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MANITOBA PUBLIC UTILITIES BOARD

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

Before Board Panel:

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

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
March 1, 2011
Pages 3359 to 3559

1 APPEARANCES

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EXHIBITS

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1 --- Upon commencing at 9:35 a.m.

2

3 THE CHAIRPERSON: Okay. Good morning,
4 everyone. Ms. Southall...?

5

6 KPMG PANEL:

7

8 WILL LIPSON, Resumed

9 FRANK CHEN, Resumed

10 JONATHAN ERLING, Resumed

11 ANURAG GUPTA, Resumed

12

13 CONTINUED CROSS-EXAMINATION BY MS. ANITA SOUTHALL:

14 MS. ANITA SOUTHALL: Good morning. Could
15 I ask the panel to please -- I'm not entirely sure what
16 page reference it is. I apologize. I do have a
17 reference on page 92 to the SPLASH model, but I think
18 there's -- in fact, I'm certain there's earlier
19 references to KPMG's approach to review of the models.
20 So if the panel would take a moment and -- and locate the
21 section where they first talk about the models. I'm
22 sorry I can't give you a page reference.

23 And I'm directing you there just so -- so
24 you're aware of the point that I would like to ask about
25 first thing this morning, which is the fact that KPMG

1 asserted there was a detailed review of the HERMES model
2 but a high-level review of SPLASH and PRISM, in
3 particular. And so the question is why was there no
4 detailed review of the SPLASH model? Thank you. Mr.
5 Wood indicates it starts at page 21. Thank you, Mr.
6 Wood.

7 MR. JONATHAN ERLING: Essentially, if you
8 look at the materials prepared by the New York
9 consultant, the majority of her assertions regarding
10 model errors or inappropriate modelling was in connection
11 with the HERMES model. And, specifically, most of the
12 specific numbers that I recall were in connection with
13 the HERMES model, and she raised a number of detailed
14 issues.

15 So that was why we focussed on -- on
16 HERMES. I think the other consideration is that HERMES
17 clearly is the system that is most closely tied to
18 management decision making with respect to export sales
19 commitments in the near term and the process of dealing
20 with forecast variability in near-term water flows.

21 MS. ANITA SOUTHALL: Mr. Erling or panel
22 members, is it true that the SPLASH model is utilized for
23 long-term planning as well as the production of Hydro's
24 IFF?

25 MR. JONATHAN ERLING: Yes, it is.

1 MS. ANITA SOUTHALL: If you could turn to
2 page 23, please. The first line of the second-last
3 paragraph on that page KPMG makes the statement:

4 "We did not undertake an audit of the
5 models or verify their computational
6 accuracy."

7 Is that true?

8 MR. JONATHAN ERLING: Certainly, yes.

9 THE CHAIRPERSON: Why not, sir?

10 MR. JONATHAN ERLING: I think in general
11 if you look at the New York consultant's allegations they
12 really concern the assumptions used in the modelling
13 rather than the computational accuracy, or flaws,
14 perhaps, in the ways that the models are operated, or the
15 oversight that's ex -- exercised on the models.

16 At -- nobody, to my knowledge or
17 recollection has raised concerns that, for example, the
18 linear programming modules are not working appropriately.
19 I mean, I think the core of the model is a -- an external
20 software package, but it -- the -- really the essential -
21 - the model has been tailored by Manitoba Hydro.

22 So -- and I think I would also note, it
23 would be very difficult and time consuming for us to do
24 that type of audit work. And I'm not sure it's really
25 necessary in this circumstance. So if I refer to the

1 text, really the approach was we assessed the overall
2 reasonableness of the modelling approach, taking into
3 account the use of the model's input, assumptions, and --
4 and evidence with respect to how effective they were at
5 fulfilling their functions.

6 MR. ROBERT MAYER: How much time would it
7 have taken you to do what you said you didn't do,
8 undertake the audit of the models and verify their
9 computational accuracy?

10 MR. JONATHAN ERLING: I have not -- I
11 have not put together an estimate of -- of the resources
12 that would be required to do that. And -- and actually,
13 I'd have to think about what it is we would need to do to
14 -- to do such an audit.

15 MR. ROBERT MAYER: Are -- are you -- are
16 you telling me that KPMG doesn't have the internal
17 resources to do something like that, or are you telling
18 me you've just never done it before?

19 MR. JONATHAN ERLING: Well, I will defer
20 in a moment to Frank in case he has anything to add, but
21 to my knowledge it's not one (1) of our business lines
22 to, you know, verify the computational accuracy of -- of
23 client software, but I'll defer -- I mean, it's certainly
24 not something that we do in the -- in the power and
25 utilities advisory practice that I'm a part of, but I'll

1 defer to Frank because he may have knowledge of -- of
2 that with respect to kind of the broader sectors that use
3 audit.

4 MR. FRANK CHEN: KPMG has a -- a service
5 or resources to validate or audit models. However,
6 there's a variety of different models and with different
7 purposes. So KPMG has focussed its modelling audits or
8 services around risk management or analytic models
9 dealing with more trading rather than hydrologic models.

10 So pricing models, if -- if you will,
11 stress testing models, probabilistic models such as VaR,
12 sensitivity analysis models. Hydrologic or engineering
13 type or physical planning type models, that's outside
14 KPMG's core -- core expertise.

15 THE CHAIRPERSON: All right. Just to
16 recall again, I think you -- you've already testified
17 that the -- the opportunity to consult Board staff and
18 Board advisors prior to commencing your engagement was
19 not taken up because KPMG made the decision it wasn't
20 necessary. That's correct, is it not?

21 MR. WILL LIPSON: Yes, we defined our
22 scope from our Phase 1 exercise that was accepted by
23 Manitoba Hydro, you know, by the Board -- or the audit
24 committee of the Board. And, you know, we understood we
25 had lots of work to do and we just continued on to do

1 that scope. To the degree that there was any
2 consultation that, you know, our client felt was
3 necessary, we left it with them to come back to you.

4 THE CHAIRPERSON: Thank you. Ms.
5 Southall.

6 MS. ANITA SOUTHALL: Thank you, Mr.
7 Chairman.

8

9 CONTINUED BY MS. ANITA SOUTHALL:

10 MS. ANITA SOUTHALL: Mr. Chen, you
11 referred to VAR, I think, is that Value at Risk?

12 MR. FRANK CHEN: Correct.

13 MS. ANITA SOUTHALL: Thank you. Public
14 Utility Board counsel put an information request to KPMG.
15 It is at Tab 9 of the reference materials. If you could
16 refer to that tab, please. This is PUB-MH-RISK-95(b).
17 The question posed was:

18 "Please indicate whether KPMG undertook
19 any back testing in assessing the
20 validity of the models. In particular,
21 was any back testing undertaken by KPMG
22 of the 2003/04 drought period. If not,
23 why not?"

24 The response provided by KPMG states:

25 "KPMG did not request any back testing

1 with respect to the 2003/04 drought
2 period. This period was out of scope
3 for our analysis because our work was
4 focussed on the period covered by the
5 consultants' reports. We also noted
6 that the 2003/04 drought had already
7 been the subject of a prior PUB review
8 and of other external consultant
9 reports."

10 I have read that into the record. Is that
11 the accurate response provided by KPMG?

12 MR. JONATHAN ERLING: Yes, it is.

13 MS. ANITA SOUTHALL: How did KPMG come to
14 understand that the validity of the models had been
15 established to the satisfaction of the PUB?

16 MR. JONATHAN ERLING: I don't know that
17 we came to that understanding. The sentence that I'm
18 looking at says:

19 "We also noted that the 2003/04 drought
20 had already been the subject of a prior
21 PUB review and other external
22 consultant reports."

23 I see nothing in that sentence that
24 indicates to me that we came to any conclusion about
25 PUB's review of the models in connection with -- with

1 that review.

2 MS. ANITA SOUTHALL: Well, let me
3 understand what you mean by the last comment, which
4 supported the reason why back testing for the 2003/04
5 drought period wasn't undertaken.

6 What are we to infer from the fact that
7 the PUB had previously reviewed the drought period and
8 that being a reason why KPMG wouldn't undertake the back
9 testing? What -- what is the point being made in that
10 last sentence?

11 MR. JONATHAN ERLING: Well, I think the -
12 - the broader context, and certainly when I began the
13 work we reviewed some of the materials that are in the
14 binder of material, including the RiskAdvisory reports
15 and some of the PUB proceedings.

16 And really what I concluded from a review
17 of those materials was that the major concerns with
18 respect to the 2003/04 drought period were with respect
19 to decision making about gas purchasing and hedging
20 strategies, and some certain management decisions with
21 respect to operating decisions in relation to production
22 schedules. I -- I didn't recall any con -- specific
23 concerns about the capability of the models.

24 MS. ANITA SOUTHALL: Mr. Erling and
25 panel, could you turn to Tab 5, please, of our reference

1 materials.

2

3

(BRIEF PAUSE)

4

5 MS. ANITA SOUTHALL: This is a similar,
6 almost the same question, at PUB-MH-RISK-74, and can you
7 tell me whether or not it was Manitoba Hydro, or KPMG,
8 that provided this answer?

9 MR. JONATHAN ERLING: I assume that it
10 was Manitoba Hydro because usually when the response is
11 from KPMG there's a subheading that indicates KPMG.
12 There -- there will be a -- a -- usually there's a
13 subheading that has KPMG if we -- we wrote the answer.

14 For example, if you look at Tab 9 the
15 answer, there's a head -- heading that says, "Answer,"
16 and then below it there's a underlined note that says,
17 "KPMG Response," so Manitoba Hydro elected to answer
18 certain questions on its own account.

19 MS. ANITA SOUTHALL: So this would be, to
20 the best of your knowledge, Manitoba Hydro's response.

21 MR. JONATHAN ERLING: Yes. I will look
22 down at my colleagues, and see if I'm getting any violent
23 nods of disagreement, and seeing none I will say, Yes.

24 MS. ANITA SOUTHALL: There's a statement
25 at the conclusion, the last paragraph of the answer on

1 PUB-MH-Risk-74 that is the statement:

2 "Manitoba Hydro's drought management
3 strategies, models, and forecasting
4 technique were all in place in 2002 to
5 2004. And testing them against that
6 specific year with per -- perfect
7 hindsight with regard to prices would
8 not have changed the conclusions."

9 Do -- do you see that? Do you see that in
10 the answer?

11 MR. JONATHAN ERLING: Yes, I do.

12 MS. ANITA SOUTHALL: Did you have an
13 opportunity to review this response prior to today?

14 MR. JONATHAN ERLING: Yes, I did,
15 certainly part of the package of materials that I think
16 we were pro -- provided with prior to appearing.

17 MS. ANITA SOUTHALL: Is this information
18 that Manitoba Hydro would have shared with you with
19 respect to supplying you with information in the work
20 that you undertook? In other words, did anyone on the
21 panel or anyone in your team were told that in fact this
22 was the case, what's captured in that paragraph?

23 MR. JONATHAN ERLING: Were we told that
24 Manitoba Hydro's drought management strategies, models,
25 and forecasting techniques were all in place?

1 MS. ANITA SOUTHALL: In 2002 to 2004,
2 yes.

3 MR. JONATHAN ERLING: I don't --

4 MS. ANITA SOUTHALL: Did you come away
5 with that understanding from discussions or information
6 provided by Hydro?

7 MR. JONATHAN ERLING: Yes, but with the
8 important caveat that obviously the models have been
9 changing over time, you know, the core model be -- be
10 similar, but input assumptions and -- and modules evolve,
11 so there's certainly not a static system.

12 MS. ANITA SOUTHALL: Thank you. Could
13 you turn to Tab 10, please, of the reference materials.
14 I understand that the RiskAdvisory report, dated April 1,
15 2003, which is found at Tab 10 of the reference
16 materials, is a third-party consultant report that KPMG
17 had access to and reviewed as part of its work?

18 MR. JONATHAN ERLING: Yes, it is.

19 MS. ANITA SOUTHALL: Could you turn to
20 page 4 of the report, please. And the third paragraph
21 down there is the following statements:

22 "The largest unknown in the portfolio
23 is the availability of hydro resources.
24 The risk of a drought is a primary
25 reason that more long-term firm sales

1 have not been consummated. Overselling
2 firm power beyond dependable resources
3 would put Hydro in a riskier position,
4 exposing it to supply shortfalls and to
5 potentially high costs resulting from
6 having to buy wholesale power.
7 Hydro's dependable resources already
8 expose it to the high cost of natural
9 gas-fired generation and/or wholesale
10 power purchase costs during extreme
11 drought conditions when power from
12 hydro resources is unavailable."

13 Do you see that excerpt?

14 MR. JONATHAN ERLING: I do.

15 MS. ANITA SOUTHALL: And -- and KPMG had
16 access to this information as part of this report, I take
17 it?

18 MR. JONATHAN ERLING: Yes, of course.

19 MS. ANITA SOUTHALL: And the RiskAdvisory
20 report, dated April 1, 2003, you are aware that this was
21 provided to Hydro on -- by virtue of a retainer for
22 RiskAdvisory in -- in the drought itself in the period of
23 the drought that they were experiencing -- or on the
24 verge of experiencing?

25 MR. JONATHAN ERLING: Well, I -- I didn't

1 myself pay a lot of attention to the specifics concerning
2 how RiskAdvisory was retained. We -- you know, I
3 certainly -- when I looked at I looked at the main
4 conclusions of the report and not how it might have been
5 procured. I mean, I think as a general comment we didn't
6 think it would be useful to go -- for us to go back and
7 revisit management decision making in a past time period,
8 particularly since it had been a subject of a PUB
9 process, and I -- I wasn't sure what value we would add
10 some years after the fact.

11 MS. ANITA SOUTHALL: I won't read it in,
12 but there are references on page 11 and 12 of the report,
13 if you could turn there, please. There is, for example,
14 commentary in the last paragraph of page 11. The
15 statement:

16 "Manitoba Hydro believes and
17 RiskAdvisory concurs that more analysis
18 is required to refine the estimated
19 magnitude of the risk elements in its
20 portfolio described throughout this
21 report and to examine the availability
22 and appropriateness of the various
23 derivative instruments that could be
24 [pardon me] that could potentially be
25 used to manage these exposures. This

1 behalf of the ratepayer. The objective
2 would be to have the Manitoba Public
3 Utilities Board approve the program
4 parameters, in principle, ex ante and
5 avoid the potential for negative
6 hindsight review to the degree
7 possible. This approach is consistent
8 with Hydro's historical relationship
9 with the Board and RiskAdvisory's
10 experience in a number of different
11 regulatory jurisdictions."

12 Do you remember reviewing this section,
13 sir?

14 MR. JONATHAN ERLING: I -- I don't
15 remember reviewing it, but I acknowledge that it's here.

16 MS. ANITA SOUTHALL: Thank you. If you
17 could turn to pa -- Tab 11, please.

18
19 (BRIEF PAUSE)

20
21 MS. ANITA SOUTHALL: Pardon me, I just
22 need a moment.

23
24 (BRIEF PAUSE)

25

1 MS. ANITA SOUTHALL: If you could turn to
2 page 7 of Tab 11. And for the record, just indicating
3 that Tab 11 includes a RiskAdvisory report provided to
4 Manitoba Hydro, entitled "2002-2004 Drought Risk-
5 Management Review", dated January 18, 2005.

6 And, sir, this again was a third-party
7 report that KPMG listed as one (1) of the resources it
8 examined in doing its work, correct?

9 MR. JONATHAN ERLING: Yes.

10 MS. ANITA SOUTHALL: Did you or anyone on
11 your team or anyone on the panel read this report?

12 MR. JONATHAN ERLING: I think we've
13 already indicated we've read this report several times.

14 MS. ANITA SOUTHALL: Actually, this is a
15 new report. This is the next document.

16 MR. JONATHAN ERLING: I've read this
17 report as well.

18 MS. ANITA SOUTHALL: I think I asked you
19 to look at page 7. There is a statement made on the --
20 about the third paragraph of page 7 under the heading,
21 "The '03 Drought" and it states:

22 "In January '03 the Power Sales and
23 Operations Division had estimated that
24 the potential reduction in net revenue
25 mainly caused by a drought and

1 continued high natural gas prices could
2 reach as much as \$700 million."

3 In the next paragraph, the statement:

4 "The Manitoba Hydro board of directors
5 was apprised of the potential for a
6 drought in January 2003. However, the
7 Corporation's financial exposure was
8 not discussed in detail at that time
9 given the probability of such an
10 extreme deterioration in net revenues
11 was still low."

12 Do you see that?

13 MR. JONATHAN ERLING: I do.

14 MS. ANITA SOUTHALL: Did you make any
15 inquiries of Manitoba Hydro on reviewing this third-party
16 report as to whether or not this information was
17 accurate?

18 MR. JONATHAN ERLING: I did certainly not
19 make any inquiries on that specific statement, but I
20 mean, our role was not to revisit the RiskAdvisory report
21 and confirm its findings. That would not have seemed an
22 appropriate use of our resources.

23 We had general discussions with management
24 about the 2003 and '04 drought period because it's an
25 important background to understanding, you know, the

1 Company's approach to managing drought, and some of the
2 lessons that it learned during that period, and obviously
3 it's an -- an important historical event that informs the
4 -- the process of management of the Company.

5 MS. ANITA SOUTHALL: Can you tell us,
6 please, Mr. Erling, what lessons were learned? I -- I
7 take it that Manitoba Hydro shared that with you.

8 MR. JONATHAN ERLING: Well, I think that,
9 for example, the PRISM model, which we reviewed in the
10 report, is one (1) outcome of the drought period, and was
11 ultimately a -- a deliverable, I believe, provided by
12 RiskAdvisory, that allows it to do some analysis of
13 potential risk events and their implications using Monte
14 Carlo simulation.

15 So you know, is one (1) evident --
16 evidence, or a piece of evidence, with respect to
17 evolution in their management decision-making tools.

18 MS. ANITA SOUTHALL: If you could just
19 turn to page 8 of the RiskAdvisory report at Tab 11.
20 RiskAdvisory notes in the end of the second paragraph on
21 that page:

22 "It was during the second quarter of
23 '03 that a drought-management plan was
24 put in place."

25 Do you see that?

1 MR. JONATHAN ERLING: I do.

2 MS. ANITA SOUTHALL: Did you ask any
3 questions arising from these reports, or any other
4 reports, as to the nature of Manitoba Hydro's drought
5 plan preparedness with respect to the -- this 2003/04
6 drought period?

7 MR. JONATHAN ERLING: Well, my
8 recollection, as I indicated in the prior answer, is that
9 we did have general discussions with management about the
10 course of events in the 2003/04 drought. I'll give an
11 opportunity to any pan -- panel members to, if they wish
12 to indicate how discussions on that issue informed their
13 work.

14 MR. ANURAG GUPTA: I -- I can add to
15 that. As Jonathan indicated, we -- we did have
16 discussions with Manitoba Hydro regarding the last major
17 drought because it has -- you know, one (1) of the
18 lessons learned, I think, from that event was also the
19 amount of retained earnings that Manitoba Hydro carries
20 as a -- as a buffer against the financial impacts of
21 drought.

22 And -- and as Jonathan has indicated, we
23 had discussions with Manitoba Hydro on -- on that because
24 it did inform our current work.

25

1 (BRIEF PAUSE)

2

3 MS. ANITA SOUTHALL: Were you aware as to
4 whether or not there was a written drought-preparedness
5 plan in the -- prior to the second quarter of 2003 with
6 Manitoba Hydro?

7 MR. JONATHAN ERLING: I don't recall
8 specifically that point.

9 MS. ANITA SOUTHALL: Do they have a
10 written drought plan now?

11 MR. JONATHAN ERLING: My understanding is
12 that they have prepared a draft drought plan that may be
13 internal circulation. I believe the transcript from
14 earlier in this proceeding shows that there has been no
15 final drought-preparedness plan.

16 MS. ANITA SOUTHALL: Does KPMG recommend
17 that that plan be put in place?

18 MR. JONATHAN ERLING: I'm not sure I've
19 made any recommendations with respect to that issue, but
20 -- in the modelling chapter, but I'll defer to my panel
21 members on that issue.

22

23 (BRIEF PAUSE)

24

25 MR. WILL LIPSON: Yeah, I think our --

1 our general understanding is that drought awareness
2 permeates throughout, you know, the relevant sections of
3 the organization -- they're, you know, the means by which
4 they discuss contracting, the definition of dependable
5 energy. Many, many aspects deal with the risk of
6 drought, you know, in the way Manitoba Hydro operates.

7 The value of documenting those procedures
8 into a single, you know, document for the PUB or for the
9 -- for various stakeholders, there probably is some
10 merit. That's probably why it's going on now, but it's
11 not like there is a lack of awareness of what -- how the
12 drought is a risk and how the drought has to be managed.

13 So, you know, like anything, it's probably
14 a worthwhile thing to put together into one (1) document,
15 but it's not a big deficiency of any sort, in our view.

16 MR. ROBERT MAYER: I -- I could swear I
17 wrote -- read in this report that Manitoba Hydro does not
18 have a dro -- a drought-preparedness plan in writing and
19 that KPMG recommended it. I'm going to try to find that,
20 but I could have sworn I wor -- read that somewhere.

21 THE CHAIRPERSON: Why don't we leave that
22 question, and you'll probably find it sometime today.

23

24

(BRIEF PAUSE)

25

1 CONTINUED BY MS. ANITA SOUTHALL:

2 MS. ANITA SOUTHALL: Could the panel tell
3 me if anyone with KPMG re -- has reviewed the draft plan?

4 MR. JONATHAN ERLING: I -- I don't recall
5 reviewing the draft plan.

6 MS. ANITA SOUTHALL: Could you look at
7 page 33 at Tab 11. Again, this is the January 18, 2005
8 RiskAdvisory report. Under the heading at the top of the
9 page, "Management reporting," there's a statement:

10 "One (1) of the key objectives
11 associated with risk-management
12 reporting is the reduction of
13 'surprises that can have a material
14 impact on revenues and income.' A
15 concern with the Hydro drought
16 situation was that there appeared to be
17 an element of surprise among the
18 executive team around the magnitude of
19 losses as they unfolded."

20 Do you see that statement?

21 MR. JONATHAN ERLING: Yes, I do.

22 MS. ANITA SOUTHALL: Did you do any
23 follow up on review of this information -- on review of
24 this report with Manitoba Hydro to -- to explore this
25 issue with them with respect to risk-management reporting

1 in the period?

2 MR. JONATHAN ERLING: I am certain that
3 we had discussions with them about their risk-management
4 reporting processes and the types of variance analyses
5 that are done.

6 MS. ANITA SOUTHALL: I'm asking with
7 respect to this particular issue that's raised in this
8 report.

9 MR. JONATHAN ERLING: The particular
10 issue of the -- and the particular issue being there --

11 MS. ANITA SOUTHALL: That the --

12 MR. JONATHAN ERLING: -- the surprise
13 that was noted in the 2003/04 drought period?

14 MS. ANITA SOUTHALL: Yes.

15 MR. JONATHAN ERLING: I -- I do not
16 recall specifically asking them about that statement.

17

18 (BRIEF PAUSE)

19

20 MS. ANITA SOUTHALL: So I take it that,
21 based on your earlier testimony, although you had access
22 to this kind of background information with respect to
23 the impact of the drought and the issues arising,
24 identified at least in part by these consultants used
25 previously by Manitoba Hydro, it didn't change your view

1 that you should include in the focus of your examination
2 the drought period, and specifically, the 2003/04
3 drought. Is that accurate?

4 MR. JONATHAN ERLING: I think as I noted
5 earlier, we reviewed the material to identify general
6 issues with respect to drought management. We did not
7 view it as our task to go back and review management dec
8 -- decisions that were taken in that specific period, nor
9 the various assertions that are contained in the
10 RiskAdvisory report.

11 MS. ANITA SOUTHALL: Could the panel turn
12 to, in the KPMG main report, page 38 on the issue of the
13 PRISM -- PRISM model. I understand that PRISM is
14 currently used by Manitoba Hydro as a screening and
15 analysis tool. Is that correct?

16 MR. JONATHAN ERLING: That is correct.

17 MS. ANITA SOUTHALL: Should PRISM be used
18 only as a screening tool, or should it be used in another
19 fashion, for example, IFF preparation? Do you have any
20 ability to comment on that?

21 MR. JONATHAN ERLING: Yes, I -- I think I
22 can comment on that. I -- I would note that PRISM is a -
23 - I -- I would say, no, PRISM should not be viewed as the
24 -- as a tool that could possibly support the generation
25 of forecasts for IFF. It simply does not have anywhere

1 near the amount of detail with respect to the
2 configuration of the system that would be necessary to
3 generate reliable financial forecasts.

4 I note, for example, that the PRISM model
5 divides the year into two (2) time periods, summer and
6 winter, it has the peak and off-peak. You know, that's
7 not nearly sufficient granularity for a forecasting
8 process. And I don't believe that management at Manitoba
9 Hydro expects that the PRISM will be -- evolve into a
10 role where it will be used for such a purpose.

11 MS. ANITA SOUTHALL: Could you turn to
12 page 117, please. I want to draw your attention to a
13 recommendation by KPMG with respect to improvement of the
14 PRISM model.

15 MR. JONATHAN ERLING: Yes.

16 MS. ANITA SOUTHALL: Under the heading
17 3.11.2 "Assumptions and Data," and under the three (3)
18 bullets there is reference to an improvement suggestion
19 for the model, and specifically the statement by KPMG:

20 "Electricity and natural gas prices are
21 modelled with a normal distribution.
22 There is good evidence, however, that
23 energy prices are not normally
24 distributed, with prices showing more
25 extreme values than would be obtained

1 from a normal distribution."

2 With a reference to outside material. And
3 the statement then follows:

4 "MH may wish to explore alternative
5 distributions as inputs to the PRISM
6 model."

