2) -- IFF-10 being one
15 hundred and fifty (150) basis points less than the IFF-09
16 forecast, correct?

17 MR. MANFRED SCHULZ: Correct. And I
18 think as I alluded to probably two (2) minutes ago, that
19 it was -- at the time in the IFF there was an intended --
20 or group of consensus forecasters that are employed by
21 Manitoba Hydro were of the view that the economic
22 recovery would be more robust than it ended up to be by
23 way of their forecasting, and so you can see that
24 reflected in their revised views and forecast for IFF-10.

25 MR. BYRON WILLIAMS: All things being

1 equal, lower interest rates mean lower costs for Manitoba
2 Hydro, all other things being...?

3 MR. MANFRED SCHULZ: Correct.

4 MR. BYRON WILLIAMS: And without needing
5 to get to the basis points, we see that the long-term
6 forecast in IFF-10 for the 2011/'12 year was also
7 materially less than the forecast presented in IFF-09.
8 Would that be correct, sir?

9 MR. MANFRED SCHULZ: It is lower.

10 MR. BYRON WILLIAMS: Materially lower?

11 MR. MANFRED SCHULZ: I would suggest it's
12 lower.

13 MR. BYRON WILLIAMS: Now, these -- these
14 numbers we've agreed exclude the provincial guarantee fee
15 but include the spread.

16 Is that right, sir?

17 MR. MANFRED SCHULZ: Correct.

18 MR. BYRON WILLIAMS: And very quickly I
19 just want to turn your attention to Hydro Exhibit 44 for
20 just one (1) moment to make sure my clients are
21 understanding this. And if -- if -- Mr. Chairman, if
22 you'll excuse me for just one (1) second.

23

24 (BRIEF PAUSE)

25

1 MR. BYRON WILLIAMS: I may have been
2 playing to a smaller audience than I anticipated, Mr.
3 Chairman.

4

5 (BRIEF PAUSE)

6

7 MR. BYRON WILLIAMS: What -- what we see
8 in this response, sir, is in the -- the first table
9 relates to Manitoba Hydro's forecast of the Canadian --
10 or excuse me, the -- they relate to Manitoba Hydro's
11 Canadian short-term interest rates, and what the first
12 table compares is the IFF-09s to either the actuals or
13 the forecast in IF -- IFF-10. Is that right, sir?

14 MR. MANFRED SCHULZ: Correct.

15 MR. BYRON WILLIAMS: And what we see when
16 we're just focussing on the Canadian -- Canada T-Bill
17 rate and excluding the spread is that in 2010/'11 the T-
18 Bill rate was forecast in IFF-09 to be 1.2 percent,
19 whereas it was revised downward by forty (40) basis
20 points in IFF-10 for the same 2010/'11 year to .8
21 percent. Is that right, sir?

22 MR. MANFRED SCHULZ: Well, the IFF
23 actually just uses the -- the three (3) month CDOR rate.
24 That's the total at the end plus the PGF. These are the,
25 as you would I think put, disaggregation of that amount,

1 but the Canadian T-Bill rate, ninety (90) day or three
2 (3) month, did in fact go down by way of the forecast
3 from one point two (1.2) to point eight (.8).

4 MR. BYRON WILLIAMS: So that's forty (40)
5 basis points, sir?

6 MR. MANFRED SCHULZ: Yes, it is.

7 MR. BYRON WILLIAMS: And we see as well,
8 again, focussing on the T-Bill rate, that the -- the --
9 that the IFF-10 forecast is materially lower at 1.55
10 percent, sir. Is that right?

11

12 (BRIEF PAUSE)

13

14 MR. BYRON WILLIAMS: One point six five
15 (1.65)?

16 MR. MANFRED SCHULZ: That would be the
17 math between the three point four (3.4) and the one point
18 eight five (1.85)? Correct.

19 MR. BYRON WILLIAMS: And if I looked down
20 to what the second part of this table displays, sir, is
21 the Canadian long-term interest rate and the hydro -- the
22 forecast presented in IFF-09 versus IFF-10, and it would
23 be accurate to say, would it not, focussing on the
24 2010/'11 year, that the -- the forecast for the Can --
25 Canada bond yield was lower in IFF-10 than IFF-09 by .65

1 percent, sir?

2 MR. MANFRED SCHULZ: Correct.

3 MR. BYRON WILLIAMS: And likewise, in
4 2011/'12, it is lower by .95 percent, sir?

5 MR. MANFRED SCHULZ: Correct.

6 MR. BYRON WILLIAMS: Ninety-five (95)
7 basis points, correct?

8 MR. MANFRED SCHULZ: Correct.

9 MR. BYRON WILLIAMS: So in terms of the
10 expectations for the Canada long bond yield, they were
11 materially lower in IFF-10 than in IFF-09? And if you're
12 uncomfortable with the word 'materially', I'll
13 understand, sir.

14 MR. MANFRED SCHULZ: They were lower.
15 You should also note that there was a variation in the
16 spreads as well. And this exhibit actually well
17 describes the interrelationships and the inverse
18 relationship between the benchmark rates and the spreads.

19 And so as we articulated, certainly at the
20 Centra Gas hearing, and as articulated in the written
21 documents too, we did describe the situation where when
22 the benchmark rates go in one (1) direction, often the
23 credit spreads will go in the other direction and
24 counterbalance the sum effect, the -- the impact on the
25 benchmark rates.

