



MANITOBA PUBLIC UTILITIES BOARD

Re:

MANITOBA HYDRO
NEEDS FOR AND ALTERNATIVES TO
REVIEW OF MANITOBA HYDRO'S
PREFERRED DEVELOPMENT PLAN

Regis Gosselin	- Chairperson
Marilyn Kapitany	- Board Member
Larry Soldier	- Board Member
Richard Bel	- Board Member
Hugh Grant	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
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Pages 2709 to 2980

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1 --- Upon commencing at 8:59 a.m.

2

3 THE CHAIRPERSON: Good morning. I
4 believe it's nine o'clock, so we'll get started right
5 away. Unusual not to have Mr. Wojczynski directly in
6 front of us, so we'll have to develop some questions to
7 make sure he comes back to us.

8 So good morning. I'd like to advise
9 that there were no undertakings filed during the CSI
10 session. And I wonder if there are any undertakings to
11 file now before we start?

12 MS. MARLA BOYD: Nothing to file in the
13 way of undertakings. I do have a couple of exhibits to
14 record. We did send electronically yesterday the
15 additional CV for Mr. Greg Barnlund, which I believe
16 will be Exhibit 92-4.

17

18 --- EXHIBIT NO. MH-92-4: Additional CV for Mr. Greg
19 Barnlund

20

21 MS. MARLA BOYD: And we also could mark
22 the financial panel direct evidence presentation this
23 morning if you'd care to do that now. Can you give me
24 a number?

25

1 (BRIEF PAUSE)

2

3 MS. MARLA BOYD: Well, it's on its way
4 to you, Mr. Chair. I believe it'll be Exhibit number
5 111.

6

7 --- EXHIBIT NO. MH-111: Financial panel direct
8 evidence presentation

9

10 MS. MARLA BOYD: So by way of
11 introduction, this is a fresh face of panel members for
12 you. To my immediate left is Mr. Darren Rainkie, who's
13 the vice president of Finance and Regulatory. To his
14 left is Ms. Liz Carriere, who's the manager of
15 Financial Planning. Then we have Mr. Manny Schulz,
16 corporate treasurer, and Mr. Greg Barnlund, who's the
17 division manager of Rates and Regulatory Affairs.

18 Seated behind them and providing witness
19 support, you know Ms. Fernandes and Ms. Ramage, of
20 course. And then we have Mr. Greg Epp, who is the
21 senior financial analyst of the Major Project Section.
22 Then Mr. Rick Horocholyn, sorry, who's the senior
23 financial analyst. Susan Stephen is the Financial
24 Markets department manager. And Louella Harms -- Ms.
25 Louella Harms is the supervisor of Retail Electric

1 Rates.

2 And if the panel could be sworn, we
3 could begin with direct evidence.

4

5 MANITOBA HYDRO PANEL 5:

6 GREG BARNLUND, Sworn

7 LIZ CARRIERE, Sworn

8 DARREN RAINKIE, Sworn

9 MANFRED SCHULZ, Sworn

10

11 THE CHAIRPERSON: On behalf of the
12 panel, good morning to all of you. Some familiar faces
13 and we're happy to see you back, and some new faces so
14 that's always refreshing. Thank you.

15 MS. MARLA BOYD: Thank you, Mr. Chair.

16

17 EXAMINATION-IN-CHIEF BY MS. MARLA BOYD:

18 MS. MARLA BOYD: Mr. Rainkie, could you
19 please outline your experience and qualifications, as
20 well as your role in the NFAT filing, please?

21 MR. DARREN RAINKIE: Certainly. Good
22 morning, Mr. Chairman, members of the Board,
23 Intervenors, and ladies and gentlemen. My name is
24 Darren Rainkie, and I'm the vice president of Finance
25 and Regulatory at Manitoba Hydro. I'm a chartered

1 accountant, chartered business evaluator, and have a
2 bachelor of commerce honours degree from the University
3 of Manitoba.

4 I have been with Manitoba Hydro and
5 Centra Gas for over nineteen (19) years. Prior to my
6 current position, I held various management and
7 financial positions, including manager of Regulatory
8 Services, corporate treasurer, and corporate
9 controller. I was appointed vice president of Finance
10 and Regulatory in January of 2013, and have overall
11 responsibility for the controllership, treasury, rates
12 and regulatory, financial planning, corporate risk
13 management, and subsidiary functions at Manitoba Hydro.

14 In my testimony, I will provide evidence
15 on policy matters as they relate to the financial and
16 rates material contained in the NFAT filing.

17 MS. MARLA BOYD: Ms. Carriere, could
18 you please outline your experience and qualifications,
19 as well as your role in the NFAT submission, please?

20 MS. LIZ CARRIERE: Good morning, Mr.
21 Chair, Board members, Intervenors, and -- and counsel
22 and -- and advisors, and others in the room. My name
23 is Liz Carriere. I'm the manager of Financial Planning
24 in the Finance and Regulatory Business Unit.

25 I have -- I'm a certified general

1 accountant, and I have a bachelor of commerce honours
2 degree from the University of Manitoba. I've been with
3 Manitoba Hydro for twenty-four (24) years, eighteen
4 (18) of those within the Financial Planning Department.
5 So eighteen (18) -- I've had a hand in at least
6 eighteen (18) IFFs over the years.

7 I've also provided regulatory support to
8 numerous regulatory proceedings, as well as I am
9 responsible for preparing the financial projections for
10 the -- the First Nation partnerships that we have on
11 the major projects.

12 My role here in the NFAT proceeding is
13 to provide evidence on the NFAT financial evaluation,
14 specifically the rate impacts and the impacts on
15 Manitoba Hydro's financial position. Thank you.

16 MS. MARLA BOYD: Thank you, Ms.
17 Carriere. Mr. Schulz, could you outline your
18 experience and qualifications, and your role in the
19 NFAT submission, please?

20 MR. MANFRED SCHULZ: Certainly. Good
21 morning, Mr. Chairman, members of the Board,
22 Intervenors, and others present. My name is Manny
23 Schulz, and I've held the position of corporate
24 treasurer since 2008. Prior to accepting this role, I
25 joined Manitoba Hydro in 2006 as the corporate

1 controller.

2 Previous senior work experience includes
3 being the vice president of Finance and Business
4 Development at Dow BioProducts from 2004 to 2006. I
5 was the director of business consulting group at Grant
6 Thornton LLP from 2000 to 2003. And I was the chief
7 operating and financial officer for GBR Architects from
8 1994 to 1999.

9 In terms of my academic qualifications,
10 they include being the direct -- the bachelor of
11 environmental studies degree from the Faculty of
12 Architecture in 1981; an MBA in 1988, also from the
13 University of Manitoba. In 1995 I received the
14 certified management accounting designation. And in
15 2009 I was awarded the fellowship in the FCMA
16 designation.

17 I will be providing testimony on credit
18 ratings, debt management, including the financial risks
19 associated with interest rates, foreign currency
20 exchange, and liquidity. Thank you.

21 MS. MARLA BOYD: Thank you, Mr. Schulz.
22 Mr. Barnlund, could you outline your experience and
23 qualifications, and your role in the submission,
24 please?

25 MR. GREG BARNLUND: Certainly. Good

1 morning, Mr. Chairman, members of the Board,
2 Intervenors, and others present. My name is Greg
3 Barnlund, and I'm the division manager of Rates and
4 Regulatory Affairs in the Finance and Regulatory
5 Business Unit.

6 I'm a certified engineering technologist
7 and graduated from Red River Community College with a
8 diploma in mechanical engineering technology in 1988.
9 I've been with Manitoba Hydro and Centra Gas Manitoba
10 for twenty-five (25) years.

11 I was appointed to the position of
12 division manager Rates and Regulatory Affairs in June
13 of 2013. My responsibilities include overseeing the
14 preparation of regulatory filings and applications for
15 submission to the Public Utilities Board of Manitoba
16 and the National Energy Board, the preparation of rates
17 and cost of service studies for both electric and
18 natural gas operations, and the preparation and
19 administration of business investment policy for
20 electric operations.

21 I've testified before the Public
22 Utilities Board on several occasions, and have also
23 appeared before the National Energy Board and the
24 Federal Competition Tribunal. I've testified to
25 matters related to natural gas cost allocation, rate

1 design, terms of service, service extension policy,
2 western transportation service, and the competitive
3 landscape for natural gas sales in Manitoba.

4 Most recently, I testified to rate and
5 regulatory matters at Centra's 2013 general rate
6 application, and although I've provided regulatory
7 support to several of Manitoba Hydro's electric
8 applications, this is my first opportunity to testify
9 to electric matters before this Board.

10 For this proceeding I'll provide
11 evidence related to the impacts on domestic electricity
12 rates and the comparative situation with electricity
13 rates in other jurisdictions.

14 MS. MARLA BOYD: Thank you, Mr.
15 Barnlund. Mr. Chair, you have before you and on the
16 monitor the Manitoba Hydro Exhibit 111, which is the
17 PowerPoint presentation for the direct evidence of this
18 panel, and we're ready to commence if -- if you're
19 ready.

20 MR. DARREN RAINKIE: Good morning, Mr.
21 Chairman and members of the Board. I -- I will be up
22 first in the presentation. So if we can move to slide
23 2 of the presentation, I will just give you a quick
24 overview of how we've divided the material. We've put
25 it into about five (5) different segments.

1 In the first two (2) segments of the
2 presentation, I'll provide context on the financial and
3 rate discussions that will follow my presentation by
4 taking a few minutes to summarize Manitoba Hydro's
5 current financial profile and provide a brief update on
6 our financial outlook as contained in IFF13,
7 recognizing that there are panel -- PUB panel members
8 that have not had the benefit of sitting through an
9 electric GRA, and that we have just recently filed
10 IFF13 with the PUB.

11 In -- that's the first two (2) segments
12 of the presentation. In the third segment, Mr.
13 Barnlund will take over and provide an overview that
14 demonstrates the competitiveness and affordability of
15 Manitoba Hydro's electric rates now and in the future.
16 In the fourth segment, Ms. Carriere will do the heavy
17 lifting and provide a summary of the very extensive
18 financial and rate analysis that was provided as part
19 of the NFAT filing in support of the Preferred
20 Development Plan.

21 Finally, in the fifth segment, Mr.
22 Schulz will bat clean-up and will add the perspectives
23 on risk by outlining how we manage financial risks at
24 Manitoba Hydro, and discuss credit rating agencies and
25 how they view Manitoba Hydro's debt as being self-

1 supporting.

2 By all means stop us at any point if you
3 have questions of -- of the content, or clarification.
4 Certainly designed the presentation to inform the Board
5 and help them, assist them go through this huge volumes
6 of material that you have before you now.

7 So if we can move to slide 4, we'll chat
8 a bit about Manitoba Hydro's consolidated income
9 statement. So just a couple of things I want to point
10 out. I won't go through all this material, obviously,
11 but currently, our domestic electricity revenues at
12 approved rates are around \$1.4 billion. Export
13 revenues have been in the 300 to \$400 million range in
14 the last four (4) years, which is down from the \$600
15 million level that we experienced in 2009, mainly as a
16 result of lower non-firm export prices.

17 Costs are generally increasing as a
18 result of accounting changes to expense more and
19 capitalize less overhead costs, general escalation, and
20 inflation, and as well, there are higher financing
21 costs, depreciation, and taxes associated with a
22 growing asset base, including the in-service of the
23 Wuskwatim generating station during 2012.

24 Lower net export revenues and higher
25 costs have reduced the level of net income in the last

1 two (2) years to below a hundred million dollars,
2 which, in turn, has resulted in lower interest coverage
3 ratios. I'll -- I'll cover off our financial ratios
4 later in the presentation, so. And I will talk a bit
5 about our current financial year a little bit in the --
6 later in the presentation as well. This was presented
7 more for historical context.

8 Just quickly moving then to slide number
9 5 and the consolidated balance sheet. I think it's
10 fair to say that Manitoba Hydro is primarily a fixed-
11 assets company. We have property, plant, and equipment
12 and in construction in progress of over \$18.8 billion,
13 that's at historic cost, as of December 31st, which is
14 our most recent public financial statements -- December
15 31st of 2013.

16 So that results in net property, plant,
17 equipment, and construction progress of \$13.3 billion
18 net of accumulated depreciation currently. So that's
19 just to give you an idea of the size of our current
20 balance sheet.

21 The assets are financed primarily by
22 \$10.2 billion of long-term debt net of sinking fund
23 assets and \$2.6 billion of retained earnings as at
24 December 31st, 2013. On a net basis, the amount of
25 working capital that we have is fairly negligible. We

1 are really a fixed assets company.

2 It's interesting to compare the current
3 balance sheet back to 1990, which I've put on the far
4 right side of the slide, before the first unit of the
5 Limestone generating station came into service almost
6 twenty-five (25) years ago.

7 In 1990, Manitoba Hydro had \$3.9 billion
8 of net fixed assets and was largely financed by \$3.6
9 billion of net long-term debt and just \$117 million of
10 retained earnings. In 1990, the debt-to-equity ratio
11 was 95:5, which means that the Corporation was financed
12 with 95 percent debt.

13 Fast-forwarding today and moving to the
14 left side of the -- of the slide, Manitoba Hydro's
15 assets and debt are approximately three (3) times what
16 they were back in 1990. And with the retained earnings
17 of 2.6 billion, we currently have a debt-to-equity
18 ratio of 76:24, meaning that 24 percent of our assets
19 are financed by retained earnings. And Manitoba Hydro
20 is in the strongest financial position in its history,
21 its long history.

22 While it's human nature to view -- view
23 the large investments that are required under any
24 potential plan in the future with concern, the history
25 of this public utility shows that it is but one (1)

1 phase in a continuing cycle of investment and
2 reinvestment in fixed assets in order to ensure safe
3 and reliable service to Manitobans.

4 Much like the growth over the last
5 twenty-five (25) years, the Preferred Development Plan
6 is expected to result at a balance sheet as roughly two
7 point five (2.5) times the size of the current balance
8 sheet over the next twenty (20) years.

9 And then if we could move to the next
10 slide, slide number 6 in the deck, spend a couple
11 seconds on our cashflow statement; not to leave Mr.
12 Schulz out of the equation because he certainly is
13 concerned about our cashflow.

14 So you'll note that in the last number
15 of years we've generated about \$600 million of cashflow
16 from operations, which is under the caption, "Cash
17 provided by operating activity," so -- on the slide.

18 In the last few years, we've also had
19 investing activities, which is primarily investment and
20 fixed assets, at the 1.2 to \$1.3 billion level, which
21 has resulted in net financing activities in the order
22 of 6 to \$700 million in the last two (2) years.

23 The level of investing and financing
24 activities are expected to ramp up significantly due to
25 the planned investments in Bipole III, Keeyask, and

1 Conawapa, and you'll see that in our financial
2 forecast, IFF13.

3 The capital coverage ratio has been
4 lower in recent years compared to historic levels due
5 to the increased requirements for sustaining or what we
6 refer to as our base capital expenditures, which are
7 necessary in order to maintain the health of our
8 existing assets.

9 And then just moving quickly to slide
10 number 7. What I've done is pulled out our electric
11 operations out of our third quarter financial report
12 ending December 31st, 2013. So our financial
13 statements have the electricity segment, which includes
14 our regulated operations plus our subsidiary
15 operations.

16 And what you see here is simply the
17 regulated operations year over year for the nine (9)
18 months ended December 2013, versus the nine (9) months
19 ended December 2012. And you can see that our
20 financial results have improved considerably over that
21 time frame for two (2) primary reasons: first, higher
22 domestic electric revenues as a result of rate
23 increases granted by the Public Utilities Board in
24 colder weather; and, secondly, higher net
25 extraprovincial revenues as favourable water flow

1 conditions and higher export prices.

2 The outlook to the end of the 2013
3 fiscal year ended March 31st, 2014, in IFF13 is for
4 electric operations net income of 116 million and
5 consolidated net income of 136 million.

6 And if we move to slide 8. This is an
7 interesting slide because it shows the relative
8 proportion of revenues over the last ten (10) fiscal --
9 completed ten (10) fiscal years that have been derived
10 from residential, industrial, commercial, and export
11 customers.

12 It breaks down roughly 28 percent of the
13 revenue has come from residential customers, 40 percent
14 has come from industrial and commercial customers, and
15 32 percent from export revenues. We'll talk a bit more
16 about this later in the presentation.