7 Do you see that?

8 MR. JONATHAN ERLING: Yes, I remember
9 writing that paragraph.

10

11 (BRIEF PAUSE)

12

13 MS. ANITA SOUTHALL: Can you explain what
14 you mean by that recommendation, sir?

15 MR. JONATHAN ERLING: Well, I think what
16 I was trying to say is that rather than assume a normal
17 distribution, Manitoba Hydro should perhaps create a
18 distribution from actual price histories, or perhaps
19 there's another distribution. I'll defer it to Frank,
20 who's a more -- that could be used as a -- as a -- as
21 used -- as opposed to using actual historical data, maybe
22 there's an accepted distribution that would be used to
23 generate one (1) synthetically. I'll defer to him, but
24 either would be fine in my view.

25 MR. FRANK CHEN: Energy commodities have

1 a unique -- unlike financial commod -- or financial
2 assets have unique price behaviour, crude
3 oil/electricity/natural gas have been observed to -- seen
4 extreme price spikes. Normal trading in -- in those
5 commodities can experience a -- a price range, and then
6 due to supply and demand forces -- prices can spike
7 without a -- you know, with ex -- without experiencing
8 gradual trends in -- in increases or decreases.

9 So for example, if pr -- electricity were
10 pricing at forty dollars (\$40) for the last two (2)
11 years, and due to supply and demand forces, it can spike
12 to a thousand dollars (\$1,000) the next day.

13 That's unique in -- in that type of
14 underlying asset, unlike stocks and bonds. So crude oil
15 can -- can experience the same thing, as well as other
16 energy commodities. With that type of price behaviour,
17 normal distributions where, you know, price -- prices are
18 distributed under a curve, under a normal bell curve,
19 typically assumes that underlying assets behave in a nor
20 -- price behaviour behaves in a normal -- normal market
21 pattern.

22 And when energy commodities have those
23 types of price spikes, as well as when they do spike they
24 tend to revert back to the mean, and due to that type of
25 unique price behaviour, normal -- normal curves are

1 specifically recommend that they -- that they document
2 their risk-management procedures?

3 MR. JONATHAN ERLING: Yes, we did. And
4 certainly the -- those citations are correct. I
5 apologize. I was answering the question, "Did we
6 specifically recommend a drought-management plan," and
7 I'm -- I don't think that that -- I -- I think -- I don't
8 think that specific recommendation is found in our
9 report.

10

11 (BRIEF PAUSE)

12

13 MR. ROBERT MAYER: What were they then
14 specifically to document when you said, "risk
15 identification and assessment procedures"?

16 MR. JONATHAN ERLING: Well, I -- I just
17 would read that as a more general statement. I think,
18 you know, the -- the contents of a drought-management
19 plan are -- that would encompass the things that you
20 would expect to find in a drought-management plan.

21 I think it really just -- it is how -- it
22 goes to the issue of how you would segment or -- or -- or
23 label a particular document. I think we're referring to
24 a more general document that may encompass risks, both
25 related to drought and other types of risks that might be

1 relevant.

2 MR. FRANK CHEN: If I can just add.
3 Those recommendations are in the context of -- written in
4 Chapter 6, which is specifically addressing the -- the
5 power transacting activities conducted in PS&O, not
6 specific with risk-management plans generally -- using
7 that general term, addressing a drought-management plan.

8 So risk identification and procedures
9 would address the risks inherent in power-transacting
10 activities that would primarily address market or price
11 risk, credit risk, and the operational risk in terms of
12 processing those transactions, not necessarily drought
13 risk.

14 MR. ROBERT MAYER: I'm going to go then
15 to the section where you actually deal with that in your
16 recommendations, which is a different section than the
17 one I read from. You -- on page 280 you discuss the
18 formal documentation of HERMES and SPLASH. Capital
19 structure review is a little farther down.

20 I didn't get the impression that the
21 documenting its risk identification and assessment
22 procedures and institutionalize its informal internal
23 review process was specifically referred to -- Chapter 6,
24 but I'll take your word for that.

25

1 (BRIEF PAUSE)

2

3 CONTINUED BY MS. ANITA SOUTHALL:

4 MS. ANITA SOUTHALL: Thank you. If I
5 could ask the panel to turn to page 183 just as a point
6 of reference. This is 183 in the KPMG main report. And
7 -- and I provide you with this as a reference point. We
8 talked yesterday with respect to the panel forecasts that
9 MH -- or Manitoba Hydro, sorry, has available to it as a
10 -- as an input to its pricing.

11 And I noticed reference in the conclusion
12 section on page 183 to certainly, obviously, the
13 conclusions themselves, but the statement by KPMG that
14 based on its analysis combined with its knowledge and
15 expertise in the energy sector these opinions are
16 identified. So I -- I use that just a reference point.
17 If you want to access anything else in this section,
18 please do so.

19 I just wanted to go back and ask, do the
20 panel forecasts, to your knowledge, and this would be the
21 forecasts that have been generated and used by Hydro
22 since 2008, do -- do they include the economic downturn;
23 do you know?

24 MR. ANURAG GUPTA: The price forecast
25 that we looked at, the 2008 electricity price forecast,

1 was developed by five (5) external consultants, and they
2 look at a variety of factors. I cannot recall -- I --
3 because it was 2008, I'm -- I don't think -- well, le --
4 let me restart that. I don't specifically, sitting here,
5 recall whether or not there was a reference to the
6 economic downturn in -- in the 2008 electricity price
7 forecast. But certainly I do remember there were things
8 like natural gas pricing having come down significantly.
9 That was definitely discussed in -- in the electricity
10 price forecast.

11 MS. ANITA SOUTHALL: Could you tell me
12 what KPMG's understanding is of the carbon regime and its
13 impact on pricing of electricity?

14 MR. ANURAG GUPTA: I don't think we've
15 discussed carbon regime and its impact in -- in our
16 report.

17 MS. ANITA SOUTHALL: No, it's just that
18 there's a statement that KPMG has knowledge and expertise
19 in the energy sector, so I'm asking that question. Are
20 you able to address that question?

21 MS. MARLA BOYD: Mr. Chair, the -- the
22 panel's here to speak to the matters in their report.
23 And while KPMG has a wide range of knowledge in a wide
24 range of topics, it's not appropriate at this point to
25 canvas them on a variety of opinions that aren't the

1 focus of their testimony today.

2 MR. BYRON WILLIAMS: Mr. Chairman, if
3 there's an objection, my clients certainly have comments
4 on that specific objection.

5 MS. MARLA BOYD: There is.

6 THE CHAIRPERSON: Okay, restate the
7 question again.

8 MS. ANITA SOUTHALL: I had asked of the
9 KPMG panel with reference to the fact that they identify
10 themselves as having knowledge and expertise in the
11 energy sector as to whether they could explain their
12 understanding -- understanding of the carbon regime and
13 its impact on pricing of electricity.

14 THE CHAIRPERSON: Mr. Williams...?

15 MR. BYRON WILLIAMS: Certainly we note
16 from page 183 of the KPMG report that -- that concluded
17 Hydro has developed an appropriate methodology for
18 arriving at the sales price. We know from the record of
19 this hearing that central to that conclusion will be
20 considerations of a CO2 emissions allowance or tax.

21 That's certainly relevant to -- in testing
22 the reliability and the factors that they considered in
23 reaching that conclusion to raise issues related to the
24 CO2 emission tax.

25 MS. MARLA BOYD: Mr. Chair, we have no

1 objection to KPMG speaking to that as it impacts the
2 Manitoba Hydro, but general comments in respect of the
3 industry are not appropriate.

4 MS. ANITA SOUTHALL: I'm perfectly happy
5 to hear only on the narrow issue of how it impacts
6 Manitoba Hydro from KPMG's expertise.

7 THE CHAIRPERSON: Okay. I believe KPMG
8 has heard the question, so...

9 MR. ANURAG GUPTA: I think in terms of
10 the conclusions we've reached on page 183, we
11 specifically said Manitoba Hydro has an appropriate
12 methodology for arriving at the sales price in such
13 contracts. The methodology is described earlier in -- in
14 that -- in that chapter. And the methodology cons --
15 includes aspects such as Manitoba Hydro purchasing
16 forecasts from five (5) different consultants, averaging
17 those forecasts. These five (5) different consultant are
18 -- are industry consultants well known in the field.
19 Manitoba Hydro purchasing five (5) forecasts, averaging
20 those. They also do an avoided cost analysis. That is
21 the conclusion we have talked about in our report.

22 Now if you are trying to ask me whether or
23 not I agree or disagree with the -- with the numbers in
24 the price forecast, that -- that is a slightly different
25 question and I -- I -- I don't think we addressed or

1 wrote about that in our report.

2 MR. WILL LIPSON: Yeah, and may -- maybe
3 if I can just add to that. Just in more general terms,
4 we described this somewhat in Chapter 1, but again, maybe
5 we haven't made ourselves clear. You know, we came in
6 largely to review on an ex ante basis the processes and
7 the methodologies and the systems in place, as opposed to
8 second guessing management decision, for example, or as
9 opposed to on an ex post basis, saying, Did they make the
10 right decision.

11 So when we review something like the price
12 gas forecast, you know, we say what they did is they went
13 out and accessed five (5) industry experts who are in the
14 business of developing price forecasts and -- potentially
15 with other businesses, but, you know, developing these
16 methods -- you know, these forecasts. Is that a
17 reasonable thing for them to be doing in the
18 circumstances or should they build their own in-house
19 capability or should they do something else?

20 And we came to the conclusion that what
21 they're doing is reasonable in the circumstance. In a
22 similar tone, you know, we looked at whether or not they
23 do back testing. And we said, Well, really they should
24 be doing some back testing. We didn't do the back
25 testing for them. We didn't -- it wasn't our mandate to

1 come back and say, Here's what the results would be had
2 you back tested. It was to say, you know, This is a, you
3 know, presumably an improvement, or, you know, addresses
4 some minor form of deficiency that you can get better on
5 if you go ahead and do some of this back testing.
6 Hopefully that helps.

7 THE CHAIRPERSON: Okay, Ms. Southall, I
8 think we understand what they've done.

9 MS. ANITA SOUTHALL: Thank you.

10

11 CONTINUED BY MS. ANITA SOUTHALL:

12 MS. ANITA SOUTHALL: Could I ask the
13 panel to turn to page 156, please. And this is 156 of
14 the KPMG main report. There is a section starting on
15 that page, 4.6.4.1, "Comments on the Application of MH's
16 Methodology". There is a statement at the end of the
17 second paragraph under that heading:

18 "KPMG recommends that MH should clarify
19 the role of this..."

20 And I understand, because the word is now
21 being used in a non-confidential way in these
22 proceedings, that the blacked out section is "premium".
23 So:

24 "KPMG recommends that MH should clarify
25 the role of this premium, confirm the

1 appropriate magnitude, and document
2 this analysis."

3 I'm sorry, I -- I see that --

4 MS. MARLA BOYD: We are not in a position
5 to confirm that, and I'm not sure what your comments
6 meant, but that remains very much a confidential issue.

7 MS. ANITA SOUTHALL: Well, I can advise
8 that I had emailed my learned friend, Ms. Ramage, after
9 hearing -- or reading the transcripts of ICF where they
10 spoke on this issue and indicated to her that I did not
11 understand that this was any longer a confidential issue
12 given that there was testimony on this issue already
13 before the Board, so I apologize if I've misspoken with
14 respect to that reference, but I didn't hear back that it
15 was intended to remain confidential in the circumstances.

16 So I did make that inquiry. My apologies
17 to Hydro counsel if that is not the case.

18 THE CHAIRPERSON: I'm not sure any
19 apologies are required.

20 MS. MARLA BOYD: My understanding,
21 perhaps Ms. Ramage can speak to it better, but my
22 understanding is that the issue that was raised through
23 the email correspondence related to a different issue.

24 It related to the -- the indication of
25 eighty-seven dollars (\$87) or greater being the prices

1 that were obtained in the contract and did not relate to
2 this issue.

3 MS. ANITA SOUTHALL: Well, having been
4 the one who sent the email, I can confirm that it is --
5 it was the specific reference related to the word that I
6 just spoke and had nothing to do with pricing.

7 And it arose specifically in my
8 preparation for this cross-examination, and it arose
9 specifically because I was able to see that ICF spoke to
10 this issue. In fact, KPMG, I believe, speaks to this
11 particular issue in its materials, as well. The
12 subsequent materials.

13 And I could locate the issue in the
14 presentation, but I believe it's actually contained in
15 the presentation that they provided in their direct
16 evidence.

17 THE CHAIRPERSON: We're going to take our
18 break now. Thank you.

19

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

21 --- Upon resuming at 10:50 a.m.

22

23 THE CHAIRPERSON: Okay. We might as well
24 get back at it.

25

1 (BRIEF PAUSE)

2

3 THE CHAIRPERSON: Do you want to re-put
4 your question?

5

6 CONTINUED BY MS. ANITA SOUTHALL:

7 MS. ANITA SOUTHALL: Mr. Chairman, I --
8 I've had a discussion with Manitoba Hydro counsel, and I
9 -- I think, frankly, for the sake of the fact that there
10 was a redactions order, the -- the word that -- the
11 redactions may or may not reflect the term, premium, and
12 that's needing to remain as is.

13 There was a redactions order, there was a
14 redacted portion, there was reference to that term by
15 ICF, but all of that aside, I am going to not refer back
16 to that specific word, but simply because I think, within
17 the context of the recommendation by KPMG, I can ask it
18 this way, which is that KPMG indicated on page 156 that
19 it was not provided supporting documentation on the value
20 of a particular pricing
21 factor that's referenced. Is that correct?

22 MR. ANURAG GUPTA: Yes, that -- that's
23 how we've written it, yes.

24 MS. ANITA SOUTHALL: And as I -- I
25 believe I was referring initially in the question to the

1 last sentence, which is that KPMG recommends that Hydro
2 should clarify the role of that particular pricing
3 factor, confirm the appropriate magnitude, and document
4 the analysis.

5 MR. ANURAG GUPTA: Sorry, the question
6 being?

7 MS. ANITA SOUTHALL: That -- that was
8 KPMG's recommendation?

9 MR. ANURAG GUPTA: Yes. Yes.

10 MS. ANITA SOUTHALL: And I take it that
11 this particular factor is not documented at present,
12 based on the recommendation by KPMG, correct?

13 MR. ANURAG GUPTA: This is a factor which
14 is very well understood by the people involved in my --

15 MS. ANITA SOUTHALL: Sorry, Mr. Gupta,
16 we're going to have a limited time for the panel, and so
17 I just need you to answer the question that I'm asking,
18 if that's acceptable.

19 So was the factor documented? I'm reading
20 from this report that it wasn't because it's a
21 recommendation that it should be.

22 MR. ANURAG GUPTA: It was not documented,
23 no.

24

25

(BRIEF PAUSE)

1 MS. ANITA SOUTHALL: Would you turn to
2 page 157, please, in the main report. There's reference
3 on the top of page 157 to the concept of the avoided cost
4 analysis. Do you see that, panel?

5 MR. ANURAG GUPTA: I do, yeah.

6 MS. ANITA SOUTHALL: There is a
7 statement:

8 "Since avoided-cost analysis is an
9 industry standard practice in
10 establishing pricing for negotiating
11 terms sheets, KPMG recommends that
12 Manitoba Hydro consider avoided-cost
13 analysis in such negotiations."

14 Do you see that?

15 MR. ANURAG GUPTA: Yes, I do.

16 MS. ANITA SOUTHALL: And the sentence
17 that precedes that starting on page 156 at the bottom
18 says:

19 "The models are based on the forecast
20 prices and do not appear to take into
21 account the avoided-cost analysis."

22 I take it that KPMG made this conclusion
23 based upon information from Manitoba Hydro?

24 MR. ANURAG GUPTA: Yes, they did, yeah.

25

1 (BRIEF PAUSE)

2

3 MS. ANITA SOUTHALL: Can you tell us the
4 vintage of the avoided-cost analysis that Manitoba Hydro
5 produced to KPMG when it inquired further as to what it
6 was using? What -- what year or what time frame did the
7 existing avoided-cost analysis cover?

8 MR. ANURAG GUPTA: The avoided-cost
9 analysis that we saw re -- I -- I'll have to get back to
10 you on that one. I don't recall the dates.

11 MS. ANITA SOUTHALL: Thank you. If you
12 could undertake to do that, that would be helpful.

13

14 --- UNDERTAKING NO. 72: To provide what time frame
15 the existing avoided-cost
16 analysis covered

17

18 CONTINUED BY MS. ANITA SOUTHALL:

19 MS. ANITA SOUTHALL: KPMG also on page
20 156 recommends that MH document the process and
21 methodology to be followed for future avoided-cost
22 analyses.

23 Do you see that reference in the second
24 bullet on page 156?

25 MR. ANURAG GUPTA: Yes, I do.

1 MS. ANITA SOUTHALL: I take it that this
2 wasn't in existence and, as a result, KPMG made the
3 recommendation?

4 MR. ANURAG GUPTA: That's correct, yes.

5

6 (BRIEF PAUSE)

7

8 MS. ANITA SOUTHALL: On page 154 and 155
9 of the report, if you could turn there. With respect to
10 this concept of avoided-cost analysis, KPMG cites
11 examples of common use of the concept in US regulatory
12 review situations, correct?

13 MR. ANURAG GUPTA: Yeah, we have some
14 references in that chapter -- in -- in that section,
15 yeah.

16 MS. ANITA SOUTHALL: With respect to a
17 regulatory poli -- or regulatory act in the US that's
18 identified as Public Utilities Regulatory Policies Act
19 there is -- sorry, and -- and let me direct you to the
20 third paragraph on page 154 -- the reference that an
21 unbiased avoided-cost projection is the commonly used
22 benchmark by state regulators for capping the price of a
23 long-term qualifying facility contract. Do you see that
24 reference?

25 MR. ANURAG GUPTA: I see that reference,

1 yes.

2 MS. ANITA SOUTHALL: And then at the
3 bottom of page 154 KPMG cites:

4 "An example of the California Public
5 Utilities Commission approach to price
6 benchmarking which uses publically
7 available cost data on generation
8 capacity, financing, variable O&M
9 emissions, and fuel to calculate a
10 long-run marginal cost [onto the next
11 page] of generation, the all-in per
12 kilowatt hour cost of owning and
13 operating new generation."

14 And then the statement:

15 "In California, the California Energy
16 Commission publishes such cost data in
17 its long-run market price projection."

18 Does K -- do you see that?

19 MR. ANURAG GUPTA: I -- I see those
20 references, yeah.

21 MS. ANITA SOUTHALL: Does KPMG see there
22 being a similar process which may be applicable in
23 Manitoba for Manitoba Hydro? Have -- have you given any
24 consideration to, given this reference, whether something
25 similar might be applicable here?

1 MR. ANURAG GUPTA: I think the purpose of
2 this section was to -- was to explain why an avoided-cost
3 analysis might be beneficial in -- to Manitoba Hydro and
4 how other people are doing it. I don't think we've
5 considered in -- here whether or not, you know, Manitoba
6 -- sorry, MPUB might adopt a similar process.

7 MS. ANITA SOUTHALL: Do you happen to
8 know if -- there -- there is reference to source
9 documents for California from 1987 and 2002? Do you --
10 did you examine whether or not there's anything more
11 recent than that?

12 MR. ANURAG GUPTA: No, I have not, sorry.

13 MS. ANITA SOUTHALL: Sorry, not just you,
14 Mr. Gupta, but I take it KPMG as a whole didn't -- didn't
15 attempt to see whether or not there was something more
16 recent?

17 MR. ANURAG GUPTA: Yeah, we did not do an
18 exhaustive, you know, followup on -- on this, no.

19

20 (BRIEF PAUSE)

21

22 MS. ANITA SOUTHALL: Could you turn to
23 Tab 13, please, in the reference materials. And it would
24 be in that tab, PUB-MH-RISK-101(d). The -- the question
25 posed was:

1 "Please discuss the merit of
2 incorporating the unit cost of new
3 generation and transmission in support
4 of the new contracts in establishing
5 the reference price to be negotiated."

6 The answer provided, I take it, is Hydro's
7 answer or would that be Hydro's answer with input from
8 KPMG? In this -- in this case I know it doesn't have the
9 subheading referencing KPMG as the responder but I'm --
10 I'm not sure with respect to the content where the
11 answer's from.

12 MR. ANURAG GUPTA: This is a MH answer.
13 That's my understanding.

14 MS. ANITA SOUTHALL: Does -- has KPMG had
15 an opportunity to read this? Has -- has it read the
16 response here?

17 MR. ANURAG GUPTA: Yes.

18 MS. ANITA SOUTHALL: And does KPMG agree
19 with Hydro's response?

20 MR. ANURAG GUPTA: I -- I don't disagree
21 with -- with any of their responses, no.

22

23 (BRIEF PAUSE)

24

25 MS. ANITA SOUTHALL: Could you turn to

1 page 26 of the main report, please.

2

3

(BRIEF PAUSE)

4

5 MS. ANITA SOUTHALL: At page 26 there
6 disc -- is a discussion by KPMG with respect to the
7 perfect foresight concept with regard to the use of
8 SPLASH and the calculation of drought costs, correct?

9 MR. JONATHAN ERLING: Yes, there is.

10 MS. ANITA SOUTHALL: Could you just
11 explain briefly -- Mr. Erling, are you back onto mic for
12 this?

13 MR. JONATHAN ERLING: Apparently I am,
14 yes.

15 MS. ANITA SOUTHALL: Explain briefly how
16 perfect foresight is used -- utilized in SPLASH.

17 MR. JONATHAN ERLING: Well, I think the
18 basic concept that we're talking about here is the fact
19 that within SPLASH, you know, assumptions are provided
20 with respect to the various factors that will influence
21 the production schedules, so load, prices of fossil
22 fuels, water flows. And SPLASH optimizes and generally
23 is used to optimize within a twelve (12) month horizon
24 the various relevant factors that are soon to be known
25 for that horizon, and therefore it can determine the

1 optimal production schedule in the face of what for
2 modelling purposes are taken as known inputs.

3

4 (BRIEF PAUSE)

5

6 MS. ANITA SOUTHALL: I'm sorry, Mr.
7 Erling, I'm confused so I -- I just need clarification.
8 I understood that SPLASH was the long term planning model
9 and not the production scheduling model.

10 MR. JONATHAN ERLING: That's correct.
11 But the actual -- in the operation of the SPLASH over a
12 long-term horizon, it is optimizing within twelve (12)
13 month windows in general use, and that's how it's
14 configured currently, or that's how it's used in the
15 forecasting process, is it optimizes within twelve (12) -
16 - twelve (12) month horizons within the long term.

17 But the issue discussed in this paragraph
18 relates more to the -- one (1) of the implications of
19 that, and, for example, one (1) of the implications of
20 the fact that SPLASH is based on the historical record
21 with respect to water flows is that it -- it responds to
22 the inputs that are assumed for a particular one (1) with
23 respect to the water flows over the horizon.

24 MS. ANITA SOUTHALL: KPMG addresses
25 various offsetting factors with respect to the

1 limitations of perfect foresight utilized in SPLASH on
2 page 26, is that fair to say?

3 MR. JONATHAN ERLING: Yes, it is.

4 MS. ANITA SOUTHALL: On page 26, KPMG
5 recommends that the impact of each of the factors should
6 be separately quantified and added to the cost of the
7 drought, correct?

8 MR. JONATHAN ERLING: Yes, we do, and I
9 do note that I believe there was some rebuttal evidence
10 filed by Manitoba Hydro that -- that provides some
11 quantification of some of these issues. I don't recall
12 the specific reference, although I'm sure one (1) of my -
13 - one (1) of the Manitoba Hydro personnel may have that
14 handy.

15

16 (BRIEF PAUSE)

17

18 MS. MARLA BOYD: I'm sorry, are you
19 waiting for something from us?

20 MS. ANITA SOUTHALL: Just because the
21 panel was referring to the potential to locate Manitoba
22 Hydro evidence, I -- I take it we're not going to wait
23 for that at this point.

24 MR. JONATHAN ERLING: It's up to you. I
25 think it's imminent.

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(BRIEF PAUSE)

MS. ANITA SOUTHALL: Mr. Erling, while we're waiting to see if we can locate that --

MR. JONATHAN ERLING: Sure.

MS. ANITA SOUTHALL: -- I'm just going to ask you about the next point KPMG made on page 26, that if these factors affecting estimates of drought costs are separately quantified, KPMG then says:

"If a material result is identified, this can then be better communicated to users of the financial information."

Do you see that?

MR. JONATHAN ERLING: I do.

MS. ANITA SOUTHALL: And what would be material? What -- what is -- what's being referred to there? Is -- is there sort of a magnitude that KPMG had in mind in terms of what ought to be brought to decision maker's attention or stakeholder's attention?

MR. JONATHAN ERLING: I don't think I had a specific definition for material in mind when I wrote that sentence.

(BRIEF PAUSE)

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MS. ANITA SOUTHALL: I'm just going to ha
-- take a moment, if I could.

MR. JONATHAN ERLING: I just wanted to
note, we have found the reference in the rebuttal
evidence if that's of help to the -- to the Board. Page
62. Oh, apologies, page 63. There's a paragraph at the
bottom that provides some discussion of the potential
costs of gas-fired generation. And I believe if you look
on page 64 at the top of the paragraph there's some
additional costs associated -- or additional estimates
associated with potential value of additional storage --
or of water in storage.

(BRIEF PAUSE)

MS. ANITA SOUTHALL: Mr. Chairman, I -- I
need about five (5) minutes, if I could, just to
determine what more needs to be covered with respect to
the main report.

THE CHAIRPERSON: Okay.

MS. ANITA SOUTHALL: Thank you.

--- Upon recessing at 11:10 a.m.
--- Upon resuming at 11:16 a.m.