1 discuss that previously, did we not, sir?

2 MR. MANFRED SCHULZ: We have generally
3 had those discussions.

4 MR. BYRON WILLIAMS: And you'll agree as
5 well that the decline in this -- the -- in terms of the
6 short-term or long-term interest rates forecast has been
7 greater than the opposite move in terms of spreads for
8 the two (2) years presented on this table, sir?

9 MR. MANFRED SCHULZ: Well, there's
10 certainly not a one-to-one relationship as described in
11 this schedule but -- because the macroeconomic and the
12 marketplace conditions may be slightly different in terms
13 of the actual quantum, but as a general relationship
14 it's just sort of a thing that I wanted to articulate for
15 the record.

16 MR. BYRON WILLIAMS: But you're not
17 denying that in IFF-10 the forecasts are lower, both for
18 short-term and long-term interest rates, sir?

19 MR. MANFRED SCHULZ: For the period we
20 talked about, you're absolutely correct.

21 MR. BYRON WILLIAMS: And just very
22 quickly, sir, turning your attention to CAC/MSOS Exhibit
23 19, which is the excerpt from the TD Economics long-term
24 economic forecast dated March 16th, 2011. Do you have
25 that, sir?

1 MR. MANFRED SCHULZ: I do.

2 MR. BYRON WILLIAMS: And certainly the TD
3 forecasts are something the Corporation is quite familiar
4 with. You'll use them, for example, in your annual
5 economic outlooks, would that be fair, sir?

6 MR. MANFRED SCHULZ: Indeed.

7

8 (BRIEF PAUSE)

9

10

11 MR. BYRON WILLIAMS: And if I could
12 direct your attention to the -- page 4, which is the
13 second page of the exhibit, and I want to focus your
14 attention on the -- under Canadian fixed income, the
15 three (3) month T-bill rate, and you'll see that the
16 forecast for the annual -- annual average for the 2011
17 year by TD is 1.39 percent, sir. Is that right?

18 MR. MANFRED SCHULZ: Just so that we're
19 on the same point on this -- this spreadsheet, so I think
20 you're referencing the row that's called, Three (3) Month
21 T-Bill Rate, and looking at the column that says, The
22 Annual Average 2011 F, for forecast?

23 MR. BYRON WILLIAMS: Absolutely, sir.

24 MR. MANFRED SCHULZ: Yeah, one point
25 three nine (1.39).

1 MR. BYRON WILLIAMS: And the ten (10) --
2 going down three (3) lines, the ten (10) year government
3 bonds yield forecast by TD for the 2011 year is 3.8
4 percent, sir. Would that be right?

5 MR. MANFRED SCHULZ: Correct.

6 MR. BYRON WILLIAMS: And the difference
7 for between the two (2) would be 2.41 percent. Would
8 that be fair, sir?

9 MR. MANFRED SCHULZ: Correct.

10 MR. BYRON WILLIAMS: Two hundred and
11 forty-one (241) basis points, would that be right?

12 MR. MANFRED SCHULZ: Correct.

13

14 (BRIEF PAUSE)

15

16 MR. BYRON WILLIAMS: Mr. Schulz, if
17 you're looking for a reference for this, I can provide
18 it. It's CAC-2-148B, but, subject to check, can we agree
19 that based on the Corporation's -- that based on physical
20 debt maturities, the weighted average term to maturity of
21 the Corporation's debt portfolio as at March 31st, 2010,
22 was forecast to be ten point seven (10.7) years? That's
23 2-148B.

24 MR. MANFRED SCHULZ: Unless the back row
25 tells me otherwise, subject to check for the -- the

1 conversation we're having, I'm prepared to accept that.

2 MR. BYRON WILLIAMS: And again, subject
3 to check, the Corporation's total long-term debt, as
4 measured in Canadian dollars at that point in time, was
5 \$7.821 billion?

6 MR. MANFRED SCHULZ: I seem to have some
7 paperwork here. Just confirming the -- the reference.
8 So is that in response to First Round CAC or Second Round
9 148B?

10 MR. BYRON WILLIAMS: Yes, it is, sir.
11 I'm referring you to the March 31st, 2010, and I'm
12 suggesting to you that total long-term debt was 7.8
13 billion approximately, with the weighted average term to
14 maturity being ten point seven (10.7).

15 MR. MANFRED SCHULZ: Correct.

16

17 (BRIEF PAUSE)

18

19 MR. BYRON WILLIAMS: Mr. Schulz, we were
20 at this page previously, and it's 13 of the CAC/MSOS-16
21 book of documents. And if we look at the historical debt
22 mix floating rate over the period captured in this table,
23 and this is the amended table, would I be correct in
24 suggesting to you that over the nine (9) year period
25 captured here, the percentage of floating debt of the

1 total debt of Manitoba Hydro was between 15 and 22
2 percent, sir, as presented in this table?

3 MR. MANFRED SCHULZ: On page 13 of your
4 reference binder?

5 MR. BYRON WILLIAMS: Yes, sir.

6 MR. MANFRED SCHULZ: Correct.

7 MR. BYRON WILLIAMS: And in six (6) of
8 the nine (9) years, would I be correct in suggesting that
9 the percentage of floating debt as a percentage of the
10 historical debt mix was between 17 and 19 percent? Would
11 that be fair?