17 And then just moving to slide 9 and just
18 summing up a couple key points about our existing
19 financial profile. As I mentioned, with retained
20 earnings of \$2.6 billion, Manitoba Hydro is in the
21 strongest financial position in its history, and this
22 positions the Company well to make the necessary
23 investments in the future to meet the energy needs of
24 the province, which is our mandate.

25 The export revenues associated with

1 Manitoba Hydro's predominantly hydro system has
2 certainly been a key contributor to the Corporation's
3 financial strength and affordable rates for customers.

4 So I went through that rather quickly,
5 but certainly, as I said, stop me if there's anything
6 that comes to mind as you -- as you go along. I'm just
7 the context piece at the front end here, so I want to
8 leave some time for Ms. Carriere to go through the --
9 the analysis that's before you.

10 So if there's no questions, maybe we'll
11 move onto the second segment, which is a -- a quick
12 update on our financial outlook as contained in IFF13,
13 Integrated Financial Forec -- Forecast '13. So slide
14 11 just gives you a real brief high-level view of some
15 of the major changes between our current forecast,
16 IFF13, that was just approved by our Board on February
17 26th of 2014, versus the previous forecast, IFF12, that
18 was approved by our Board in November of 2012, and was
19 the -- the base, if you like, for the NFAT filing at
20 that point in time.

21 So key -- key changes, the load forecast
22 is lower due to lower forecasted population growth. I
23 think there's probably already been discussion about
24 that at the hearing on the first panels. The Conawapa
25 in-service date was deferred one (1) year to two (2) --

1 to the 2026 -- twenty (20) -- sorry, '26/'27 fiscal
2 year. There was increased capital costs of \$1.6
3 billion due to the Conawapa deferral, the reinstatement
4 of DSM costs into the capital forecast, and the effect
5 of updating a number of project estimates, and adding
6 in some new projects.

7 The electric export price forecast for
8 2013, for on-pipe -- on-peak prices decreased on
9 average by 3 percent over the period from 2014/'15 to
10 2032/'33. That's compared to IFF12. And I -- I think
11 if you recall, the adjusted IFF12 that was used in the
12 NFAT filing had export prices that were about 10
13 percent lower than -- than what was in IFF12, so the 3
14 percent reduction is actually 7 percent higher than
15 what was included in the NFAT filing, and I hope that's
16 clear.

17 Other major change is the International
18 Financial Reporting's Standards implementation has been
19 deferred by one (1) year to 2015/'16, and we have
20 assumed in the IFF13 that rate-regulated accounting
21 will continue over the forecast period, and both of
22 these assumptions have been included in IFF13 as a
23 result of recent pronouncements of the Account --
24 Accounting Standards Board of Canada and the
25 International Accounting Standards Board.

1 And recognizing the financial outlook,
2 we have forecast further con -- constraint on
3 operating cost growth to 1 percent growth between 2016
4 and 2021.

5 So those are the major highlights of --
6 of IFF13, and what you would have seen in the IFF12 in
7 the last electric general rate application filing.

8 Slide number 12 is a rather busy slide,
9 but I would ask you just to -- to focus on the -- the
10 second row from the bottom, which looks at the total
11 change in net income -- consolidated income between
12 IFF12 and IFF13. So we -- we've already talked about
13 the key drivers between the improved results for
14 2013/'14, and we see that the consolidated net income
15 is expected to be \$63 million better than the previous
16 forecast.

17 For 2014/'15, after updating all the
18 factors, revenues, and costs, there really isn't much
19 change in the -- in the forecast. It's really just a
20 \$4 million differential. Quite a significant
21 deterioration in 2015/'16, primarily related to the
22 lower load forecast of \$66 million. And if you go to
23 the far right, over the whole twenty (20) year period
24 to 2032/'33, our net income is expected to be \$2.5
25 billion lower than what was included in IFF12 as a

1 result of the lower load forecast and the higher
2 capital expenditures.

3 Then moving to slide number 13, is a
4 graphical depiction of the expected pattern of
5 consolidated net income over the next twenty (20)
6 years, and also compares the differential between IFF13
7 and IFF12. So as you can see, net income is expected
8 to be thin in the next ten (10) years, even with the
9 3.95 percent projected rate increases, primarily due to
10 the capital expenditures that are required to renew
11 aging infrastructure and provide reliability of the
12 electrical system such as Bipole III.

13 This will be further challenged when the
14 in-service of the Keeyask generating station comes into
15 service, but net income is expected to rebound sharply
16 after the in-service of the Conawapa generating
17 station.

18 And, of course, on slide 14, following
19 closely after net income is retained earnings. You can
20 see in the forecast that initially retained earnings
21 are expected to be higher in IFF13 than they were in
22 IFF12, given the assumption that Manitoba Hydro will no
23 longer have to write off about \$300 million of rate
24 regulated assets in 2014/'15, as had been the
25 assumption in IFF12. In the later years of the

1 forecast -- oh, sorry -- sorry, Liz. In the later
2 years of the forecast retained earnings are fore -- are
3 forecast to be lower than in IFF13 for the aforementioned
4 -- aforementioned reasons.

5 And if we move to slide 15, you'll hear
6 a lot about our financial targets in the -- in the next
7 number of days, so I thought it would be useful just to
8 spend a couple of minutes reiterating what they are.
9 We have three (3) primary financial targets in Manitoba
10 Hydro. First, a -- a debt-to-equity target. We strive
11 to maintain a minimum debt-to-equity ratio of 75:25,
12 which means that we would like to have 25 percent of
13 our assets funded through internally generated funds
14 rather than through debt.

15 Our second financial target is -- is
16 interest coverage. We'd like to maintain a interest
17 coverage ratio of greater than one point two-zero
18 (1.20), so we want to have a cushion of significant
19 issue -- of sufficient earnings to cover interest
20 payments, and that's why we set the ratio at the one
21 point two-zero (1.20).

22 The third key financial target we have
23 at Manitoba Hydro is the capital coverage. We'd like
24 to maintain capital coverage ratio of greater than one
25 point two-zero (1.20), and that is to have a cushion to

1 have sufficient cash flow to cover our base capital
2 expenditures.

3 Then if we then follow on to slide 16
4 and go through the projected ratios in IFF13, first the
5 equity ratio for that -- that is projected over the
6 next twenty (20) year period. So, much like the
7 retained earnings slide, the equity ratio in IFF13 is
8 initially higher due to the assumption of no rate
9 regulated asset write off and further aggressive
10 operating cost constraint.

11 And while the trajectory level is off a
12 bit compared to IFF12, there is a similar pattern after
13 the in-service of the Cona -- Conawapa generating
14 station, such of that we are able to meet the 25
15 percent equity ratio target by 2034, which is just one
16 (1) year outside of the twenty (20) year forecast
17 period.

18 Go to the next slide. This is number
19 17. This depicts the interest coverage ratio forecast
20 for the next thirty (30) -- for the next twenty (20)
21 years rather, and I won't spend a lot of time on this
22 in the next slide, but suffice to say that the interest
23 coverage ratio and the capital coverage ratio exhibits
24 the same general pattern as the equity ratio.

25 They weaken during the period of

1 reinvestment in assets and the investment of new
2 generation, and then interest -- the interest coverage
3 ratio recovers to target levels post-Conawapa in-
4 service. And if we move to the next slide, the capital
5 coverage ratio, the -- the same pattern, but the
6 capital coverage ratio is projected to recover to
7 target levels post-Keeyask in-service.

8 And moving to slide 19. I listened with
9 great interest to the exchange between Mr. Hacault and
10 Mr. Thomson on day 1 of the hearing with respect to who
11 contributes to the retained earnings of the Company
12 that are required to meet financial reserve
13 requirements.

14 Slide 19 is interesting in that it
15 demonstrates the high degree of correlation between the
16 level of net extraprovincial revenues and net -- and
17 the level of net income on both a historic and forecast
18 basis. From this slide, one could argue that it is the
19 export customers that have and will continue to assist
20 in building reserves that keep Manitoba electricity
21 customer rates amongst the lowest in North America.

22 And then on slide 20, just a summary of
23 -- of our financial outlook and some of the key points.
24 There's no doubt that the required investments and
25 existing infrastructure and new generation will put

1 pressure on Manitoba Hydro's financial ratios in the
2 next twenty (20) -- in the next ten (10) years and that
3 higher than 3.95 percent rate increases would be
4 required to maintain those ratios at their target
5 levels over that period. But is that -- that is not
6 what we're projecting will happen. We -- we will
7 maintain 3.95 percent rate increases in the next ten
8 (10) years.

9 In setting financial targets in the
10 first place, it's always been recognized that the
11 targets may not be obtained during periods of major
12 investment in a generation and transmission system and
13 that ratios will necessary -- necessarily weaken during
14 those periods of investment.

15 Credit-rating agencies and other
16 stakeholders are prepared to accept short-term
17 weaknesses in financial ratios due to the investments
18 in revenue-generating assets as long as Manitoba Hydro
19 can demonstrate steady -- steady progress towards
20 those targets over the long-term.

21 A supportive regulatory climate is also
22 important to credit-rating agencies who recognize the
23 capacity to raise rates, given the low rate structure
24 that Manitobans enjoy. It is important, and continues
25 to be important, that Manitoba Hydro have regular and

1 reasonable rate increases during the reinvestment and
2 new investment period to maintain progress towards
3 financial targets.

4 The good news is the financial ratios
5 are expected to recover after the in-service dates of
6 the Keeyask and Conawapa generating station and reach
7 target levels within a forecast horizon of around
8 twenty (20) years. After that period, pressures on
9 rates is forecast to subside.

10 Export revenues will continue to play an
11 important role in improving the Corporation's financial
12 strength and keeping Manitoba electricity rates low in
13 the future.

14 Mr. Chairman, thanks for the opportunity
15 to address the panel. Subject to any questions that
16 you may have of me, I would hand it over to Mr.
17 Barnlund to address the competitiveness and
18 affordability of Manitoba Hydro's electricity rates.

19 MS. MARILYN KAPITANY: Mr. Rainkie,
20 could you just go back to slide 19 for a minute, please
21 --

22 MR. DARREN RAINKIE: Sure.

23 MS. MARILYN KAPITANY: -- where you had
24 talked about the extraprovincial revenues and the net
25 income.

1 Could you go through that explanation
2 once more?

3 MR. DARREN RAINKIE: Sure. So what --
4 what is depicted on this chart is the relationship
5 between net extraprovincial revenue, which is
6 extraprovincial revenue minus water rentals and
7 assessments and fuel and power purchases, and -- and
8 net income.

9 So there was some discussion at the
10 front end of the hearing about, you know, who -- who
11 has contributed to the reserves that assist in keeping
12 our balance sheet healthy, which is there on behalf of
13 customers to ensure rate stability in the future.

14 So I find this chart very informative to
15 look back over time and ask ourselves how -- how did we
16 -- how did we improve our financial position over the
17 last twenty-five (25) years. And when you look at the
18 high degree of correlation between net income and
19 extraprovincial revenues, you see how important it has
20 been in attaining the financial strength that we have
21 today and indeed in keeping rates low for Manitobans.

22 So one could look at this very
23 simplistically as our improvements in reserves levels
24 over time have been contributed by export customers
25 such that Manitoba customers, both residential,

1 commercial, and industrial, have only had to pay the
2 costs associated with -- with our system.

3 Now, as far as I'm concerned,
4 contributions to revenue requirement is -- is appro --
5 is a cost as well. It's something that customers have
6 to put forward. We don't have return requirements like
7 private companies that require a 10 or 11 percent
8 return on equity. We probably on average only have
9 about a 3 percent contribution based on a calculation
10 of our net assets.

11 But -- so -- so I -- I think that it's
12 appropriate that we recover both costs and a
13 contribution to reserves from our customers. This is
14 simply the observation that if you map that
15 relationship out between these two (2) factors, that
16 you could argue that export customers help contribute
17 the reserves, which -- which is important in -- in
18 terms of improving our financial position and helps us
19 make the next required investment. That -- that was
20 what I was trying to point out.

21 THE CHAIRPERSON: Just a point of
22 clarification, Mr. Rainkie. The -- the IFF13 figures
23 you're giving here, have they been adjusted to address
24 the DSM -- increased DSM that we've been hearing about?

25 MR. DARREN RAINKIE: No, Mr. Chairman.

1 These were -- this -- this forecast was approved by our
2 Board in late February, and the -- it actually went to
3 the executive committee and audit committee in January
4 and February. So this does not include the analysis
5 that you're going to see coming up on DSM. That will
6 be a separate analysis provided for the NFAT filing in
7 particular.

8 THE CHAIRPERSON: So when is your --
9 what date can we expect to see that revised IFF?

10

11 (BRIEF PAUSE)

12

13 MR. DARREN RAINKIE: My understanding,
14 Mr. Chairman, is the commitment is March 24th.

15

16 (BRIEF PAUSE)

17

18 MR. GREG BARNLUND: Good morning, Mr.
19 Chairman and Board members. I'd like to take the next
20 few minutes and speak to some rate comparisons and talk
21 about rate impacts and bill impacts of the various
22 scenarios that have been discussed in front of -- in
23 front of this Board in this proceeding.

24 So if we could turn to slide 22, what
25 we're going to see here in the next couple slides are

1 really comparisons of Manitoba Hydro's domestic
2 electricity rates by customer class with those that are
3 being paid by customers in other Canadian
4 jurisdictions.

5 This data as shown in slide 22
6 represents residential customer rates in -- in Canada.
7 And the purpose of going through these -- these slides
8 is to gain some context and understanding of the
9 relative competitiveness and affordability of
10 electrical service in Manitoba compared to those in
11 other Canadian jurisdictions, and also get some context
12 in terms of what are the cost drivers that are
13 affecting the utility industry. Because there's a lot
14 of things in common amongst the utilities in Canada and
15 North America these days in terms of increased cost and
16 future increased rate impacts that will be borne by
17 customers, and I think it's worthwhile spending a
18 couple minutes addressing those matters.

19 What we see in the slide here on slide
20 22 is really a comparison of residential rates between,
21 like I said, customers in Canadian -- major Canadian
22 centres. You'll see that there's two (2) bars in each
23 of these slides, and we're representing different
24 consumption levels that are being calculated here.

25 A thousand kilowatt hours of consumption

1 per month is roughly equivalent to a standard electric
2 customer, whereas a 2,000 kilowatt hour consumption per
3 month could be thought of as a customer that's using
4 electricity for heating.

5 You can see from the residential
6 comparison that Manitoba Hydro's rates, and obviously
7 Hydro-Quebec's rates, are very favourable when compared
8 to residential rates that are being paid by customers
9 in other jurisdictions.

10 An interesting comparison is with the
11 rates in Regina. You'll see that second bar -- second
12 set of bars from the right represent the domestic
13 electricity residential rates for a customer in Regina,
14 which average to be about -- between twelve (12) and
15 thirteen (13) cents a kilowatt hour, compared to ours
16 which are in the seven (7) -- seven point five (7.5)
17 per cent -- seven point five (7.5) cent range.

18 The comparison with -- with Saskatchewan
19 is interesting because while we share a lot of
20 characteristics in terms of geography, population
21 density, number of customers being shared -- or being
22 served, the significant difference between the two (2)
23 utilities is that basically our energy is being
24 produced predominately by hydraulic generation whereas
25 80 percent of Saskatchewan's electricity is being

1 generated through thermal sources.

2 So while there are other cost
3 differences obviously between operating the two (2)
4 utilities, you can see there's a striking difference in
5 terms of the residential rates between Winnipeg -- a
6 customer in Winnipeg and a customer in Regina.

7 Maybe if we could turn to slide 23 now?
8 So the next two (2) slides will illustrate comparisons
9 for general service customers, and so the general
10 service small-rate comparison shown on slide 23 here,
11 these customers would represent small retail business
12 in commercial strip malls, restaurants, convenience
13 stores, churches, and schools. So again, you can see
14 the respective differences between the average cost in
15 terms of Manitoba Hydro's rates, and the rates that are
16 being charged in other jurisdictions. We, you know,
17 obviously are very favourable compared to most of the
18 Canadian jurisdictions.