1 THE CHAIRPERSON: Anytime, Ms. Southall.

2

3 CONTINUED BY MS. ANITA SOUTHALL:

4 MS. ANITA SOUTHALL: I'd like the panel,
5 please, to turn to page 176 of the main report. This is
6 the section dealing with the net present value scenarios.

7

8 (BRIEF PAUSE)

9

10 MS. ANITA SOUTHALL: Just before I ask
11 further specific questions, I note in your direct
12 evidence presentation on page 38 that there are no
13 details provided with regard to the net present value
14 analysis. Is that correct?

15 MR. ANURAG GUPTA: The numbers are
16 redacted, yes.

17 MS. ANITA SOUTHALL: Did KPMG review the
18 net present val -- value analysis inputs used in the main
19 report? You can have --

20 MR. ANURAG GUPTA: Yeah.

21 MS. ANITA SOUTHALL: -- reference, if you
22 wish, and I think it may helpful, to Tab 16 in our
23 reference documents.

24

25 (BRIEF PAUSE)

1 MS. ANITA SOUTHALL: Let me just say for
2 the record that Tab 16 includes the response to PUB-MH-
3 II-140, and there are two (2) pages of charts which cover
4 IFF-09 alternate sequence export revenue assumptions for
5 the period 2009/10 through to 2029/30.

6 Do you have that available?

7 MR. ANURAG GUPTA: Sorry, yes. I'm at
8 that tab, yeah.

9 MS. ANITA SOUTHALL: Are these the
10 assumptions used for the alternate development sequence,
11 net present value?

12 MR. ANURAG GUPTA: I -- I cannot -- I
13 cannot confirm that these are the exact numbers that we
14 used in that analysis, but I can tell you that the kind
15 of presumptions that went into the no-sale analysis would
16 have included items similar to this.

17 MS. ANITA SOUTHALL: Would it be common
18 practice to verify the inputs into a net present value
19 calculation as part of a -- an analysis of net present
20 value?

21 MR. ANURAG GUPTA: Certainly, yes, we
22 would look at the inputs.

23 MR. WILL LIPSON: Yeah, and maybe if I
24 can add a little clarity here, what -- what we did is we
25 specified the nature of inputs that needed to go into the

1 calculation. We scoped and directed the run and the
2 analysis to be done.

3 The precise numbers that we -- are to be
4 used were numbers that Manitoba Hydro had developed that
5 -- they came out of various methodologies, for example,
6 the cost of a future plant, is not something we went in
7 and did our own independent estimation of. We said, Use
8 the best information you have on all of the inputs.

9 So -- and that's a little bit why, you
10 know, we can't quite confirm that that number and that
11 year is exactly the number that went into the analysis
12 but, in principle, the direction was to use the best data
13 available and carry out the following analysis.

14 MS. ANITA SOUTHALL: Did KPMG examine the
15 data to determine the reasonableness of the inputs for
16 the purpose of the net present value calculation?

17 MR. WILL LIPSON: Yeah, I think I just
18 addressed that. We did not do our own independent
19 verification of the --

20 MS. ANITA SOUTHALL: No --

21 MR. WILL LIPSON: -- inputs.

22

23 (BRIEF PAUSE)

24

25 MS. ANITA SOUTHALL: And I take it that

1 you'll agree the impacts -- pardon me, the inputs used in
2 the net present value analysis calculation will affect
3 the -- the ultimate result of the calculation, agreed?

4 MR. WILL LIPSON: Yes.

5 MS. ANITA SOUTHALL: You relied on
6 Manitoba Hydro's inputs and the reasonableness of those
7 in directing the runs?

8 MR. WILL LIPSON: Yes.

9

10 (BRIEF PAUSE)

11

12 MS. ANITA SOUTHALL: I'm just going to
13 ask everyone, please, to locate the book of documents,
14 Volume II of PUB Council, and specifically Tab 28 in that
15 volume. I'll just give you a moment to locate that.

16

17 (BRIEF PAUSE)

18

19 MS. MARLA BOYD: We have one (1) copy at
20 hand, Ms. Southall. I don't know if that's of
21 assistance. We'll -- we'll try and get another one (1).

22

23 (BRIEF PAUSE)

24

25 CONTINUED BY MS. ANITA SOUTHALL:

1 MS. ANITA SOUTHALL: I'll proceed. So
2 we're looking at Tab 28 of the book of documents, Volume
3 II -- II of PUB counsel. And this is titled,
4 "Alternative Financial Forecasts". I want to ask the
5 panel if they will please confirm that there is less debt
6 under the alternative by \$4.5 billion by 2029 in this
7 scenario?

8

9 (BRIEF PAUSE)

10

11 MR. WILL LIPSON: Sorry, could you
12 provide us a reference to which number you're looking at?

13 MS. ANITA SOUTHALL: Yes, it would be
14 under the heading at the top of the chart, "Total Debt,"
15 and in the third column the difference between the
16 alternative development scenario and IFF-09-1 is negative
17 four billion four hundred eighty-three million
18 (4,483,000,000) --

19 MR. WILL LIPSON: Yeah.

20 MS. ANITA SOUTHALL: -- as of 2028/29.

21 MR. WILL LIPSON: Yeah, my apologies.

22 Yes, I see that number. That's correct.

23 MS. ANITA SOUTHALL: Did KPMG review this
24 document in preparation for the hearing?

25 MR. ANURAG GUPTA: I -- sorry?

1 MS. MARLA BOYD: Maybe you can clarify.
2 I -- I don't believe this is actually a Manitoba Hydro
3 document. This one (1) I believe is created by the PUB
4 advisors, so maybe we can just clarify the source of it
5 before we get too much further there. It doesn't appear
6 to be in the form that Manitoba Hydro provides it.

7

8 (BRIEF PAUSE)

9

10 MS. ANITA SOUTHWALL: Ms. Boyd, I'm told
11 that the Board's advisors created the document, but it's
12 drawn on data from Manitoba Hydro.

13

14 (BRIEF PAUSE)

15

16 MR. ROBERT MAYER: And I'm assuming that
17 back-up data is the rest of the documentation that's in
18 Tab 28.

19

20 (BRIEF PAUSE)

21

22 MS. MARLA BOYD: I think you might recall
23 that this document was the subject of cross-examination
24 by the Hydro panel, and that there was disagreement with
25 the -- the portrayal of the information here, given the -

1 - the period that was chosen to be depicted.

2 And I think it's safe to say for the
3 purposes of this that KPMG has not seen this before
4 today, the -- the document that's entitled Page 22 at Tab
5 28. So if that -- if that assists you, maybe we can move
6 forward on that basis, but they won't be in a position to
7 confirm what's in that table.

8

9 (BRIEF PAUSE)

10

11 MS. ANITA SOUTHALL: Well, it's our
12 intention to review certain of the information on this
13 document.

14 Does KPMG prefer to have the opportunity
15 to review it over the lunch break?

16 MS. MARLA BOYD: There are several years
17 of data here, and I'm not -- not sure that giving people
18 a -- you know, an hour to -- to make those kind of
19 analyses is -- is fair.

20 You know, we'll certainly try and assist
21 in what you're -- you're heading at, but I can't sort of
22 suggest that they can go away and review documents from,
23 you know, a twenty-year span over the -- the lunch hour,
24 and be in a position to respond usefully.

25 THE CHAIRPERSON: Table -- is it not

1 constructed from schedules filed by Manitoba Hydro?

2 MS. ANITA SOUTHALL: That -- that's my
3 understanding.

4 THE CHAIRPERSON: So perhaps there's one
5 (1) way of -- just as a suggestion, you might ask KPMG
6 whether or not they had reviewed the schedules from which
7 this particular schedule was drawn from. All you'd have
8 to do would be identify what Manitoba Hydro's schedules
9 were.

10 MS. ANITA SOUTHALL: I -- I will ask the
11 Board's advisors what the source data was and provide
12 that.

13

14 (BRIEF PAUSE)

15

16 MR. ANTOINE HACAULT: Mr. Chairman, I --
17 just looking at some -- Mr. Hacaault speaking here -- at
18 the documents that follow, and when I look at the
19 documents that follow, and add the debt numbers on the
20 alternative plan scenario that's produced, as I
21 understand, by Hydro. I add the two (2) numbers. In
22 each case, I get the number that shows up in the Board
23 advisor's sheet.

24 THE CHAIRPERSON: As I do too.

25 MS. ANITA SOUTHALL: I have questions to

1 pose on this document. So if I'm -- if the answer from
2 KPMG is that they're not in a position to answer, I
3 supposed that's what the response will be, but I intend
4 to proceed.

5 THE CHAIRPERSON: Proceed.

6

7 CONTINUED BY MS. ANITA SOUTHALL:

8 MS. ANITA SOUTHALL: Does KPMG -- and I'm
9 not sure. I think, Mr. Lipson, we ended off with your
10 locating the particular number I was directing you to
11 with regard to the difference in debt by 2029. Is KPMG
12 in a position to comment with respect to whether or not
13 it agrees with that debt differential?

14 MR. WILL LIPSON: No, we're not.

15 MS. ANITA SOUTHALL: Turning to the next
16 column under "Retained earnings." In terms of the
17 differential by 2028/29, there is a differential
18 indicated between IFF-09-1 and the alternate development
19 scenario of negative \$1.341 billion. Is KPMG able to
20 confirm the accuracy of that differential?

21 MR. WILL LIPSON: We can confirm that one
22 three four one (1341) is the difference between the ten
23 nine six nine (10969), two (2) columns to the left of it,
24 and the nine five seven eight (9578), one (1) column to
25 the left of it, but, otherwise, we can't confirm anything

1 except again the arithmetic accuracy of that calculation.

2 Oh, actually, sorry. After saying that,
3 I'm not actually sure the arithmetic is right. Yeah,
4 sorry, there -- there appears to be an error in the
5 second digit, the four (4). Okay. Sorry. I knew --

6 MS. ANITA SOUTHALL: To keep --

7 MR. WILL LIPSON: Order of magnitude, I
8 knew it was pretty close, but, no, now that I look at it.

9 MS. ANITA SOUTHALL: Mr. Lipson, did KPMG
10 review the supporting information -- not in respect of
11 the creation of this document -- so I'm not directing you
12 to that. Rather I'm directing you to the nature of the
13 information, which would have been inputs for a document
14 of this type.

15 MR. WILL LIPSON: Sorry, wa -- we're not
16 even quite sure what this document is, so it's impossible
17 for us to respond.

18 MS. ANITA SOUTHALL: Can KPMG comment on
19 whether there is a stronger balance sheet and better debt
20 to equity ratio under the alternative if you assume that
21 the information on this document is accurate?

22 MR. WILL LIPSON: No, we're not in that
23 position.

24 MS. ANITA SOUTHALL: Under the
25 alternative scenario examined by KPMG are there less firm

1 power commitments made by Manitoba Hydro?

2 MR. ANURAG GUPTA: The alternative
3 sequence that we studied excluded the WPS and the MP
4 proposed long-term contracts, yes.

5 MS. ANITA SOUTHALL: Does the alternative
6 reduce volume risk in periods where there is less than
7 normal water? I mean, let me clarify, volume risk
8 exposure with regard to long-term export contracts.

9 MR. ANURAG GUPTA: There are provisions
10 in the proposed new long-term contracts that would reduce
11 Manitoba Hydro's exposure to delivery commitments in --
12 in case of adverse water conditions both within and
13 outside of the historical record.

14 MS. ANITA SOUTHALL: If we look at the
15 alternative development scenario, because there are less
16 firm power commitments is there less risk exposure to
17 Manitoba Hydro where there is lower than normal water?

18 MR. ANURAG GUPTA: I think what ours --
19 what our analysis has shown is that not engaging in --
20 not entering into these proposed new long-term contracts
21 along with the associated capital expenditures in Keeyask
22 and Conawapa actually reduces Manitoba Hydro's ability to
23 withstand the financial impacts of a drought.

24 MR. WILL LIPSON: Sorry, just to make
25 sure that was clear, entering into the contracts improves

1 the company's ability to withstand the drought, not
2 entering into it, therefore, does not improve it. It
3 makes it -- it becomes in a worse position.

4

5 (BRIEF PAUSE)

6

7 THE CHAIRPERSON: Ms. St -- or, Ms.
8 Southall, would it help if we took an early lunch break
9 and came back at 1:00, and that would give you and
10 opportunity to prepare the -- your --

11 MS. ANITA SOUTHALL: That -- that would
12 be helpful actually. We're ju -- we're trying very much
13 to pare down to --

14 THE CHAIRPERSON: Well --

15 MS. ANITA SOUTHALL: -- allow time for
16 everyone else to complete their cross-examinations.

17 THE CHAIRPERSON: No, we appreciate that.
18 It's very difficult to do it on the run. So for the
19 fairness of all parties, we'll come back at 1:00. Thank
20 you.

21 MS. ANITA SOUTHALL: Thank you very much.

22

23 --- Upon recessing at 11:38 a.m.

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

25

1 THE CHAIRPERSON: Ms. Southall...?

2 MS. ANITA SOUTHALL: Thank you.

3

4 CONTINUED BY MS. ANITA SOUTHALL:

5 MS. ANITA SOUTHALL: I would like the
6 KPMG panel, please, to refer to two documents located in
7 the PUB counsel reference sets of documents, Volume I and
8 Volume II. In Volume I it will be Tab 4.

9

10 (BRIEF PAUSE)

11

12 MS. ANITA SOUTHALL: In Volume II it will
13 be Tab 28.

14

15 (BRIEF PAUSE)

16

17 MS. ANITA SOUTHALL: Were you able to
18 locate copies of those, panel?

19 MR. ANURAG GUPTA: Yes.

20 MS. ANITA SOUTHALL: First of all,
21 looking at the document at Volume I, Tab 4, this is part
22 of Manitoba Hydro's MH-09-01, correct?

23

24 (BRIEF PAUSE)

25

1 MR. ANURAG GUPTA: Sorry, are you stating
2 the source of this document or are you asking me for the
3 source of the document?

4 MS. ANITA SOUTHALL: Well, I -- I'll --
5 how about I just on the record indicate what it's called.
6 It's identified as, "Electric Operations MH-09-1
7 Projected Operating Statement 20-Year Financial Outlook."
8 That's the document I'm looking at. Is that document --

9 MR. ANURAG GUPTA: Yes.

10 MS. ANITA SOUTHALL: -- you see?

11 MR. ANURAG GUPTA: Yes.

12 MS. ANITA SOUTHALL: I understand this is
13 a Hydro-created document. Do you know that to be the
14 case or can Hydro counsel confirm that?

15 MS. MARLA BOYD: Well, certainly we can
16 confirm it's been examined with the Hydro panel. I'm
17 sorry, you're asking me who created the IFF?

18 MS. ANITA SOUTHALL: Do you know who
19 created the document that's found at Tab 4 of Volume I of
20 the PUB counsel reference materials?

21 MS. MARLA BOYD: From the indication on
22 the document it was filed in response to PUB-Manitoba
23 Hydro-1-199(a). It is a Manitoba Hydro document. I
24 cannot tell you who physically was the maker of that
25 document.

1 MS. ANITA SOUTHALL: No, that's fine.
2 Thank you, Ms. Boyd. I was trying to determine if it was
3 Hydro-created though. Thank you.

4

5 CONTINUED BY MS. ANITA SOUTHALL:

6 MS. ANITA SOUTHALL: And so just staying
7 with that document that we're looking at, did KPMG review
8 this document? To be -- to be more technically accurate,
9 did KPMG review IFF-09?

10 MR. ANURAG GUPTA: We reviewed IFF-09/10,
11 yes.

12 MS. ANITA SOUTHALL: And can you -- on
13 examining this document can you confirm that this is
14 consistent with the information IFF-09?

15

16 (BRIEF PAUSE)

17

18 MR. ANURAG GUPTA: There are exhibits of
19 a similar nat -- similar nature in IFF-09, yes.

20 MS. ANITA SOUTHALL: Looking at Tab 28
21 then, for the alternate development sequence, developed
22 by Manitoba Hydro, and sorry, this is Tab 28 in the
23 Volume II PUB counsel reference documents. And it would
24 be starting on page 26, "Electric Operations Projected
25 Operating Statement Alternative Development Sequence."

1 Do you see that document?

2 MR. ROBERT MAYER: For the record, we're
3 now referring to -- when you say these P -- the -- the
4 document you're now looking at -- the book of documents
5 you're now looking at is PUB-16?

6 MS. ANITA SOUTHALL: No, I'm sorry, the
7 second document I was asking everyone to look at is in
8 Volume II, Tab 28.

9 MS. MARLA BOYD: That is Exhibit PUB-16,
10 yes.

11 MS. ANITA SOUTHALL: Oh, I'm sorry. It's
12 PUB Exhibit 16. I'm sorry about that, Mr. Mayer.

13 Thank you, Ms. Boyd.

14

15 (BRIEF PAUSE)

16

17 CONTINUED BY MS. ANITA SOUTHALL:

18 MS. ANITA SOUTHALL: Do you all now have
19 the second document in front of you? Have you -- have
20 you reviewed this document?

21

22 (BRIEF PAUSE)

23

24 MR. ANURAG GUPTA: We haven't -- I
25 haven't reviewed this particular one (1), but in doing

1 our analysis we did look at the economics related to the
2 alternative development sequence.

3

4 (BRIEF PAUSE)

5

6 MS. ANITA SOUTHALL: KPMG, did you look
7 at the income statement and balance sheet for the
8 alternative development sequence? Is it the same as this
9 document?

10 MR. ANURAG GUPTA: We looked at certain
11 parameters of the alternative development sequence. I
12 can't offhand say whether or not it's the exact same as
13 the one (1) contained in this document.

14

15 (BRIEF PAUSE)

16

17 MS. ANITA SOUTHALL: KPMD -- G, did you
18 look at an income statement and balance sheet for Hydro's
19 alternative development sequence?

20 MR. ANURAG GUPTA: We looked at numerous
21 aspects that would be contained on the balance sheet and
22 income statement, such as retained earnings, debt ratios,
23 revenues, and our analysis is presented in Section 410,
24 411, and Appendix J of our own report.

25

1 (BRIEF PAUSE)

2

3 MS. ANITA SOUTHALL: At page 40 of your -
4 - KPMG's direct presentation, you made the conclusion
5 that the sales scenario provides greater retained
6 earnings, correct? Your reference is page 40 of your
7 materials.

8 MR. ANURAG GUPTA: What we said is that
9 under the sales scenario the retained earnings at the end
10 of a drought period is higher than in the no-sale
11 scenario for the same period.

12

13 (BRIEF PAUSE)

14

15 MS. ANITA SOUTHALL: And is it KPMG's
16 view that Manitoba Hydro has an improved ability to
17 withstand a five (4) year drought with higher retained
18 earnings?

19 MR. ANURAG GUPTA: The sale scenario
20 provides to K -- to Manitoba Hydro increased retained
21 earnings at the end of a drought period, and that serves
22 as a bit of a financial buffer to withstand the financial
23 impacts of a drought as compared to the no-sale scenario,
24 yes.

25 MS. ANITA SOUTHALL: Were you indicating

1 a -- a few moments ago, Mr. Gupta, that KPMG reviewed the
2 financial ratios of Manitoba Hydro as part of the
3 analysis?

4 MR. ANURAG GUPTA: We reviewed some
5 financial ratios.

6 MS. ANITA SOUTHALL: I'm going to ask you
7 now to look at the documents that I asked you to have in
8 front of you, that is at Tab 4 of Volume I of the PUB
9 reference documents and Tab 28 of Volume II of the PUB
10 reference documents.

11 With respect to the reference document in
12 Volume I, Tab 4, would you look at page 15, please?

13

14 (BRIEF PAUSE)

15

16 MS. ANITA SOUTHALL: The financial ratio
17 shown at the bottom of that page, are those the ratios
18 KPMG examined?

19 MR. ANURAG GUPTA: We examined in our --
20 in our report and anal -- analysis we examined ratios
21 similar to these. I can't confirm these exact numbers
22 here.

23 MS. ANITA SOUTHALL: And likewise, with
24 respect to the alternative development sequence found at
25 Tab 28, page 27, if you want to look at the financial

1 ratios, there -- there are the same financial ratios in
2 terms of the identification of the type of ratio. Did --
3 did you look at that for the alternative development
4 sequence?

5 MR. ANURAG GUPTA: I have a similar
6 answer to the one (1) previously. We looked at financial
7 ratios. I don't know that -- I cannot confirm these
8 exact numbers.

9

10 (BRIEF PAUSE)

11

12 MS. ANITA SOUTHALL: Does KPMG have any
13 concerns with regard to the calculation of the debt-
14 equity ratios? Did you do any examination of the way K -
15 - Manitoba Hydro calculates that?

16 MR. WILL LIPSON: Yeah, I think our
17 analysis was more in the trend of the debt-equity ratio.
18 So so long as it was calculated consistently from one (1)
19 year to the next, you know, that I think is where our
20 focus was. It wasn't in the exact definition of what
21 debt and equity are.

22 MS. ANITA SOUTHALL: So, panel, if you
23 could please look at Tab 28 on page 27, the page you were
24 last at, you'll agree with me that the debt ratio -- debt
25 to equity ratio for the year 2031 is 35 percent.

1 Do you see that entry?

2 MR. ANURAG GUPTA: I see an entry which
3 says debt 35 percent in 2031.

4

5 (BRIEF PAUSE)

6

7 MS. ANITA SOUTHALL: I'm sorry, pardon
8 me. I -- I missed the answer, I apologize.

9 MR. ANURAG GUPTA: I said yes, I see the
10 number thirty-five (35), which is labelled as debt for
11 the year 2031.

12 MS. ANITA SOUTHALL: Okay. I apologize,
13 I -- I -- I wanted to direct you to the year 2029. And
14 again, the debt ratio showing for the alternative
15 development sequence is 46 percent in the year 2029,
16 correct?

17 MR. ANURAG GUPTA: The number on this
18 page is 46 percent under 2029 for debt.

19 MS. ANITA SOUTHALL: And if you look at
20 Tab 4 in Volume I of the PUB reference documents, on page
21 15, and look at the entry for the debt ratio in 2029, the
22 number there is 51 percent.

23 Can you just confirm that, please?

24 MR. ANURAG GUPTA: The number appearing
25 on that page is 51 percent under 2029 and for debt.

1 (BRIEF PAUSE)

2

3 MS. ANITA SOUTHALL: From a financial
4 perspective, which is a better ratio?

5 MR. ANURAG GUPTA: I -- I don't know what
6 the meaning of your question is. If you could el --
7 elaborate, please.

8 MS. ANITA SOUTHALL: My understanding is
9 that an accountant should be capable of commenting on
10 this question, Mr. Chairman, the difference between the
11 two (2) debt ratios and which is the preferred in a
12 financial statement, which is better?

13 MR. ANURAG GUPTA: You're asking me to
14 compare one (1) number versus another number and I can
15 tell you 51 percent is higher than 46 percent.

16 MS. ANITA SOUTHALL: No, I'm asking which
17 is better from a financial perspective.

18 MR. ANURAG GUPTA: You're asking me a --
19 you're asking me a hypothetical question. To answer
20 whether or not 51 percent is better than 46 percent you
21 have to look at the context in which that debt has been
22 taken. You have to look at the entire life cycle of the
23 project and not zero in and take a snapshot of one (1)
24 year and ask me to make a conclusion based on that one
25 (1) year.

1 And as we have mentioned in our report,
2 under section 410 -- 411 in Appendix J, we have analyzed
3 the sale versus no-sale scenario, appropriately over the
4 entire period of the analysis and come to a conclusion
5 that the sales scenario provides Manitoba Hydro better
6 ability to withstand the financial impacts of a drought
7 as opposed to the no-sale scenario, as opposed to zeroing
8 in on any one (1) year.

9 THE CHAIRPERSON: Can you -- excuse me,
10 sir, just to confirm my memory of what was said earlier
11 this morning, and in doing that analysis, you accepted
12 the inputs that were provided by Manitoba Hydro?

13 MR. WILL LIPSON: That's correct.

14 THE CHAIRPERSON: Thank you.

15

16 (BRIEF PAUSE)

17

18 CONTINUED BY MS. ANITA SOUTHALL:

19 MS. ANITA SOUTHALL: Mr. Gupta, or panel,
20 are you able to comment on whether from a capital
21 structure standpoint, 51 percent is better than forty-six
22 (46), based on the numbers I -- I pointed you to?

23 MR. WILL LIPSON: Yeah, maybe I'll --
24 I'll take a crack at that one (1). My answer to that is,
25 it depends. There are many circumstances in which

1 contained on that page, and I'll certainly give you a
2 moment to -- to look at it and confirm, is that rate
3 increases in both scenarios are shown as a constant. In
4 other words, rate increases cumulatively, in both cases,
5 total 66.63 percent by 2029?

6 MR. ANURAG GUPTA: Yes I see that --
7 sorry. Yes, I see that.

8

9 (BRIEF PAUSE)

10

11 MS. ANITA SOUTHALL: Sorry. Are you able
12 to address the question -- or sorry, if you -- pardon me.
13 If you wanted to have the same debt to equity ratio of 51
14 percent, and 51 percent as we've noted is in the --
15 pardon me.

16 If you wanted to have the same debt-equity
17 ratio of 51 percent by 2029, of 51 percent in the
18 alternative sequence of -- in the same year, 2029, would
19 you need the same rate increases?

20 MR. ANURAG GUPTA: I think the debt
21 percentage is -- is varied by a number of factors. Rate
22 increase is just one (1) of the levers you can use. So
23 there's additional things you can do to -- which -- which
24 can result in a certain debt ratio number being
25 calculated.