12 MR. MANFRED SCHULZ: Again, subject to
13 check, but seems reasonable.

14 MR. BYRON WILLIAMS: Mr. Schulz, I -- I
15 want to get a -- just a confirmation from you, and
16 certainly you or Mr. Warden, I -- it doesn't matter.
17 It's probably you, though, Mr. Schulz. And I want to
18 distinguish in my question between policy and targets.
19 Would I be correct in suggesting to you that Manitoba
20 Hydro's policy is that the floating-rate financing will
21 not exceed 30 percent of total debt outstanding? Would
22 that be correct?

23 MR. MANFRED SCHULZ: Correct.

24 MR. BYRON WILLIAMS: And, Mr. Warden, you
25 and I have had this conversation before, and if I'm -- if

1 I'm putting too much stress on your memory, you'll --
2 I'll -- I'll apologize for this. I -- I -- if memory
3 serves me right, I set you off in search of that policy
4 in the 2008 General Rate Application.

5 Does that ring a bell at all, sir?

6 MR. VINCE WARDEN: Did I return?

7 MR. BYRON WILLIAMS: You re -- you
8 returned in better form than ever, Mr. Warden, but I -- I
9 don't -- I don't recall an actual paper version of the --
10 the policy, and I could be wrong on that.

11 MR. VINCE WARDEN: No, I think you're
12 right, Mr. Williams. It's been a long-standing practice
13 at Manitoba Hydro, and it's something that's been around
14 for probably longer than I have. And we did have some
15 difficulty, I believe, finding a document that referenced
16 that specific policy.

17 MR. BYRON WILLIAMS: Okay. And be -- I
18 didn't want to send you off looking again based -- based
19 upon that conversation.

20 And, again, Mr. Schulz or Mr. Warden,
21 Manitoba Hydro's target rate in terms of fixed and
22 floating rate is between 15 and 25 percent, correct?

23 MR. MANFRED SCHULZ: Correct.

24 MR. BYRON WILLIAMS: And ju -- just, Mr.
25 Schulz, for your benefit, I come from -- I deal with

1 Manitoba Public Insurance perhaps more than -- than I'd
2 like to at times. But certainly in terms of their
3 investment policy they have quite a detailed investment
4 policy statement, is there a equivalent to that in terms
5 of the Manitoba Hydro management of its debt portfolio?

6 MR. MANFRED SCHULZ: Hard for me to know
7 what the equivalent would be without seeing your base
8 document that MPI for instance.

9 MR. BYRON WILLIAMS: And I don't want to
10 get too much into this at any detail right now, Mr.
11 Schulz, we'll come to it in a little bit, but is there
12 any sort of document that -- that gives guidance to the
13 Corporation in terms of when to exceed the target range,
14 for example, either above or below, or when to move
15 towards the top of the target range or towards the bottom
16 of the target range? Is there any -- is that set out
17 anywhere, sir?

18 MR. MANFRED SCHULZ: I'm not familiar
19 with any explicit documentation per se from a policy
20 prescription, but I would referencing -- reference you
21 to, for instance, to the debt-management strategy
22 document that we have filed, for instance, most recently.
23 I think it's Appendix 85. It's published, I think, in
24 December of this last year.

25 So as part of what we have been doing is

1 articulating what our -- what our view would be with
2 respect to floating-rate debt in this particular case.

3 MR. BYRON WILLIAMS: And I've certainly
4 reviewed that, sir, and I agree with you. It's not fair
5 to ask you to compare it to MPI when -- when you --
6 you've not seen it, so I'll move on. I want to turn to
7 the book of documents, page 17, that's CAC/MSOS Exhibit
8 16. And, actually, Mr. Schulz, I'm returning -- turning
9 you to page 17 and 18.

10 And you'll see at those two (2) pages, Mr.
11 Schulz, is the Corporation's response to PUB Manitoba
12 Hydro 1-35, sir. Is that correct?

13 MR. MANFRED SCHULZ: Correct.

14 MR. BYRON WILLIAMS: And I recognize that
15 it was subsequently updated. But this table was cur --
16 turning your attention to page 18, was current as of
17 September 30th, 2009.

18 Is that right, sir?

19

20 (BRIEF PAUSE)

21

22 MR. BYRON WILLIAMS: You see that in the
23 top left-hand corner, sir?

24 MR. MANFRED SCHULZ: Yeah, the -- the
25 only hesitation I had is I -- I saw the -- the date

1 stamping in the bottom left-hand corner, so. But clearly
2 the -- the header at the top says, "Forecast as at
3 September 30th, 2009."

4 MR. BYRON WILLIAMS: And this -- the
5 numbers presented here are indeed the numbers that would
6 have flown into the -- or flowed into the IFF-09-01,
7 correct?

8 MR. MANFRED SCHULZ: Correct. And now,
9 just sort of reflecting on the date stamping, you can see
10 we actually have on the schedule -- there's three (3)
11 debt series that have been -- that were actuals at that
12 point in time, and their issue date was the -- the latest
13 one that was in that series was FM-4 September, 2009, so
14 the September 30th, 2009 date stamping seems to be
15 correct.

16 MR. BYRON WILLIAMS: And these are the
17 numbers that were flowed into the IFF, sir, just to
18 confirm that?

19 MR. MANFRED SCHULZ: The --

20 MR. BYRON WILLIAMS: Into IFF-09.

21 MR. MANFRED SCHULZ: The forecast volumes
22 that you're seeing there are outputs of IFF-09.

23 MR. BYRON WILLIAMS: And the forecast in
24 -- interest rates were built into IFF-09, correct?

25 MR. MANFRED SCHULZ: The coupon rates

1 that you have -- would see there, actually starting from
2 the 2009/'10 year down on that column beyond the first
3 three (3) rows which were actuals, going from 4.60
4 percent to five point two (5.2) reflect the IFF-09
5 interest rates that we had previously talked about.