19 And so if we turn to slide 24, we're
20 comparing the general service medium rates between
21 Manitoba Hydro and customers that would be paying rates
22 in other jurisdictions. Now, general service medium
23 customers would be larger retail establishments, big
24 box stores, large grocery stores, large personal care
25 homes, large secondary schools, and the -- the like,

1 and again, you can see as the -- as the volumes of
2 consumption increase, that the difference in -- in cost
3 is quite apparent here.

4 If we move to slide 25, we could take a
5 look at the general service large rates. And general
6 service large customers are our very large industrial
7 customers and the largest consumers of electricity in
8 Manitoba. So this would include customers that are
9 involved in mining, manufacturing, food processing,
10 chemical production, large office buildings, and
11 institutional occupancies like universities, community
12 colleges, and large hospitals.

13 And again, the relative relationship
14 holds. Again, you'll see that Manitoba Hydro's rates
15 and Hydro Quebec's rates are very favourable compared
16 to those that are being paid by the same type of
17 customers in other jurisdictions.

18 So the -- the idea behind this is just
19 to provide some context in terms of the current rate
20 structure and the current costs that are being borne in
21 rates by customers across Canada. These bills were
22 prepared -- were prepared based on rates that were in
23 effect May 1st of 2013. I'd have to say that there
24 were actually a couple of other rate changes that have
25 gone through since then for some of the other

1 jurisdictions, so -- but this is -- provides a
2 reasonable base of comparison to the starting point to
3 understand where Manitoba Hydro's rates and rate
4 structure, and how Manitoba Hydro's customer's bills
5 would compare with what you would find in other
6 Canadian centres.

7 If we could turn to slide 26, please?
8 This analysis then sort of broadens the scope further
9 into some American jurisdictions as well, and the basis
10 of preparation for this information is slightly
11 different than -- than the last one. What we've done,
12 because of the difference in trying to find comparable
13 information for US utilities, we take total residential
14 revenues divided by total residential energy sales to
15 come up with a unit rate for electricity for each of
16 these centres.

17 Again, you can see that when we do that
18 that -- that Manitoba -- Manitoba Hydro's average unit
19 cost compares very favourably with what you find in the
20 rest of North America in that respect.

21 So if we could move to slide 27 here? I
22 would like to talk a little bit about the situation
23 with regards to these rates. Now, what we're taking a
24 look is a -- is a snapshot in time in terms of rates
25 across Canada and across the United States, but we need

1 to also reflect on the fact that the electric utility
2 industry is an industry that's in a great deal of -- of
3 transition right now in terms of the amount of
4 investment that's being required and will be required
5 in the next ten (10) years to rehabilitate and
6 refurbish its aging infrastructure.

7 This slide provides, you know, a
8 headline that -- you know, the Conference Board of
9 Canada had provided an analysis that indicates that
10 there's a significant amount of investment in the terms
11 of approximately \$350 billion will be required to be
12 made by electric utilities in Canada between 2011 and
13 2030 to be able to rehabilitate, and refurbish, and
14 renew its aging infrastructure.

15 Manitoba Hydro is not alone and not
16 unique in that regard. We had some discussions at the
17 last general rate application about the need for
18 approximately \$50 million a year of incremental
19 investment to be able to rehabilitate our distribution
20 system and -- and replace aging components in the
21 distribution system.

22 When you look at the build-out that
23 occurred in Manitoba after the second World War, we
24 extended service throughout the province to rural
25 communities and rural customers. We built a

1 significant amount of distribution capability as the
2 province grew and as population grew in the province.

3 Those assets have a -- have a -- a
4 useful service life, and at the end of that service
5 life, they need to be replaced. If they're not
6 replaced, then reliability will be negatively impacted.
7 We will end up with service outages and -- and problems
8 in delivering reliable electrical service.

9 And so we're embarking on -- on an
10 investment in the next ten (10) years, where we'll have
11 to be replacing poles. We'll have to be replacing
12 cable. We'll have to be revamping a -- a distribution
13 system and our sub transmission system to be able to
14 maintain reliable service.

15 This is not unusual, like I say, to
16 Manitoba Hydro. SaskPower has indicated in their last
17 rate application that they expect to spend
18 approximately \$1 billion per year for the next ten (10)
19 years to be able to rehabilitate and refurbish their
20 electrical distribution and transmission system within
21 the Province of Saskatchewan.

22 British Columbia, BC Hydro, made a
23 similar pronouncement in their regulatory proceedings
24 that they expect to be spending approximately a billion
25 dollars a year to be able to -- to accommodate the need

1 to be re -- replacing that aging infrastructure. This
2 is -- this is obviously a -- a situation that all
3 utilities are facing, and all utilities are going to
4 need to recover those costs from their customers.

5 And we'll take a look at a comparison in
6 a couple of slides further out. We're going to look at
7 projections into the future of annual bills to
8 customers in Manitoba, and -- and a couple of other
9 Canadian jurisdictions, and we can talk further about
10 the impacts we might be able to see then.

11 So these are some of the headlines that
12 have been in the press in the last year with respect to
13 rate increases and pressures on costs that are being
14 borne by other utilities. SaskPower I just spoke of.
15 SaskPower has filed for a three (3) year rate
16 application, where they are looking to get rates
17 increased over the next three (3) years. They are
18 looking at, in addition to that, they will have
19 increases beyond that period of time, but they're
20 filing for a three (3) year rate filing at this point
21 in time.

22 As noted earlier, BC Hydro has had a --
23 a bit in the -- the press quite a bit in the last year
24 in terms of rate increases. They are expecting to have
25 probably five (5) years worth of rate increases ahead

1 of them here, and I can provide a little bit more
2 information of that when I get to the next slide.

3 Ontario, we -- we understand that in
4 Ontario, there is going to be cost increases over the
5 next five (5) to ten (10) years associated with not
6 just infrastructure improvements, but additions to --
7 to generation. Ontario has had an experience as well,
8 too, where Hydro One, for example, manages the
9 transmission system for the better part of the Province
10 of Ontario, and with the policy to be attaching
11 renewables in Ontario, they've been faced with a
12 significant amount of investment to be able to provide
13 sufficient capacity on the distribution systems and on
14 the transmission systems to remote locations where
15 people are sighting solar generating panel
16 applications, and so they're experiencing increased
17 costs in terms of the cost of incorporating renewables
18 onto the system in Ontario.

19 Slide 27, please. This analysis
20 references the information that was provided in the
21 response to Information Request CAC/Manitoba Hydro-
22 First Round-140, and it's a -- a projection of monthly
23 residential bills for Manitoba Hydro rates, comparing
24 the various scenarios and alternatives that are being
25 discussed in this particular proceeding.

1 As you can see from -- from the
2 information in this slide, that over the next ten (10)
3 years, you don't really see a very significant
4 divergence between all of the scenarios that are being
5 evaluated here, but clearly, by the time that we reach
6 2063 in fifty (50) years, that there is a significant
7 difference in the level of monthly bills that would be
8 borne by customers, depending upon the scenario.

9 Slide 29? Okay. Slide 30 is, again,
10 information that was basically taken from Manitoba
11 Hydro's response to CAC/Manitoba Hydro-Second Round-
12 134b. And again, we were projecting monthly or annual
13 bill comparisons between Manitoba Hydro's rates, rates
14 for customers in British Columbia, Saskatchewan, and
15 Quebec based on known information and incorporating the
16 GD fee -- GDP deflator on increasing those bills for
17 the remainder of the period of time.

18 So I would note in this -- in this
19 comparison that the blue line representing Manitoba
20 Hydro is really the only, I think, truly known data
21 that we have on this slide. This information relates
22 to the rate increases that we're showing in IFF12 and
23 '13, and the difficulty in comparing to other
24 jurisdictions is that you don't have the same window of
25 transparent information available to you from Hydro-

1 Quebec, from SaskEnergy, or from BC Hydro.

2 So if we compare with British Columbia,
3 what you see is that -- that annual bills increase over
4 the period. You can see an increase between 2014,
5 2015, and 2016, and those are based on the known rate
6 filings that have been made by BC Hydro to this point
7 in time. If you'd just give me a second here?

8 So that incorporates BC Hydro's
9 requested 9 percent increase for 2015, 6 percent for
10 2016, 4 percent for 2017, 3 1/2 percent for 2018, and 3
11 percent for 2019. I might add that those rate
12 increases are prospective rate increases, and that BC
13 Hydro and the BC government understand that any revenue
14 requirement increases in 2017, '18, or '19 above those
15 levels will be deferred and recovered from customers in
16 future periods.

17 So -- so when you see the -- the shape
18 of the curve for BC Hydro, that that information is --
19 would not be complete, because it wouldn't be
20 reflecting all of the cost increases that that utility
21 would expect to see over the time period that we're
22 speaking of.

23 Similarly with SaskPower, the green line
24 at the very top of the -- of the scale, it incorporates
25 their proposed increase of 5.5 percent in 2014, a 5

1 percent increase in 2015, and a 5 percent increase in
2 2016, but given that three (3) year time frame, it --
3 it doesn't include any increases that would be
4 associated with the incremental \$1 billion worth of
5 investment that would be -- need to be made in the
6 remaining seven (7) years of the -- of the period that
7 I spoke of earlier. So the -- the slope of that curve
8 could increase compared to what we see here in this
9 comparison.

10 But in terms of relative affordability
11 and relative competitiveness, I -- I think it's
12 apparent that Manitoba Hydro's rates, under the
13 scenarios that we're speaking of here, are competitive,
14 are very competitive respective to other Canadian
15 jurisdictions, and would expect to remain competitive
16 in the future, based on the level of investment that is
17 being expected to be made, not just in Manitoba, but by
18 utilities in all of the jurisdictions.

19 There's, I -- I think, maybe a couple
20 other factors I just want to touch on, too, in terms of
21 the comparison between Manitoba Hydro and other
22 utilities, and it's not just from the cost perspective,
23 but also in terms of the load perspective, that we see
24 similar challenges being faced.

25 There was discussion earlier this week

1 about the effect of increased pumping capacity being
2 required by oil pipelines through Manitoba that's on a
3 planned basis. That is a situation that -- that we're
4 obviously dealing with in terms of impact on our load
5 forecast. Other jurisdictions face similar challenges.

6 In British Columbia, BC Hydro is faced
7 with a significant load increases associated with
8 liquified natural gas production and export. There are
9 a -- a number of large projects that are underway and
10 being planned in British Columbia for the
11 transportation of natural gas to Kitimat, where it's
12 liquified and being exported. That will represent a
13 significant industrial load increase to BC Hydro, and
14 is similar in nature to the impact we're seeing in
15 terms of oil pipeline loads in Manitoba.

16 Similarly, SaskPower is wrestling with a
17 -- a significant increase in industrial load, driven by
18 potash mining and -- and other resource production. So
19 utilities are -- are being -- are -- are facing similar
20 challenges, not just from the cost side in terms of
21 infrastructure, but also in the -- the increase in load
22 driven by industrial and -- and non-residential
23 applications.

24 So in -- in summary, I'd just like to
25 note that Manitoba Hydro's electrical rates are indeed

1 amongst the lowest in North America. We are very
2 competitive and very favourable compared to other
3 Canadian and other American centres. Electric
4 utilities in other jurisdictions are facing the very
5 same situation as we are, in terms of increased costs
6 and the need to replace existing infrastructure to be
7 able to maintain safe and reliable service.

8 Other electric utilities are similarly
9 faced with seeking rate increases that are going to
10 exceed the rate of inflation, or exceed CPI. Clearly,
11 the utility business is going through a situation where
12 the consumer price index is not relevant as a
13 comparator for the required level of rate increases
14 because of the significant level of investment that's
15 being required to be made by utilities to be able to
16 replace those aging assets. Manitoba Hydro's
17 electrical rates are affordable currently, and they
18 will remain affordable into the future. Thank you.

19

20 (BRIEF PAUSE)

21

22 DR. HUGH GRANT: I don't -- I think I
23 accept the basic thrust of the argument, but I have to
24 say that slide 30 is one strange-looking graph, isn't
25 it? So if I understand this right, you're

1 extrapolating forward rates -- so you've got a handful
2 of actual observations and then you extrapolate them
3 forward using a GDP deflator. But you then have a
4 footnote that says "Bears no relationship to expected
5 rate increases." Presumably you should have a
6 qualifier that it -- it makes no accounting for DSM
7 measures and different -- this is total bills, right?
8 So it's not the rate -- actual rate itself.

9 So does it really strengthen your
10 argument to show a graph like this? Like, I mean, I
11 understand the basic thrust of it that -- and the
12 starting point rates are lower in Manitoba. I get
13 that. I get that in the next five (5) years BC may be
14 looking at some significant rate increases.

15 But why you have to then take this thing
16 and extrapolate it forward another decade seems, to me,
17 kind of a tenuous exercise.

18 MR. GREG BARNLUND: It's not a perfect
19 representation, I'll definitely agree with you in that
20 respect. We -- we selected this one because it was a
21 question that was -- that was asked us -- of us in an
22 Information Request. And -- and I think that the
23 question that's been placed before you at -- on this
24 panel is: Of the various alternatives that you're
25 being shown, what will customers have to pay for in the

1 future? What are the bill impacts to customers in the
2 future with respect to these things?

3 The previous slide showed, basically,
4 the dispersion of the results of the bill impacts to
5 customers if we used a simplified set of assumptions by
6 taking a residential bill and extrapolating it through
7 this period of time with -- with rate increases based
8 on what would be shown by each of the different
9 alternatives.

10 The slide 30, then, is -- is really just
11 simply showing that the relative comparison between
12 provinces, that that relationship should remain the
13 same over this period of time, because there's no
14 information available to us that suggests that utility
15 costs are going to become dramatically cheaper in other
16 jurisdictions compared to where we are today in
17 Manitoba. So the relative relationship between our
18 rates and those other rates, you know, will not
19 diminish significantly.

20 DR. HUGH GRANT: If the world doesn't
21 change from it presently is, which is something that is
22 unlikely to happen. Can I just go back to the previous
23 slide, though? Because it's also --

24 MR. DARREN RAINKIE: Mr. Grant, may --
25 sorry. I just want to -- I -- I think there's a --

1 there's a easier way to summarize this. On this graph,
2 we were asked to do this, first of all. This is a
3 summarization that was the -- the assumption was put to
4 us that -- to assume 2 percent rate increases in other
5 jurisdictions.

6 But the -- the summation of this slide
7 is that even with 4 percent rate increases in Manitoba,
8 and comparing it against the unrealistic notion that
9 other utilities are going to increase their rates at
10 1.8 percent, or 1.9 percent, we still favour
11 comparably.

12 If you look at the last ten (10) years,
13 the rate increases in other jurisdictions, and you look
14 what's coming up from what's known, it's clear that
15 other utilities are not going to be, you know, only
16 asking for 2 percent rate increases over the long run.

17 So I think it was meant to say even with
18 that unrealistic assumption, we maintain
19 competitiveness in Manitoba. Sorry for interrupting,
20 sir.

21 DR. HUGH GRANT: If -- if you just go
22 back to 29 though, I mean, really what -- what real
23 lesson can be drawn from this? Because beyond the next
24 twenty (20) years, we're speculating about future
25 energy prices a great deal. But it would seem to me

1 what it's saying is that hydro-based developments are
2 going to have large capital outlays and it's probably
3 going to drive up rates more significantly in the next
4 ten (10) years than other plans would. And I think the
5 Preferred Development Plan probably has the highest
6 rates by 2023.

7 And then it's saying that if we make
8 these initial heavy capital outlays, which is going to
9 require some rate increases to do it, it has the
10 promise in, you know, the distance future, out twenty
11 (20) years or so, of lower rate increases.

12 And so it's -- I mean, I don't object to
13 this one quite so much, but it's -- I think it's
14 putting clearly the choice between us that we -- we
15 know Hydro has large capital outlays, it has the
16 promise down the road of lower increases, but we need
17 some higher ones immediately to finance it, versus
18 other forms of investment, which may have a different
19 profile for rate increase changes.

20 MR. GREG BARNLUND: Definitely -- I
21 mean, the scenario is that hydro facilities --
22 hydroelectric operations are very, very capital
23 intensive with very, very low operating costs, and very
24 long asset lives. So that's why the -- the graph
25 represents the way it does.

1 I think the important thing to note
2 though is in 2023 there isn't a significant amount of
3 difference in a monthly bill. Well, if we're talking
4 the difference between a hundred and ten dollars (\$110)
5 a month versus a hundred and fifteen dollars (\$115) a
6 month, all of the comparative alternatives are very,
7 very close, within -- within a very, very small range
8 in the first ten (10) years.