1 THE CHAIRPERSON: If you assumed every
2 other variable is the same.

3 MR. ANURAG GUPTA: If everything else was
4 exactly the same, nothing else changed?

5 THE CHAIRPERSON: Yes.

6 MR. ANURAG GUPTA: Absolutely, yes.

7

8 (BRIEF PAUSE)

9

10 CONTINUED BY MS. ANITA SOUTHALL:

11 MS. ANITA SOUTHALL: Could I ask the
12 panel to turn to page 280 in the KPMG main report.

13

14 (BRIEF PAUSE)

15

16 MS. ANITA SOUTHALL: If -- and I'm not
17 sure who on the panel would -- would be addressing this,
18 so you'll let -- you'll let us know, but at the last
19 bullet on page 280, as part of KPMG's recommendations,
20 there is a recommendation that Manitoba Hydro review its
21 capital structure on a regular basis, and specifically
22 with reference to that, KPMG indicates:

23 "Manitoba Hydro is planning a major
24 capital expansion to its generation and
25 transmission system. Manitoba Hydro is

1 also in the process of improving its
2 risk management practices. Both of
3 these may affect its optimal capital
4 structure. Accordingly, Manitoba
5 Hydro's capital structure should
6 continue to be formally reviewed on a
7 regular basis."

8 And I take it that's a conclusion that
9 KPMG maintains?

10 MR. WILL LIPSON: Yes, and -- and in
11 fact, on page 19 of our report, in the last paragraph, we
12 summarized more fulsomely the -- you know, the elements
13 of that recommendation, which are that, you know, the
14 level of equity and debt -- sorry, the level of equity
15 and the debt to equity ratio provides an important
16 context for the assessment of risk issues.

17 We have reviewed -- I'm paraphrasing,
18 we've reviewed PUB Board orders, and based on information
19 from Manitoba Hydro personnel we understand the policy
20 context that Manitoba Hydro operates under in that
21 regard, and it does so for a particular rationale.

22 Again, I'm doing so to shorten the time a
23 little bit, but the -- the key point is it's difficu --
24 while it's difficult to peg a single optimal capital
25 structure for any corporation, the appropriate balance in

1 mix of debt and equity has and will likely continue to be
2 an ongoing issue for Manitoba Hydro, its regulator, it's
3 shareholder, ratepayers, and lenders.

4 In other words, this is something we
5 recognize is something that the parties, not just
6 Manitoba Hydro itself, should be focussed on and keeping
7 an eye on in the context of the types of issues that were
8 raised on the page that you made reference to, like the
9 capital program and improvements in the risk processes.

10 MR. ROBERT MAYER: Sir, I just heard you
11 say you reviewed Board orders. Yesterday we had a
12 discussion about Board orders. And I thought I heard
13 somebody at your table say you didn't review any of these
14 Board orders. Which Board orders did you review, sir?

15 MR. WILL LIPSON: We had a look back
16 through -- and -- and it wasn't myself, but I -- I -- a
17 colleague of mine, through the Board orders that related
18 to the issue of the capital structure because that's what
19 we were having a look at, and just to get the context as
20 to whether a reference that we'd been provided that the
21 75:25 target was something that the Board had any
22 knowledge of, had an understanding of, or had supported.

23 And there are quotes in that chapter from
24 Board orders, but we only really looked at it in the
25 context of the debt-equity ratio.

1 MR. ROBERT MAYER: So which orders did
2 you look at?

3 MR. WILL LIPSON: I see we looked at PUB
4 Board Order 101/04, dated July 28th, 2004, and that
5 there's also a reference the 32/09 on page 31 of that
6 Board order.

7 MR. ROBERT MAYER: That's the one (1) I
8 thought you said you didn't look at?

9 MR. WILL LIPSON: Sorry, just -- just for
10 completeness, there's also PUB Board Order 7/03 on page
11 88. Now -- sorry, I -- I'm trying to remember the
12 context in which we said we didn't review 32/09.

13 MR. ROBERT MAYER: That was very clear.
14 The issue at -- 'cause 32/09 is where we talked about
15 where we wanted to -- where you were going to talk to the
16 Board staff and advisors.

17 MR. WILL LIPSON: Yeah, I -- I -- okay,
18 again, I apologize if I misspoke yesterday. My
19 recollection is I said we had not necessarily been cons -
20 - well, I'm not that sure I'd say this right that way
21 either.

22 When we were in, you know, commencing our
23 engagement we did have an understanding of what 32/09
24 was. We did understand that it asked for the conceptual
25 outline and the -- and the actual execution of the

1 conceptual outline. I think what I was trying to convey
2 is, again, we had developed in Phase 1 the terms of
3 reference and then executed that terms of reference.

4 We didn't necessarily go back and say,
5 Have we addressed everything in 32/09. You know, I -- I
6 think our scope was to come in and develop a conceptual
7 outline, and that we understood 32/09 to be asking for
8 such a product, and that's the basis upon which we
9 operated. Okay.

10 So I'm -- you know, I'm -- my memory may
11 fail me in terms of exactly what was said yesterday, but
12 -- at least I want to state for the record, we were aware
13 of 32/09 in the conduct of our work and it's clearly
14 quoted on page 19.

15

16 CONTINUED BY MS. ANITA SOUTHALL:

17 MS. ANITA SOUTHALL: Could I ask the
18 panel, please, to turn to page 37 of the report.

19

20 (BRIEF PAUSE)

21

22 MS. ANITA SOUTHALL: I'm sorry, the --
23 the reference, I -- and the questions I want to direct
24 don't appear to be related to page 37, but I do have
25 questions associated with KPMG's thirty-six (36)

1 scenarios run for its net present value analysis.

2 To what extent did the net present value
3 analysis consider the capital costs of the new generation
4 assets planned by Manitoba Hydro?

5 MR. ANURAG GUPTA: It -- it was
6 definitely -- so the capital costs of the new planned
7 projects are an input to the analysis, absolutely, yes.

8 MS. ANITA SOUTHALL: Did KPMG -- did KPMG
9 review the input with respect to capital costs that was
10 provided by Manitoba Hydro for -- for reasonableness?

11 MR. ANURAG GUPTA: We did not review the
12 number as to the reasonableness, as to whether that would
13 actually be the expenditure for the project or not, no.

14 MS. ANITA SOUTHALL: Did you review the
15 number -- give consideration to the number provided?

16 MR. ANURAG GUPTA: As I've mentioned
17 before, we -- we reviewed the power resource plan and the
18 IFF, and those numbers are in there, yes.

19

20 (BRIEF PAUSE)

21

22 MS. ANITA SOUTHALL: So you're aware of
23 what was in the capital expenditure forecast for these
24 generation assets?

25 MR. ANURAG GUPTA: Again, the -- as it

1 was presented in the power resource plan and IFF.

2 MS. ANITA SOUTHALL: Did the net present
3 value analysis incorporate the cost implications related
4 to Keeyask?

5 MR. ANURAG GUPTA: The sales scenario
6 involved the cap ex for Keeyask as well as Conawapa, yes.

7 MS. ANITA SOUTHALL: Was it based on a
8 capital cost of \$3.7 billion? Can you answer that?

9

10 (BRIEF PAUSE)

11

12 MR. ANURAG GUPTA: I -- I don't recall
13 the exact number, but what -- what the number was being
14 carried in the PRP is what was used in the analysis.

15 MS. ANITA SOUTHALL: Did the net present
16 value analysis incorporate the cost implications related
17 to Conawapa?

18 MR. ANURAG GUPTA: In the sale scenario,
19 yes. In the no-sale scenario, as well, yes.

20 MS. ANITA SOUTHALL: Was that analysis
21 based on a capital cost for Conawapa of approximately \$5
22 billion?

23 MR. ANURAG GUPTA: Again, I -- I can't --
24 I don't recall the exact number, but whatever the number
25 was in the PRP was carried through into the analysis we

1 did.

2 MS. ANITA SOUTHALL: If KPMG could please
3 undertake to confirm those two (2) numbers I identified.
4 In other words, did the net present value analysis
5 incorporate cost for Keeyask at 3.7 billion, and the same
6 question with respect to Conawapa at 5 billion, please.

7 MS. MARLA BOYD: Yes, we'll do that.

8

9 --- UNDERTAKING NO. 73: KPMG to provide whether the
10 net present value analysis
11 incorporates the cost for
12 Keeyask at \$3.7 billion and
13 Conawapa at \$5 billion

14

15 CONTINUED BY MS. ANITA SOUTHALL:

16 MS. ANITA SOUTHALL: Could KPMG please
17 indicate how the net present value analysis would change
18 directionally if the capital costs of the new generation
19 assets were increased?

20 MR. ANURAG GUPTA: On page 174, the first
21 line of the second paragraph mentions MH determined that
22 the NPV for sale scenario development plan, which
23 includes Keeyask and Conawapa, was roughly \$5 billion.
24 So that gives you an indication of...

25

1 (BRIEF PAUSE)

2

3 MR. ANURAG GUPTA: Sorry, just give us a
4 second here.

5

6 (BRIEF PAUSE)

7

8 MS. ANITA SOUTHALL: We're -- I'm sorry,
9 are you still consulting?

10 MS. MARLA BOYD: Yeah, I'm sorry, we just
11 need a minute.

12

13 (BRIEF PAUSE)

14

15 MS. ANITA SOUTHALL: I may be able to
16 short circuit the consultation. We -- we could ask it in
17 a slightly different way, which may assist.

18 MS. MARLA BOYD: I think, Ms. Southall,
19 we're fine in terms -- I just was a bit concerned that we
20 had gone further than we wanted to, but we're fine.

21

22 CONTINUED BY MS. ANITA SOUTHALL:

23 MS. ANITA SOUTHALL: Are you able to
24 respond to that question?

25 MR. ANURAG GUPTA: Yes, to the extent

1 capital costs went up, everything else being the same,
2 the NPV would come down.

3 MR. WILL LIPSON: And -- yeah, and sorry,
4 and that's in comparing the NPV of a sales scenario with
5 lower costs to the NPV of a sales scenario with higher
6 costs. The difference between a sale and no-sale
7 scenario may be impacted in ways that are harder to
8 predict.

9 MS. ANITA SOUTHALL: Is KPMG aware that
10 the cost estimate for Keeyask has grown from 3.7 billion
11 to \$5.6 billion, an increase of \$1.9 billion?

12 MR. ANURAG GUPTA: Our analysis was based
13 on then-current information. We haven't looked at what's
14 -- what's happened to the cap ex since.

15 MS. ANITA SOUTHALL: And what would a --
16 directionally speaking, what would a nine (9) point --
17 \$1.9 billion increase do to the net present value
18 analysis?

19 MR. ANURAG GUPTA: Again, keeping
20 everything else the same, changing that one (1) number
21 alone would obviously reduce the NPV of the -- of the
22 sale scenario.

23 MS. ANITA SOUTHALL: Without disclosing
24 the actual outcomes of the net present value analysis or
25 any of the scenarios that were run for KPMG close enough

1 that on the basis of these kinds of changes to capital
2 costs, you could have a negative value?

3 MR. WILL LIPSON: I think it's impossible
4 to say without rerunning the analysis because we are
5 dealing with a change in capital cost where that capital
6 cost is spread out into a future year. And, you know, it
7 would have to be NPV'd back to today. And the NPVs we
8 have that are redacted are very significant numbers.
9 It's impossible to say without doing the analysis.

10

11 (BRIEF PAUSE)

12

13 MS. ANITA SOUTHALL: KPMG panel, given
14 the change in capital costs that we've been discussing in
15 the last few questions, is the net present value analysis
16 done in KPMG's report still valid, in your opinion?

17 MR. ANURAG GUPTA: I think I would have
18 to say what Mr. Lipson just said, that it's -- that's one
19 (1) factor which has changed. In order to answer that
20 question today, we'd have to rerun the analysis with --
21 with all the other factors that might or might not have
22 changed.

23

24 (BRIEF PAUSE)

25

1 MS. ANITA SOUTHALL: Mr. Chen, we have
2 some questions, and I believe that you're KPMG's panel
3 member dealing with risk-governance matters.

4 MR. FRANK CHEN: That's correct.

5 MS. ANITA SOUTHALL: I understand that
6 Mr. Fossay was involved as the team leader for risk-
7 governance matters with respect to the study itself.

8 MR. FRANK CHEN: That's correct, as well.

9 MS. ANITA SOUTHALL: And why is Mr.
10 Fossay not present?

11 MR. WILL LIPSON: There is a fair bit of
12 overlap between the risk-governance chapter, and the
13 chapter that follows it called, "Power Risk Management,"
14 and those two (2) teams worked closely together. If we -
15 - at one (1) point during the exercise we even thought to
16 say maybe those two (2) teams should be combined because
17 there was significant, not overlap, but significant
18 commonality to the types of issues they were dealing
19 with.

20 So when it came time to assemble a panel
21 we thought just for the sake of efficiency that Mr. Chen
22 could talk to both chapters.

23 MS. ANITA SOUTHALL: I want to bring to
24 your attention a segment of testimony from this
25 proceeding. It's located at page 2,174 in the

1 transcript. You don't need to turn there, but if you
2 wish to, to verify it, please do so.

3 Manitoba Hydro through Mr. Cormie has
4 testified that it will negotiate the best prices possible
5 with US counterparties and that an independent business
6 case would then be developed.

7 Do you want to verify that testimony?

8 MS. MARLA BOYD: Well, it's just
9 difficult. I'm not sure where you're going, and there'll
10 be some context around that that I was hoping to be able
11 to provide the witnesses. I'm not questioning your
12 reading.

13

14 (BRIEF PAUSE)

15

16 MR. FRANK CHEN: I do see the transcript.

17

18

19 CONTINUED BY MS. ANITA SOUTHALL:

20 MS. ANITA SOUTHALL: I further understand
21 that KPMG, in its review, notes that the long-term
22 contracts are subject to several layers of management
23 approval, that's correct, to the best of your knowledge?

24 MR. FRANK CHEN: That's correct, as -- in
25 -- as well as the term sheet process for prospective

1 deals.

2 MS. ANITA SOUTHALL: And would the
3 business case include, to your knowledge, consideration
4 of new generation facilities for Manitoba Hydro?

5

6 (BRIEF PAUSE)

7

8 MR. WILL LIPSON: Yes, that's correct.
9 The -- the means by which long-term sales contracts are
10 being supported will consider whatever the underlying new
11 generation facilities are being contemplated, so, yes.

12 MS. ANITA SOUTHALL: Can you tell me if
13 KPMG is aware, from its review, who prepares the business
14 case for Manitoba Hydro?

15 MR. ANURAG GUPTA: The -- there are
16 several departments within Manitoba Hydro which
17 contribute to the development of the power resource plan,
18 and the IFF plan, and -- and within the power resource
19 plan is -- is where the --the various development
20 sequence is analysed, and -- and then tested against
21 various sensitivities including changes in capital costs,
22 pri -- fore -- you know, forecast prices for power and
23 gas, et cetera.

24 MS. ANITA SOUTHALL: And does KPMG know
25 what area of -- of Manitoba Hydro reviews the business

1 case for risk exposure at the time when your report was
2 prepared?

3 MR. FRANK CHEN: When you say risk --
4 "risk exposure," risk exposure associated with...?

5 MS. ANITA SOUTHALL: With the export
6 power sales plan as part of Manitoba Hydro's business
7 case.

8 MR. FRANK CHEN: Those exposures are
9 identified during the process of evaluating long-term
10 contracts or export -- export sales.

11 MS. ANITA SOUTHALL: And is there -- is
12 there a office or unit within Manitoba Hydro that's
13 responsible for overseeing that analysis?

14 MR. FRANK CHEN: Overseeing that
15 analysis, that would... Just one (1) second so I can
16 show it to you in a governance structure.

17 MS. ANITA SOUTHALL: Is it the export
18 power middle office?

19 MR. FRANK CHEN: The export power middle
20 office overseeing that process? No.

21 MS. ANITA SOUTHALL: No, okay.

22 MR. FRANK CHEN: It's a export risk-
23 management committee that oversees that process.

24 MS. ANITA SOUTHALL: Does KMPG recommend
25 that the business case prepared be reviewed by the middle

1 office?

2 MR. FRANK CHEN: It was in -- it was --
3 that was one (1) of our recommendations, that the process
4 would -- should include the middle -- the export power
5 middle office.

6 MS. ANITA SOUTHALL: As an additional
7 review, Mr. Chen, or in place of someone else doing it?

8 MR. FRANK CHEN: Not in place; that the
9 middle office be included as par -- or integrated into
10 the -- into the process.

11 MS. ANITA SOUTHALL: When KPMG did its
12 review of the middle office was the middle office --
13 export power middle office located in power sales
14 organizationally?

15 MR. FRANK CHEN: At the time of our
16 review, no, it was not organizationally aligned with the
17 power sales, PS&O.

18 MS. ANITA SOUTHALL: Sorry, did you say
19 it was not?

20 MR. FRANK CHEN: It was not.

21 MS. ANITA SOUTHALL: There is reference
22 at page 217 of KPMG's report. If you turn to page 217 of
23 the main report to the fourth bullet on that page there
24 is the statement:

25 "MH and other utilities have certain

1 market risk assessment functions housed
2 in the power trading business unit to
3 support the assessment of market risk
4 exposure. While not ideal from an
5 independence perspective, there are
6 operational efficiencies associated
7 with this approach."

8 Do you see that?

9 MR. FRANK CHEN: I do see that.

10 MS. ANITA SOUTHALL: Could you explain
11 what is meant in respect of that statement by KPMG "while
12 this is not ideal from an independence perspective"?

13 MR. FRANK CHEN: Yes. At the time that
14 the -- the review was performed, the export power middle
15 office was -- had an operational reporting line to the
16 CFO organization directly to the corporate risk-
17 management function.

18 However, with respect to traditional
19 middle office responsibilities, market risk management
20 and credit risk management, the market risk management
21 was aligned properly with the middle office at the time.
22 It was credit risk, which is traditionally a middle
23 office responsibility as well, that was aligned in the
24 PS&O function.

25 So it was not the middle office itself

1 that was -- that lacked independence, it was the credit
2 ma -- risk management function.

3 MS. ANITA SOUTHALL: And, Mr. Chen, based
4 on your review of the organizational structure for
5 Manitoba Hydro, it represents an appropriate
6 organizational reporting system for risk?

7 MR. FRANK CHEN: Currently or at the time
8 that we did the --

9 MS. ANITA SOUTHALL: At the time you did
10 the report.

11 MR. FRANK CHEN: Referring to --
12 referring to credit risk?

13 MS. ANITA SOUTHALL: I'm sorry, I meant
14 with respect to the export power middle office and its
15 place within the org structure for Manitoba Hydro.

16 MR. FRANK CHEN: The way that the middle
17 office or export power middle office was aligned in -- in
18 its reporting lines, it was consistent with industry
19 practices and it was an inde -- an independent
20 functioning body.

21

22 (BRIEF PAUSE)

23

24 MS. ANITA SOUTHALL: We note, and we're
25 not going to ask you to turn to it, but again, please, if

1 you wish to make the reference, at Appendix E-17, so this
2 is the -- an appendix to the ma -- KPMG main report.
3 There was a utility research scan done by KPMG. And
4 specifically my question deals with information obtained
5 from Hydro Quebec. On review of the appendix we noted
6 that it indicates the middle office with Hydro Quebec is
7 established as a detached middle office. Do you recall
8 that from your review?

9 MR. FRANK CHEN: That's what the case
10 study indicates, that's correct.

11 MS. ANITA SOUTHALL: And... Do you know
12 how that differs, Mr. Chen, from the current structure at
13 Manitoba Hydro?

14 MR. FRANK CHEN: Actually, refer -- going
15 back to your initial question, the term you used
16 "detached," can you clarify?

17 MS. ANITA SOUTHALL: Well, I'm drawing
18 from the information in Appendix E.

19 MR. FRANK CHEN: I am reviewing -- or I
20 can -- I'm looking at Appendix E at the moment and I
21 don't --

22 MS. ANITA SOUTHALL: Okay. Pardon me --

23 MR. FRANK CHEN: -- see the term or word
24 used "detached".

25 MS. ANITA SOUTHALL: -- then I'll -- I'll

1 try to locate it. Thank you.

2

3

(BRIEF PAUSE)

4

5 MR. FRANK CHEN: I stand corrected, I see
6 it now. I see the word "detached". I think in terms of
7 semantics, detached can just imply that it's independent,
8 which -- which essentially is the same, it -- Manitoba
9 Hydro's consistent with Hydro Quebec's middle office
10 structure.

11 MS. ANITA SOUTHALL: Just if you want to
12 have that reference available to you, Mr. Chen, our
13 review of Appendix E-17 indicates that for Hydro Quebec
14 the group is active in the audit of the financial models
15 used by Hydro Quebec. Do you want to confirm that?

16 MR. FRANK CHEN: That's correct,
17 confirmed.

18 MS. ANITA SOUTHALL: Do you know what
19 financial models they au -- they audit?

20 MR. FRANK CHEN: I don't know the exact
21 financial models at Hy -- Hydro Quebec. The term
22 generally refers to analytic models. As I referred to
23 earlier, they could be a reference to value at risk, or
24 value at risk type model. They could be a stress testing
25 type model, traditional risk analytic models used in

1 energy trading and transacting.

2 MS. ANITA SOUTHALL: Would they be
3 similar to the financial models utilized by Manitoba
4 Hydro?

5 MR. FRANK CHEN: I would say that's very
6 similar, yes, except for the case of a value at risk type
7 model, which Manitoba Hydro does not currently use.

8 MS. ANITA SOUTHALL: Hydro Quebec also
9 incorporates stress testing as a best practice and it
10 indicates it allows management to be proactive rather
11 than reactive. Do you note that in the Appendix E?

12 MR. FRANK CHEN: Yes, I do.

13 MS. ANITA SOUTHALL: And would it be
14 Hydro Quebec's middle office that undertakes the stress
15 testing? Do you know that from your investigations?

16

17 (BRIEF PAUSE)

18

19 MR. FRANK CHEN: These case studies were
20 conducted about a year ago, so it takes some time to just
21 refer back to try to find --

22 MS. ANITA SOUTHALL: No, please take your
23 time and refer to it. I -- I believe that we located it
24 from the information in that -- in that appendix, but
25 please take your time.

1 MR. FRANK CHEN: If you -- it would be
2 helpful if you can steer -- or direct us to the
3 reference, and then...

4

5 (BRIEF PAUSE)

6

7 MS. ANITA SOUTHALL: Mr. Chen, we're --
8 we're not going to follow up on that question. We're --
9 I'm sorry, we -- we are unable to locate it right at this
10 moment. Thank you for checking.

11 MR. FRANK CHEN: You're welcome.

12

13 (BRIEF PAUSE)

14

15 MS. ANITA SOUTHALL: If you could turn to
16 page 188/189 of the main report, please.

17

18 (BRIEF PAUSE)

19

20 MS. ANITA SOUTHALL: In terms of the
21 methodology used by KPMG to examine risk governance
22 related to Manitoba Hydro, one (1) of the indications is
23 that KPMG reviewed risk management leading practices,
24 correct?

25 MR. FRANK CHEN: That's correct

1 MS. ANITA SOUTHALL: What specific
2 standards, if any, did KPMG examine?

3 MR. FRANK CHEN: You mean leading
4 practice sources?

5 MS. ANITA SOUTHALL: Yes, please.

6 MR. FRANK CHEN: There's a number of
7 sources quoted in Appendix M, which are described. Those
8 are all the leading sources that were used to -- to
9 compare against.

10

11 (BRIEF PAUSE)

12

13 MS. ANITA SOUTHALL: And then if you
14 could turn, please, to page 210 of the report through to
15 212. KPMG made a comparison of Manitoba Hydro's power
16 sales risk-governance practices to the leading practices,
17 correct?

18 MR. FRANK CHEN: That's correct.

19 MS. ANITA SOUTHALL: And there is a
20 legend provided for the practice at the bottom -- or
21 pardon me, for the comparison at the bottom of page 10,
22 which then is applied on the two (2) chart pages that
23 follow. Is that correct?

24 MR. FRANK CHEN: That's correct.

25 MS. ANITA SOUTHALL: If I could ask you

1 to turn to page 211 then, and item number 3 in the chart,
2 the leading practice issue identified there is:

3 "Risk-management policies and
4 procedures are established for power
5 sales, and independently monitored for
6 power sales."

7 Correct?

8 MR. FRANK CHEN: Correct.

9 MS. ANITA SOUTHALL: With respect to
10 KPMG's finding of its examination of Manitoba Hydro's
11 practices, it indicates:

12 "Manitoba Hydro has a detailed
13 opportunity-sales policy framework that
14 is regularly assessed for compliance by
15 the middle office."

16 Do you see that?

17 MR. FRANK CHEN: I do.

18 MS. ANITA SOUTHALL: And how is that
19 assessment completed by the middle office? Did you
20 obtain any details to support this finding?

21 MR. FRANK CHEN: The middle office is
22 responsible for reporting any incidents of non-compliance
23 with policies, so we had requested re -- historical
24 reports of any events of non-compliance with policies to
25 determine or assess the middle office monitoring

1 compliance with policies.

2

3

(BRIEF PAUSE)

4

5

6

MS. ANITA SOUTHALL: The next part of the finding, Mr. Chen, is the KPMG statement:

7

8

9

10

11

12

13

14

"Ownership of power sales risk-management policies has been historically within the domain of PS&O. We understand that Manitoba Hydro is considering transfer of the responsibility for a power sales risk-management policy stewardship to the export power middle office."

15

Is that accurate?

16

MR. FRANK CHEN: That is accurate.

17

18

19

20

21

22

MS. ANITA SOUTHALL: Can you explain what you mean by the first part of that statement? Which risk management policies? And -- and perhaps it's all, but if -- if you could provide a better understanding of what role power sales had played at the time of this comparative analysis.

23

24

(BRIEF PAUSE)

25

1 MR. FRANK CHEN: Documenting or authoring
2 risk-management policies requires a certain subject
3 matter competency in understanding the -- the risk-
4 management practices and controls. Typically, risk-
5 management pra -- risk-management documents or risk
6 policy documents are authored by the -- the appropriate
7 person that understands the -- the content the best.