6 MR. BYRON WILLIAMS: Thank you for that.
7 Now, if I just look at the total new debt for each
8 particular year, you'll see for the '09/'10 year it was
9 forecast that the total new debt would be \$900 million,
10 correct, sir?

11 MR. MANFRED SCHULZ: Correct.

12 MR. BYRON WILLIAMS: Of ten (10) --
13 2010/'11, total new debt was 800 million, correct?

14 MR. MANFRED SCHULZ: Correct.

15 MR. BYRON WILLIAMS: And '11/'12, a
16 smaller amount, being 600 million. Is that right, sir?

17 MR. MANFRED SCHULZ: For IFF-09, correct.

18 MR. BYRON WILLIAMS: And if we look at
19 the -- the mix of that \$900 million of debt actually
20 incurred or forecast in '09/'10, we would see that built
21 into it are two (2) floating-debt issues being C-107 and
22 F -- FM-4. Is that right, sir?

23 MR. MANFRED SCHULZ: Correct.

24 MR. BOB PETERS: So of that particular
25 year, total new debt was -- of the total of new debt,

1 about 200 million was floating, correct?

2

3 (BRIEF PAUSE)

4

5 MR. MANFRED SCHULZ: Correct.

6

7 (BRIEF PAUSE)

8

9 MR. BYRON WILLIAMS: And if we look to
10 the 2010/'11 year, you'll agree with me that there is --
11 we see no floating debt built into the forecast.

12 Would that be right, sir?

13 MR. MANFRED SCHULZ: Correct.

14 MR. BYRON WILLIAMS: And likewise for
15 2011/'12. Is that right?

16 MR. MANFRED SCHULZ: Again, those were as
17 per IFF-09. The commentary I would put is as part of
18 IFF-10 we introduced fixed floating as part of our
19 modelling algorithm.

20 MR. BYRON WILLIAMS: And we'll -- we'll
21 come to that in just one (1) second, that's exact --
22 exactly where I'm going, sir. So but built into IFF-09
23 for 2010/'11 was the long term -- in terms of new debt
24 was the long-term price of debt. Is that fair, being
25 4.65 percent, the forecast amount?

1 MR. MANFRED SCHULZ: Correct.

2 MR. BYRON WILLIAMS: And that's also the
3 case for 2011/'12 that built into the new debt forecast
4 in IFF-09 was debt at the projected long-term interest
5 rate of 5.2 percent.

6 Would that be fair?

7 MR. MANFRED SCHULZ: Correct.

8

9 (BRIEF PAUSE)

10

11 MR. BYRON WILLIAMS: Now, in IFF-09,
12 focussing on that first of all, my understanding was that
13 built into that forecast was that all new forecasted
14 long-term debt was assumed to be long-term fixed-rate
15 debt represented in Canadian dollars.

16 Is that fair, sir? I'm relying on your
17 response to CAC 1-43A if you're looking for it.

18 MR. MANFRED SCHULZ: I believe you're
19 correct, in terms of IFF-09 forecasted all new long-term
20 debt to be fixed-rate Canadian financing.

21 MR. BYRON WILLIAMS: And -- and certainly
22 -- actually, just to assist Mr. Schulz, because I don't
23 want to put words into his mouth, Ms. Boyd, I've got one
24 (1) here and I don't want to leave him uncomfortable with
25 that, we'll assist you, Mr. Schulz, or do you trust me,

1 sir? Well, we were on such --

2 MR. MANFRED SCHULZ: Trust, but verify it
3 in that curve.

4 MR. BYRON WILLIAMS: -- we were on such
5 friendly terms before.

6

7 (BRIEF PAUSE)

8

9 MR. MANFRED SCHULZ: What was the
10 reference again, Mr. Williams?

11 MR. BYRON WILLIAMS: 1-143(a), and I can
12 hand it right to the witness, Ms. Boyd, if you'll permit
13 me.

14

15 (BRIEF PAUSE)

16

17 MR. MANFRED SCHULZ: I have it, sir,
18 thank you.

19 MR. BYRON WILLIAMS: Okay, sorry -- sorry
20 about that, Mr. Schulz, and to the Board, for the delay.

21 Would it be correct to say that for the
22 purposes of IFF-09, all new long-term debt was assumed to
23 be Canadian dollar thirty (30) year fixed-rate
24 financing?

25 MR. MANFRED SCHULZ: A nuance to this,

1 the debt streams were forecast to be thirty (30) years,
2 the interest rate that was applied was a ten (10) plus,
3 which is the average arithmetically of the -- the
4 calculations for tens and thirties.

5 So you know, further to our earlier
6 conversation, you pointed out the -- the TD Economics
7 forecast, which was just the ten (10) year. In this
8 particular case, for the TD they did not provide a thirty
9 (30) year forecast. So when we do the forecast it's not
10 just the ten (10) year, it's the average of tens and
11 thirties.

12 So we apply an interest rate of, in IFF-
13 09, for ten (10) plus, which is arithmetically twenty
14 (20) years, but we apply it over a thirty (30) year time
15 period.