9 So it's not like that the preferred
10 development option becomes vastly more expensive in ten
11 (10) years. They're all very, very close within the
12 same range. But in the long term you see the
13 significant benefits that of the low operating cost of
14 a hydraulic system being borne out with a significant
15 difference fifty (50) years away from now, where you're
16 looking at the difference between a hundred and six --
17 a hundred and fifty-five dollars (\$155) for a monthly
18 bill versus two hundred and twenty dollars (\$220) for a
19 monthly bill.

20 DR. HUGH GRANT: Sure, but that's based
21 on a whole set of assumptions about future energy
22 prices out fifty (50) years from now. So I -- I take
23 the point. It's just -- yeah, I'll leave it at that.

24 THE CHAIRPERSON: I have a few
25 questions in relation to rate comparisons. I'm just --

1 some of them are relatively inane, but nonetheless, I'm
2 intrigued by them. In -- in terms of slide 23 you --
3 you've provided data for Regina.

4 Now, Saskatoon rates, would they be any
5 different? Would they be largely the same?

6 MR. GREG BARNLUND: Saskatoon has a --
7 has a municipal utility that serves the City of
8 Saskatoon. They purchase power from SaskPower. I'm
9 not exactly sure of the rates in Saskatoon. I'm -- I'm
10 sure they're going to be relatively close to what the
11 rest of SaskPower's rates would be, but I don't have
12 that information available.

13 THE CHAIRPERSON: And this data is --
14 this data is from -- is that from the Hydro-Quebec
15 study, or is that your own data that's showing up here?

16 MR. GREG BARNLUND: This data is
17 compiled by Manitoba Hydro every year in its annual
18 survey of retail electric rates.

19 THE CHAIRPERSON: Now, again, page --
20 slide 26, looking at residential price of electricity,
21 I wonder, this sort of preclu -- this sort of -- the
22 conclusion I draw from this is that we don't know what
23 the rates are. We -- we can't tell from this what the
24 rates are in neighbouring jurisdictions, North Dakota,
25 Minnesota, Wisconsin, who are buying power from us.

1 Do you have some sense of where they are
2 in this -- this picture?

3 MR. GREG BARNLUND: If you just give me
4 a minute, sir?

5 THE CHAIRPERSON: Okay.

6

7 (BRIEF PAUSE)

8

9 MR. GREG BARNLUND: We could undertake
10 to get some information for you at the break.

11

12 (BRIEF PAUSE)

13

14 MR. GREG BARNLUND: Yes, to provide
15 residential rates for, I believe you said, North Dakota
16 and Minnesota, and Wisconsin.

17

18 --- UNDERTAKING NO. 45: Manitoba Hydro to provide
19 residential rates for North
20 Dakota, Minnesota, and
21 Wisconsin

22

23 THE CHAIRPERSON: Now, realizing that
24 you will have the DSM information later on, I wonder if
25 it would be possible to extrapolate from that

1 information the extent to which a homeowner can
2 influence his bi -- his or her bill by adopting DSM.
3 In other words, for assuming that the -- the full DSM
4 is implemented, the -- the two (2) that we've been
5 talking about is implemented, to what extent can a
6 homeowner influence the ultimate bill that he gets
7 every -- he or she gets every month?

8 You know what I'm driving at? In other
9 words, I -- I would normally pay a hundred dollars a
10 month. If I implement DSM, I can reduce my bill down
11 to eighty dollars (\$80). So I -- you know, I wonder if
12 that information could be gleaned, and -- and I'll tell
13 you where I'm going here is that, you know, here we
14 are, telling the -- telling the ratepayer, You're going
15 to get a 3.95 percent increase. If everything goes
16 well, you'll get 4 percent a year for the next twenty-
17 one (21) years. So we should be able to tell the
18 ratepayer, You can do some things to reduce that cost,
19 and here's how much you can influence the ultimate bill
20 you get.

21 Now, the -- the reverse of that, of
22 course, is -- is the extent to which I adopt aggressive
23 DSM in my home. My part -- my -- my neighbour here,
24 Rick, is going to have to bear -- who's not going to be
25 adopting DSM, his bill is going to go up, and I -- I'd

1 like to be able to tell -- be able to understand that
2 as well.

3 But the more important thing for me is
4 to be able to say, Okay, you know, we -- we -- you will
5 be paying more, but you have the ability to influence
6 your bill by 'X' percent, because you will be given the
7 opportunity to adopt DSM.

8 MS. MARLA BOYD: I think we'll have to
9 take that one away, Mr. Chairman, and consult with our
10 load forecast and DSM panel. I'll certainly do that
11 with them, and we'll -- we'll certainly give you the
12 information if we can. My own thought is, there --
13 there's probably some issues in terms of figuring out
14 insulation levels and what the impact will be on a
15 customer-by-customer basis, but we'll certainly consult
16 with them.

17

18 (BRIEF PAUSE)

19

20 THE CHAIRPERSON: I think that's all
21 the questions we have for this segment of the
22 presentation, and I guess we have another segment to
23 come.

24

25 (BRIEF PAUSE)

1 MS. LIZ CARRIERE: Thank you, Mr.
2 Chair. For the next about six (6) slides, I plan on
3 flipping through them very quick -- quickly. They're
4 on the financial evaluation assumptions and
5 methodology, so if you'd require any clarification,
6 please let me know.

7 In contrast with the economic analysis,
8 which looks at the net benefit of each of the
9 development plans over the project life, the financial
10 evalua -- evaluation compares the year-by-year impacts
11 of each of the development plans on Manitoba Hydro's
12 projected financial statements and cust -- customer
13 rates.

14 The projected financial statements that
15 are -- can be found in Appendix 11.4 model the impacts
16 over the entire electric operation, so not just each of
17 the development plans, but it also includes the impacts
18 of ongoing operations of our existing infrastructure.

19 We -- we start out in the evaluation
20 with IFF12, and extended that over the fifty (50) year
21 period, and then we modified it for known updated
22 assumptions since IFF12 was approved, specifically the
23 2013 preliminary forecast of electricity export prices.

24 Now, as Darren mentioned, the
25 preliminary forecast was significantly lower than the -

1 - the final forecast. We reduced from IFF12 about 10
2 percent rather than the 3 percent, so it's a little
3 more conservative than the -- the final 2013 forecast.
4 Based on that export price adjusted IFF12, we then
5 modify the generation costs and transmission associated
6 with each of the facilities included in -- in the
7 development plans, and their -- and their respective
8 timing for those facilities.

9 Moving to slide 34, the cap -- net
10 capital expenditures for each of the development plans
11 are reflected in the balance sheet in construction in
12 progress until the in-service; and then once they're in
13 service, then property plant and equipment.

14 Once they're in service, capital costs
15 are reflected on the income statement in depreciation
16 on a straight-line basis over these full lives of the
17 assets. Hydro generation, depending on the component,
18 will have a twenty (20) to a hundred and twenty-five
19 (125) year life. The gas turbines we've assumed a
20 thirty (30) year life, and transmission substations,
21 thirty-five (35) years, and -- and transmission lines,
22 fifty (50) years.

23 We then incorporate the flow-related
24 production costs and revenues associated with the
25 facilities for each of the development plan. Now,

1 those are -- are the prod -- the net flow related
2 production costs and revenues, as well as the base
3 capital costs are the same costs and revenues that are
4 -- are used in the economic evaluations.

5 Moving to the next slide. The only
6 difference is that we convert those economic evaluation
7 costs and revenues from real to nominal dollars. In
8 Appendix 11.4, we -- we break down the general
9 consumers revenue into two (2) categories. The first
10 is the general consumers revenue at approved rates, so
11 we take the load forecast and apply the PUB approved
12 rates of the day.

13 Under each of the development plans,
14 these -- the general consumers revenue at approved
15 rates does not change from plan to plan. We then
16 calculate annual borrowing requirements based on the
17 cash flow, or surplus, or deficit for each of the
18 development plans based on both the existing
19 infrastructure and new -- and new generation, and
20 transmission associated with each of the development
21 plans. Annual finance expense is then calculated based
22 on the existing debt -- debt portfolio, plus the
23 projected annual borrowing requirements in each of the
24 plans.

25 On the next page, the second component

1 of general consumers revenue, once we've determined
2 depreciation, carrying costs, production costs and
3 revenues, we then look at the revenue requirement, or
4 the general consumers revenue additional, and it
5 reflects the incremental revenue required to recover
6 costs for both existing infrastructure and the
7 Development Plan.

8 Hydro has a longstanding strategy of
9 smoothing rates over a period of time in developing its
10 rate proposals. Under the cost-of-service regulation,
11 cost recovery is smoothed out over time by absorbing
12 some of those costs into retained earnings on a
13 temporary basis, if it's financially prudent to do so,
14 allowing sufficient time for export revenue benefits to
15 accrue.

16 Because we were evaluating eight (8)
17 development plans under twenty-seven (27) scenarios, we
18 needed to automate how we -- we set rates. So when we
19 normally do a -- a financial model or financial run,
20 you know, we -- we are able to kind of massage the
21 rates and -- and look at it on a one (1) -- on a case-
22 by-case basis, but because of the volume, we had to do
23 it in a mechanical manner, and so we've set a -- a set
24 of fixed parameters using the -- the financial targets
25 as -- as those parameters. And in order to do -- we

1 did that so that we would remove any of the judgment
2 and subjectivity in setting the rates and being able to
3 make fair comparisons between each of the development
4 plans.

5 So over the first twenty (20) years, we
6 set rates on an -- on an even-annual basis to achieve
7 75:25 by 2032, which, at the time, in IFF12, was the
8 same time when we returned to the -- the debt ratio
9 target of 75:25, so it was a similar approach in IFF12.

10 After 2032, we revert to maintaining
11 interest coverage setting rates based on maintaining an
12 interest coverage of one point two (1.2) times. If you
13 -- if you reduce or set rates at that time, you tend to
14 -- based on just lowering rates from that point
15 forward, then you tend to get equity ratios that just -
16 - just go kind of wild, so in order to maintain that
17 comparability, we left -- we -- we've targeted the
18 rates to one point two (1.2) times interest coverage.

19 However, in doing that, and you'll see
20 this in the graphs later on, strictly adhering to those
21 financial targets results in somewhat volatile rate
22 increases in -- after the 2032 period. In practice, we
23 would actually smooth those over time, but it's -- the
24 real value is in seeing the -- the differential between
25 the -- the development plans.

1 The rate increases, of course, because -
2 - due to the uncertainty of forecasting, they're
3 indicative and are showing the general directional
4 trend in rates. Actual rate increases will vary from
5 those, and will depend on many other factors, and --
6 and not just the choice of development plan due to
7 changing water flows, weather, and costs to maintain
8 the system, and economic variables. And of course,
9 future rates will be subject to the review and approval
10 before the Public Utilities Board.

11 Just a note on -- on development plans
12 where -- where Keeyask or Conawapa is deferred, we are
13 showing approximately 1.2 and .4 billion to be incurred
14 to June 14 on Keeyask and Conawapa respectively. For
15 the purposes of this evaluation, we made a simplifying
16 assumption that we would expense all sunk costs over an
17 eighteen (18) year amortization period. If we were not
18 to receive approvals for Keeyask or Conawapa, or the
19 Conaway -- or the Corporation deferred it for some
20 other reason, costs would be -- that were -- would be
21 deemed to no longer provide future benefit must be
22 expensed.

23 In practice, Hydro would periodically --
24 periodically analyse the nature of those costs
25 determined -- to determine that future benefit, and

1 some costs would have a longer expecter future benefit
2 than others. Others would be much shorter and would
3 have to be written off sooner.

4 Now, the next figure -- figure is Figure
5 11.1 from Chapter 11. Now, admittedly, it's very busy
6 and complicated, and provides a lot of information, so
7 the -- the remainder of the slides, we've simplified
8 them by reducing it down to three (3) plans, and the
9 first -- the next section, the first several slides,
10 we're going to focus on the reference scenario, and
11 then we're going to take a look at some of the
12 uncertainty around that reference scenario.

13 On slide 40, we have the Preferred
14 Development Plan. In the early years to 2032, we can
15 see rate increases of 3.95 percent. We see -- now, at
16 -- because of the -- the rate setting methodology we
17 use, we -- we see a bit of a correction factor after
18 2032, where we now switch to using the one twenty (120)
19 interest coverage target to set rates. And -- and as I
20 -- I said, in practice, these would much -- much more
21 likely be smoothed over time rather than introduce such
22 -- such significant changes in rates in any one (1)
23 year.

24 The rates over the entire fifty (50)
25 year period is about 1 1/2 percent if we were -- were

1 to smooth them -- or calculate an equal annual rate
2 over the entire fifty (50) year period.

3 In the -- in the period to 2032, the
4 absolute level of rate increases is not directly
5 attributable to the -- to the Preferred Development
6 Plan. As Mr. Rainkie and Mr. Barnlund mentioned before
7 me, that a good portion of those rate increases are
8 caused by the thirt -- the cost to -- the cost recovery
9 for the \$13 billion in assets that are already on our
10 balance sheet, the lower export prices we've seen more
11 recently compared to historically, and the investments
12 in aging infrastructure or our common capital that's
13 consistent from each -- under each of the development
14 plans, as well as our -- our progress towards reaching
15 75:25 again.

16 Now, we may have -- as we approach that
17 2032 time frame, depending on the cash flow -- level of
18 cash flows and our progress towards the 75:25 and our
19 other financial ratios, we may have some flexibility to
20 ease off a little bit on the rate increases and smooth
21 them over a longer period of time. It would probably
22 result in -- in delaying the time in which you get back
23 to 75:25, but may be mana -- manageable.

24 THE CHAIRPERSON: This graph looks very
25 strange. Am I just misreading it? You know, it kind

1 of implies a drop in rates.

2 MS. LIZ CARRIERE: That's the con --
3 correction factor.

4 THE CHAIRPERSON: I see a negative
5 drop. I mean, in other words, you actually get a -- to
6 get that kind of curve, you would -- you -- you would
7 think that that curve would -- would be sort of
8 flattening as opposed to actually dropping.

9 MS. LIZ CARRIERE: Yeah.

10 MR. DARREN RAINKIE: Mr. Chairman, that
11 -- that's a very important point, because, as Ms.
12 Carriere was talking about earlier, we've -- because we
13 had two hundred and sixteen (216) financial runs to do,
14 we didn't want -- we didn't -- we -- we couldn't just
15 go through and do subjectively for each. It would nev
16 -- wouldn't have possible to subjectively go to two
17 hundred and sixteen (216) different runs and say, Well,
18 let's have these rate increases in these first five (5)
19 years.

20 And so what we did was we did a
21 mechanical approach, where we put in rate increases --
22 or projected rate increases that would get us to the
23 75:25 by the end of 2032, and then after that, we put
24 in projected rate increases that would meet the one
25 point two-o (1.20) times interest coverage test.

1 And what happens is, once you build up
2 to that twenty-five (25), then there's this, as we call
3 it, the correction factor coming down. That's just a
4 function and the mechanical nature of the calculations.
5 In practice, we would not do that.

6 If you look at after the in-service of
7 Conawapa in this -- in this scenario, you see that
8 we're generating a significant level of net income and
9 cash flow in the latter years of the twenty (20) year
10 forecast. So what we would do is we would smooth that
11 out in practice, but it -- it -- this is just a
12 function of the mechanics, and I think it's an
13 important thing for the Board to understand the
14 difference between the mechanics and what we would do
15 in practice. And so I think that's why you have to
16 look towards the long-term trend. If we did it any
17 other way, you'd probably see these very jagged rate
18 increases, so you really have to, in your mind, draw a
19 straight line through this when you're comparing
20 alternatives.

21 And as -- as Mr. Carriere said, the
22 reality, too, in the next five (5) to seven (7) years,
23 before there's any new generation source in -- in
24 place, we will be looking at the 3.95 percent rate
25 increases if our forecast doesn't change. You know, it

1 -- once again, the mechanical way of calculating the
2 All Gas scenario, you're searching between two (2)
3 points, where you are now, and you're searching on the
4 25 percent equity ratio by thirty-two (32), and that
5 gives you a 3.5 percent even-annual increase over those
6 -- that twenty (20) year period.