8 In this instance, PSO understood the risk
9 management practices and controls and -- and authored the
10 document. There were appropriate controls or mechanisms
11 in place to ensure that the document was independently
12 reviewed and approved. Therefore, we are recognizing
13 that the risk-management policy was authored by PS&O.
14 There they put -- and Manitoba Hydro put appropriate
15 controls to ensure that it had proper independent review
16 and approvals.

17 MS. ANITA SOUTHALL: And who would be --
18 who would have been reviewing the risk policies
19 independent of power sales?

20 MR. FRANK CHEN: The policies are
21 required to go -- to be under -- to be reviewed and
22 approved by the Export Power Risk-Management Committee.

23 MS. ANITA SOUTHALL: Is power sales
24 senior management represented on that committee?

25

1 (BRIEF PAUSE)

2

3 MR. FRANK CHEN: Yes, it is. The member
4 representing power supply is the senior vice-president of
5 power supply.

6

7 (BRIEF PAUSE)

8

9 MS. ANITA SOUTHALL: If you could look at
10 page 278 of the main report, please. This is back in the
11 recommendation section for KPMG. There is a
12 recommendation at the first dashed item at the top of the
13 page that Manitoba Hydro's process of reviewing export
14 contracts and term sheets should include the middle
15 office to perform a challenge function.

16 Can you explain what that means, please?

17 MR. FRANK CHEN: When the risks are
18 identified -- or the inherent risks are identified as you
19 go through the deliberate due diligence process of
20 prospective deals, i.e, the term sheet process, a person
21 that has a good understanding of the inherent risks, such
22 as market credit, operational liquidity, any of the risks
23 inherent with that specific transaction, through --
24 through the deliberation process, if those risks have not
25 been properly identified by its appropriate subject

1 matter the middle office would per -- perform some sort
2 of healthy challenge to say, Has that risk been
3 identified and -- and is there -- do we have a mitigation
4 strategy in place.

5 And that question would be directed to the
6 appropriate subject matter expert. If there were some
7 tax risks, that question would be directed to a tax
8 expert. If there were some environmental risks, that
9 question would be directed to an environmental
10 specialist.

11 MS. ANITA SOUTHALL: The -- the middle
12 office in that instance would be acting as a manager on
13 the identification of the risk issues, Mr. Chen, and --
14 and satisfying the role of ensuring that all of those
15 risks have been examined?

16 MR. FRANK CHEN: I don't think the middle
17 office would really act as a manager. Each individual
18 party or specialist would be responsible for managing its
19 own individual risks associated with that term sheet or
20 deal. The middle office would -- would likely act as a
21 steward to make sure that -- that the process is sound
22 and comprehensive, as well as provide a challenge to --
23 to the extent that an issue hadn't been identified or
24 raised.

25

1 (BRIEF PAUSE)

2

3 MS. ANITA SOUTHALL: Is KPMG aware if
4 Manitoba Hydro has now implemented the recommendation
5 with respect to middle office involvement in the term
6 sheet review?

7 MR. FRANK CHEN: Yes. In fact, I can
8 summarize where Hydro stands today vis-a-vis our
9 recommendations that were -- that were positioned or
10 presented at the time of the project.

11 A mark -- a senior market risk specialist,
12 or I'll say a senior market risk analyst has been added
13 to perform the analytic function as recommended to the
14 middle office. A credit risk officer has been added to
15 the middle office, as well as realigning the credit risk
16 management function, making it -- making it independent,
17 no longer part of the PS&O group.

18 And the middle office is in the process of
19 selecting a specialized risk -- risk analytic software to
20 enable the analytic function, and the middle office plans
21 -- or Hydro -- Manitoba Hydro plans to include the middle
22 office as part of its long-term export contracting
23 process or the term sheet review process.

24 MS. ANITA SOUTHALL: So I guess that's
25 the last point I was getting to, was that they planned to

1 include the middle office. I'm just asking whether or
2 not you know as of now whether or not the middle office
3 contributes to review of the term sheets at present?

4 MR. FRANK CHEN: At this time I -- I'm
5 unable to confirm. However, I do know that there aren't
6 any term sheets at -- at the moment being reviewed, so
7 there's no process to drive.

8 MS. ANITA SOUTHALL: Mr. Chen, what role
9 do you -- do -- or can you comment on what role KPMG
10 would foresee the middle office playing in terms of
11 review of Manitoba Hydro's term sheets going forward?

12 MR. FRANK CHEN: I think as I mentioned
13 previously, in -- in a very high level their -- their
14 main responsibility or function or -- or role would be to
15 act as steward and to facilitate that -- that -- that
16 process in terms of making sure that the -- the risks
17 that are identified by each subject matter specialist or
18 each area are -- are challenged if -- to the extent that
19 the risks aren't -- a mitigation strategy -- strategy
20 isn't in place, or any risks that haven't been identified
21 or raised, that they -- that the question is posed to
22 make sure that the -- all the risks inherent in that
23 prospective deal are identified.

24 MS. ANITA SOUTHALL: Would the analysts
25 in the middle office that have recently been brought into

1 Manitoba Hydro be expected to evaluate the business case
2 in question? Would they actually have a role in
3 participating in the evaluation?

4 MR. FRANK CHEN: The middle office will -
5 - will select an individual that has the -- the right
6 competencies or capabilities to perform that role.

7

8 (BRIEF PAUSE)

9

10 MS. ANITA SOUTHALL: Your reference page
11 in the main report, if you wish to go there, would be
12 page 222, and this is the area where KPMG addresses mark
13 to market risk measures.

14

15 (BRIEF PAUSE)

16

17 MR. FRANK CHEN: Yes.

18 MS. ANITA SOUTHALL: Could you just
19 explain briefly, Mr. Chen or panel members, what mark to
20 market measures are recommended for Manitoba Hydro?

21 MR. FRANK CHEN: I can sum -- summarize
22 that pretty quickly, if I can refer to just a picture or
23 a chart.

24 MS. ANITA SOUTHALL: Yes, please.

25 MR. FRANK CHEN: If I can refer to a

1 picture or chart in a -- in the -- in the middle office
2 report that was conducted separate. There was a separate
3 engagement parallel to the external quality review.

4 MS. ANITA SOUTHALL: The -- the document
5 that Mr. Chen wants to refer to is not yet on the record.

6 MR. FRANK CHEN: I thought it was.

7 MS. ANITA SOUTHALL: We -- we do intend
8 to put the -- the entire assessment document on the
9 record, but I'm not sure if it's available for
10 circulation yet from Manitoba Hydro.

11 MR. FRANK CHEN: I just thought a picture
12 would be able to explain it. It's pretty consistent with
13 what the mark to market recommendations are in the
14 external quality review report as well.

15 MS. MARLA BOYD: We have it available.
16 We just need a minute to distribute it.

17 MR. FRANK CHEN: It's -- it's page 51.

18

19 (BRIEF PAUSE)

20

21 MR. WILL LIPSON: Yeah. Sorry. While
22 that document's being circulated, I just want to address
23 one (1) -- one (1) little detail.

24 The exercise that relates to this report
25 was not a separate exercise, it was part of the same

1 engagement. It actually was included in the fee that I
2 quoted yesterday. I think yesterday I had incorrectly
3 assumed it was not.

4 It was all under the -- the one (1)
5 assignment. I thought of it as a separate project
6 because it was not a direct response to the terms of
7 reference that we started with. It was a separate terms
8 of reference that had been developed, and we undertook
9 them both as one (1) single project.

10 So sometimes we'll call that a separate
11 project because it started from a separate terms of
12 reference, but it's -- it was all linked together to make
13 very good efficiencies that, you know, while we're doing
14 our -- the main report, we could also follow up and --
15 and do this more detailed assessment.

16 So that's just by way of context to fill
17 some air space while the document's being circulated.

18 THE CHAIRPERSON: On the same note of
19 just understanding, is this part of the 2.7 million?

20 MR. WILL LIPSON: Yes. That's what I'm
21 saying. I -- yesterday I thought that was a separate
22 amount, and the answer is no, it's all in that one (1)
23 number.

24

25

(BRIEF PAUSE)

1 MS. ANITA SOUTHALL: Are we entering this
2 document then as the next Manitoba Hydro exhibit, Ms.
3 Boyd?

4 MS. MARLA BOYD: Yeah, that's fine. I
5 think it's sixty-two (62).

6 THE CHAIRPERSON: Sixty-two.

7

8 --- EXHIBIT NO. MH-62: Middle and Back Office
9 Assessment, dated May 20,
10 2010

11

12 CONTINUED BY MS. ANITA SOUTHALL:

13 MS. ANITA SOUTHALL: Okay, Mr. Chen, I
14 think we're -- we have that available, and we -- you
15 directed us to page 51 of the document.

16 MR. FRANK CHEN: Right. So fifty-one
17 (51) is just a -- a quick pic -- picture that summarizes
18 where the mark to market recommendations fall. They're
19 consistent with the -- the external quality review
20 report, as well, on where mark to market improvements can
21 be made.

22 So mark to market is currently planned, as
23 -- as it indicates under the tick mark A, and you'll see
24 that the -- the branch indicates the scope of products or
25 transactions. Under the -- the term -- or umbrella term

1 "export sales" you'll see short and long and market and
2 bilateral. So currently, mark to market is performed
3 where financial products are traded, and under market and
4 bilateral. And where we re -- make recommendations --
5 recommendations to extend mark to market practices fall
6 under the merchant and term sales that are less than a
7 year.

8 THE CHAIRPERSON: While they're pondering
9 -- and I've just seen this, so I apologize if I say
10 something that could be better framed. But on page 51
11 under "Long-term export sales," you've got it marked mark
12 to market for subsequent consideration.

13 So, potentially, if you went mark to
14 market you'd do what, a net present value on the
15 contract? And if it was less than your expected cost
16 you'd incur it on a discounted basis immediately, sort of
17 like an onerous contract? I'm just thinking of IFRS and
18 the concept of onerous contracts.

19 You've got under, "Export sales," one (1)
20 subcategory is long-term. And you have for subsequent
21 consideration for the application of mark to market. I
22 just want to see if I understand it, okay.

23 If you went mark to market on a long-term
24 contract, and say it's apples, it appears that you're
25 going to deliver ten (10) apples to Nunavut for the next

1 fifty (50) years with a specific price attached to it,
2 okay. If that price discounted back to the present day
3 was less than the money that you were getting for the
4 apples, mark to market would say you'd have to record it
5 in the period that you signed the contract. Am I
6 correct?

7 MR. FRANK CHEN: I think mark to market
8 is viewed with two (2) different lenses. You can apply
9 an economic and an accounting lens to it. When you apply
10 an accounting lens it's -- it's slightly different than
11 what the economic -- what the economic information or
12 mark to market will tell you.

13 So for accounting treatment purposes
14 there's prescriptive guidance on how to treat that loss,
15 that -- and how to record that into the income statement,
16 or whether you can treat it onto the balance sheet.
17 However, from an economic standpoint, you would treat it
18 as -- purely as a ga -- as a loss, as an unrealized loss
19 without consequence or recognition of how it's going to
20 get reported into your financial statements.

21 THE CHAIRPERSON: Okay. Well, what about
22 the first route, the accounting route under IFRS?

23 MR. FRANK CHEN: I cannot comment on
24 that. I'm not an -- an accountant by trade.

25 THE CHAIRPERSON: Okay. We'll wait until

1 the Manitoba Hydro panel comes back. Thanks. Sorry, Ms.
2 Southall.

3 MR. ROBERT MAYER: Before we leave this,
4 our curious minds want to know, whose window is that? It
5 doesn't look like a Manitoba Hydro asset, that I'm aware
6 of.

7 MR. FRANK CHEN: It is energy efficient
8 though, I can assure you.

9

10 (BRIEF PAUSE)

11

12 CONTINUED BY MS. ANITA SOUTHALL:

13 MS. ANITA SOUTHALL: Mr. Chen, just --
14 just from the answers that you were providing to the
15 Chair, if you measure mark to market on an economic
16 basis, what would be the value of the information
17 derived?

18 MR. FRANK CHEN: On an economic basis it
19 gives you -- as market prices change obviously on a daily
20 basis, or whatever -- on whatever horizon that you're
21 trying to measure or determine fair value of your asset
22 or -- or your contract, it can tell you two (2) things.

23 If you were to imagine that a contract can
24 have a positive or be in the money or have an unrealized
25 profit, or it can have an unrealized loss. And when you

1 get that information on a daily basis with refreshing
2 that value with new market prices as they're avail -- as
3 they become available, it gives you opportunity just to
4 hedge using financ -- financial instruments, as well as
5 to determine whether or not you can manage potential
6 credit or counterparty default or counterparty credit
7 risk.

8 MS. ANITA SOUTHALL: Mr. Chen, this
9 analysis would be over a twenty (20) year period for
10 long-term contracts if we're talking Manitoba Hydro?

11 MR. FRANK CHEN: That would be correct.

12 MS. ANITA SOUTHALL: And when you're
13 doing the analysis, what would you compare the contract
14 prices to in that -- if we're talking long-term
15 contracts, just hypothetically?

16 MR. FRANK CHEN: I'm not sure. I don't -
17 - I don't quite fully understand the question, comparing
18 it to -- comparing it to other contracts or...

19

20 (BRIEF PAUSE)

21

22 MS. ANITA SOUTHALL: The -- the question
23 is, Mr. Chen, if you know the price information that
24 you're going to derive from a long-term contract, how do
25 you change the value on your ongoing review using mark to

1 market analysis?

2 MR. FRANK CHEN: I'm sorry, I'm -- I'm
3 trying to understand your -- I'm trying to answer you
4 question if I can understand it better. It's no
5 disrespect.

6 MS. ANITA SOUTHALL: No, that's fine.
7 Thank you. Mr. Chen, I believe the reference in the main
8 report on this point is at page 247, and this is the
9 value at risk discussion.

10 MR. FRANK CHEN: Did you say 247?

11 MS. ANITA SOUTHALL: Yes.

12 MR. FRANK CHEN: Yes.

13 MS. ANITA SOUTHALL: KPMG recommends, on
14 the second bullet down on that page, that Manitoba Hydro
15 should use a value at risk based method to measure
16 drought risk. Do you see that?

17 MR. FRANK CHEN: I do.

18 MS. ANITA SOUTHALL: Or drought exposure,
19 pardon me.

20 MR. FRANK CHEN: I do, yes.

21 MS. ANITA SOUTHALL: And that remains
22 KPMG's recommendation today?

23 MR. FRANK CHEN: Yes.

24 MS. ANITA SOUTHALL: What is the benefit
25 of using a value at risk based method for Manitoba

1 Hydro's measure of drought exposure?

2 MR. FRANK CHEN: If I can just state a
3 correction on the record, that the word "consider" versus
4 they should. So they should consider versus that they
5 should implement.

6 MS. ANITA SOUTHALL: Okay. Thank you.

7

8 (BRIEF PAUSE)

9

10 MS. ANITA SOUTHALL: And, Mr. Chen, for
11 confirming capital adequacy for Manitoba Hydro, would you
12 run a value at risk analysis?

13 MR. FRANK CHEN: Value at risk is a
14 unique measure most -- most applicable relevant to
15 trading activities, meaning where you have a portfolio of
16 assets where there's ha -- high asset turnover.

17 There are variations of an at-risk
18 calculation, and for examples, I -- I give a few here.
19 You can manipulate a -- a unique financial variable such
20 as profit, revenue, budget, and you can customize that
21 at-risk calculation to measure potential losses
22 associated with whatever you're trying to measure or
23 what's the most critical or financial variable that's --
24 that exposes the company or entity.

25 So to the extent that capital is a major

1 financial exposure to an organization you can customize
2 or tailor an at-risk calculation. And typically in a
3 financial services area it's called capital at risk,
4 which is the maximum amount of capital that you want to
5 expose your organization against, or the -- before you
6 jeopardize it as an ongoing concern.

7 MS. ANITA SOUTHALL: Also on page 24 --
8 247, the third bullet indicates:

9 "Manitoba Hydro should consider
10 incorporating independent back testing
11 practices to validate internal market
12 risk models."

13 Do you see that note?

14 MR. FRANK CHEN: That's correct.

15 MS. ANITA SOUTHALL: Is the current back
16 testing -- is -- first of all, is there any current back
17 testing by Manitoba Hydro to validate internal market
18 risk models -- models?

19

20 (BRIEF PAUSE)

21

22 MR. FRANK CHEN: Back testing, as I know
23 it, in terms of standard back testing practices that were
24 purported by leading industry sources, no. However,
25 Manitoba Hydro does, as they -- as you've seen, have

1 calibrated their models, or do independent testing,
2 comparing using -- as you kind of pointed out, some
3 variances between actual and forecasted results.

4 MR. WILL LIPSON: And maybe just to
5 elaborate on that, the -- the bottom of page 246 does
6 describe how the Manitoba Hydro personnel who are
7 operating these models are continually validating the
8 models, but there isn't this independent back testing
9 exercise. I think the focus is on the word,
10 "independent."

11 MS. ANITA SOUTHALL: Okay. I take it
12 it's a small number of personnel operating the models who
13 have the proficient understanding of the model logic and
14 assumptions, correct?

15

16 (BRIEF PAUSE)

17

18 MR. JONATHAN ERLING: I -- I guess we'd
19 want to clarify, is there particular models that you're
20 interested in because there are a range of models and
21 they are housed in various departments.

22 Certainly I've probably reviewed the
23 hydrological models and production scheduling type models
24 that we've noted, but there may be other models that
25 Frank dealt with in the trading/risk-management area.

1 MR. FRANK CHEN: I can say that statement
2 is generally true, directionally true, given that the --
3 the -- the models that are currently in place are quite
4 complex with a tremendous amount of code and analytics
5 involved and the statistical knowledge that you're
6 required to -- to understand, so it is a specialized
7 field.

8 MS. ANITA SOUTHALL: And is there a risk
9 inherent in a limited number of people within Manitoba
10 Hydro for the various models having an understanding of
11 that complexity without documentation to support it?

12 In other words, if something happens to
13 them, is that a risk exposure for the Corporation?

14

15 (BRIEF PAUSE)

16

17 MR. FRANK CHEN: So one (1) of the
18 recommendations that we did make in -- in the model
19 chapter was documentation or -- or better or enhanced
20 documentation to address that -- that potential risk.

21 There is cross-training and redundancy at
22 the moment to eliminate or reduce key-man risk so that
23 knowledge is not -- doesn't reside in -- in the hands of
24 few, but yes, you're correct, documentation would further
25 enhance that -- that ability.

1 MS. ANITA SOUTHALL: And just one (1)
2 further question on page 247, and with respect to the
3 Hydro methodology for calculating stress loss numbers.

4 In the second paragraph on that page, KPMG
5 makes the statement:

6 "Manitoba Hydro calculates stress loss
7 numbers using stress tests and
8 exercises professional judgment to
9 develop associated risk management
10 targets. Example, a \$2.5 billion
11 retained earnings."

12 The statement goes on to say:

13 "However, this approach raises the
14 potential risk that the Corporation
15 will develop remediation plans based on
16 very unlikely scenarios."

17 Can you explain what's meant in that
18 statement, please?

19

20 (BRIEF PAUSE)

21

22

23 MR. FRANK CHEN: Stress tests are -- are
24 essentially based on calculating potential financial
25 losses with unlikely or unplausible -- plausible, I'm --

1 I'm sorry, plausible but very unlikely low probability
2 events and scenarios associated with -- when you do
3 calculate stress tests, and when you tie or link that
4 stress test to a retained earnings number, you are
5 linking a number to an unlikely event, or a low
6 probability event, but that's what you're trying --
7 that's the purpose of it, which is to buffer against
8 high-impact low-probability events.

9

10 (BRIEF PAUSE)

11

12 MR. FRANK CHEN: If I can just add just a
13 -- just a brief comment as well. In the spirit of how we
14 did this review, it was against leading industry
15 practices in the -- in the spirit of Hydro always wanting
16 to identify potential opportunities for improvement.

17 They do, in fact, conduct stress tests
18 consistent with industry practices, li -- like many
19 organizations in a very, kind of, similar format, stress
20 testing prices and normal ex -- expected or high/low
21 price scenarios. A more leading edge analytic stress
22 test is developing probabilistic stress-testing
23 scenarios, but that's more of a -- again applying a
24 financial institution practice and applying that to --
25 that hurdle or benchmark against the utility, which is

1 certainly considered leading practice but may not be
2 practical at the moment for Hydro to the extent that
3 that's -- you'd have to weigh that against cost and
4 benefit to implement.

5 MS. ANITA SOUTHALL: I believe I recall
6 from Appendix E on your utilities research that Powerex
7 for BC Hydro uses a value at risk analysis. So that
8 would be one (1) example of another utility that does it,
9 correct?

10 MR. FRANK CHEN: That's correct, but that
11 vol -- value at risk would probably be based be -- would
12 be in place because that utility probably engages in --
13 in speculative or merchant-type transactions.

14 MS. ANITA SOUTHALL: Would you turn to
15 page 254, please.

16

17 (BRIEF PAUSE)

18

19 MS. ANITA SOUTHALL: This is the portion
20 of the report where KPMG deals with consideration of
21 Manitoba Hydro's market and credit risk -- risk limit
22 structure. Is that correct, sir?

23 MR. FRANK CHEN: That's correct.

24 MS. ANITA SOUTHALL: And specifically on
25 page 254, under the analysis section there is a statement

1 by KMPG.

2 "We note that risk limits have not been
3 specified for system transactions."

4 Is that correct?

5 MR. FRANK CHEN: That's correct.

6 MS. ANITA SOUTHALL: And can you tell us
7 what system transactions means within the context of
8 Manitoba Hydro's operations?

9 MR. FRANK CHEN: So I have good -- a
10 formal definition of it described in the management
11 control plan referenced in that last paragraph under
12 titles, "Merchant transaction limits," page 254, system
13 transac --

14 MS. ANITA SOUTHALL: I'm sorry, were --
15 were you wanting to quote that?

16 MR. FRANK CHEN: Yes.

17 MS. ANITA SOUTHALL: Go ahead.

18 MR. FRANK CHEN: That's the definition of
19 system transactions. So they include both energy system
20 -- let's see, energy and financial product system.

21 "Energy products provide a physical
22 supply while system financial products
23 must be associated with the underlying
24 physical position. System and
25 financial products are used to

1 financially settle a price for power-
2 related transactions or to manage risk
3 on a physi -- on physical supply."

4 MS. ANITA SOUTHALL: Sir, if you could
5 turn to your chart -- I'm sorry, were you finished with
6 the quote?

7 MR. FRANK CHEN: Yes.

8 MS. ANITA SOUTHALL: Okay. Could you
9 turn to the diagram, which is page 51 in the newly filed
10 Manitoba Hydro document, Exhibit 62.

11 MR. FRANK CHEN: Correct.

12 MS. ANITA SOUTHALL: Are there -- can --
13 can you comment on what risk limits should be applied
14 with respect to the diagram, the way it's structured on
15 page 51? Where should risk limits be applied?

16 MR. FRANK CHEN: Essentially, risk limits
17 should be applied across all -- all type of transactions.
18 They can be in the form of position limits, volume
19 limits, location limits, dollar loss limits, stop limits.

20 So it depends on what type of limits apply
21 to a specific type of transaction. So risk limits is a
22 pretty broad term, and there's a specific type of limits
23 that -- that are appropriate to apply depending the type
24 of product that you're transacting in.

25 MS. ANITA SOUTHALL: Which of the --

1 which of the products that are represented on page 51 for
2 Manitoba Hydro do not have risk limits at present, or at
3 the time the report was prepared?

4

5 (BRIEF PAUSE)

6

7 MR. FRANK CHEN: If I can just take a
8 second to refresh my memory.

9 MS. ANITA SOUTHALL: Yes, please.

10

11 (BRIEF PAUSE)

12

13 MR. FRANK CHEN: So currently the risk
14 limits that are in place apply to merchant under the
15 bilateral, I think referring to the -- the diagram on
16 page 51, as well as financial products.

17 MS. ANITA SOUTHALL: So as of the time of
18 doing your report, none of the -- those other products
19 have risk limits. Is that correct?

20 MR. FRANK CHEN: If you look at the --
21 the products that don't, they're -- they're day-
22 ahead/real-time transactions. The day-ahead and real-
23 time transactions are -- are intended to balance the
24 system. They pose really no inherent or significant
25 market risk to the Company. They settle -- they settle

1 either immediately in the next hour or at the most next
2 day.

3 So if the Company decides to impose any
4 sort of limits it would be probably best appropriate to
5 provide volume limits, but that didn't seem necessary
6 given the immediate settlement of those types of
7 transactions.

8 MS. ANITA SOUTHALL: And with respect to
9 long-term contracts, Mr. Chen, what would be the
10 recommendation for risk limits to be set for Manitoba
11 Hydro? Are you able to address that?

12 MR. FRANK CHEN: There --

13 MS. ANITA SOUTHALL: Sorry, not -- types
14 of risk limits, not -- not your analysis on -- on what
15 the value should be.

16 MR. FRANK CHEN: There are already
17 appropriate limits in place addressing the long-term
18 contracting process with delegation of authorities in
19 place and the type of -- and the deal size and limits
20 associated with capital expenditures asso -- you know,
21 inherent or weaved into those types of complex
22 agreements. So those are unique structure type contracts
23 with unique limits already in place.

24 MS. ANITA SOUTHALL: Mr. Chen, with
25 respect to -- on -- again, if you could refer to page 51

1 of Manitoba Hydro Exhibit 62. With respect to the item
2 under "Short-term Bilateral Term Sales Less than One
3 Year", I understand there are no risk limits -- based on
4 your answers, no risk limits imposed on that product?