16 MR. BYRON WILLIAMS: Just so I'm clear on
17 that, the interest rate applied was for the -- the ten
18 (10) plus, i.e., the average between ten (10) and thirty
19 (30) years, correct?

20 MR. MANFRED SCHULZ: Correct. That's the
21 forecasting methodology that we have in place, is for ten
22 (10) year plus, which definitionally for us means the
23 averages of tens and thirty (30) year calculations for
24 long bonds.

25 MR. BYRON WILLIAMS: And it was over --

1 forecast to run over thirty (30) years.

2 MR. MANFRED SCHULZ: Yeah. And -- and
3 part of the algorithm, we only have -- well, in -- in
4 this case we applied it to a thirty (30) year time frame
5 in order to simplify the algorithm for IFF purposes so
6 that the financed expense would be at that rate for the
7 entire thirty (30) years.

8 MR. BYRON WILLIAMS: Now, that algorithm,
9 and approach, was adjusted in IFF-10 to consider the
10 inclusion of a certain percentage of floating-rate debt
11 as a percentage of the total new debt incurred. Is that
12 right, sir?

13 MR. MANFRED SCHULZ: Yes, and the
14 modifications and enhancements, I would call them, from
15 IFF-'09 to '10 did incorporate those changes in terms of
16 the composition of fixed and floating, and we used a 20
17 percent algorithm for the composition for new floating
18 rate -- or new debt, 20 percent of which would be
19 floating for IFF-10.

20 MR. BYRON WILLIAMS: Focussing back now
21 on IFF-09, and the approach that was in place at that
22 point in time, can you indicate how many years that that
23 particular approach, using long-term fixed rate debt for
24 all new forecasted long-term debt, had been built into --
25 to the IFF process, sir?

1 (BRIEF PAUSE)

2

3 MR. MANFRED SCHULZ: It certainly
4 predates my existence at Manitoba Hydro, and in -- just
5 in conversation with the previous treasurer, he would
6 confirm that to his recollection it was the same approach
7 during his tenure as treasurer as well.

8 MR. BYRON WILLIAMS: Now, Mr. Schulz, I
9 was assuming you'd been here as long as Mr. Warden, so
10 clearly not. Just -- just in terms of dates, how far
11 back would that -- would that go?

12 MR. MANFRED SCHULZ: That Mr. Warden
13 started or I? I started almost five (5) years ago to the
14 day.

15 MR. BYRON WILLIAMS: And, Mr. Rainkie,
16 that's -- that was the practice when you were treasurer,
17 as well?

18 MR. DARREN RAINKIE: Yes, it was, Mr.
19 Williams.

20 MR. BYRON WILLIAMS: And how far back
21 does that go?

22 MR. DARREN RAINKIE: That went back to
23 2000 -- end of 2005, early 2006. I think it's been a
24 fairly longstanding practice, Mr. Williams. It's -- I
25 would have called it a simplifying assumption that we

1 looked at in IFF-10 and decided that it was a -- a better
2 forecast to enhance it.

3 MR. BYRON WILLIAMS: I want to turn, Mr.
4 Chairman and Mr. Vice-Chair, to the NBF -- excerpts from
5 the NBF document which are presented in the CAC book of
6 documents, beginning at page 4. That's CAC/MSOS Exhibit
7 16. And if I could just be excused for one (1) second, I
8 think my audience has returned.

9

10 (BRIEF PAUSE)

11

12 MR. BYRON WILLIAMS: I'm not sure which
13 of the panel I should be directing these questions to
14 but, first of all, I'm assuming, at a high level, this
15 panel is familiar with the -- the National Bank report.
16 Would that be fair?

17 MR. MANFRED SCHULZ: I'll take that,
18 because it was executed through the treasury division and
19 as treasurer, I was -- I certainly did have overview to
20 this.

21 MR. BYRON WILLIAMS: And, Mr. Schulz,
22 fair enough. And if we get to a stage, it's more likely
23 on my part than your part, where we're -- you're
24 uncomfortable with answering the questions, you'll let me
25 know?

1 MR. MANFRED SCHULZ: Certainly.

2 MR. BYRON WILLIAMS: I want to direct
3 your attention first of all to Figure 9 and the
4 discussion that precedes it, which appears in the top
5 right-hand corner -- I mean, page 8 in the -- which is
6 numbered at the top right-hand corner, page 8.

7 Mr. Schulz, do you see that Figure 9
8 labelled Correlation Impact on Net Income, sir?

9 MR. MANFRED SCHULZ: Yes.

10 MR. BYRON WILLIAMS: And what -- I'm
11 going to suggest to you that, at a high level, what --
12 what this figure attempts to do visually is compare the
13 effect on net income volatility of a 100 percent fixed-
14 rate por -- portfolio versus a debt portfolio with 14
15 percent floating. Would that be fair, sir?

16 MR. MANFRED SCHULZ: Fair.

17 MR. BYRON WILLIAMS: And just directing
18 your attention to the top, to the top paragraph on page -
19 - the page that's numbered in the top, the same page,
20 this analysis of NBF flows from its findings suggesting
21 that short-term export power contract prices have higher
22 correlation with short-term interest rates than with
23 domes -- excuse me, than domestic rates and long-term
24 contracts, correct?