7 And we did that because try -- we tried
8 to make this understandable for the Board. We searched
9 on a metric. We tried to find a metric on the rate
10 side that was like NPV on the economic side, something
11 that was understandable, rather than a series of, you
12 know, rate and chan -- changes up and down. The
13 mechanical search between those two (2) data points
14 gives you 3 1/2 percent on the All-Gas Plan, but the
15 reality is, in the next five (5) to seven (7) years,
16 there is no new generation source in. We would be
17 asking for the 3.95 percents under the All Gas Plan, as
18 well. In fact, there's more pressure under the All Gas
19 Plan, because we're amortizing some of the sunk costs
20 of Keeyask and Conawapa.

21 So you have to -- you have to look at
22 the mechanical nature of the calculations, and I think,
23 in your mind, make some corrections for how this would
24 work in practice. You know, we've seen in the media
25 that, you know, because of the Development Plan,

1 Manitoba Hydro's requiring 4 percent rate increases in
2 the next twenty (20) years. That -- that's not
3 correct.

4 In the next, you know, seven (7) to ten
5 (10) years, we are requiring rate increases, primarily
6 because of the refurbishment of existing infrastructure
7 and reliability expenditures, such as Bipole III.
8 That's not going to change between the development
9 plans at this point.

10 What we are, from an accounting
11 perspective and a rate perspective, is deferring any
12 costs of Keeyask and Conawapa until they come into
13 service. So I think it's important throughout this
14 panel that we make sure we understand the reality of
15 what will happen, the reality of the recommendations
16 we'll be making to our Board and to the Public
17 Utilities Board in terms of rates, and -- and recognize
18 that because we were juggling two hundred and sixteen
19 (216) sets of financial pro formas, we had to have some
20 mechanical methodology to eliminate some of the
21 subjectivity, and hopefully if we do our job in the
22 next couple days, we'll -- we'll take you through that.

23 MS. LIZ CARRIERE: Just to add to what
24 Darren has said, if we go to the next slide, we see
25 that we're -- we're plotting here the All Gas case with

1 the Preferred Development Plan, and you see that the
2 same correction factor is in this plan as well.

3 So the important thing to note here is
4 the differential between the plans, rather than the
5 absolute value. In the All Gas Plan, it results in --
6 in rate increases over the first twenty (20) years of
7 3.43 percent, and that 3.43 percent is a -- a result of
8 the same drivers as the -- as the Preferred Development
9 Plan. It's our investments and existing
10 infrastructure.

11 And, in fact, as Darren mentioned, under
12 the -- the All Gas Plan, there's -- there is greater
13 pressure to increase that -- that 3.43 percent even
14 higher, because in this scenario, there's -- the All
15 Gas Plan sees losses for seven (7) years due to the
16 amortization of sunk costs. Would we actually
17 implement three point four-three (3.43) and see
18 significant losses over -- over seven (7) years and a
19 deterioration in retained earnings balance? Not very
20 likely.

21 We -- we would likely have to implement
22 rate increases above that 3.43 percent, but for the
23 purposes of demonstrating the differentials between the
24 -- the plans based on the metrics, we're looking at
25 three point four-three (3.43) rate -- percent rate

1 increases.

2 Over the entire -- over the entire
3 period, you can see there's the fifty (50) year period.
4 We're looking at -- if we were to smooth out those rate
5 increases, we're looking at 2.1 percent rate increases
6 annually, compared to the 1 1/2 percent under the Pre -
7 - Preferred Development Plan. By the end, we're seeing
8 a 70 percent differential between the -- the All Gas
9 Plan and the Preferred Development Plan.

10 On slide 42, we're adding the -- the
11 Keeyask/Gas/750, or Plan 6, and you can see the -- in
12 the first twenty (20) years, the rate increases are
13 relatively similar to the -- the All Gas Plan at 3 1/2
14 percent per year. Over the entire period, we're
15 looking through -- over the fifty (50) year period,
16 you're looking at rate increases of about 1 percent --
17 1.8 percent per year, pardon me.

18 And it -- by the end, it's partway
19 between the cumulative rates by the -- 2062 are partway
20 between the -- the All Gas and the Preferred
21 Development Plan, with about 33 percent change in the -
22 - in the cumulative rates.

23 Because we don't quite have the DSM
24 evaluations ready yet, which would incorporate the --
25 the higher capital costs that you've heard about over

1 the preceding weeks, just as a proxy, we've -- we've
2 plotted the high capital cost scenario that was
3 prepared in August under your -- under reference
4 economics and reference export revenues to show you
5 that the approximate impacts of -- of that higher
6 capital costs on the cumulative rates.

7 Those in-service costs for -- are
8 comparable, and they result in slightly higher rate
9 increases. The -- under the Preferred Plan, the --
10 that scenario resulted in 4.27 percent rate increases,
11 but the Corporation may be able to manage maintaining
12 the -- the 3.9 perc -- percent rate increases by
13 deferring the time in which the -- or the year by which
14 the -- the debt equity ratio returns to 75:25.

15 On slide 44, it takes -- it takes the
16 slide 42 and converts it -- it takes -- removes the
17 inflation and converts it into real dollars. Now, we
18 can see that over the -- the fifty (50) year period,
19 that once we get past the -- the 2032 time period, we
20 see no real growth in -- in the Preferred Development
21 Plan cumulative rates, and moderate growth in the
22 Keeyask/Gas/750 and the All Gas Plan over the fifty
23 (50) year time frame.

24 In PUB-149(a), we filed a present value
25 analysis of the consumer's revenue. Based on economic

1 theory, we discounted it at the social time preference
2 rate, which addresses the relative impatience -- or --
3 or patience for consumption and intergenerational
4 equity. Higher discount rates would imply that we're
5 looking at a shorter analysis time frame, and places
6 later -- less value on -- on revenue, or consumer's
7 bills, or rate -- rates in -- in -- far into the
8 future.

9 The discount rate that was used in this
10 analysis is 1.86 percent real, based on projected real
11 return on short-term Canadian T-Bills, and they were
12 before income tax -- income tax adjustments. It
13 reflects Manitoba Hydro's investment in -- in a -- the
14 province's public infrastructure, and the long-lived
15 assets of a hundred years or more.

16 It doesn't reflect the weighted average
17 cost of capital, which is used in the economic
18 analysis, the -- because the cost of corporate debt and
19 equity are inherently included in the consumer's
20 revenue. Consumer's revenue is calculated, including
21 financing charges, so to then use a cost of capital to
22 discount consumers revenue is like -- is -- is double
23 counting for that cost of capital.

24 Additionally, in the uncertainty
25 analysis, we've accounted -- we've adjusted the

1 underlying assumptions and variables for risk, so to
2 use a -- a higher discount rate would also double count
3 that risk. It doesn't reflect the high investment
4 threshold for private sector represented by the cost of
5 capital, as that is used in the economic analysis.

6 So looking at the differential of the
7 cumulative present value on the consumer's revenue,
8 we're seeing the Preferred Development Plan crosses
9 over the -- the All Gas Plan by 2046, which is
10 seventeen (17) years following the last unit in service
11 of Conawapa. Compared to the Keeyask/Gas/750 rates
12 under -- on a present value basis, are -- are lower
13 than the -- the Keeyask/Gas/750 by about 2050, which is
14 about twenty-one (21) years following the in-service --
15 the last unit in service of Conawapa.

16 By the end, we're looking at 2 billion
17 to \$3 1/2 billion benefit to customers by developing
18 both Keeyask and Conawapa, and the 750 interconnection.

19

20 (BRIEF PAUSE)

21

22 MS. MARLA BOYD: Mr. Chairman, that
23 concludes Ms. Carriere's portion of the direct -- that
24 section of the direct, sorry. I'm just wondering if
25 the panel would like a break at this point, or if you'd

1 like to carry on?

2

3 (BRIEF PAUSE)

4

5 DR. HUGH GRANT: At the risk of
6 delaying people's breaks, could you just go back to,
7 say, slide -- well, I want to come back to 46, because
8 I want to make the comment that I have no children, and
9 so I'm not particularly persuaded by this graph, but if
10 you went to slide 46, I don't understand the -- sort of
11 the accounting principles that go on here, but it would
12 seem to me, when you get this, you know, the cumulative
13 path, that the reason why you're getting this sharp
14 change -- yeah, this is fine. It's really you're just
15 saying you're changing your sort of -- the -- the
16 target that you're focussing on.

17 And so I'm just curious for the -- so
18 this initial twenty (20) year period where you're
19 talking about trying to restore the appropriate equity-
20 to-debt ratio, is this really an appropriate time to be
21 worrying about -- here -- here's what I want some
22 advice on.

23 What should I -- what should I be
24 concerned about with this debt-equity ratio? Why is it
25 important? Wh -- what's magical about the 75:25? And

1 in an era of historically low interest rates, is this
2 really a time to worry about getting my equity debt
3 ratio back to this sort of targeted level?

4 Isn't this -- isn't this a time to be
5 kind of loosey-goosey with our money and get over-
6 leveraged and stuff?

7 MR. DARREN RAINKIE: Mr. Grant, I think
8 I'll take that one, because there's a couple of really
9 good reasons to -- to -- for -- to look at this.
10 Number 1, the rate stability for customers in the
11 future is based -- is going to be based on our
12 financial strength. So we can't afford to say, Let's
13 be, you know, laissez-faire about our financial
14 strength. So certainly if we kick the can down the
15 road, we build up rate pressures for future
16 generations, which is not acceptable. It's
17 intergenerational inequity.

18 Secondly, we borrow the lion's share of
19 our money through the Province of Manitoba. And at
20 this point, and Mr. Schulz will go over this at -- in
21 his part of his presentation, our debt is looked at as
22 being self-supporting. We pay our own freight. When
23 credit rating agencies review the Province of Manitoba,
24 they push that debt off to the side and say, Manitoba
25 Hydro will cover that, so we're not, you know, applying

1 a credit rating to the Province of Manitoba assuming
2 that debt.

3 If we don't look at the financial
4 integrity and say it's unimportant of our -- of our
5 company over time, there's a possibility they could
6 look at that debt as being non-self-supporting and
7 negatively impact the credit rating of the -- of the
8 province. We don't think er -- it's ever going to come
9 to that, but those are two (2) good reasons why we need
10 to be very careful about this: rate stability and
11 ensuring that we continue to have access to low-cost
12 debt, both ourselves and the province.

13 DR. HUGH GRANT: No, I -- I understand
14 that point. It just seems that, clearly, Hydro has
15 decided at -- at some periods of time it's prudent to
16 actually have a higher debt-to-equity ratio, and at
17 times it's better to have a lower one. It just seemed
18 to me that in this climate of historically low interest
19 rates, the cost of driving your debt-equity ratio up --
20 it's -- it's less costly in this -- this climate than
21 maybe it had been in other ones. And so it's just
22 really a choice of between increasing ratepayers' fees
23 versus borrowing more heavily.

24 But can I -- and I'm -- I'm glad you
25 mentioned intergenerational equity, because that comes

1 back to my other point about the fact that I have no
2 children. It is interesting, because, you know,
3 combining the argument you've just made with the debt-
4 equity ratio in terms of that slide 46 showing this
5 pattern of rate increases.

6 I mean, what you're saying is that this
7 current generation should bear the cost. It's quite
8 different from some of the arguments you hear in the
9 press. It's that this current generation should bear
10 the cost of high -- high rates as a bequest to some
11 future generation, which, again, is going to appeal to
12 some members of the panel who have children, but not to
13 me.

14 MR. DARREN RAINKIE: Mr. Grant, a
15 couple of observations on that. As I mentioned
16 earlier, I don't foresee there being any differential
17 in the rate increases between any of the plans in the
18 next six (6) to eight (8) years. So the -- the rate
19 increases that we're looking at in the next number of
20 years are, as Mr. Barnlund indicated, directly related
21 to the reinvestment in aging infrastructure that we
22 need and other cost pressures.

23 Secondly, there is -- part of the
24 intergenerational equity argument that's missed by even
25 those individuals that don't have children is that your

1 rates -- your low rates today are based on investments
2 that have been made by past generations of Manitobans.
3 And we feel that it's appropriate -- I mean, this is a
4 continual investment business. This is what this
5 business is about. There's no time frame. Manitoba
6 Hydro is a capital company, 60:40 capital operating
7 company. It's always investing in assets.

8 So I've been asked before by people
9 around the table, Well, I'll never see the benefits.
10 The answer to that question is you already see the
11 benefits of Hydro generation in your current bills.
12 And I think it's fair from an intergenerational
13 perspective to continue to invest in that.

14 And as -- as Ms. Carriere said, the --
15 the change that you see, the correction factor, is a --
16 from moving from the debt-equity to the one point two
17 (1.2) interest coverage is a -- is a function of our --
18 of our -- the way we bake the financial calculations
19 into the model.

20 The reality is, is that we would smooth
21 -- we would smooth that out. And -- and we would -- at
22 that point, if -- if we are getting the kind of net
23 income and cashflow that we're projecting here, we
24 would look to the credit-rating agencies and say, Look
25 at, we're moving towards our -- our equity targets in -

1 - in a nice fashion. And we would probably take the
2 top off of that projected rate increase that you see
3 here. We would flatten it out, which would serve to
4 reduce any intergenerational equity consideration.

5 So I think in practice we can manage it
6 so there's very little inter -- intergenerational
7 equity between different generations of customers.

8 THE CHAIRPERSON: I kind of -- I kind
9 of consider the debt-to-equity as kind of a shock
10 absorber for the -- for -- you know, for Manitoba
11 Hydro. And I would -- I would have thought that you
12 would have put more emphasis on the interest coverage
13 ratio, because that reflects your ability to pay back -
14 - pay back interest costs on the debt that you've
15 incurred; and, to some extent, the capital coverage
16 ratio because you want to make sure that, you know,
17 you've got adequate funds to keep investing.

18 So I'm a bit surprised that you would
19 emphasize debt-equity to the extent that you have as
20 opposed to the more critical one, in my opinion, which
21 is the interest coverage ratio, which is the one you
22 have to sort of talk about when you meet your bond-
23 rating agencies and, I suppose, ultimately, the people
24 who buy your bonds.

25 MR. DARREN RAINKIE: Well, Mr.

1 Chairman, and, actually, in this financial analysis,
2 it's funny you mentioned that, I think we started out
3 by searching the -- or projecting the rate increases
4 based on the interest coverage ratio, but it -- it
5 resulted in this, you know, up and down movement of
6 rates. And I think the information provided to the
7 panel made useless. It just...

8 So we -- we searched on the -- on the
9 equity ratio because it was what the Board had seen in
10 IFF12, in terms of trying to get back to the 25 percent
11 by the end of the twenty (20) year period.

12 But we look at all the ratios as being
13 important. I think -- you know, and -- and the credit-
14 rating agencies look at interest coverage. But we also
15 have to look at the -- the health of our -- our balance
16 sheet. So I think we're trying to manage all of these
17 things simultaneously.

18 I -- I wouldn't take from the financial
19 analysis that one's of expre -- extreme importance and
20 the other one is not important. I -- I am concerned
21 when I look out. When I look at the interest coverage
22 that we have, it's, you know, coming up to, you know,
23 between one (1) and -- and one point one (1.1). I
24 think we -- we need to manage that carefully.

25 And, I mean, I guess that's the other

1 point here, is these are financial projections. But we
2 also, as the management of the Company, have to manage
3 our expenditures appropriately. And this is a long-
4 term, twenty (20) year financial projection, and it
5 stems out to fifty (50) years if you do the rate
6 analysis.

7 Obviously, we're -- management will be
8 taking actions in those years to try to manage that
9 interest coverage so that it isn't at, you know, point
10 eight (.8) or point nine (.9). And that's the other
11 factor, I think, that gets lost. You -- you'll see a
12 lot of quantitative information throughout all the
13 different panels and Intervenor experts.

14 And -- but there's also a management
15 actively looking at this at Manitoba Hydro and a board
16 actively looking at this and -- and making decisions
17 along the way. And, you know, we are looking at even
18 rate increases, and from a forecast perspective, a
19 three nine five (3.95). But if something happens and
20 we get into a bit of, you know, issue, we may have to
21 move that up or down, depending on the circumstance.

22 So I think it's just important to look
23 at what you're seeing in a long-term projection here
24 and that, you know, there is somebody managing the
25 situation, as well.