5 I'm sorry, are -- is there a need for risk
6 limits for that type of sale?

7

8 (BRIEF PAUSE)

9

10 MR. FRANK CHEN: If you can refer to both
11 documents, both the external quality review in the limit
12 section as well as this diagram on page 51 --

13 MS. ANITA SOUTHALL: I'm sorry, was there
14 a page reference you were giving us?

15 MR. FRANK CHEN: Page 254 and 255 of the
16 main report.

17 MS. ANITA SOUTHALL: Yes, thank you.

18

19 (BRIEF PAUSE)

20

21 MR. FRANK CHEN: So we didn't depict the
22 -- the transaction against family or -- or this tree in
23 the same manner as we did in the main report. However,
24 the limits that are in place apply to the merchant
25 transactions I indicated, as well as the financial

1 products, which is the same merchant transactions
2 referred to in the main report on page 254 and 255.

3 So the question regarding term sales less
4 than a year, whether or not limits apply, or should be
5 applied, limits that -- that are currently applied in the
6 merchant -- for merchant and -- and financial, those
7 limits should also be considered for term sales, as well.

8 MS. ANITA SOUTHALL: Thank you. Mr.
9 Chairman, if I could just have two (2) minutes at the
10 desk here.

11 THE CHAIRPERSON: Okay.

12 MS. ANITA SOUTHALL: We intend to finish
13 by the afternoon break, so we are just going to vet the
14 balance of our questions on this middle office document
15 that's just been filed.

16 THE CHAIRPERSON: Very good.

17 MS. ANITA SOUTHALL: Thank you.

18

19 (BRIEF PAUSE)

20

21 MS. ANITA SOUTHALL: Thank you very much
22 for your patience.

23

24 CONTINUED BY MS. ANITA SOUTHALL:

25 MS. ANITA SOUTHALL: I do have some

1 questions of the panel on Manitoba Hydro Exhibit 62.
2 It's the document entitled, "Manitoba Hydro middle and
3 back office assessment, May 20, 2010," prepared by KPMG.
4 Mr. Chen, I take it you'll be the lead on this as well?

5 MR. FRANK CHEN: Yes. Can I take a
6 moment to -- to make a correction to a statement I made
7 early regarding --

8 MS. ANITA SOUTHALL: Yes, please.

9 MR. FRANK CHEN: -- the middle office?
10 And I was told that the middle office -- there are term
11 sheets actually being contemplated right now or in the
12 review process, and that -- and the fact that they are,
13 the middle office has been involved and they are now a
14 part of that process, as recommended by KPMG.

15 MS. ANITA SOUTHALL: And -- and you've
16 confirmed that with Manitoba Hydro representatives here
17 today?

18 MR. FRANK CHEN: I confirmed that during
19 the break.

20 MS. ANITA SOUTHALL: Sorry, with Manitoba
21 Hydro representatives?

22 MR. FRANK CHEN: Correct.

23 MS. ANITA SOUTHALL: Mr. Chen, I'm not
24 sure if you had the opportunity to ask the details of
25 Hydro, but there -- I take it that based on the

1 information you've just received, the middle office is
2 performing that oversight check function that you were
3 describing earlier today in terms of proper middle office
4 duties?

5 MR. FRANK CHEN: As recommended, yes,
6 they are performing that challenge function, right.

7 MS. ANITA SOUTHALL: So turning to
8 Exhibit 62, we've had some explanation of the context of
9 the May 20th, 2010 middle and back office assessment. I
10 understand from what was said earlier that this was an
11 extension of the external quality engagement; is that
12 correct?

13 MR. WILL LIPSON: Yeah, maybe I'll talk
14 to that one. Again, Manitoba Hydro had contemplated as
15 part of, you know, continual improvement, undertaking an
16 assessment of the middle and back office with the
17 specific terms of reference.

18 When we were engaged to do the external
19 quality review that terms of reference already existed.
20 As we got started, they -- they asked us if we were in a
21 position to undertake that other exercise without
22 conflict, with the resources we had, with the expertise
23 we had, and we undertook to do so.

24 So it's not quite an extension. It was
25 all part of the initial engagement, although again we

1 treated it somewhat as a separate assignment in the sense
2 of having a separate terms of reference.

3 MS. ANITA SOUTHALL: I understood from
4 page 3 of Exhibit 62 that it was management of Manitoba
5 Hydro that initiated this particular analysis, and I
6 would have thought that was different than the Manitoba
7 Hydro-Electric Board.

8 MR. WILL LIPSON: Yes, that's correct.
9 That's why it was a separate assignment but all part of
10 the single engagement we had. And -- and, you know, we
11 did -- we don't have a separate contract, for example.
12 That one (1) engagement letter we were looking at
13 yesterday is the engagement letter that this was
14 undertaken, to the best of my knowledge or my -- my
15 memory. I could go back and check, but...

16 MS. ANITA SOUTHALL: Okay. Can you
17 explain why the more developed content of this report was
18 not contained within Hydro's main external quality review
19 report?

20 MR. FRANK CHEN: This project was not
21 intended to address the consultant's assertions. This
22 project was intended to identify opportunities to make
23 the middle -- strengthen the middle office and to do --
24 and to identify potential system improvements and to
25 enable or to build further capabilities in that function

1 as well as the back office.

2 So it was more of an operational
3 improvement project and a risk manage -- and an
4 opportunity to identify potential leading practices and
5 to implement those rather than challenge or to address
6 the New York consultant's assertions.

7 MS. ANITA SOUTHALL: At page 12 of the
8 report, on the copy that we received there appears to be
9 reference to a footnote, but no information in the
10 footnote. I'm not sure if this is a redacted version
11 that we received or if you can just comment on whether or
12 not that information is available on a -- the document as
13 it was produced.

14 MS. MARLA BOYD: Well, I -- I can't speak
15 to that footnote, but I can tell you that the redactions
16 that Manitoba Hydro has made to this document are
17 indicated in black and you'll find them more towards the
18 rear of the document rather than front.

19

20 (BRIEF PAUSE)

21

22 CONTINUED BY MS. ANITA SOUTHALL:

23 MS. ANITA SOUTHALL: Could you just
24 undertake to give us the information that would have been
25 on the footnote of the original document?

1 MR. FRANK CHEN: Yes.

2 MS. ANITA SOUTHALL: Thank you.

3

4 --- UNDERTAKING NO. 74: Provide the information from
5 a missing footnote

6

7 MR. WILL LIPSON: Sorry, maybe we can
8 respond quickly, this is the original document. The only
9 thing we're trying to ascertain is whether there was a
10 footnote or whether that was just a typographical error.
11 There was no redaction of any such footnote.

12

13 CONTINUED BY MS. ANITA SOUTHALL:

14 MS. ANITA SOUTHALL: Thank you, Mr.
15 Lipson. In the main report, Manitoba Hydro -- I'm
16 talking now again back to the main external quality
17 review report, there was reference to Manitoba Hydro
18 undertaking an initiative to improve its risk analytics
19 and investigate new risk-analytic software for the middle
20 office.

21 Do you recall that? I'm not asking you to
22 look at a page.

23 MR. FRANK CHEN: Yes, I do.

24 MS. ANITA SOUTHALL: And the work that
25 KPMG provided to Manitoba Hydro in Exhibit 62 in this

1 assessment, is that the work that you were discussing in
2 the main report?

3 MR. FRANK CHEN: Yes, that's -- that's
4 correct.

5 MS. ANITA SOUTHALL: Is there some reason
6 why KPMG just didn't indicate in the main report that it
7 was conducting that work? There is no reference to it
8 being KPMG actually carrying out the work in the main
9 report.

10 MR. FRANK CHEN: There was no reference
11 to any gaps to Manitoba Hydro's risk-management
12 technology system's applications in the -- I'll call it
13 the -- in the consultant's initial reports. She made a
14 number of observations, pointed out issues regarding
15 certain practices in risk management and independence,
16 but nothing to identify technology gaps or technology
17 weaknesses.

18 MS. ANITA SOUTHALL: Sorry, Mr. Chen,
19 it's -- it's actually -- that wasn't my question, so you
20 may have misunderstood me, simply indicating that there
21 was reference by KPMG to the fact that Hydro was
22 undertaking this risk-analytics software analysis. But
23 KPMG just doesn't indicate that in fact it was KPMG doing
24 that analysis for Manitoba Hydro. There's just no
25 mention of it in the main report.

1 I'm just wondering if there's an
2 explanation for why KPMG didn't say, We're the one's
3 doing this work for them?

4 MR. WILL LIPSON: Manitoba Hydro staff,
5 at least, I'm fairly sure, interested members of the
6 Board would have been aware of it. There was no --
7 nothing that was trying to be hidden by keeping it
8 silent, but there was nothing -- there was no explicit
9 need to put it in. If anything, if we'd put it in I
10 might have, you know, as one (1) of the editors of the
11 document might have said, That's a little bit out -- out
12 of scope and take it out. But it's -- it's just
13 contextual detail that our client did know.

14 MS. ANITA SOUTHALL: Could you refer to
15 page 11 of the document, this being Exhibit 62. This
16 contains a, what I'll euphemistically refer to as a
17 spider's web, Manitoba Hydro Power Sales Risk Policy
18 Maturity Framework, correct?

19 MR. FRANK CHEN: Correct.

20 MS. ANITA SOUTHALL: And is the
21 information contained here ultimately then reflected in
22 the narrative that's contained in the gap analysis that
23 follows for several pages?

24 MR. FRANK CHEN: That's a graphical
25 depiction that summarizes all the detailed content on the

1 page -- on the following pages.

2 MS. ANITA SOUTHALL: And, Mr. Chen, how
3 were the policy element rating -- or how was the policy
4 element rating scale developed by KPMG?

5 MR. FRANK CHEN: This is a -- our -- our
6 standard advisory approach when we assess any
7 organization's risk policies using this type of framework
8 and it's based on a number of -- the professional
9 experience of the person performing the work, and the
10 number of risk policies that we have, and also based on
11 the leading practices that were referenced in Appendix M.

12 MS. ANITA SOUTHALL: So I just want to
13 identify a number of elements where -- on the analysis on
14 page 11 where KPMG indicates there's improvement required
15 by Manitoba Hydro under the scale, and confirm it's
16 accurate, risk appetite is identified as a number 2
17 rating, correct?

18 MR. FRANK CHEN: Correct.

19 MS. ANITA SOUTHALL: Interfaces is
20 identified as number 2?

21 MR. FRANK CHEN: Correct.

22 MS. ANITA SOUTHALL: Policy maintenance,
23 number 2?

24 MR. FRANK CHEN: Correct.

25 MS. ANITA SOUTHALL: Market risk

1 analytics, number 2?

2 MR. FRANK CHEN: Correct.

3 MS. ANITA SOUTHALL: Risk limits, number
4 2?

5 MR. FRANK CHEN: Correct.

6 MS. ANITA SOUTHALL: Risk reporting is
7 actually two point five (2.5), I believe, to be accurate.
8 Is that correct?

9 MR. FRANK CHEN: Correct.

10 MS. ANITA SOUTHALL: Sorry, Mr. Chen, all
11 of these items that I've identified, these wo -- these
12 involve the relationship between the front office and the
13 middle office, is that accurate?

14 MR. FRANK CHEN: No, that's not accurate.

15 MS. ANITA SOUTHALL: How -- how is it
16 possible, when it identifies the power sales risk policy
17 maturity framework, and it's -- power sales is
18 responsibility of the front office?

19 MR. FRANK CHEN: Well, maybe my -- I
20 misinterpreted your question before -- before answering,
21 No, so if you can clarify your question then maybe I can
22 -- and can more accurately answer.

23 MS. ANITA SOUTHALL: The responsibilities
24 of the front office and the middle office are involved in
25 some way or other with respect to the analysis of these

1 particular items that I've identified?

2 MR. FRANK CHEN: Okay. So risk pol -- a
3 policy is -- is part of a governance structure, as
4 mentioned in -- in Chapter 5. There are -- there will be
5 front office interaction or interrelationships with the -
6 - with the policy itself. However, a policy document is
7 more of a governance element and not necessarily a
8 specific relationship between the front and middle
9 office.

10 For example, the element risk appetite
11 articulated or documented in a policy is not necessarily
12 -- doesn't necessarily involve middle office or front
13 office. That risk appetite is an expression, a
14 qualitative or quantitative statement, expressed by a
15 Manitoba Hydro executive management expressing the
16 boundary or risk -- the amount of risk-taking activities
17 within a defined boundary and how much risk that they're
18 willing to take, given acceptable level of return.

19 So that does -- that excludes tactical
20 personnel. It's more of a strategic issue. That is
21 something that's contained in a -- in a policy in terms
22 of a leading practice document.

23 MS. ANITA SOUTHALL: Could you look at
24 page 12, please, of the document, and this is the start
25 of the Gap Analysis KPMG performed, under,

1 "Recommendations for scope objectives and purpose," there
2 is a recommendation that:

3 "Manitoba Hydro define risk management
4 philosophy, risk management objectives,
5 and mission statement."

6 Do you see that?

7 MR. FRANK CHEN: Correct, yes.

8 MS. ANITA SOUTHALL: Could you just very
9 briefly describe what those three (3) items are that KPMG
10 is recommending be defined?

11 MR. FRANK CHEN: So those are broad
12 qualitative statements that essentially set the tone in
13 terms of the risk culture for Manitoba Hydro.

14 And essentially, a risk philosophy will
15 articulate how Manitoba Hydro goes about directionally,
16 or form a high level, managing its inherent risk in its
17 activities.

18 A mission statement is addressing on how
19 they plan to mitigate on an ongoing basis, how management
20 decides or addresses that risk, and how much risk they're
21 willing to take.

22 So directionally -- those statements there
23 essentially just set the tone for the organization
24 overall on how they understand that there's inherent
25 risk, and how they intend -- intend to manage it

1 directionally.

2 MS. ANITA SOUTHALL: Could you please,
3 looking at the next item down, "Risk Appetite," on page
4 12, could you please explain the difference between risk
5 appetite and risk tolerance, as you understand it, or
6 KPMG understands it?

7 MR. FRANK CHEN: So those are two (2)
8 distinct unique concepts. Risk appetite is a broad
9 statement. It can be quan -- expressed quantitatively or
10 qualitatively, usually developed by the Board or Manitoba
11 Hydro executive management and essentially communicates,
12 overall, the amount of risk that an organization is
13 willing to take.

14 And then a quantitative statement can be
15 expressed in -- in terms of changes to net income,
16 dividend impairment, return on equity, and the amount of
17 risk that it's going to take quantified in that manner.
18 Or it can qualitatively state that the Company will --
19 won't engage in certain type of risk -- certain risk
20 activities, such as Hydro is not in the business of -- of
21 engaging in merchant trading or speculative trading.
22 That's a risk appetite statement.

23 Once you get those broad-defined
24 statements -- that statement in place, a risk tolerance
25 then is a subset of that, and that defines -- or should

1 be consistent with the overall risk appetite. So risk
2 tolerance, an -- an example of that would be a risk limit
3 that we were discussing before, and that is a risk limit
4 will be consistent with the broad appetite statement,
5 saying that if we don't engage in -- in speculative
6 trading activities our risk limits will be consistent to
7 the extent that they will only defend against changes in
8 risk with respect to opportunistic sales or selling
9 excess supply, as well as managing risk associated with
10 export contracts. So those -- that's primarily the
11 difference.

12 MS. ANITA SOUTHALL: Can risk appetite be
13 different for Manitoba Hydro's ratepayers than it is for
14 the Corporation? Could it -- could it be a different
15 view than the Corporation itself identifies?

16 MR. FRANK CHEN: It could be different.
17 It could be the same. It depends. Manitoba Hydro is
18 responsible for managing the risks in the -- in
19 activities that they engage in. If the risks identified
20 by Manitoba Hydro include ratepayer risk, then they are
21 one and the same.

22 MS. ANITA SOUTHALL: And by "one and the
23 same," you mean they're taken into account, not
24 necessarily that --

25 MR. FRANK CHEN: Well, taken into

1 account.

2 MS. ANITA SOUTHALL: -- they would know
3 that the ratepayers have the same appetite that the
4 Corporation does, correct?

5 MR. FRANK CHEN: Taking into account
6 ratepayer risks defined, that's right, that ratepayer
7 risk is a lack of appetite for increasing rates, or
8 ratepayer risk meaning reliable energy service at a low
9 cost. If that's what that is deemed ratepayer risk, then
10 Manitoba Hydro would develop an appropriate risk appetite
11 statement consistent with that.

12 MS. ANITA SOUTHALL: How would KPMG's
13 proposed middle office for Manitoba Hydro change the role
14 or responsibilities of the front office activities
15 arising from the recommendations in Exhibit 62? Can you
16 speak to that?

17 MR. FRANK CHEN: It's -- the middle
18 office is primarily a risk-control function as its -- as
19 its broad responsibility. It's not to influence
20 commercial activity engaged or -- or strategy by the
21 front office. I think that's what you're -- you're
22 asking, is how can it change the front office.

23 MS. ANITA SOUTHALL: Yes. What I was
24 asking was: How -- how will front office
25 responsibilities for Manitoba Hydro change if Hydro

1 implements the recommendations for middle office
2 development in Exhibit 62?

3 MR. FRANK CHEN: The activities of the
4 front office are mutually exclusive of the middle office.
5 The middle office doesn't influence the type of
6 activities at the front office or the behaviour of the
7 front office.

8 The front office has a -- has an objective
9 in terms of accomplishing what -- what strategic
10 objectives that senior management has -- has laid out.
11 Whether the front office is intending to generate
12 incremental revenue from the excess supply in the -- in
13 the op -- or in the day-ahead in the ISO markets, or
14 whether it's intended to sell excess supply off of
15 dependable long -- through long-term export contracts,
16 that won't change.

17 The middle office is responsible -- once
18 the controls and -- and risk-management practices are in
19 place, the middle office is -- is there to monitor
20 compliance with making sure that the front office
21 complies with policies that are stipulated or -- or
22 approved by an oversight body, so those two (2) -- those
23 two (2) functions are mutually exclusive.

24 MS. ANITA SOUTHALL: After conducting its
25 review and noting the measurement of Manitoba Hydro with

1 respect to the maturity framework on page 11.

2 Is it KPMG's opinion that Hydro is
3 achieving industry below average ratings on six (6) of
4 fourteen (14) elements, and secondly, just on that point,
5 does KPMG identify that as ac -- acceptable performance
6 by Hydro at the time this report was generated?

7 MR. FRANK CHEN: So the spirit of this
8 pro -- this project was to -- to identify opportunities
9 for improvement and use leading practices as a benchmark,
10 and to identify those opportunities. The footnote that I
11 wanted -- well, which -- which we undertaken were a
12 description of what leading practices were intended.

13 Leading practices are considered a -- an -
14 - aspirational and they're directional. To the extent
15 that Manitoba Hydro doesn't follow the letter of the law
16 of a leading practice or an industry practice doesn't --
17 doesn't mean that it's deficient because not all leading
18 practices are applicable to a utility.

19 You have to keep in mind that leading
20 practices are either in place by financial institutions
21 and those with sophisticated risk management capabilities
22 and functions. So those are considered by -- overall in
23 the industry whether you're in utility industry or
24 financial services, that they are leading.

25 So some practices that are considered

1 leading may not be appropriate or be relevant or
2 practical to implement for Manitoba Hydro, but
3 nonetheless, it does give Hydro the opportunity to -- to
4 improve if they want to implement or be consistent with
5 leading practices, but they have to weight the cost-
6 benefit.

7 MS. ANITA SOUTHALL: Certainly the items
8 that are identified as twos, or two point five (2.5),
9 there's room for improvement in those areas, correct?

10 MR. FRANK CHEN: Correct. There -- as
11 indicated, there's improvement required as defined under
12 the legend.

13 MS. ANITA SOUTHALL: Thank you. Those
14 are our questions, Mr. Chairman.

15 THE CHAIRPERSON: Thank you.

16 MS. MARLA BOYD: Sorry, Mr. Chairman,
17 just before we break, Mr. Gupta had taken an undertaking
18 this morning with respect to the time frame for the
19 avoided-cost analysis and he's prepared to speak to that
20 just before we break if you wanted to have that on the
21 record.

22 THE CHAIRPERSON: Okay. Please, Mr.
23 Gupta.

24 MR. ANURAG GUPTA: Thank you. So I went
25 back and looked at the avoided-cost spreadsheet and it

1 has information 2007 vintage.

2 THE CHAIRPERSON: Thank you, sir.

3 MR. ANURAG GUPTA: Thank you.

4 THE CHAIRPERSON: When we --

5 MS. ANITA SOUTHALL: Thank you to the
6 panel.

7 THE CHAIRPERSON: When we come back are
8 we coming back with Mr. Gange? Have we decided?

9 MS. ANITA SOUTHALL: I think Mr. Williams
10 for CAC/MSOS --

11 THE CHAIRPERSON: Okay. Very good.

12 MS. ANITA SOUTHALL: -- will be able to
13 proceed.

14 THE CHAIRPERSON: That's fine.

15 MS. ANITA SOUTHALL: Thank you.

16

17 --- Upon recessing at 3:04 p.m.

18 --- Upon resuming at 3:19 p.m.

19

20 THE CHAIRPERSON: Okay. Welcome back.
21 We're now moving on for CAC/MSOS and Mr. Williams. Mr.
22 Williams...?

23 MS. MARLA BOYD: Sorry, just before Mr.
24 Williams begins, Mr. Gupta's really gotten the hang of
25 these undertakings and he has another one (1) he'd like

1 to speak to, taken earlier today with respect to the
2 costs related to Keeyask and Conawapa as they were in the
3 KPMG analysis.

4 THE CHAIRPERSON: Please.

5 MR. ANURAG GUPTA: Thank you. So I've
6 gone back and looked at the IFF-09, which was used in the
7 -- in the analysis and the cost for Keeyask is -- I'm
8 rounding a bit here, \$4.5 billion, and for Conawapa is
9 \$6.3 billion.

10 THE CHAIRPERSON: Billion?

11 MR. ANURAG GUPTA: Billion, yes.

12 THE CHAIRPERSON: Okay. Thank you, sir.

13

14 (BRIEF PAUSE)

15

16 THE CHAIRPERSON: Mr. Williams.

17 MR. BYRON WILLIAMS: Yes, good afternoon,
18 Mr. Chairman, and, Mr. Vice-Chair. Before beginning I'd
19 ask -- I have one (1) exhibit I wish to distribute after
20 -- with the assis -- cooperation of my learned friend,
21 Ms. Boyd, I don't think that there's any objection. It's
22 an excerpt from a -- a brief provided to the Supreme
23 Court and I'd suggest it be marked at CAC/MSOS Exhibit
24 12.

25 THE CHAIRPERSON: Very good, subject --

1 MR. BYRON WILLIAMS: And if, Ms. Boyd, I
2 think that was our understanding, right, that you have no
3 objections?

4 MS. MARLA BOYD: Yes, it's -- it's
5 footnoted in the KPMG report, so we hadn't objected to it
6 being inserted.

7 THE CHAIRPERSON: And to identify it,
8 it's the Supreme Court of the United States, not Canada.

9 MS. MARLA BOYD: That's correct, yes.

10

11 --- EXHIBIT CAC/MSOS-12: Excerpt of Brief Provided to
12 the Supreme Court of the
13 United States

14

15 MR. BYRON WILLIAMS: Sorry for that,
16 cavalier omission. Just for the Board's assistance, as
17 well as for the KPMG panel, I will be referring primarily
18 to the KPM report -- KPMG report of April 20th, 2010, as
19 well as their evidence of yesterday, Hydro Exhibit number
20 61. But the -- the -- and obviously as well, the PUB
21 Exhibit Number 17, which is the book of documents
22 distributed yesterday.

23 And I can't tell you which one (1), but
24 either Mr. Chen or Mr. Gupta will probably want to have a
25 copy of the ICF evidence from September of 2009, which is

1 Appendix 12.2. I have a very brief reference to that, so
2 Ms. Boyd may just want to have it near at hand.

3

4

(BRIEF PAUSE)

5

6 MR. BYRON WILLIAMS: And I won't come to
7 that for some time. I just wanted Ms. Boyd to have it
8 near at hand. And Mr. Chairman, just in terms of -- I --
9 I'm hopeful that we can take -- take you towards the end
10 of the day or perhaps to the end of the day.

11 I've not had an opportunity to re --
12 review Hydro Exhibit number 62, which was filed this
13 afternoon, and there also may be some notes coming to me
14 from Mr. Matwichuk. So I'm requesting the Board's
15 permission that, if -- if necessary, an opportunity to re
16 -- review my notes overnight. I -- I wouldn't expect to
17 be very long in the morning if I -- if I am to require to
18 go there.

19

THE CHAIRPERSON: Quite reasonable.

20

21 CROSS-EXAMINATION BY MR. BYRON WILLIAMS:

22

23 MR. BYRON WILLIAMS: And Mr. Lipson, I'm
24 going to start with you, and I'll just let you know right
25 at the start there's going to be a couple of areas where
I gently cross paths with my friend, Ms. Southall, in

1 terms of areas she's walked down with you before,
2 hopefully to a -- for a different objective, and I'll try
3 not to duplicate too much, but you'll bear with me. You
4 -- you look like a patient soul, correct?

5 MR. WILL LIPSON: I believe I am a
6 patient soul, thank you.

7 MR. BYRON WILLIAMS: I'm not sure the
8 vice-chair is, so I'll presume -- pre -- I'll move
9 forward with due haste.

10 Mr. Lipson, in your discussion with my
11 friend Ms. Southall yesterday, there was talk of the
12 report being prepared by KPMG costing in the range of
13 \$2.7 million focussing exclusively on KPMG. Would that
14 be fair?

15 MR. WILL LIPSON: Yes, that -- our fees
16 for both products were \$2.7 million.

17 MR. BYRON WILLIAMS: Yeah, and we're
18 going to get to that in a second, but -- and there's,
19 again, in addition, some subcontracting fees as well,
20 over and above the 2.7 million, correct?