25 MR. MANFRED SCHULZ: Correct.

1 MR. BYRON WILLIAMS: And what National
2 Bank is suggesting, again at a -- I can't use the word
3 "high level" -- again in this discussion is that the
4 volatility in the pricing of these contracts could be
5 better mitigated by increasing the proportion of floating
6 rate debt, not -- not to a hundred percent, but that's
7 what -- that's what they're discussing here.

8 MR. MANFRED SCHULZ: Well, that was a bit
9 fundamental to their overall asset liability approach in
10 that they were able to statistically determine that there
11 was a correlation between short-term interest rates and
12 MISO pricing from the 2005 to 2009 period such that they,
13 in effect, acted as a hedge, if you will, so that as
14 interest rates, for instance, will have gone down, the
15 anticipation in the correlations would suggest that
16 export pricing would similarly so have gone down.

17 And the depiction as indicated in figure 9
18 conceptually, as I think you indicated, tries to depict
19 that for someone that perhaps may not be a statistician
20 but may be perhaps more of a visual person.

21 MR. BYRON WILLIAMS: And I -- I didn't
22 use the word "conceptually," but I like that a lot better
23 than "at a high level," so we're going to use that from -
24 - from now on, Mr. Schulz, and I'll thank you for that.

25 And -- and just to -- to work through this

1 figure again for -- for those of us who are more visually
2 than statistically inclined, and focussing on the left-
3 hand side of this figure, this is, the left-hand side,
4 I'll ask you just to confirm without elaborating, is a
5 hundred percent fixed. It's a graphical or figurative
6 illustration of -- of that, right, sir?

7 MR. MANFRED SCHULZ: Yes, that's correct
8 because the horizontal line in this depiction indicates
9 that interest expense would not be fluctuating and,
10 hence, would be 100 percent fixed.

11 MR. BYRON WILLIAMS: And the top line in
12 this figure is revenue, which is happily swooping up at a
13 high degree, and then less happily swooping down, and
14 then up again. Do you see that, sir?

15 MR. MANFRED SCHULZ: I do.

16 MR. BYRON WILLIAMS: And the second line
17 is the earnings before interest expense line, which --
18 which follows the same path as the revenue line, correct,
19 earnings before interest expense line?

20 MR. MANFRED SCHULZ: Correct.

21 MR. BYRON WILLIAMS: Sorry for that
22 imprecision. And the flat line, as you've indicated
23 previously, is interest expense, and -- and that's
24 because it's a hundred percent fixed, correct?

25 MR. MANFRED SCHULZ: Correct.

1 MR. BYRON WILLIAMS: And you'll see in
2 the middle of that figure a net income line, and what
3 that portrays is that net income is the gap between
4 interest expense and earnings before interest expense,
5 correct?

6 MR. MANFRED SCHULZ: Yes, graphically
7 depicted here.

8 MR. BYRON WILLIAMS: Yeah. And again,
9 graphically. And, essentially, the wider the gap, the
10 bigger the net income, correct, the wider the gap between
11 interest expense and earning before interest expense,
12 graphically depicted?

13 MR. MANFRED SCHULZ: Correct.

14 MR. BYRON WILLIAMS: The smaller the gap,
15 the smaller the net income, as depicted in this graph?

16 MR. MANFRED SCHULZ: Correct.

17 MR. BYRON WILLIAMS: And on the right-
18 hand side of this figure the same portrayal is done for a
19 14 percent floating portfolio, correct?

20 MR. MANFRED SCHULZ: Correct.

21 MR. BYRON WILLIAMS: And if we were to
22 compare the two (2) figures, that being the hundred
23 percent fixed and the 14 percent floating, the -- the one
24 (1) -- well, one (1) of the major differences is that on
25 the right-hand side the interest expense line is not

1 flat; it's -- it's not equal at each stage of the figure.

2 MR. MANFRED SCHULZ: Correct. And -- and
3 what that's depicting is circumstances where, say, the
4 interest rates would have stayed low, as we are currently
5 in right now, and it would indicate that the revenues
6 would -- all other things being considered equal, would
7 be moving down with that, as well. And then on the way
8 up, when there's more robust economic recovery, interest
9 rates would go up, and so you'd see this natural hedging
10 that would occur.

11 MR. BYRON WILLIAMS: And that's a
12 reflection of their conclusion with regard to the
13 correlation between interest rates and short-term power
14 prices, correct?

15 MR. MANFRED SCHULZ: Correct, and their
16 statistical analysis is actually indicated on page 7, an
17 earlier preceding page, which indicated that the
18 correlation, while not perfect, it's not one (1) to one
19 (1), but statistically showing that the -- the
20 relationship between Canadian short-term interest rates
21 and export short term and spot pricing was point four six
22 (.46) and the US short-term interest rates was point
23 three seven (.37) as a statistical correlation to export
24 pricing.

25 MR. BYRON WILLIAMS: Thank you for that.

1 And just going back to figure 9 for a couple more
2 seconds, comparing the two (2) portfolios, and looking at
3 the hundred percent fixed, if we go to a declining
4 revenue time we see, for example, at the extreme left-
5 hand side of the -- the -- the figure, you'll see, as
6 well, a declining net income. Would that be fair, sir?

7 MR. MANFRED SCHULZ: Can you just repeat
8 that, please?

9 MR. BYRON WILLIAMS: Yeah, I didn't do
10 that as well as I should have and I apologize for that.
11 I'll direct your attention to the left-hand side of the
12 hundred percent fixed graph. You see that the revenue at
13 the extreme left is relatively low, sir? Do you see
14 that?