1 MR. MANFRED SCHULZ: Sorry, and if I
2 just may add as well, from a credit-rating perspective,
3 the credit-rating agencies will look at both the amount
4 of leverages reflected in the debt-equity ratio.
5 They'll also look concurrently at the interest coverage
6 ratios.

7 What we do find is they act and -- the
8 trajectory of the slope of the curves tend to be very
9 similar to one another. Ms. Carriere already alluded
10 to that. So when we're looking at -- and Mr. Rainkie
11 indicated this, as well, we look at all of these ratios
12 in concurrence and in cohesion.

13 The debt-equity ratio, it was part of
14 the presentation that I will yet -- has yet to come.
15 And we can perhaps have an expanded discu -- discussion
16 on it at that point in time. But the leverage in the
17 debt-equity ratio is a key one. Is there some
18 flexibility to move it? We'll show you in a later
19 slide the history going back to 1962 of the equity
20 ratio, and perhaps we can have that discussion at that
21 point in time.

22 But we need to have balance between the
23 performance against these ratios as well as against the
24 customer rate increases and so on. And we can
25 certainly -- and we're looking forward to having that

1 discussion as we continue.

2 THE CHAIRPERSON: Okay. It's probably
3 an appropriate time to take a break. Why don't we take
4 fifteen (15) minutes, and --

5 MR. BYRON WILLIAMS: Mr. Chair --

6 THE CHAIRPERSON: -- be back at 11:00.

7 MR. BYRON WILLIAMS: -- Byron Williams
8 here.

9 THE CHAIRPERSON: Mr. Williams, go
10 ahead.

11 MR. BYRON WILLIAMS: I wonder if I
12 might be permitted to ask a question of clarification
13 of Ms. Boyd, and then it may have some ramifications on
14 how long the break is.

15 Ms. Boyd, we understand from the
16 discussion of the Chair with Mr. Rainkie this morning
17 that the information presented today does not include
18 the DSM scenarios and that there'll be an update in
19 terms of those implications on the financial evaluation
20 provided on the 24th.

21 Am I also correct in suggesting that the
22 information does not fully reflect the updated capital
23 information that was presented on March 10th?

24

25 (BRIEF PAUSE)

1 MR. BYRON WILLIAMS: Leaving aside
2 slide 43 as a proxy.

3 MR. DARREN RAINKIE: Mr. Williams, if I
4 put my accountant hat on and get into the lawyer-to-
5 lawyer discussion here, if you look at slide 43, that's
6 the reason we put the reference/reference/high capital
7 case on the slide for the time being, is that it's a
8 reasonable proxy of the refined capital costs that we
9 saw earlier in the start of this proceeding. The DSM
10 will be layered on top of that for the material on the
11 24th.

12 MR. BYRON WILLIAMS: I -- I don't want
13 to preempt anyone's cross, but I -- I'm just trying to
14 understand. Presumably the revised capital
15 information, Ms. Boyd, will have -- will have
16 implications for the -- the analysis that's provided on
17 the 24th, as well?

18

19 (BRIEF PAUSE)

20

21 MS. MARLA BOYD: I can direct you back
22 to Manitoba Hydro Exhibit 90, which lays out the time
23 frame and some of the details of what's intended to be
24 provided on those dates. And -- and I think the point
25 that Mr. Rainkie was making is that the -- the material

1 that's before you now includes the high scenario, which
2 will assist in comparing to the new capital costs.

3 MR. BYRON WILLIAMS: Okay. Thank you.
4 I'll caucus with my colleagues at the break.

5 THE CHAIRPERSON: Okay. Let's break
6 and we'll see each other again at eleven o'clock.
7 Thank you.

8

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

10 --- Upon resuming at 11:04 a.m.

11

12 THE CHAIRPERSON: Apologize for the
13 slight delay. I believe we're ready to resume the
14 proceedings, so back to you.

15 MS. LIZ CARRIERE: Okay. Moving on to
16 the uncertainty analysis. What we've got in this graph
17 on -- on slide 48 is -- the solid line is the reference
18 scenario with -- the high/low/high scenario is on -- is
19 -- represents the top bar, and the low/high/low
20 scenario represents the bottom bar.

21 So this kind -- this represent -- these
22 -- these two (2) scenarios represent the kind of
23 outliers of the -- of all twenty-seven (27) scenarios.
24 Now, you'll note that this is based on the actual
25 scenario runs, and not the pro -- probability values

1 that were included in the original Chapter 11. So
2 these -- how -- you can use these to reference back to
3 the cumulative rates that are actually in the projected
4 financial statements in Appendix 11.4.

5 In the 2032 time frame the range of the
6 cumulative rates under the Preferred Plan can be from
7 41 percent to 210 percent, and by the end of the fifty
8 (50) year period we're looking at cumulative rates in
9 the range of -- of 38 percent to 222 percent. Moving
10 on to graph -- or slide 49, what we've done here is
11 plotted the high inflation interest scenario, or the
12 high economic indicator scenario with reference export
13 prices and reference capital costs, and similarly with
14 the low inflation and interest scenario.

15 What this shows you is that the
16 uncertainty in -- in the Preferred Development Plan is
17 predominantly due to factors such as interest and
18 inflation. Approximately 60 percent of the variable
19 can -- is contributed by this factor in -- by 2032, and
20 about 85 percent of the variability in -- in the range
21 of cumulative rates contributes to -- or the inf --
22 inflation and interest factors contribute to the -- the
23 uncertainty by 2062.

24 It's important to note that this isn't
25 solely caused by the Development Plan itself.

1 Remember, we still have the \$13 billion in assets and
2 refinancing of the debt tied to those assets, and once
3 -- once there's some -- some uncertainty related to
4 Keeyask and Conawapa until you get it in -- in-service,
5 but once that in-service, as long as those -- the --
6 the long-term financing that's tied to those -- those
7 facilities are -- are generally stable until the need
8 to refinance those as well. So a lot of the
9 uncertainty under high interest and inflation,
10 particularly in the middle period, is related to the
11 underlying infrastructure investment.

12 Moving on to slide 50, we've plotted the
13 low export/gas price and the high export/gas and
14 electricity prices, and you can see from this graph, is
15 that during the construction of -- of Keeyask and
16 Conawapa under the Preferred Development Plan, there's
17 -- there's a moderate amount of uncertainty until they
18 go into service, but thereafter, the -- the export --
19 electricity export prices and -- and gas prices have
20 much less of effect than -- than interest and
21 inflation. It accounts for about 30 percent of the
22 variability in -- in the 2032 time frame, and only
23 about 10 percent by -- by -- in the fifty (50) year
24 time frame.

25 Looking at capital costs, now this is

1 the -- the -- looking at the change in -- in base
2 capital cost estimates, so it would include interest
3 and escalation at reference on those higher or lower
4 inter -- capital costs, but you can see that capital
5 costs also only has a very moderate effect on the
6 uncertainty relative to the reference scenario in the
7 Preferred Development Plan. It's less than 5 percent
8 by the end of the fifty (50) year period, and about 12
9 percent of the variability in the interim.

10 On slide 52, we're looking at the
11 uncertainty, or -- or the range of scenario, the
12 twenty-seven (27) scenarios under the All Gas Plan. It
13 results in less uncertainty in the 2032 period, but
14 much greater uncertainty relative to the Preferred
15 Development Plan by 2062. At 2032, your cumulative
16 rates are between 51 and 94 percent, and by 2062, those
17 -- the range in -- in cumulative rates can be from 72
18 percent to 403 percent. By comparison to the Preferred
19 Development Plan, the highs are higher and the lows are
20 lower under the -- the All Gas Plan.

21 Similar to -- moving on to slide 53, and
22 similar to the Preferred Development Plan, the
23 uncertainty is predominantly caused in the -- in the
24 High Gas -- in the All Gas case due to the inflation
25 and interest factors. It accounts for about 75 to 80

1 per -- 85 percent of the variability.

2 And the reason why that the variability
3 is greater under the All Gas Plan, and you'll see this
4 in a later slide, is that in the All Gas Plan, there is
5 a continuous investment in gas turbines all through the
6 forecast. So we're seeing the effle -- effects of in -
7 - inflation and interest on those -- those future
8 investments in increasing the variability and the
9 overall rate increases, whereas in the Preferred
10 Development Plan, all -- essentially, once you have
11 Keeyask and Conawapa in service, you know, you're --
12 you're limiting the -- the variability in -- to that
13 period of time related to the Development Plan.

14 On page 54, we're looking at the high
15 electricity export prices, as well as gas prices, and -
16 - and conversely the low prices. In the period to 2032
17 the low gas results in higher rates. There's no new
18 generation, thermal or hydro, until a later period --
19 until the latter period. The variability is, again,
20 due to the existing system in that twenty (20) --
21 period to 2032.

22 After 2032, the converse is true, or the
23 high -- high gas results in higher cumulative rates and
24 the low gas results in lower cumulative rates due to
25 the higher cost of operating of the -- the gas -- the

1 gas facilities. It's also the opposite from the
2 Preferred Development Plan, where high gas export
3 prices result in lower rates.

4 And on slide 55, we are looking at the
5 sensitivity to the high capital cost scenario. We can
6 see from this graph that there -- there is minimal
7 impact due to the base capital cost on -- on gas
8 turbines. In fact, it's less than 5 percent over the
9 entire fifty (50) year period.

10 In -- in the interest of time, we
11 haven't graphed the uncertainty for the
12 Keeyask/Gas/750, or Plan 6. But what you can -- you
13 know, by inference it -- the -- the uncertainty falls
14 in between the -- the uncertainty that we see for the -
15 - the All Gas Plan and the -- the Preferred Development
16 Plan.

17 So in terms of the customer rate
18 analysis summary, under all of the scenarios that we
19 evaluated, we're looking at rate increase above the
20 rate of inflation due primarily to the investments in
21 infrastructure, and reliability, and the reduction in
22 the non-firm export prices. Rate increases in the
23 period to 2032 are moderately higher under the
24 Preferred Development Plan than All Gas and the
25 Keeyask/Gas/750.

1 Under the reference scenario, the -- the
2 Preferred Development Plan rates are lower than All Gas
3 and Keeyask/Gas by 2035, in a relatively short time
4 frame following the in-service of Conawapa. On a
5 present value basis, the Preferred Development Plan
6 revenue is lower than All Gas by 2046, and lower than
7 Keeyask/Gas/750 by 2050 -- by 2050, about a twenty (20)
8 year time frame following the in-service of Conawapa.

9 The costs of the Preferred Development
10 Plan do not directly affect Manitoba Hydro's
11 electricity rates today. Those costs are deferred in
12 capital until in-service, at which time they're
13 included in net income and revenue requirement, and
14 amortized over the lives of the associated assets.

15 Once in operation, the Preferred
16 Development Plan is expected to assist in maintaining
17 affordability and -- and competitive Manitoba Hydro
18 rates. The costs are spread over a very long time,
19 matching when customers receive those benefits.
20 Carrying costs commonly decline over time for hydro
21 generation assets. And exports offset the costs passed
22 on to ratepayers.

23

24 (BRIEF PAUSE)

25

1 MS. LIZ CARRIERE: So if we're ready to
2 move on, we can move onto the impact on Manitoba
3 Hydro's financial position.

4 MS. MARILYN KAPITANY: Can I just ask
5 one (1) question before you move on?

6 MS. LIZ CARRIERE: Sure.

7 MS. MARILYN KAPITANY: The top bullet
8 on that page where you talk about the customer rates, I
9 understand the existing infrastructure. Could you just
10 say a little bit about the reliability, what
11 reliability is going to be added in the -- the rate
12 increases? And also the reductions in non-firm -- non-
13 firm export prices.

14 Could you speak a bit more to those two
15 (2) parts of the rate increase?

16 MS. LIZ CARRIERE: So existing
17 infrastructure in major -- that covers all of the base
18 capital plus some of the rehabilitation and
19 refurbishment of -- of new -- or existing generating
20 stations and transmission lines, and so forth. There
21 are also new projects in -- related to improving
22 reliability, Bipole III being one (1) of them.

23 Reductions in the non-firm export
24 prices, this is where we're talking about we've seen
25 deterioration in extraprovincial revenues over the last

1 several years, and that's primarily due to the -- the
2 opportunity prices, so not our firm contracts, but the
3 opportunity prices in the export markets.

4

5 (BRIEF PAUSE)

6

7 DR. HUGH GRANT: Just one (1) very
8 small point, and this would compound your life and the
9 work you'd have to do, but in each of these sort of
10 uncertainty scenarios you're just saying, Suppose its
11 capital cost variable is higher than a reference point,
12 and we project that through for fifty (50) years,
13 right? Since a lot of this discussion is really about
14 timing and windows of opportunity and such, did you
15 ever run any scenarios to say, Suppose capital costs
16 are high over the next ten (10) years and then fall, or
17 -- you know, in -- in terms of breaking up this fifty
18 (50) year period into different sort of scenarios?

19 MS. LIZ CARRIERE: No, we didn't do
20 that analysis, because if you -- if you assume that --
21 we're looking prolonged periods of rises in capital
22 cost increases. Now, presumably, if it were to rise
23 and then fall, it would fall back towards the reference
24 price, so we intended that the -- the scenarios that we
25 looked at were kind of the outliers, not cyclical types

1 of analysis.

2

3 (BRIEF PAUSE)

4

5 MS. LIZ CARRIERE: Okay. So moving
6 onto slide 58 --

7 THE CHAIRPERSON: I wonder if we could
8 have a quick discussion. I mean, I -- it -- it's in
9 relation to capital costs and a scenario whereby the
10 capital costs of the nearby facilities are higher than
11 what was projected, so specifically, excluding Bipole,
12 you know, we are talking about a -- a major investment
13 in Keeyask, and we're talking about a very significant
14 investment in a transmission line, the total of which,
15 I think is about something in the order of 7 billion --
16 7 billion at the moment, seven (7) -- assuming -- I
17 mean, the -- the transmission line costs are -- are
18 kind of floating right now, but it's six point five
19 (6.5) for Keeyask, and then potentially 800 million for
20 -- for the transmission line, or I've -- have I got --
21 am I going too high, there?

22 If that -- what -- what -- let's --
23 assuming that figure is seven point three (7.3) or
24 something like that, and so that -- the -- they -- the
25 projects come in at, say, a billion over what we had

1 projected, so that would imply that interest costs --
2 we would -- we would pay half of that off -- well, a
3 quarter of that off to equity, to -- to retained
4 earnings, so that's -- that leaves 750 million.

5 And I'm looking at depreciation of what,
6 Mr. Rainkie, 50 million on that? I'm just guessing
7 here. I mean, humour me. Something in the order of
8 what, say, a 750 million -- or a billion dollar
9 investment overrun results in depreciation and interest
10 costs of what number? Give me a -- give me a figure.

11

12 (BRIEF PAUSE)

13

14 MR. DARREN RAINKIE: For lack of a fine
15 point, Mr. Chairman, let's say 8 percent, six (6) --
16 six (6) for finance, 2 percent for depreciation.

17 THE CHAIRPERSON: Yeah, and then --

18 MR. DARREN RAINKIE: Probably a little
19 lower than that, but --

20 THE CHAIRPERSON: -- translating that
21 into -- translating that into a -- into a -- a
22 percentage rate increase, we're looking at something in
23 the order of what, 10 percent? You know, or am I -- is
24 that too much, or -- if you wanted to maintain the boat
25 on an even keel?

1 MR. DARREN RAINKIE: The -- the
2 difficult part with those types of calculations, the
3 one (1) year in-service calculation, is that it's not
4 really a reflection of what really would happen. In
5 fact, when -- when you look at the -- I'm trying to
6 remember some of the -- the runs that -- and maybe this
7 will become clear when we file the runs with the higher
8 capital cost, is that -- is that even with the higher
9 capital costs of Keeyask and Conawapa, which were, I
10 suppose, approaching the order of a billion dollars, I
11 think it was a \$300 million change and a \$500 million
12 change, I think the -- the pressure on rates in the
13 first twenty (20) years would only be a quarter of a
14 percent.

15 And if you stretched out the timing of
16 the achievement of the 25 percent equity ratio, I think
17 we could still maintain the -- something close to the 4
18 percent. It's simply a function of the fact that once
19 you have these generating stations spinning, you have a
20 significant cashflow and net income, you know, at the
21 back end.