21 MR. WILL LIPSON: Correct.

22 MR. BYRON WILLIAMS: Now -- and I just
23 want to be clear on your fees. To -- obviously KPMG has
24 had a significant amount of work after the completion of
25 the two (2) reports, those being the April 2010 and the

1 May 2010 reports. Would that be fair?

2 MR. WILL LIPSON: No, I don't believe so.
3 The only other assignment that we've had recently that
4 we've been doing any work on was relating to IFRS, and I
5 believe that assignment had been awarded and had started
6 prior to the external quality review.

7 And I have no real knowledge as to how
8 much progress, or any -- if any was being made subsequent
9 to that, so I don't -- I don't think -- certainly the
10 panellists have not done anything significant since the
11 completion of the May 20th report.

12 MR. BYRON WILLIAMS: And my question was
13 inelegant, and -- and misdirected, so I apologize for
14 that. In terms of this hearing, KPMG is pre -- you're
15 here today testifying, you were here yesterday
16 testifying, you're going to be here tomorrow testifying,
17 as well, correct?

18 MR. WILL LIPSON: Yes, that's correct.

19 MR. BYRON WILLIAMS: And there are no --
20 and you've also had certainly some necessity to keep up
21 with the transcripts and the -- the record of this
22 proceeding. Would that be fair, sir?

23 MR. WILL LIPSON: That is fair.

24 MR. BYRON WILLIAMS: And does that figure
25 of 2.7, \$2.8 million, include the preparation and

1 appearance time for this hearing, sir?

2 MR. WILL LIPSON: No, it does not. That
3 was our invoicing for the delivery of the two (2)
4 reports.

5 MR. BYRON WILLIAMS: And I wonder,
6 obviously your hearing time is not completed yet, but I
7 wonder if you would undertake after the completion of
8 your evidence tomorrow to put on the record of this
9 proceeding the -- the amount associated with tes --
10 appearance and preparation for this hearing by KPMG, sir?

11

12 (BRIEF PAUSE)

13

14 MR. WILL LIPSON: Yeah, that's fine with
15 us.

16

17 --- UNDERTAKING NO. 75: KPMG to provide the dollar
18 amount for their appearance
19 and preparation for this
20 Hearing

21

22 CONTINUED BY MR. BYRON WILLIAMS:

23 MR. BYRON WILLIAMS: And you were helpful
24 enough to notice previously that the 2.7 million figure
25 related to two (2) different reports, one (1) being the -

1 - the rep -- material that was handed out today as
2 Exhibit number 62 of Manitoba Hydro, correct?

3 MR. WILL LIPSON: Yes.

4 MR. BYRON WILLIAMS: And I'm not asking
5 for intensive detail, but can you segregate roughly the
6 amount that went into the two (2) respective reports,
7 sir?

8 MR. WILL LIPSON: Yeah, we -- we -- again,
9 we did -- this is one (1) assignment to us, so we didn't
10 separately track in any great detail one invoicing versus
11 the other, but, you know, I was involved in both.
12 Clearly I was involved in the external quality review
13 extensively myself and was, you know, aware of and was --
14 you know, wa -- was involved at some level on the second
15 assignment.

16 If I had to give a rough order of
17 magnitude, I would say about two point six (2.6) of the
18 two point seven (2.7) relates to the external quality
19 review.

20 MR. BYRON WILLIAMS: Thank you. And
21 that's all I was asking for. I appreciate that. Thank
22 you. Now, if you could, the PUB book of documents, their
23 -- their third book of documents. I believe it's marked
24 as PUB number 17. Do you have that, Mr. Lipson?

25 MR. WILL LIPSON: Yes, I do.

1 MR. BYRON WILLIAMS: And this is the
2 second area where I'll tiptoe a little bit where my
3 friend, Ms. Southall, has already travelled. Turn, if
4 you would, to the Tab 1, and specifically, the attachment
5 to the letter of Mr. Brennan, which should -- should be
6 the third and fourth -- fourth and fifth pages of the
7 document. And -- and at the top you should see,
8 "Manitoba Hydro energy risk ma -- management practices
9 terms of references." Do you have that, sir?

10 MR. WILL LIPSON: Yes, I do.

11 MR. BYRON WILLIAMS: And, again, I don't
12 want to -- to travel too much where Ms. Southall has, but
13 I -- I do want to ask you a few questions.

14 The opening paragraph on that page, we see
15 reference to the report from the New York consultant,
16 correct?

17 MR. WILL LIPSON: Well, there is a
18 redacted reference there. I -- yeah, yeah, I'm
19 confirming. I -- I believe yesterday that it was
20 confirmed that that was a reference to the specific
21 identity of the New York consultant.

22 MR. BYRON WILLIAMS: And, again, I'm not
23 -- I don't think --

24 MR. WILL LIPSON: Yes.

25 MR. BYRON WILLIAMS: -- too much -- just

1 for clarification purposes.

2 MR. WILL LIPSON: Yes.

3 MR. BYRON WILLIAMS: And in paragraph 3
4 on page 1 of 2 of the terms of reference before you
5 you'll -- you'll see as well a reference to PUB Order
6 32/09 and an inde -- in-depth independent study of
7 operational and business risks.

8 Do you see that, sir?

9 MR. WILL LIPSON: Yes, I do.

10 MR. BYRON WILLIAMS: And paragraph 4, of
11 course, re -- refers to the purposes of the -- at this
12 point in time, of the KPMG review, correct?

13 MR. WILL LIPSON: Yes.

14 MR. BYRON WILLIAMS: And I'll suggest to
15 you that those purposes at that time were twofold: one
16 being to evaluate the merits of the -- of the suggestions
17 and -- and concerns of the New York consultant, and, two,
18 to provide an in-depth independent risk analysis. That
19 is correct?

20 MR. WILL LIPSON: Yes, I see both those
21 aspects cited in that reference that you made, yes.

22 MR. BYRON WILLIAMS: And, again, you'll
23 see at the bottom of this same page, reference to an
24 independent study. Do you see that, sir?

25 MR. WILL LIPSON: Yes, I do.

1 MR. BYRON WILLIAMS: Flipping, if you
2 would, to Tab 2 of PUB Exhibit 17, and that's the
3 November -- at least at the front of it is the November
4 20th letter from KPMG to the audit -- the chair of the
5 audit committee of Manitoba Hy -- of the Manitoba Hydro-
6 Electric Board, correct, sir?

7 MR. WILL LIPSON: Yes.

8 MR. BYRON WILLIAMS: And in the line 2 of
9 that -- that letter you see reference to KPMG undertaking
10 an external quality review. Do you see that, sir?

11 MR. WILL LIPSON: Yes, I do.

12 MR. BYRON WILLIAMS: And I'm presuming
13 that a ter -- external quality review is a term of
14 accounting art. Would that be fair? No trick intended,
15 sir.

16 MR. WILL LIPSON: No, I know.

17 MR. BYRON WILLIAMS: I'm just looking for
18 a definition.

19 MR. WILL LIPSON: If you'd bear with me
20 one (1) second.

21

22 (BRIEF PAUSE)

23

24 MR. WILL LIPSON: Okay. Sorry, as I
25 turned back the answer dawned on me. If you go back to

1 Tab 1, the letter from Mr. Brennan to Mr. Owen, and it's
2 title -- it's called "Re: Request for Proposal, External
3 Quality Review." I had recalled it was a reference back
4 to our terms of reference.

5 MR. BYRON WILLIAMS: Fair enough. Now,
6 what did you understand by that term, sir?

7 MR. WILL LIPSON: Oh, I -- I think we
8 understood that to be an assignment in line with the
9 terms of reference.

10 MR. BYRON WILLIAMS: And what you're
11 clarifying for me is in -- in your line of business,
12 external quality review doesn't have any special meaning.
13 Is that what you're sug -- suggesting?

14 MR. WILL LIPSON: Not to my knowledge,
15 no.

16 MR. BYRON WILLIAMS: So in terms of the
17 line of -- of terms of reference, essentially at that
18 point in time the terms of reference again were
19 responding to the allegations of the New York consultant
20 and preparing that independent analysis of all business
21 and operational risk, correct?

22 MR. WILL LIPSON: That's what the terms
23 of reference refer to, yes.

24 MR. BYRON WILLIAMS: And at this point in
25 time, and re -- just if you're looking for a reference,

1 I'll refer you to the bottom of page 2 of -- of this same
2 letter of November 20th, the independent and in-depth
3 study was still in play, correct?

4 MR. WILL LIPSON: Yes, it is still in our
5 engagement letter of the 20th of November.

6 MR. BYRON WILLIAMS: And I -- I certainly
7 followed your discussion with my friend Ms. Sou --
8 Southall yesterday, in terms of concerns relating to the
9 letter of the -- the New York consultant in December of
10 2009. But -- but I'll ask you if you would just to turn
11 to Tab 3 of -- of the PUB book of documents, Exhibit PUB-
12 17.

13 You have that, Mr. Lipson?

14 MR. WILL LIPSON: Yes, I do.

15 MR. BYRON WILLIAMS: In the second line
16 of this letter dated December 15th, from KPMG to the
17 Hydro-Electric Board, you're -- you're described as a --
18 Manitoba Hydro's agent. Do you see that, sir?

19 MR. WILL LIPSON: Yes, I do.

20 MR. BYRON WILLIAMS: And can you -- can
21 you indicate to me KPMG's understanding of -- of that
22 word, sir, as used in this letter?

23 MR. WILL LIPSON: No, I can't. As I
24 described yesterday, this letter was a redrafting of our
25 engagement letter as a consequence of the cease and

1 desist letter we received from the New York consultant.
2 As a result, the redrafting of this letter largely fell
3 into our legal department's hands.

4 And as I indicated yesterday, once we
5 resumed our work after execution of this letter we just
6 continued on to implement the conceptual outline that was
7 our Phase 1 report, so it didn't really affect the nature
8 of our work, it just addressed legal risks.

9 MR. BYRON WILLIAMS: And just so I'm
10 clear, sir, and -- and I certainly haven't done an
11 exhaustive search, but I certainly looked through this
12 document for words like "independent analysis",
13 "independent review".

14 To your knowledge, do they appear in this
15 document?

16 MR. WILL LIPSON: Would -- would you like
17 me to take a minute and reread it?

18 MR. BYRON WILLIAMS: I don't think I want
19 you to -- it would probably take us half an hour, sir.

20 MR. WILL LIPSON: Yes.

21 MR. BYRON WILLIAMS: If -- certainly if -
22 - if you -- those words do appear, perhaps you could
23 bring that to my attention --

24 MR. WILL LIPSON: Yeah.

25 MR. BYRON WILLIAMS: -- tomorrow morning.

1 Would that be fair?

2 MR. WILL LIPSON: Yeah, that would be
3 fair. I -- I was also going to suggest that we probably
4 use those words in our report, but again, I -- I'm not
5 going to point you right this minute to where that is. I
6 think we've always viewed our task to have been
7 independent. And whether or not the words find their way
8 into either document, you know, I -- I can state for the
9 record that we acted as an independent reviewer of the
10 issues we reviewed.

11 MR. BYRON WILLIAMS: And -- and -- too
12 close? I don't believe it's an undertaking. Certainly,
13 Mr. Lipson, if he's -- will -- will no doubt bring that
14 to my attention if he -- if he sees it. And -- and
15 that's just what I want to confirm, Mr. Lipson,
16 notwithstanding the changed language from -- to agent, in
17 your view, the role and the analytic approach you took to
18 it was not different from the -- as set out in the
19 November 20th letter. Would that be fair?

20 MR. WILL LIPSON: That's correct. Again,
21 it's except as modified through the conduct of Phase 1,
22 which again did not, you know, change the independent
23 nature of our assignment.

24 MR. BYRON WILLIAMS: So really the -- the
25 major difference between the -- apart from language

1 between the two (2) letters is just that the -- the
2 second part of the task, that being an independent review
3 and analysis of all business and operational risks, was
4 no longer part of -- of your duties for Manitoba Hydro.

5 MR. WILL LIPSON: Well, yeah. I -- I
6 think I touched on this yesterday, so let me try it
7 again. Again, our understanding right from the beginning
8 was we were being brought in to review the consultant's
9 assertions, to, on that basis, identify issues and to
10 analyse the issues.

11 We understood from the terms of reference
12 that the need for such a study had been supported through
13 PUB Order 32/09, and as I think I corrected here today,
14 we were somewhat knowledgeable of what it says, and it
15 was -- clearly some of the aspects of that are in the
16 terms of reference, but again, we had interpreted that to
17 be the need for a study as opposed to a specific set of
18 tasks to be done.

19 Now, when we started we didn't quite have
20 an idea exactly what we were going to be getting into, so
21 we conducted our Phase 1 assignment to get a pretty good
22 handle on what the scope of what we would do would be,
23 and on that basis we took it back to our client, to the
24 audit committee, and they basically said, Yes, that's a
25 task that we want you to do, and we went ahead and

1 implemented.

2 MR. BYRON WILLIAMS: And I just want to -
3 - to get your understanding, where we've agreed, of
4 course, and you're aware that the PUB had requested an
5 in-depth, and in -- independent study of all the
6 operational and business risks facing the Corporation.
7 You're aware of that.

8 MR. WILL LIPSON: Yes.

9 MR. BYRON WILLIAMS: And when we look to
10 your document, to the KPMG document, it would be fair to
11 say that this is not a study of all the operational and
12 business risks facing the Corporation, would that be
13 fair?

14

15 (BRIEF PAUSE)

16

17 MR. WILL LIPSON: Sorry for the delay.
18 Yes, I believe you're correct. Our assignment in no way
19 should be interpreted as having assessed all business
20 risks of Manitoba Hydro, and have, you know, in -- in one
21 (1) fashion or another been a comprehensive risk
22 assessment.

23 What we did do is as we describe, assess
24 the processes and methodologies and all the other stuff
25 you've been hearing about from me for a couple of days

1 now, or a day and a half, and, you know, that's -- that's
2 the work we did.

3 MR. BYRON WILLIAMS: And just -- just --
4 and I think you said, Yes, and I'll just ask you to
5 confirm. In -- in your view, this was not a study of all
6 the operational and business risks facing the
7 Corporation.

8 MR. WILL LIPSON: Yes.

9 MR. BYRON WILLIAMS: Would that be fair?
10 Okay. I believe I'm turning --

11 MR. WILL LIPSON: Sorry -- sorry, if it
12 may help. If I recall, that was also an element of the
13 PUB consultant's report, too, but I'm just bringing that
14 up for context, that obviously our work started before
15 theirs.

16 MS. ANITA SOUTHALL: Sorry, could I just
17 interrupt. I apologize, Mr. Williams. I'm not sure what
18 that reference was to, the PUB consultants.

19 MR. WILL LIPSON: Oh, the Kubursi/Magee
20 terms of reference.

21 MS. ANITA SOUTHALL: Oh, the independent
22 experts? Is that the reference that's being made?

23 MR. WILL LIPSON: Sorry, I -- I brought
24 it up. It's not him.

25 MS. ANITA SOUTHALL: Thank you.

1

2 CONTINUED BY MR. BYRON WILLIAMS:

3 MR. BYRON WILLIAMS: Now, I'm starting to
4 tra -- take instructions, Mr. Lipson. I thought I was
5 done with you.

6 Just -- just for clarification, and I'll
7 break it into little pieces. This isn't really part of
8 my case, but first of all -- first of all by PUB
9 consultants, you were referring to the independent
10 experts, Dr. Kubuski and Dr. Magee. Would that be fair?

11 MR. WILL LIPSON: Yes.

12 MR. BYRON WILLIAMS: And what you were
13 raising as a -- as an issue is your understanding of
14 their terms of reference was that they were conducting a
15 study of all business and operational risks. Is that
16 your understanding?

17 MR. WILL LIPSON: Yes, I -- I recall
18 seeing the terms of reference that they were engaged
19 under, and the same reference was there. And I remember
20 commenting at the time of the challenge of address --
21 addressing all operational work and business risks or --
22 or sorry, I don't remember the second adjective, but all
23 operational risks. I mean, you could spend years doing
24 that.

25 MR. BYRON WILLIAMS: And I'll -- I'll

1 just con -- hold off, confer for a second.

2 MR. WILL LIPSON: Sure. I -- I just
3 brought it up for context. I -- I wasn't trying to make
4 a point.

5 MR. BYRON WILLIAMS: I didn't get your
6 point anyways, Mr. Lipson, so that's fair. When we
7 reflect upon it it may be a fine point. I'm going to
8 refer KPMG to page 183 of their evidence, which is
9 Chapter 4. And I'm thinking that's you, Mr. Gupta, but
10 you'll correct me if I'm wrong.

11 MR. ANURAG GUPTA: Page 183 is -- yes.

12 MR. BYRON WILLIAMS: And, Mr. Gupta, I'm
13 going to -- and just for the Board's benefit, this is
14 page 183 of the April 2010 evidence of KPMG.

15

16 (BRIEF PAUSE)

17

18 MR. BYRON WILLIAMS: And after making
19 everyone flip through that, I'm also going to be flipping
20 back to page 152, so Mr. Gup -- 150 or in that range.
21 So, Mr. Gupta, you might want to have that nearby as
22 well.

23 Mr. Gupta, on page 183 of your conclusions
24 you conclude that Manitoba Hydro has an appropriate
25 methodology for arriving at the sales prices in -- in

1 long-term fixed price contracts for export sales,
2 correct?

3 MR. ANURAG GUPTA: That's correct, sir.

4 MR. BYRON WILLIAMS: And I just want to
5 run through at a certain level of detail your -- the --
6 the basis for that conclusion. And I'm going to suggest
7 to you that in your evidence that we can find that in pa
8 -- between pages 150 and -- and 156 or so, being Sections
9 461 and 462.

10 At a high level, that's where we'll find
11 it in your evidence, sir?

12 MR. ANURAG GUPTA: Primarily, yes, in
13 those reference pages.

14 MR. BYRON WILLIAMS: And directing your
15 attention to page 152 under the heading, "Long-term
16 electricity price forecast," one (1) element of your --
17 one (1) factor that you took into account in reaching
18 that conclusion, in terms of the appropriateness of hydro
19 me -- methodology, related to the -- the methodology that
20 it -- that it used to develop its long-term pricing
21 forecast.

22 Would that be fair, sir?

23 MR. ANURAG GUPTA: Yes, the methodology
24 with which they developed the long-term electricity price
25 forecast is something we looked at and concluded was

1 appropriate.

2 MR. BYRON WILLIAMS: And that was an
3 important part of your conclusions as well, sir, correct?

4 MR. ANURAG GUPTA: Yes, it was.

5 MR. BYRON WILLIAMS: And at a high level
6 at the time you examined this report, in -- in terms of
7 the methodology, your evidence was that hydro's approach
8 was to purchase long-term electricity price forecasts and
9 market analysis -- analyses from five (5) industry
10 experts. That's one (1) element of it, correct?

11 MR. ANURAG GUPTA: That is one (1)
12 element of it, yes.

13 MR. BYRON WILLIAMS: And then, without
14 going into too much detail, there was a weighting of
15 these forecasts as well, correct?

16 MR. ANURAG GUPTA: That's right.

17 MR. BYRON WILLIAMS: And you -- you note
18 that these forecasts were used in -- for 2007, and indeed
19 that some of the consultants' forecasts have been
20 consistently used, dating back to 2002. Would that be
21 fair?

22 MR. ANURAG GUPTA: That is something
23 which Manitoba Hydro stated to us, yes.

24 MR. BYRON WILLIAMS: Now, turning to page
25 154 of your evidence, I'm going to suggest to you that

1 another factor that gave you some confidence that Hydro
2 was ach -- achieving an appropriate methodology for
3 arriving at sales price forecasts, related to the fact
4 that Manitoba Hydro complet -- also completes, to your
5 understanding, an avoided-cost analysis to benchmark
6 long-term prices against the long-run marginal cost of
7 generation for its counterparties.

8 Would that be fair?

9 MR. ANURAG GUPTA: Certainly, yes.

10 MR. BYRON WILLIAMS: And that was another
11 important factor in your -- leading to your conclusions.
12 Would that be fair?

13 MR. ANURAG GUPTA: Yes, it was.

14

15 (BRIEF PAUSE)

16

17 MR. BYRON WILLIAMS: Now, Mr. Gupta we've
18 referred previously, and -- and if you're looking for the
19 reference, it's at 1 page -- page 152, that in arriving
20 at its long-term price forecasts, Manitoba Hydro uses a
21 variety of consulting reports, industry forecasts, and
22 that it has been using some consultant's forecasts
23 consistently since 2002, correct?

24 MR. ANURAG GUPTA: Correct, yes.

25 MR. BYRON WILLIAMS: And it wasn't in a -

1 - a part of the evidence I think that you were
2 responsible for, but, Mr. Gupta, or perhaps Mr. Erling,
3 you're aware that with regard to the Manitoba
4 hydroelectric generating station, Wuskwatim, there was an
5 environmental review process before the Clean En --
6 Environment Commission?

7 MR. JONATHAN ERLING: I -- I don't know
8 that specifically.

9 MR. BYRON WILLIAMS: Oh, you cite it in
10 your evidence at page 111.

11 MR. JONATHAN ERLING: Okay.

12 MR. BYRON WILLIAMS: You make reference
13 to the --

14 MR. JONATHAN ERLING: It's possible I
15 have forgotten.

16 MR. BYRON WILLIAMS: -- you'll -- you'll
17 accept that subject to check?

18 MR. JONATHAN ERLING: I will accept that
19 subject to check.

20 MR. BYRON WILLIAMS: And this really --
21 it's page -- yeah, it is page 111 if you're looking for
22 the reference.

23 MR. JONATHAN ERLING: Oh, 111.

24

25

(BRIEF PAUSE)

1 MR. JONATHAN ERLING: Okay. Yes, I see
2 the reference.

3 MR. BYRON WILLIAMS: So at least to some
4 degree in preparing it's evidence in this proceeding, the
5 KPMG dream team -- the team, have some reference to the -
6 - to the Wuskwatim Clean Environment Commission
7 proceedings and evidence filed by Manitoba Hydro. Would
8 that be fair?

9 MR. JONATHAN ERLING: Yes, we certainly
10 reviewed the document that's cited here.

11 MR. BYRON WILLIAMS: And col --
12 collectively, and, Mr. Gupta, I'm probably coming back to
13 you, but others can chime in, collectively KPMG was aware
14 that there was a Clean Environment Commission process
15 relating to Wuskwatim.

16 Would that be fair?

17 MR. ANURAG GUPTA: The citation is in our
18 report, certainly.

19 MR. BYRON WILLIAMS: And I'm wondering,
20 in the course of your comprehensive review of Manitoba
21 Hydro's export price forecast methodology, whether it
22 came to the attention of Manitoba Hydro -- excuse me, of
23 KPMG that in the course of the Clean Environment
24 Commission proceeding relating to Wuskwatim, that
25 Manitoba Hydro had presented long-range pricing forecasts

1 in terms of the export market.

2 Were you aware of that, whether or not
3 that was the case?

4 MR. ANURAG GUPTA: I personally was not,
5 no, sir.

6 MR. JONATHAN ERLING: No, I was not as
7 well.

8 MR. BYRON WILLIAMS: And seeing looks of
9 silence from the other -- other panel members, I'm going
10 to -- you don't need to confirm it. So it would be fair
11 to say that in -- in performing your ex -- extensive
12 review of the costing methodo -- price forecasting
13 methodology performed by Manitoba Hydro, it would be fair
14 to say that KPMG did not review any -- any documents
15 provided in terms of the Clean Environment Commission
16 with regard to long-term export price forecasts.

17 That would be fair?

18 MR. ANURAG GUPTA: As specifically
19 related to that point, no.

20

21 (BRIEF PAUSE)

22

23 MR. BYRON WILLIAMS: Knowing that
24 Manitoba Hydro has relied upon certain forecasters
25 continuously since 2002, would I be correct in suggesting

1 to you that in assessing the reasonableness of Manitoba
2 Hydro's export forecasting methodology, KPMG examined the
3 track record of -- of those forecasters who've been
4 examining -- been providing forecasts to Hydro since
5 2002?

6 MR. ANURAG GUPTA: Our examination and
7 analysis was very much on the methodology followed, and
8 not whether the -- and not the -- the forecast provided
9 by a consultant, how -- how close or far it was from
10 reality.

11 What we were looking for was -- was
12 evidence that Manitoba Hydro had a thought out process
13 and methodology for developing a price forecast, and that
14 they were utilizing industry experts to do that.

15 Again, you have to -- this is in context
16 certainly of the New York consultant having made a
17 variety of allegations about how, in essence, you know,
18 there -- there was no process at Manitoba Hydro for --
19 for this particular aspect.

20 MR. BYRON WILLIAMS: So no analysis was
21 done of those con -- consultants in terms of their track
22 record -- excuse me, let me try that again.

23 By KPMG, no analysis was done of those
24 forecasters who've been provi -- providing export price
25 forecasts to Hydro continuously since 2002. Would that

1 be fair?

2 MR. ANURAG GUPTA: Correct. That was not
3 the focus of analysis.

4 MR. BYRON WILLIAMS: And Mr. Gupta, and
5 certainly through you're counsel, you'll -- you'll make
6 sure that I'm within the limits of your expertise, but
7 certainly in assessing a methodology, it -- one (1), it's
8 certainly open in terms of testing the reasonableness and
9 the results of a methodology to -- to look at past
10 performance. You wouldn't disagree with that, would you?

11 MR. ANURAG GUPTA: As a general
12 statement, no, sir.

13

14 (BRIEF PAUSE)

15

16 MR. BYRON WILLIAMS: I may or may not
17 come back to that. Mr. Gupta, I want to draw your
18 attention to page 155 of -- of your report, and
19 specifically Section 4.6.4 regarding escalation factors
20 and long-term contracts. Do you see that, sir?