15 MR. MANFRED SCHULZ: The revenue on --
16 are you speaking --

17 MR. BYRON WILLIAMS: The 100 percent
18 fixed I'm referring --

19 MR. MANFRED SCHULZ: The 100 percent
20 fixed chart and you're talking about the --

21 MR. BYRON WILLIAMS: On the extreme left-
22 hand side, sir.

23 MR. MANFRED SCHULZ: Against the Y axis?

24 MR. BYRON WILLIAMS: Yeah.

25 MR. MANFRED SCHULZ: It's about the -- it

1 is what you see, yeah.

2 MR. BYRON WILLIAMS: I -- I guess what
3 I'm suggesting you -- to you, sir, is at low revenue
4 times, on the hundred percent fixed table as compared to
5 the 14 percent floating, the net income is -- is
6 considerably smaller as depicted in this graph?

7 MR. MANFRED SCHULZ: Well, you know, I
8 think this was just --

9 MR. BYRON WILLIAMS: Smaller?

10 MR. MANFRED SCHULZ: -- this was drawn
11 for conceptual purposes and I wouldn't drawn any kind of
12 numerical or quantitative or, you know, adjectives
13 associated with that, Mr. Williams.

14 MR. BYRON WILLIAMS: The point you make,
15 sir, as does NBF, is that there's -- if you look at the
16 14 percent as compared to the hundred percent fixed,
17 there is value in having the -- a floating rate as some
18 component, beca -- because it serves as a hedge in low
19 export spot market times. Is that fair?

20 MR. MANFRED SCHULZ: Correct. And the
21 maximum of that is articulated within the modelling
22 performed by National Bank was 14 percent.

23 MR. BYRON WILLIAMS: And I'm going to ask
24 you to -- to turn to page 9 of the table, which is the
25 scenario analysis. And not that anything hinges upon it,

1 but it's your understanding that the National Bank
2 performed a Monte Carlo simulation in terms of its
3 scenario analysis, sir?

4 MR. MANFRED SCHULZ: Correct.

5 MR. BYRON WILLIAMS: And essentially what
6 it did was generate a set of ten thousand (10,000)
7 scenarios for each of what it identified as key factors.

8 Would that be fair?

9 MR. MANFRED SCHULZ: Yeah, it laid ten
10 thousand (10,000) scen -- ten thousand (10,000) scenarios
11 for each of those five (5) variables that they
12 articulated, I think even --

13 MR. BYRON WILLIAMS: Two (2) pages
14 previous.

15 MR. MANFRED SCHULZ: -- two (2) pages
16 previously and laid them across one hundred (100)
17 different portfolios ranging from 100 percent fixed zero
18 floating to 100 percent floating zero fixed.

19 MR. BYRON WILLIAMS: And it did so first
20 of all to consider the inherent volatility of each given
21 portfolio scenario. Would that be fair?

22 MR. MANFRED SCHULZ: State that question
23 again, please?

24 MR. BYRON WILLIAMS: It did so to
25 consider the inherent volatility of each portfolio

1 scenario in terms of impact on net income, correct? If
2 you can't, sir, let me -- let me move ahead if -- if
3 that's -- what ultimately they produced by overlie --
4 laying these -- these scenarios over a hundred different
5 portfolios was an average return, which was defined as
6 net income impact, and a risk, the level of volatility of
7 the net income impact. Would that be fair, sir?

8 MR. MANFRED SCHULZ: Yeah, and they ended
9 up reducing it statistically on relative terms down to an
10 index of one hundred (100), and so as you're indicating
11 here on Table 13, I think they articulated some of those
12 reference relative figures.

13 MR. BYRON WILLIAMS: Yes, and that's
14 where I want to turn to you -- you to, sir. We see the
15 Table 13 at the bottom of page 34, and defined as a
16 portfolio -- or describes as a Portfolio Risk/Return
17 Matrix.

18 And in the left-hand side, we see five (5)
19 different portfolios identified, correct? Sir, I'm
20 referring you to Table 13.

21 MR. MANFRED SCHULZ: Can you repeat that
22 question again, sir?

23 MR. BYRON WILLIAMS: It identifies five
24 (5) different portfolios on the left-hand side, sir?

25 MR. MANFRED SCHULZ: Correct.

1 MR. BYRON WILLIAMS: And the differences
2 in the portfolios is articulated by the percentage of
3 floating debt that they have with the one (1) -- number 1
4 fixed having zero percent floating debt, while at the
5 other extreme, number 5 floating, has 100 percent
6 floating debt, correct?

7 MR. MANFRED SCHULZ: I'm with you, sir.

8 MR. BYRON WILLIAMS: And in terms of
9 adjusted risk, the adjusted risk index, risk in this case
10 we're looking at the level of volatility of net income im
11 -- impact, is that correct, sir?

12 MR. MANFRED SCHULZ: Correct.

13 MR. BYRON WILLIAMS: And the baseline
14 essentially that it establishes is a 100 percent fixed
15 portfolio, being item number 1, with a -- with the
16 adjusted risk marked as one hundred (100).

17 Would that be fair, sir?

18 MR. MANFRED SCHULZ: Correct.

19 MR. BYRON WILLIAMS: And just in terms of
20 risk, if I were to compare the twenty (20) -- the number
21 4 fixed equivalent at floating 27 percent, the conclusion
22 of NBF based upon its scenario was that these two (2)
23 portfolios, one (1) being 100 percent fixed, the other
24 being 27 percent, floating would have the same adjusted
25 risk. Would that be fair, sir?