22 And one (1) of the things you have to
23 look at in a hydroelectric generating station is the
24 financial profile of it. People tend to look at the
25 first ten (10) years when it's in service. But the

1 financial profile of a hydroelectric generating station
2 is, yes, it's a lumpy piece of capital that comes in,
3 but as -- as we generate income from it to start paying
4 down the debt over time, the costs actually go down.

5 If you assume, you know, a normal
6 economy, where prices are gradually increasing, there
7 may be business cycles where it goes up and down, but
8 we're talking about a hundred-year asset here. The --
9 the revenues out of it are coming up, right. We have a
10 cost-of-service type of mentality, where we feather in
11 rate increases over time. We don't -- we don't take
12 the actual carrying costs of an asset and jam it right
13 into rates the first year.

14 When you combine all of those factors
15 into the -- into the mix and look at the financial
16 profile of a hydroelectric generating station, once you
17 have that, even if there are some cost overruns, and we
18 don't want that to happen and we're going to carefully
19 manage that, it still is a hugely viable -- it's still
20 the -- the cheapest, lowest cost electricity you're
21 going to get over the long run. And -- and it's
22 manageable because we don't take all of the carry --
23 the extra costs of -- of the overrun and jam it into
24 rates on year 1.

25 So it's -- it's -- sorry, that's a bit

1 of a long-winded answer, but you have to look at the
2 financial profile -- to understand the real answer to
3 that question you have to look at the financial profile
4 of a hydroelectric generating station and understand
5 what you're dealing with.

6 When we tend to do these one (1) year
7 revenue requirement calculations the year it comes in
8 service, it -- it results in a picture that just
9 doesn't -- doesn't make sense. And I think we're going
10 to get into that -- I've looked at Mr. Peters's book of
11 documents -- later.

12 But when you look at things -- when you
13 look at the financial profile, you -- you got to get
14 past the first ten (10) years where you're not
15 generating enough revenue to cover the costs. You have
16 to look at the entire time frame of that generating
17 station. And I think that's one (1) of the points
18 that's maybe miss here in the -- in the proceeding.

19 People tend to get scared at the upfront
20 investment, but they don't look over the long ,run.

21 THE CHAIRPERSON: Just, you know, it's
22 -- just to argue -- it probably is just to -- the
23 debate we're having, you know, the -- you've already
24 established what your revenues are. If you -- if you
25 make a mistake on the capital costs, there really no --

1 there are no more revenues to be obtained from the
2 marketplace other than what you can get from
3 ratepayers.

4 And I'm simply trying to establish a
5 worst-case scenario whereby something goes wrong in the
6 capital construction costs and that the impact of that,
7 in broad view, goes right to ratepayers at the -- at
8 the front end. I'm very concerned about the potential
9 that -- that our carefully crafted pictures that we're
10 drawing here, if we are wrong, the ratepayers get it
11 right on the chin at the front end.

12 And I just want to be convinced
13 otherwise.

14 MR. DARREN RAINKIE: That's what I was
15 trying to convince you, Mr. Chairman, in my rambling
16 responses, is that -- is that, if you had a cost
17 overrun of a billion dollars, I think was your
18 scenario, just for a round number, and if you assumed
19 the carrying costs were 8 percent, \$80 million, we
20 would not jam that into customers in the front end.

21 There is sufficient benefits from a
22 hydroelectric generating station over the hundred-year
23 life that we would smooth -- we would smooth that in
24 over time. So the customer would not all -- the -- the
25 customers at the front end would not pay the freight --

1 all of the freight, if you like, that we would allow
2 that through our cost-of-service rate-setting
3 methodology to come in over time.

4 Of course, customers have to pick up the
5 total cost of the Company over time. I mean, it's --
6 it's just the fundamental, you know, principal of
7 Manitoba Hydro. There's no shareholder here that's
8 earning a 10 percent return. We -- we work on behalf
9 of the -- of the ratepayer, and we have to get a decent
10 recovery of our costs over time to maintain, you know,
11 a financially viable company for customers. In the --
12 in the end, the retained earnings that we have are for
13 customers. They're not for a shareholder. They're not
14 for bonuses.

15 But the -- the beauty of a hydroelectric
16 generating station is that you have that flexibility.
17 If there are some things a little bit off the beaten
18 path in the front end, there's more than enough
19 cashflow in the back end -- well, and -- and starting
20 right when it starts to go in-service, to -- to cover
21 that off without needing to go directly to customers
22 and -- and tapping their pocketbook. And that's a
23 fundamental thing here, is understanding the financial
24 profile of the hydroelectric generating station.

25

1 (BRIEF PAUSE)

2

3 MS. LIZ CARRIERE: So on slide 53 we're
4 looking at the net income of electric operations under
5 the three (3) development plans reference scenario.
6 And what you can see is that each of the development
7 plans result in relatively low levels of net income in
8 -- in the first ten (10) years.

9 The All Gas Plan results in losses for
10 seven (7) years, mainly due to the amortization of the
11 sunk costs relative to the Preferred Development Plan.
12 And rates in practice would need -- likely need to be
13 adjusted higher so as not to substantially deplete
14 retained earnings over that ten (10) year time frame.
15 Net income over the longer term converges and -- and is
16 a result of the -- the adjustment of the -- the rates
17 to meet the one-twenty (120) interest coverage target.

18 On the interest coverage ratio, we tend
19 to -- it's almost a mirror image of the -- of the net
20 income graph. We're below target for twelve (12) to
21 fourteen (14) years under each of the scenarios. The
22 All Gas net losses on the previous slide also results
23 in interest coverage below one (1) for a number of
24 years.

25 While the interest coverage weakens in

1 the first ten (10) years, we -- we see improvements
2 thereafter and get back to -- to the one point two
3 (1.2) times target level in the 2026 time frame under
4 all plans; and under the Preferred Development Plan
5 it's once Conawapa is in service. The Preferred
6 Development Plan maintains the one point two (1.2)
7 times interest coverage taro -- target, assuming lower
8 rates over that time frame.

9 On slide 60, we're looking at the equity
10 ratio under each of the plans. The equity ratio
11 deteriorates to between 8 and 10 percent in each of the
12 development plans on this scen -- in -- in this graph
13 here. Rate increases of three point four (3.4) to
14 three point nine-five (3.95) return the debt-equity
15 ratio to 75:25 by 2032. And we see improvement in the
16 debt -- debt-equity ratio thereafter.

17 On slide 61, we've got -- we've plotted
18 the -- the net assets of the Preferred Development Plan
19 and the All Gas Plan. Now, this is where we're -- I
20 was mentioning earlier, we've also indicated where the
21 in -- in-service of each of the facilities are under
22 each of these development plans.

23 So we can see in Keeyask and Conawapa,
24 over a two (2) year -- year period, the seven (7) units
25 coming on line there. And then the Conawapa units 1 to

1 10 coming in -- in-ser -- into service over a three (3)
2 year period. And then you'll note much further down,
3 in the 2040 time frame, we're adding three (3) simple
4 cycle gas turbines for peaking capacity.

5 In the All Gas Plan, we're looking at
6 the addition of either simple cycle or combined cycle
7 over the entire fifty (50) year period to either meet
8 peaking capacity or energy requirements, but you'll
9 note that by the end of the forecast period in 2050s,
10 we're actually replacing the assets that have been put
11 -- put in service in the early '20s due to the thirty
12 (30) year expected life of gas turbines.

13 So you can see that we grow from about
14 13 billion to 37 billion under the Preferred Plan, with
15 net expenditures of about \$18 billion, and somewhat
16 surprisingly, we've got \$9 billion in All Gas net
17 expenditures and reach to \$32 billion by the end of the
18 for -- the fifty (50) year time period. So we're
19 really only seeing a differential in net assets of
20 about \$5 billion after depreciation -- accumulated
21 depreciation, and so forth.

22 On slide 62, we are looking at the --
23 the net debts that's none of -- that's our long-term
24 debt, plus our notes payable less sinking fund and
25 short-term investments. The Preferred Development Plan

1 reaches a peak at the Conawapa in-service date, and
2 declines over time as the assets depreciate and the
3 financing costs are -- are being paid down by export
4 and domestic customers.

5 The All Gas debt increases over time as
6 investments in gas turbines are made over -- over the
7 entire study period.

8 MR. DARREN RAINKIE: Mr. Chairman --
9 and I'll give Ms. Carriere a moment to catch her
10 breath, because these are two (2) of the most important
11 slides that you'll see in the slide deck, and I think
12 it's -- hopefully will provide a decent perspective for
13 the Board. This is what I was trying to go through a
14 few minutes ago.

15 You know, if you read the media report -
16 - reports about our Preferred Development Plan, people
17 are trying to set this up as this risky great big hydro
18 plan versus this tiny little gas investment that you
19 make at the -- at the front end, which is, of course --
20 slide 61 shows you a -- a quite different perspective.

21 What you're doing on the hydro side,
22 yes, it's a hydroelectric side. It's a much larger
23 investment, but what you have, then, is a very low
24 cost, fixed source of generating electricity, and it's
25 not a great big risky investment at the front versus a

1 little tiny gas turbine. It's a investment in a very
2 low cost, stable plant at the front end, albeit at a
3 higher -- you know, at a -- at a higher investment
4 versus a number of investments in gas plants over time,
5 and you can see that the balance sheet is fairly close
6 to convergence by the back end of this thing, if you
7 take a longer perspective on it.

8 Then you flip to page 62, and what you
9 see is that despite that larger investment at the front
10 end, the net debt converges under these plans. The
11 difference between assets and net debt, of course, is
12 equity. We have more equity at the back end with the
13 hydroelectric generating facility. This is what I mean
14 about the financial profile of a hydroelectric
15 generating facility.

16 You've got to take the long view on this
17 and take a look at it. It's not the risky hydro plant
18 versus the tiny little gas investment. It's the
19 stable, low cost, larger investment at the front end
20 versus a series of investments under All Gas, but in
21 the end, we end up with the same level of net -- of net
22 debt and higher levels of equity.

23 This is the Company's perspective on why
24 we believe, financially and from a rate perspective,
25 that this is the best plan to proceed on.

1 MR. RICHARD BEL: Excuse me, in -- in
2 slide 61, where's the cross -- or where does the -- the
3 Plan 6 -- Plan 6 must meet -- it's in between but
4 closer to where? It's not in this slide, Plan -- Plan
5 6, the Keeyask/Gas Plan.

6 MS. LIZ CARRIERE: You're correct. In
7 the -- Plan 6 you would see closer to the Preferred
8 Development Plan around the time when -- when the
9 Keeyask units are coming into service, and then it'll
10 sit slightly below that for the remainder of the
11 forecast period.

12 MR. RICHARD BEL: Okay. Okay, thank
13 you.

14 MS. LIZ CARRIERE: On slide 63, as
15 Darren mentioned, the -- the other side of the assets,
16 and -- and liabilities leaves retained earnings, and
17 under the Preferred Development Plan, we see retained
18 earnings that are consistently higher than the All Gas
19 Plan by about 2 1/2 to \$3 billion over the entire study
20 period.

21 Similarly, the Preferred Development
22 Plan is 1 to \$2 billion higher than the
23 Keeyask/Gas/750. Sufficient retained earnings is
24 critical to Manitoba Hydro's to be -- to absorb the
25 financial impacts of adverse events for a short period

1 of time in order to provide some protection to
2 ratepayers. One (1) of those events that we'll be
3 looking at is drought.

4 It's known to be one (1) of Hydro's
5 highest impact -- or a high-impact risk with a high
6 probability of occurrence, and this analysis analyzes
7 the recurrence of one (1) of the worst droughts on --
8 on record, or the lowest extended period of low water
9 flows. Because Hydro's system is predom -- or the --
10 predominantly is a hydro-based system, this risk exists
11 regardless of the development plan that we choose.

12 You can see in this graph that the
13 absolute value of retained earnings as at March 31st,
14 2026, with and without drought, and under both the
15 Preferred Development Plan and the All Gas Plan, the
16 relative impact to rate -- retained earnings is nearly
17 \$2 billion, and this is the result of the prot --
18 predominant -- predominantly based hydro system prior
19 to investment in either Gas or the Preferred
20 Development Plan. So we're seeing approximately the
21 same cost of drought under -- under either plan.

22 Now, these -- these costs are including
23 financing charges, and assumes that our rates are held
24 constant in -- in the base case, without drought that
25 we're using for comparison.

1 On the next slide, we're looking at the
2 -- the drought in the period -- the same drought
3 occurring in the period between '27/'28 and '31/'32.
4 So this is the -- the -- kind of the final stages of
5 construction of Conawapa, and Keeyask is in-service in
6 this case. The -- you can see that the relative impact
7 to retained earnings is higher in this later drought,
8 compared to the previous slide under both the Preferred
9 Development Plan and the All Gas Plan, rather than --
10 you know, in the previous, we were looking at about
11 approximately a \$2 billion cost of drought. We're now
12 looking at about 2 1/2 and 2 billion -- or one point
13 nine (1.9) to two (2) -- 2 1/2 and 2 billion.

14 The Preferred Development Plan impact --
15 drought impact is greater than the All Gas Plan due to
16 the need to run thermal -- thermal fuel options, and --
17 and power -- and purchase power. The Preferred
18 Development Plan retained earnings is higher in the
19 base case without drought, and so is better able to
20 absorb the impacts of a drought. And you can see that
21 the Per -- Preferred Development Plan with a drought is
22 a little bit higher than the All Gas Plan without a
23 drought.

24 On slide 67, we're looking at the same
25 drought again in a later period, and again, we see the

1 increase in the drought cost under the Preferred
2 Development Plan compared to earlier droughts. We're
3 now looking at, rather than 2 billion and \$2 1/2
4 billion impacts, that we're up to \$3.2 billion impacts,
5 but again, retained earnings are sufficiently high to
6 absorb the cost of -- of drought without adversely
7 affecting customers.

8 Again, retained earnings with a drought
9 under the Preferred Development Plan are greater than
10 the -- the All Gas Plan without drought.

11

12 (BRIEF PAUSE)

13

14 MS. LIZ CARRIERE: So just in summary,
15 on the financial impacts of -- on the financial
16 position, net income interest coverage and debt-equity-
17 ratio weaken initially, and then improve gradually to
18 2032 under all development plans. Net assets and
19 retained earnings are the highest under the Preferred
20 Development Plan.

21 The net assets under the All Gas Plan
22 grow steadily over the study period, and are only 5
23 billion, or 13 percent, lower than the Preferred
24 Development Plan by the end of the study period due to
25 the continuous investment in gas turbines over that

1 study period.

2 The Preferred Development Plan has the
3 highest level of net debt throughout the study period,
4 but declines following the hydro generation in-service
5 dates and converges with all the other -- the debt of
6 all of the other development plans by the end of the
7 forecast.

8 The All Gas Plan has the lowest level of
9 net debt initially, but increases throughout the study
10 period, converging with the Preferred Development Plan
11 by 2062. The Preferred Development Plan results in the
12 strongest projected balance sheet, with the highest
13 level of assets and retained earnings over the entire
14 study period.

15 And the impact of drought is greater
16 under the Preferred Development Plan. However, the --
17 due to the higher net assets and retained earnings, the
18 Preferred Development Plan is in a stronger financial
19 position to absorb the adverse financial impacts of
20 drought.

21 THE CHAIRPERSON: Could we go back to -
22 - could we go back to sixty-five (65), please? Could
23 you explain why there isn't more of a difference
24 between the two (2) alternatives here in relation to
25 that time period? You know, there are a lot of people

1 out there who say that if we had a -- a gas unit
2 available in Manitoba, the thought occurs that we can
3 pull on that unit to supply a Manitoba load. We don't
4 have to import power at high cost.

5 Why would there be much more of a
6 difference here than -- than that's -- than what's
7 showing up in these numbers?

8 MS. LIZ CARRIERE: Because at this
9 point in time -- whoops -- the -- the system is still
10 predominantly hydro, so you're still looking at, you
11 know, 95 percent of all of the electricity is coming
12 from hydro sources, so having a -- a CT come online at
13 this point doesn't alter the fact that the costs of --
14 of drought on the rest of -- of the existing system.