21 MR. ANURAG GUPTA: I -- I do.

22 MR. BYRON WILLIAMS: Mr. Chairman, if --
23 if I might be excused for just one (1) second for...

24

25 (BRIEF PAUSE)

1 THE CHAIRPERSON: We're glad to see, Mr.
2 Williams, that your beverage of choice is not John A.
3 Macdonald's.

4 MR. BYRON WILLIAMS: I -- I'm not
5 commenting on what may or may not be in the mugs to my
6 left, Mr. Chairman.

7

8 CONTINUED BY MR. BYRON WILLIAMS:

9 MR. BYRON WILLIAMS: Mr. Gupta, I want to
10 -- I'm going to spend just a couple seconds on both the
11 first and second paragraph, but at a high level when
12 Manitoba Hydro is looking at -- excuse me, when KPMG is
13 looking at the setting of a long-term -- long-term
14 contract price, a factor that -- that one might pay
15 attention to is the price escalation factor, correct?

16 MR. ANURAG GUPTA: Yes.

17 MR. BYRON WILLIAMS: And I guess if you
18 got the price perfect, you wouldn't need to account for -
19 - for that, but it's certainly common that in these --
20 when we look at contracts, long-term pricing contracts,
21 it's certainly relatively common to use an escalation cau
22 -- clause to account for inflation.

23 Would that be fair?

24 MR. ANURAG GUPTA: Yes. It depends on
25 the contract, but yes.

1 MR. BYRON WILLIAMS: And indeed some --
2 some of Manitoba Hydro's contracts are structured in that
3 way using the GDP implicit price deflator as a measure of
4 inflation. Would that be fair?

5 MR. ANURAG GUPTA: Yes.

6 MR. BYRON WILLIAMS: But it's KPMG's view
7 that, generally speaking, it is inappropriate to use
8 market prices for power as the escalator.

9 Would that be fair?

10 MR. ANURAG GUPTA: The context in which
11 that statement has been made is if you have a long-term
12 contract and you're trying to achieve a fixed pricing for
13 that power. If you link that pricing back to a market
14 index, for example, let's say the realtime settlement of
15 MISO, if you essentially transform that predictable price
16 for the power into one, which is a market based, where
17 the pricing will be dependent on the markets, you might
18 as well then sell your power spot.

19 MR. BYRON WILLIAMS: So you've
20 essentially -- as I understand your evidence, sir, you've
21 essentially transformed it in -- from a long-term fixed
22 price contract into something more analogous to a spot
23 market price?

24 MR. ANURAG GUPTA: Long-term, yes,
25 volatile priced.

1 MR. BYRON WILLIAMS: Now -- and, again, I
2 don't want to go into anything that's confidential, but
3 you certainly note here that certain of the contracts of
4 Manitoba Hydro do have alternative indices which might
5 bear some relationship to market prices in MISO, for
6 example, those contracts partially indicated to gas and
7 electricity prices. Would that be fair?

8 MR. ANURAG GUPTA: Certainly, yes.

9 MR. BYRON WILLIAMS: And does that apply
10 both to -- without getting into details, both existing
11 contracts and to proposed contracts?

12 MR. ANURAG GUPTA: Subject to check, I
13 think it's -- I think it's both.

14 MR. BYRON WILLIAMS: Now certainly KPMG
15 understands that in certain cases such an index might be
16 necessary when the buyer demands or needs that
17 protection, fair enough?

18 MR. ANURAG GUPTA: Certainly.

19 MR. BYRON WILLIAMS: And your advice to
20 Manitoba Hydro is that in these cases they should adjust
21 their offer to reflect this adjustment to the avoided
22 cost risk. Would that be fair?

23 MR. ANURAG GUPTA: Absolutely. This is a
24 concession of -- this is a term of the contract that the
25 buyer is demanding, and -- and Manitoba Hydro accedes to

1 that request. There should be -- we -- hopefully there's
2 some give and take.

3 MR. BYRON WILLIAMS: And by adjust their
4 offer, presumably seek a higher price, is that what
5 you're saying, sir?

6 MR. ANURAG GUPTA: That could be one (1)
7 of the -- one (1) of the mechanisms.

8 MR. BYRON WILLIAMS: And, sir, focussing
9 on methodology rather than -- than conclusions, in terms
10 of the KPMG methodology and in terms of the proposed
11 contracts to the extent that they may have contained such
12 indexing, did KPMG inquire whether Manitoba Hydro had
13 adjusted their offer to reflect this adjustment to the
14 avoided cost risk?

15 MR. ANURAG GUPTA: As -- as I mentioned,
16 that -- that adjustment of the price is only one (1) of
17 the mechanism to get a benefit from, if you will term it,
18 this concession. It might not necessarily be priced.
19 There are other -- negotiating a contract there's -- as
20 you know, there's a lot of moving pieces, and it's not
21 necessary that there should be an offset only in the
22 price. There could be some other terms and conditions,
23 as well.

24 MR. BYRON WILLIAMS: And that's fair
25 enough and that's helpful context, but in terms of my

1 question and -- and in terms of the KPMG methodology, did
2 you inquire of Manitoba Hydro whether they adjusted their
3 offer?

4 MR. ANURAG GUPTA: In that particular
5 circumstance we inquired as to what they were getting for
6 putting in that market priced escalation, and -- and we
7 were satisfied with the -- with the answer we received.

8 MR. BYRON WILLIAMS: Okay. Thank you.
9 Now to the extent that these contracts may have
10 alternative indices, do you still consider them to be
11 fixed long-term contracts?

12 MR. ANURAG GUPTA: I think it's again
13 important to note the context in which this was written.
14 This was to -- the -- the consultant had made an
15 assertion in -- in one (1) of her very many allegations
16 that Hydro should essentially index to market prices. So
17 this is the context in which this was written.

18 Again, we would have -- it's -- it's not
19 that Manitoba -- and again, I -- I might be -- if I go
20 too far, please -- please let me know, but the case is
21 not that Manitoba Hydro has taken all the -- all the
22 pricing in -- in -- in a contract and said it's going to
23 be indexed to that alternative index. It could be a
24 slice of the proposed volumes in that contract.

25 MR. BYRON WILLIAMS: And again, you and I

1 are both trying to be circumspect in terms of the -- the
2 terms. To the extent that a slice is based upon an
3 alternative indices, that slice no longer fits KPMG's
4 definition of a long-term fixed contract?

5 MR. ANURAG GUPTA: Again, and -- and --
6 again, I think trying to -- trying not to divulge too
7 much of what's in the contract, it's -- it's again, you
8 have to look at how much of the proposed volume is being
9 indexed, what is the -- and -- and it can also be a case
10 that you're not -- even of that slice not 100 percent is
11 tied to the index, some proportion of it is tied to the
12 index.

13 When we look at the totality it's still --
14 it's still a long-term essentially fixed price contract.

15 MR. BYRON WILLIAMS: I'll reflect on
16 that, Mr. Gupta. I want to go just for a couple more
17 minutes with you and then I think I'll be turning to Mr.
18 Chen. In terms of the avoided cost analysis -- analysis,
19 and -- and there's just something in your evidence that I
20 -- I wanted to -- to clear up for my client's
21 understanding.

22 You don't need to go back to it, but at
23 page 154 at the top, KPMG provides its understanding that
24 Manitoba Hydro completes an avoided cost analysis to
25 benchmark the long-term price against the long-run

1 marginal cost of generation of the counter parties,
2 correct?

3 MR. ANURAG GUPTA: Yes, and as I
4 mentioned in -- in -- in an undertaking which I had
5 responded to a little earlier today, I had alluded to
6 that avoided cost analysis, yes.

7 MR. BYRON WILLIAMS: Okay. And at a high
8 level, one uses cost data on generation capacity,
9 financing, variable O&M, et cetera. Would that be fair?

10 MR. ANURAG GUPTA: It's as much publicly
11 available information as you can get to refine your
12 analysis, yes.

13 MR. BYRON WILLIAMS: And I want to turn
14 you at -- to page 156 of your evidence, and specifically
15 your discussion relating to the WPS and MP term sheets.
16 Do you see that, sir, towards -- perhaps the last bullet
17 on that page?

18 MR. ANURAG GUPTA: Yes, the second and
19 third bullet points on page 156, yes.

20 MR. BYRON WILLIAMS: And certainly in --
21 in examining Manitoba Hydro's methodology -- excuse me,
22 methodology, in terms of these two (2) term sheets, you
23 were provided with an avoided cost analysis for -- for
24 these term sheets, correct?

25 MR. ANURAG GUPTA: That's right.

1 MR. BYRON WILLIAMS: And directing your
2 attention to the final bullet on page 156, you were also
3 provided, in terms of these two (2) contracts, with two
4 (2) spreadsheet models that were used to set the price
5 for the WPS and MP term sheets, correct?

6 MR. ANURAG GUPTA: That's correct.

7 MR. BYRON WILLIAMS: And it would be
8 correct to say that it was KPMG's conclusion that the
9 models are based on the forecast prices and do not appear
10 to take into account the avoided cost analysis. Would
11 that be fair?

12 MR. ANURAG GUPTA: When we looked at the
13 spread sheets it -- it appeared that the -- the avoided
14 cost analysis had not explicitly been factored in.

15 MR. BYRON WILLIAMS: And referring you to
16 the next page, in your discussions with -- with Manitoba
17 Hydro, they indicated they were using the forecast --
18 first of all that they were using the fore -- one (1)
19 element was that they were using the forecast price as a
20 proxy for the counterparties of what it cost.

21 Would that be fair?

22 MR. ANURAG GUPTA: I -- I don't think
23 that's 100 percent correct, because there is some
24 redacted information here. It's -- it's -- it's that
25 redacted fact -- factor or factors.

1 MR. BYRON WILLIAMS: And I won't mention
2 the word premium or anything like that, so okay. So
3 there -- there was -- there was a factor other than an
4 avoided cost methodology and part of this analysis for
5 these term sheets was -- was again based upon the
6 personal knowledge of the Manitoba Hydro senior people
7 involved in these discussions.

8 Would that be fair?

9 MR. ANURAG GUPTA: Absolutely, and as we
10 had mentioned, part of our -- in developing this report
11 was we interviewed the personnel involved in the pricing
12 process for the -- and the negotiations process for the
13 proposed long-term sales.

14 These are senior personnel who've --
15 who've been doing this kind of analysis and negotiations
16 for years and years, and -- and when -- when we -- when
17 they described what they do, and -- and we were able to
18 see some corresponding documentation, it gave us comfort
19 that there was a process in place.

20 Manitoba Hydro is not willy-nilly just
21 negotiating the prices, and there -- there was thought
22 given to the terms and conditions of the -- of the
23 proposed long-term contracts, not just the price, but all
24 the other factors which, together as a package, Manitoba
25 Hydro negotiates with its counterparties.

1 MR. BYRON WILLIAMS: And no doubt there
2 was a process in -- in place. Would it be fair to say
3 that it was a different process from what KPMG has
4 identified as industry stran -- standard practice in that
5 it, in these specific term sheets, it did not employ
6 avoided cost analysis as you understand it?

7 MR. ANURAG GUPTA: I think we've made
8 some recommendations where they could improve the
9 documentation around how explicitly they take into
10 account the avoided cost analysis. I think in -- in the
11 pricing of the WPS and MP term sheets, it was clear to us
12 after we met with the senior personnel involved,
13 interviewed the analysis, that they had, in fact, taken
14 it into account.

15 We recommend that they explicitly document
16 that process and methodology so it's -- it's there to be,
17 you know, verified.

18 MR. BYRON WILLIAMS: And your concern
19 with documentation, of course, is that -- that those
20 senior people are limited in number, and Hydro is relying
21 to a great extent on their particular expertise?

22 MR. ANURAG GUPTA: Yes, sir, that -- that
23 would be fair to say.

24 MR. BYRON WILLIAMS: Mr. Chen, is Chapter
25 6 of the KPMG report your bailiwick?

1 MR. FRANK CHEN: Bailiwick is -- is
2 equivalent to writing that chapter, yes.

3 MR. BYRON WILLIAMS: You are a care -- he
4 -- you are a careful witness, sir. Define everything.
5 I'm going to have three (3) references for this
6 discussion. One (1) is Chapter 6, page 274, and we'll be
7 doing a bit of flipping in that chapter.

8 Another is that ICF report that I asked
9 Ms. Murphy to just keep -- keep nearby, and there'll be a
10 very brief reference, so I apologize for making you go
11 there.

12 And -- and third is the Hydro Exhibit 61,
13 your PowerPoint presentation of yesterday, and
14 specifically page 26, sir.

15 So just to repeat, Chapter 6, page 274;
16 ICF page 109, Ms. Boyd; and your PowerPoint from
17 yesterday, page 26.

18

19 (BRIEF PAUSE)

20

21 MR. BYRON WILLIAMS: Just -- just to
22 repeat, I apologize for rushing, Chapter 6, page 2 --
23 274; the ICF document, page 109 and -- that's the
24 September 2009 report; and then Hydro Exhibit 61, page
25 26.

1 (BRIEF PAUSE)

2

3 MR. BYRON WILLIAMS: Page 26 of the Hydro
4 Exhibit 61, which should be the green, the graph with the
5 -- the happy numbers on top and the sad numbers
6 underneath.

7

8 (BRIEF PAUSE)

9

10 MR. BYRON WILLIAMS: Mr. Chen, the other
11 page in the Chapter 6, around page 245, would be good to
12 have at hand, as well.

13 And just drawing your attention to the
14 KPMG conclusion set out in Section 6.8 at page 274 of --
15 of your evidence, underlying in part the KPMG conclusion
16 that Manitoba Hydro demonstrates prudent risk management,
17 wa -- was one of the -- the risk management practices is
18 -- is the second bullet, which is conservative stress
19 testing assumptions and methodology, fair enough?

20 MR. FRANK CHEN: Correct.

21 MR. BYRON WILLIAMS: And you'll agree
22 with me that if we turn to pages 245 and 246 of the KPMG
23 evidence there's some discussion of the basis on which
24 you conclude that this stress testing is conservative.

25 Would that be fair, sir?

1 MR. FRANK CHEN: Yes.

2 MR. BYRON WILLIAMS: And I'm going to
3 take you through a little bit of it. You note -- this is
4 page 245. You note that in the 2007 corporate risk
5 management report Manitoba Hydro defined its drought
6 exposure equivalent to the cost of -- of a repeat of the
7 worst drought in the historical record in the range of
8 2.2 to 2.5 billion. Is that fair, sir?

9 MR. FRANK CHEN: That's correct.

10 MR. BYRON WILLIAMS: And in terms of
11 KPMG's use of the words "worst drought on historical
12 record," you're referring, of course, to the drought
13 period between 1937 and 1941. Is that correct?

14 MR. FRANK CHEN: That's correct.

15 MR. BYRON WILLIAMS: And you point out in
16 the second paragraph under "Issue 2" that, in your view,
17 Hydro may have adopted a conservative view in defining an
18 extreme drought by selecting that period, correct?

19 MR. FRANK CHEN: That's correct.

20 MR. BYRON WILLIAMS: And as we turn to
21 the next page, the second full paragraph, that's where we
22 see your -- your conclusion that the methodology is
23 conservative and consistent with how stress tests are
24 performed by other utilities; fair enough?

25 MR. FRANK CHEN: Yes.

1 MR. BYRON WILLIAMS: And just very
2 quickly, when I look at Hydro Exhibit 61, your -- your
3 PowerPoint presentation of yesterday -- you've got it
4 right there, the -- the table, "Variation of flow related
5 revenues."

6 MR. FRANK CHEN: Okay. Yes.

7 MR. BYRON WILLIAMS: You have that, sir?

8 MR. FRANK CHEN: Yes.

9 MR. BYRON WILLIAMS: On the left-hand
10 side of the da -- table we see that a representation of
11 the impact on flow related revenue of the historic flow
12 between 1937 and -- and 1941/'42. Do you see that, sir?

13 MR. FRANK CHEN: Yes, I do.

14 MR. BYRON WILLIAMS: And so -- so that's
15 -- we've agreed already, is the worst drought on record.
16 I guess if we turn to the 1987 to 1992 period you'll
17 agree at least visually that that's the second worst
18 drought on record. Would that be fair?

19 MR. FRANK CHEN: That would be fair.

20 MR. BYRON WILLIAMS: And it's -- you'll
21 agree, as well, that it's an extremely significant
22 financial impact. Would that be fair?

23 MR. FRANK CHEN: That would be fair.

24 MR. BYRON WILLIAMS: And if I'm putting
25 too many words in -- in your mouth you'll correct me --

1 correct me, but of a magnitude similar to the '37 to '41
2 drought?

3 MR. FRANK CHEN: I would say the
4 magnitude is significant. Whether it's similar, vis-a-
5 vis the period -- in the worst drought, say 1920 -- 20 --
6 I can't speak -- 1937 to 1941, the variance between that
7 magnitude versus that period, you'd have to calculate the
8 math.

9 MR. BYRON WILLIAMS: And, Mr. Chen, I --
10 I don't expect you to have an exhaustive knowledge of the
11 ICF report, but I do want to draw your attention to -- to
12 page 109 of that report. And I'll give you second to
13 read it and maybe while I do I'll ask Mr. Lipson just a
14 question or two (2).

15 In terms of this ICF report, this is --
16 this is a document certainly KPMG was aware of and was --
17 and at least at a high level had reviewed, fair enough?

18 MR. WILL LIPSON: Yes.

19 MR. BYRON WILLIAMS: Okay. And, Mr.
20 Lipson, you can probably sit back. I just wanted to --
21 to make sure.

22 Mr. Chen, the question I have to you
23 really relates to the first paragraph under Section 9(2)
24 of the ICF report. You can see ICF's evidence at page
25 109 that in terms of stress testing for the -- a five (5)

1 year drought, it appears that Manitoba Hydro for the 2008
2 IFF was using water flows from the period between April
3 1987 and March 1992.

4 Do you see that, sir?

5 MR. FRANK CHEN: Yes, I do.

6 MR. BYRON WILLIAMS: So as compared to
7 your analysis, it would appear that they're -- instead of
8 using the worst five (5) year drought they're using the
9 second five (5) year drought, at least for the purposes
10 of the 2008 IFF.

11 Would that be fair?

12 MR. FRANK CHEN: Yes, that would be fair.

13 MR. BYRON WILLIAMS: In terms of your
14 conclusions that the stress test is both conservative and
15 consistent with other utilities' practice, does that
16 change, in using the second worst versus the worst,
17 change your conclusions at all, sir?

18 MR. FRANK CHEN: The conclusion that
19 Manitoba Hydro uses a conservative stress testing
20 methodology?

21 MR. BYRON WILLIAMS: Yes, I should have
22 asked the question better, but thank you for asking it
23 better than I did.

24 MR. FRANK CHEN: The conclusion doesn't -
25 - doesn't change. By using the worst drought in -- in

1 history clearly indicates that Manitoba Hydro is -- is
2 erring on the side of conservatism. To use the second
3 worst drought on record is taking a little bit more, I
4 guess less conservative, but not an aggressive stance or
5 stress -- stress test stance.

6 I -- we -- I agree that that second worst
7 case drought is also a signi -- had a significant impact
8 and it looks like it also in one (1) year reaches the 600
9 -- negative 600 million mark. So that data point or
10 using that drought period may be a directional proxy or
11 an appropriate proxy to indicate potential worst case
12 losses.

13 I don't know the variance between doing
14 that stress test with using that scenario versus using
15 the worst drought case scenario, what the difference or
16 the variance, how those numbers would compare.

17 MR. BYRON WILLIAMS: Your conclusion that
18 it's still a conservative stress test remains unchanged,
19 sir?

20 MR. FRANK CHEN: No, because of the
21 difference in -- in -- in the potential number using the
22 second worst drought period in history. The -- if the
23 difference is significant then that may not be a
24 conservative approach.

25

1 (BRIEF PAUSE)

2

3 MR. FRANK CHEN: We -- we -- we conclude
4 that Manitoba Hydro's approach is conservative.

5 MR. BYRON WILLIAMS: I'll reflect on that
6 overnight, with the Board's permission. I -- I -- I have
7 a -- Mr. Chairman, I -- I have some questions on a
8 related theme that I could proceed to.

9 Mr. Chen, at page 246 of your evidence,
10 you -- you talk about that the prev -- prevalent industry
11 practice is to use extreme scenarios rather than
12 catastrophic scenarios, fair enough?

13 MR. FRANK CHEN: Under --

14 MR. BYRON WILLIAMS: Yeah, if you're --

15 MR. FRANK CHEN: Using --

16 MR. BYRON WILLIAMS: -- looking at the
17 third -- third paragraph on page 246, sir.

18 MR. FRANK CHEN: That's correct.

19 MR. BYRON WILLIAMS: And you, indeed,
20 draw an -- an analogy, I'm -- I'm going to suggest to --
21 to banks who, with their strict capital require --
22 requirements, use calculations using either a two (2)
23 standard deviation or a three (3) standard deviation test
24 rather than a doomsday scenario, correct?

25 MR. FRANK CHEN: That's correct.

1 MR. BYRON WILLIAMS: And just in terms of
2 banks, certainly my clients are familiar with the
3 insurance industry and the strict capital requirements
4 and minimal capital tests, but they're less familiar with
5 the banking industry.

6 And I -- I just wonder if you can describe
7 what you mean by strict capital requirements in the
8 banking industry at a high level?

9 MR. FRANK CHEN: At a high level, the
10 regulatory body that suggests capital requirement levels
11 is Basal, and there is a Basal provision that stipulates
12 the suggested capital requirements. And since large
13 leading banks are adopting Basal, they're serving as the
14 proxy for smaller and medium sized banks to follow in
15 suit, establishing that that's be -- that's becoming the
16 -- the financial services standard for -- for minimum
17 capital requirements.

18 MR. BYRON WILLIAMS: And would a minimal
19 capital test in the banking industry, to your knowledge,
20 and if you can't answer, that -- that would be fine,
21 would it be a similar approach to minimal -- minimum
22 capital tests that one sees in the insurance industry,
23 for example, the office of the superintengent --
24 intendant of financial insurers? If you can't answer
25 that, I understand, sir.

1 MR. FRANK CHEN: I can't answer that in -
2 - in detail. I'm not an insurance specialist. I know
3 that insurance companies are in the business of
4 protecting against catastrophic events. That's what
5 you're paying for. So to that extent, in order for
6 capital requirements, or for an insurance to have
7 adequate capital to protect themselves against
8 catastrophic events, that's -- then I'm sure that
9 insurance companies will retain appropriate capital
10 reserves in order to cover -- cover against potential
11 catastrophic events.

12 MR. BYRON WILLIAMS: And whether it's the
13 banking industry or the insurance industry, presumably
14 one (1) -- one (1) of the -- the reasons they need such
15 strict capital requirements is that they operate in a
16 competitive market, and they have to be protected against
17 circumstances where they have bad results, and -- and
18 clients may fee -- flee to competitors.

19 Would that be fair?

20 MR. FRANK CHEN: Are you referring to the
21 insurance --

22 MR. BYRON WILLIAMS: Or banking.

23 MR. FRANK CHEN: -- companies?

24 MR. BYRON WILLIAMS: And if you can't
25 answer this, but I'm under -- I'm trying to get --

1 MR. FRANK CHEN: I'm trying --

2 MR. BYRON WILLIAMS: -- the -- the
3 rationale for strict capital requirements for banks.

4 MR. FRANK CHEN: Well, banks are an
5 entirely different business than -- than the utilities,
6 so understanding that banks are in the business of
7 lending money, that's how they -- they make money. And
8 by lending money they're lending their capital, and they
9 have to protect themselves against potential credit
10 losses to the extent that they need to -- or if Basal
11 requires, or stipulates a formula saying that these are
12 minimal capital requirements for a bank to remain solvent
13 in the business of lending cash, or lending money, then
14 it's prudent risk management to retain adequate capital
15 to protect against potential credit losses.

16 MR. BYRON WILLIAMS: And -- and is -- and
17 if -- again, is one (1) of the underlying purposes for
18 those strict capital requirements -- or let me put this
19 another way.

20 Are those -- is the fact that these are
21 industries operating in competitive marketplaces a factor
22 leading to greater strictness in the capital
23 requirements?

24 MR. FRANK CHEN: Absolutely. So we've
25 seen already with the US banks, many of them becoming

1 insolvent due to the mort -- mortgage debacle and
2 subprime lending, that the banks have demonstrated that
3 they did not retain adequate capital reserves to protect
4 themselves against an event like that and, therefore, a
5 lot of the medium-sized banks or banks that were engaged
6 in that type of risky activity strained their -- their
7 capital reserves.

8 MR. BYRON WILLIAMS: Mr. Chairman, I -- I
9 don't have a lot to go forward till tomorrow. Subject to
10 my review of my notes I'm guessing thirty (30) minutes to
11 forty-five (45) minutes. I better say thirty (30)
12 minutes to an hour, but that I'd suggest that this would
13 be a convenient time to -- to break.

14 THE CHAIRPERSON: I'll just check. Mr.
15 Hacault, how long do you think your cross will take?

16 MR. ANTOINE HACAULT: I'll be using
17 tonight to try and go through my notes, and avoid any
18 duplication of questions, but my best estimate would be
19 approximately two (2) hours. I had about the same time
20 with this panel as I would have had with ICF.

21 THE CHAIRPERSON: Thank you. Mr.
22 Gange...?

23 MR. BILL GANGE: No more than an hour.

24 THE CHAIRPERSON: And Mr. Wood...?

25 MR. GAVIN WOOD: I don't believe I'll

1 have any questions. I'll check overnight, though.

2 THE CHAIRPERSON: And I won't ask Ms.
3 Boyd because she hasn't heard all the cross yet, about
4 how far the redirect goes. So with that, we'll adjourn.
5 We'll see you tomorrow morning at 9:30. Thank you.

6

7 --- Upon adjourning at 4:26 p.m.

8

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10 Certified correct,

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15 _____
Cheryl Lavigne, Ms.

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