1 return was also somewhat less, correct?

2 MR. MANFRED SCHULZ: Correct.

3 MR. BYRON WILLIAMS: Half -- half -- 50
4 percent on the index, would that be fair, sir?

5 MR. MANFRED SCHULZ: On a relative basis,
6 correct.

7

8 (BRIEF PAUSE)

9

10 MR. BYRON WILLIAMS: And if I can turn
11 your attention, Mr. Schulz, to the next page, which is
12 Figure 10, which appears in the top right-hand corner, is
13 number -- page number 10 in the book of documents,
14 CAC/MSOS-16. Do you have that, sir?

15 You have that? Sorry. Yeah, I'm
16 referring you to Figure 10. You're -- you ha -- it's in
17 front of you?

18 MR. MANFRED SCHULZ: Yes.

19 MR. BYRON WILLIAMS: I'm getting a little
20 fatigued at the end of the -- the day, Mr. Schulz. I
21 apologize. And essentially, this is again a -- a
22 pictorial or graphical illustration of the -- the Table
23 13 on the previous page. Is that right, sir?

24 MR. MANFRED SCHULZ: I would say that
25 Figure 13 is probably a tabular reflection of the curve.

1 MR. BYRON WILLIAMS: Fair enough, and I -
2 - I thank you for that. Again, for comparison purposes,
3 when we look at this Figure 10, on the left-hand side we
4 see return. Do you see that, sir?

5 MR. MANFRED SCHULZ: I do.

6 MR. BYRON WILLIAMS: And -- and again,
7 this is the return index, correct?

8 MR. MANFRED SCHULZ: Yes, this is the
9 relative return, relative to the fixed equivalent which
10 was shown at one hundred (100) return.

11 MR. BYRON WILLIAMS: And on the bottom
12 line of the axis -- and -- and, sir, I apologize, I can
13 never remember what is 'Y', what is 'X' -- we have the
14 risk index, as well. Is that correct, sir?

15 MR. MANFRED SCHULZ: Correct.

16 MR. BYRON WILLIAMS: And graphically,
17 comparing the two (2) -- excuse me. Graphically, if I
18 start at the 100 percent fixed and move up to my left to
19 the minimum variance, being 14 percent floating, what I
20 see is -- the conclusion of NBF is that this floating
21 portfolio of 14 percent had less risk than the hundred
22 percent fixed, and also, based upon the indexed, a -- a
23 higher return. Would that be fair?

24 MR. MANFRED SCHULZ: No, not entirely
25 correct. There's a nuance in here. The risk that you

1 are describing on the 'X' axis here is income statement
2 volatility. The risk that they articulated it, as well,
3 I think in the body of their report is that when you take
4 on more floating rate debt you are incurring interest
5 rate risk. So that's another dimension to the risk
6 that's not necessarily captured on this chart.

7 So as we're moving from zero percent fixed
8 rate financing, which is intersecting on the 'X' axis up
9 to 14 percent, the conclusion of National Bank would be
10 that you are reducing your income statement volatility
11 because of the natural hedging that occurred in -- in --
12 on those conceptual diagrams that you pointed me to.
13 However, they would also say that, in the context of
14 interest rate risk, that you're increasing that interest
15 rate risk.

16 MR. BYRON WILLIAMS: Fair enough. And so
17 in terms of income volatility risk, it is reduced and the
18 return is enhanced relative to the hundred percent fixed,
19 would that be fair?

20 MR. MANFRED SCHULZ: Correct. And again,
21 that was based on working on their existing -- our
22 existing Manitoba Hydro debt portfolio, and I believe it
23 -- and it may be articulated in the references that you
24 provided here, but the term to maturity of our fixed-rate
25 portfolio I think was 14.7 percent in 2008 and had a

1 shorter term to maturity on the floating-rate debt. So
2 when you move up the -- the 'Y' axis, if you will, on
3 this chart, you're actually picking up the term spread in
4 our existing debt portfolio.

5 MR. BYRON WILLIAMS: Thank you for that.
6 Just in terms of the NBF analysis, what they also suggest
7 in terms of income statement risk is that the fixed
8 equivalent, being 27 percent floating, has about the
9 equivalent risk to the hundred percent fixed in terms of
10 income state volatility. Is that right, sir?

11 MR. MANFRED SCHULZ: That's what their
12 modelling concluded.

13 MR. BYRON WILLIAMS: In terms of this
14 model, can you indicate what kind of assumptions the
15 model made in scenarios with an inverted yield curve,
16 sir? And this is not a -- a term of modelling art, but,
17 for example, are you aware whether or not the model uses
18 Smartlogic, for example, to suggest that one would act
19 rationally and reduce short-term debt in an inverted
20 yield curve environment? If you're not aware, that's
21 fine, sir.

22 MR. MANFRED SCHULZ: Well, I'm not sure
23 that I would define that as smart logic, necessarily.
24 But to my understanding, the -- the logic that you refer
25 to is not built into the modelling algorithm, per se.

1 Chairman, if it would assist at all, I'm prepared to
2 start sooner, but...

3 THE CHAIRPERSON: 9:30's fine.

4

5 (PANEL RETIRES)

6

7 --- Upon adjourning at 3:57 p.m.

8

9 Certified Correct

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13 Cheryl Lavigne, Ms.

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