15

16 (BRIEF PAUSE)

17

18 THE CHAIRPERSON: But this one -- this
19 one is -- this one is, in effect, supplanting Keeyask.
20 If you go the All Gas route, you're supplanting the
21 construction of Keeyask. So, presumably, the amount of
22 power generated out of Keeyask would be impacting the -
23 - would be impacted by drought. Meanwhile, you're
24 running your -- you're running your -- your combined
25 cycle turbine, or your -- your single cycle turbine.

1 So having established that there's less
2 water flow, there would be less revenue out of Keeyask.
3 You wouldn't be importing with -- you know, wis -- with
4 -- I'm trying to make sure we -- we explain this,
5 because a lot of people are convinced otherwise.

6 This -- this data suggests that, faced
7 with a drought, the alternatives are the same, which is
8 not what most people believe.

9 MS. LIZ CARRIERE: In this scenario,
10 where the drought is between '21/'22 to '25/'26, first
11 -- firstly, the CT doesn't come in until about 2023, so
12 it's not there for the entire period of time. As well,
13 you're -- you're bringing it in to serve domestic load,
14 so it's -- the entire amount of the plant is not
15 available just to serve -- to replace -- displace
16 energy from the hydro generating stations, and -- but
17 there are still -- it's still -- it's not enough to --
18 to supply the reduction in the -- in energy produced by
19 all of the other generating stations on the
20 hydroelectric system.

21

22 ED WOJCZYNSKI, Previously Sworn

23

24 CONTINUED BY MS. MARLA BOYD:

25 MS. MARLA BOYD: You did well, Mr.

1 Chairman. We've brought Mr. Wojczynski back.

2 MR. ED WOJCZYNSKI: So much for
3 vacation. That -- that's a very good question, and
4 I'll -- I'll try and answer it without getting into too
5 much complication.

6 If you're -- when you have the gas
7 turbine, and you're counting on it for energy during
8 the drought period, and then instead of putting in --
9 in a hydro plant, as Ms. Carriere indicated, when --
10 the bulk of our energy in the system is still coming
11 from -- from a hydro. You put in a -- a number of gas
12 turbines, the vast majority of your energy most of the
13 time is still coming from the hydro plants.

14 But if you add another -- if you add a
15 gas turbine instead of the hydro, you have a -- a curve
16 of -- of -- on your -- on your hydro curve, when Mr.
17 Cormie and others were talking earlier, at one (1)
18 point, I think we showed a curve where the probability
19 of having to use imports or thermal happens, and if you
20 put your gas turbine in, instead of a hydro, you're
21 getting higher up the curve and increasing the amount
22 of thermal you'd have to use and the likelihood you
23 will have to use it.

24 So the -- the gas turbine, putting it in
25 doesn't inherently increase your -- your exposure to

1 drought given our base system, which is what Ms.
2 Carriere was indicating. We could give you a graphical
3 depiction of that, but I -- we don't have that handy
4 here right now. We could give you an undertaking, if
5 you like, given that it sounds like it's of some -- it
6 is of some significance.

7 THE CHAIRPERSON: Yes, an undertaking
8 would be appreciated, but I'll let you word it.

9 MR. ED WOJCZYNSKI: The undertaking
10 would be to provide a -- a graphical explanation, along
11 with words of why, when you add a gas generation, you
12 still have a major exposure to drought cost? I -- I
13 believe that would -- that -- that would be a way of
14 putting your question, Mr. Chair?

15 THE CHAIRPERSON: Yes, it would be.
16 And I think it -- you know, with particular reference
17 to the early decision, which, in my opinion, is the
18 Keeyask decision, so.

19 MR. ED WOJCZYNSKI: Yeah, so we'll do
20 it, not from the point of view of at the end of the
21 sequence, but at an early point in time, and we could
22 use something like the '25/'26 time frame. But as Ms.
23 Carriere indicated, there is a bit of -- this is a
24 awkward time to deal with, because it -- your gas
25 turbines's only coming in halfway through. So we'll

1 probably give something that's a little bit more
2 simple, where it's at the end of the time period when
3 it's fully in, so that we get the full impact of that
4 first gas turbine. Thank you.

5 THE CHAIRPERSON: Thank you.

6

7 --- UNDERTAKING NO. 46: Manitoba Hydro to provide a
8 graphical and textual
9 explanation of why, when
10 adding a gas generation,
11 there is still a major
12 exposure to drought cost

13

14 MR. MANFRED SCHULZ: And now to, as Mr.
15 Rainkie says, bat clean-up, using the baseball term,
16 I'll continue on with the financial risk management and
17 bring the presentation to a close. The next slide,
18 number 70, indicating that the risk management is
19 integral to the NFAT submission. Manitoba Hydro
20 considers business risk as an integral aspect of its
21 plans and operations.

22 And Manitoba Hydro's financial risks,
23 forecasts, ratios, evaluations have been extensively
24 examined, as Ms. Carriere has indicated in Chapter 11
25 and Appendix 11.4, two-hundred and sixteen (216)

1 distinct set of pro forma financial statements.

2 And the financial volatility of severe
3 drought was also examined in the NFAT filing, for
4 instance in Section 11.4. Ms. Carriere just spoke a
5 little bit about that, as well. And the submission
6 also includes flexible pathways to manage through
7 future uncertainties, as well.

8 Moving to the next slide, financial risk
9 is manageable and the debt is self-supporting.
10 Manitoba Hydro, as Mr. Rainkie has indicated a number
11 of times already today, is embarking upon its
12 development plans from a position of strength. And as
13 measured by the equity ratio, the Corporation is well
14 situated to move forward with its upcoming capital
15 investments.

16 The next slide -- and my son would
17 probably laugh at me and call me a bit of a math nerd
18 for trying to tell the history of Manitoba Hydro
19 through sort of a numerical equity ratio, but perhaps
20 if I can. Again, this is a little bit for context,
21 much like Mr. Barnlund provided some context on the
22 rates, if I can spend a moment or two (2) on the
23 context of the equity ratio.

24 So looking at this from 1962 and then
25 the first phase of that northern development with Grand

1 Rapids, Kettle, Jenpeg, and Long Spruce, you can see
2 the equity ratio was sub 10 percent, and it moved
3 downward through that period up to 1978, where the
4 equity ratio was below 5 percent, in around 3 percent,
5 for instance.

6 Then the next period which we defined on
7 this chart as being the Period of Improvements in
8 Service and Reliability, as well as the construction of
9 Limestone. You see some plateauing and some choppiness
10 in here. You see a little bit of an attempt moving
11 upward in terms of a return, and then we have some
12 hydrology years where there was poor hydrology.
13 Nonetheless, somewhat plateauing in and around 10 -- or
14 5 percent in terms of the equity ratio.

15 Then the next phase occurs when
16 Limestone is in, and this major part of the northern
17 development is in. You see this very significant
18 upward movement in the equity ratio post-Limestone, and
19 this is the period of returns, surplus energy,
20 development of the export markets, and so forth. You
21 see the equity ratio moving forth very significantly
22 and far surpassing the levels where the equity ratio --
23 ratio was at the beginning of this northern
24 development.

25 You see a movement downward. That's the

1 drought and recovery period momentarily for -- with
2 respect to the -- the drought in '03/'04, but it also
3 included the time frame of MISO Day 2, as well as the
4 construction -- the planning and construction of
5 Wuskwatim.

6 So then you see at the -- the top part
7 of the blue, the historical aspect to -- with respect
8 to what Mr. Rainkie has numerously indicated. We are
9 in the strongest financial position in the history of
10 the Corporation, as told by the equity ratio. And this
11 is an excellent position to be well situated to move
12 forward.

13 As we do move forward, and you can see
14 this in the green bars on the far right, is the equity
15 ratio in our plans. This is in IFF13, and this
16 includes Keeyask and Conawapa. So once again you see
17 the pattern of the movement downward during the -- the
18 period of investments, and then you see here
19 graphically depicted, as well, the period of returns.
20 Ms. Carriere, in her slide number 60, also indicated in
21 that line chart, as well, the extension of the -- the
22 equity ratio through the forecast period, as well.

23 What you do see here is a number of
24 observations, is the observation of periods of
25 investment followed by returns. That's something

1 that's been in the nomenclature for Manitoba Hydro now
2 for a number of years. It's real. It has happened in
3 the past. It's certainly part of our forecast, that
4 you will see that moving forward.

5 If you look at the northern development
6 period starting in -- start the equity ratio and the
7 movement down on that, it took approximately thirty
8 (30) years for the recovery period to come back. So if
9 you look at 1966 to a period of 1996, if you draw a
10 line across, it took about thirty (30) years
11 approximately for the equity ratio to return back to
12 where it started.

13 Where are we now? Fast-forward to the
14 future. You see in the green bars we're looking at
15 something that's approaching twenty (20) to twenty-five
16 (25) years. So, Dr. Grant, further to your question
17 about how far can you stretch the -- the equity ratio
18 and what would be appropriate, what we've seen here
19 historically it's something that approaches thirty (30)
20 years.

21 So that -- that's part of what we are --
22 are looking at. But we would like, from a financial
23 risk perspective, if at all possible, to bring it into
24 a tighter bandwidth, just because of the uncertainties.

25 The other question becomes: How low can

1 you go? So in the forecast period, you see that in the
2 green bars as part of the IFF13. You're seeing that
3 the equity ratio sort of flattens out at around 11
4 percent. If you look historically through the period
5 of the northern development, which also had some
6 droughts, you're seeing it actually move quite a bit
7 below that period, what we're looking at now, and down
8 to below 5 percent.

9 We see as -- Mr. Chairman, you see the
10 equity ratios being a bit of a buffer and a cushion.
11 We see that as well. Again, these are all based on
12 average water flows and so on, so we always need to be
13 mindful of changing conditions. And -- and Ms.
14 Carriere and others will have spoke to that, as well as
15 other panels.

16 So as we move forward there's always
17 going to be changing conditions, but we need to be
18 mindful of it. But we want to have some shock
19 absorption to be able to -- to make sure that we can
20 rebound quickly, should there be any kind of drought-
21 type situations, or other capital cost movements, or
22 other kind of adverse situations. That's the equity
23 ratio as told through our history at Manitoba Hydro.

24 The next slide, slide 73, with respect
25 to Manitoba Hydro's borrowings, the Corporation

1 receives a flowthrough credit from the Province of
2 Manitoba. And in exchange for this flowthrough credit
3 and borrowing capability, Manitoba Hydro pays a
4 provincial debt guarantee fee to the Province of
5 Manitoba that's equal to 1 percent of the applicable
6 debt that's guaranteed. So we look at the amount
7 that's at March 31 and we apply 1 percent to that.

8 And as Manitoba Hydro makes interest and
9 principal payments to bond holders on an uninterrupted
10 basis, the debt is guaranteed by the credit rate -- was
11 considered by the cre -- credit-rating agencies to be
12 self-supporting. And therefore, and a fairly important
13 comment, to the extent that Manitoba Hydro prudently
14 manages its debt, and we believe that we do, and we
15 maintain a self-supporting status, Manitoba Hydro's
16 Capital Investment Plan should have no significant
17 impact on the Province of Manitoba's credit rating.

18 So in terms of the debt management
19 strategy, just a few words on this. Manitoba Hydro's
20 fundamental debt management objective is to do two (2)
21 things. One (1) is to be stable and to provide low-
22 cost funding to meet the financial obligations and
23 liquidity needs of the Corporation. Manitoba Hydro's
24 actual -- move to the next...

25 Manitoba Hydro's actual long-term

1 financings includes debt issuance in various terms to
2 maturity. And in order to mitigate the refinancing
3 risk, Manitoba Hydro will match long-lived assets with
4 long-term debt. Long-term assets, Ms. Carriere
5 indicated on -- on the Hydro side we look at it from up
6 to one hundred (100) plus years. And so we want to
7 have the matching of that with long-term debt as well.
8 And so as a debt management strategy Manitoba Hydro
9 will continue to favour long-term fixed rate financings
10 with maturities that are ten (10) plus years long.

11 So what does that mean in terms of our
12 actual performance? A little bit of a time lapse
13 historically. In terms of the low-cost dimension of
14 this, when looking at the debt portfolio and the
15 weighted average interest rates at -- at fiscal year
16 ending for each of these years, you can see -- taking
17 advantage of the low interest rate environment we've
18 been able to fairly successfully move the -- the
19 weighted average interest rate on the portfolio down.

20 So, for instance, from 2006 and '07
21 where it was nearly at 8 percent, we are looking at
22 '13/'14 to be in and around 6 percent. So a reduction
23 in the weighted average interest rates on the portfolio
24 by 2 percent, a fairly significant amount. The
25 forecast moving forward is for that to -- to be going

1 down, continuing. We don't know how long the interest
2 rate environment is going to stay low, but while we've
3 been here we've been doing our best to make sure that
4 we can bring that portfolio cost down.

5 Also, very important, though -- and --
6 and I think in the context of the NFAT is the notion of
7 stability. So it's not just the low interest rates
8 today, but -- but what's it going to be like moving
9 forward. So when we look at what is the weighted
10 average term to maturity for our long-term debt.

11 We have been taking actions during this
12 period of them, not only to reduce the interest rate,
13 but to extend the period of time to reduce the
14 refinancing risk. And so when you're looking at the
15 period of time and performance on this from 2006/'07,
16 where the weighted average term to maturity was in
17 around thirteen (13) years, now we're going to be over
18 sixteen (16) years. So we've increased that by a full
19 three (3) years.

20 When looking at what we've done, for
21 instance, in the last year, in the fiscal year that
22 we're currently in, or approaching to its conclusion in
23 '13/'14, the terms to maturity that we've undertaken
24 have ranged from three (3) to fifty (50) years. And
25 the weighted average of the new issuance that we've had

1 is twenty-eight (28) years.

2 So I want to sort of take a point on
3 that, that we've actually undertaken ultra-long
4 financings. In fact, the last piece of financing that
5 we took at Manitoba Hydro was a fifty (50) year piece
6 of financing that took us to maturity at 2063.

7 So not only are we taking advantage of
8 low interest rates -- and that interest rate on that
9 particular piece of financing I think was around 3.87
10 percent, not including the provincial debt guarantee
11 fee; a very, very low interest rate taking advantage of
12 this and having that over an extended period of time.
13 So there's no refinancing points along the way, so
14 reducing the interest rate risk.

15 So by undertaking these measures and
16 looking at that administrative environment we are able
17 to reduce the cost and achieve higher stability.

18 Moving on perhaps just to cover off some
19 other risks. Foreign currency exchange risk, they're
20 some -- to me, a little bit odd in terms of the
21 confusion. Sometimes there seems to be a thought that
22 there's a great foreign currency exchange risk between
23 our export revenues that are denominated in US dollars
24 and where we are in Canada and are we fluctuating and -
25 - and vulnerable to that.

1 Manitoba Hydro's net income is largely
2 inoculated from the fluctuations in the US/CAD rate.
3 And Manitoba Hydro has significant export revenues and
4 cash inflows denominated in US dollars. However, and
5 the next bullet indicates this, in order to maintain
6 and manage the foreign currency risk on these revenues,
7 Manitoba Hydro maintains a natural hedge.

8 So -- and I don't want to belabour the
9 point because I certainly would love to speak on this
10 for hours, but if I can just spend thirty (30) seconds
11 on this. We have revenues that come up in US dollars
12 to the extent that we have a natural hedge and have US
13 dollar outflows that manage the inflows, that the
14 exposure is just on the net difference.

15 And so if the US/CAD rate goes up and
16 down, the exposure level remains the same. And so as a
17 consequence of this, foreign currency risk in our
18 financial statements, when you look at both the
19 revenues as well as the offset that occurs on the
20 expense side primarily through finance expense, you see
21 that they balance one another out such that there's a
22 general inoculation towards foreign currency as a risk
23 for the Corporation.

24 Moving forward in terms of liquidity
25 risk. Liquidity risk, just to define that, is --

1 refers to the risk that Manitoba Hydro will not have
2 sufficient cash or cash equivalents to meet its
3 financial obligations as they come due.

4 And Manitoba Hydro will meet its
5 financial obligations when due through: cash generated
6 from operations, number 1; number 2, short-term
7 borrowings; 3) long-term borrowings; and, where
8 applicable, sinking fund withdrawals.

9 And Manitoba Hydro can issue short-term
10 borrowings in the name of the Manitoba Hydroelectric
11 board up to a limit of \$500 million. So that's -- in
12 effect, what we have is -- you can think of it almost
13 like an overdraft in terms of how much we have as our
14 short-term borrowing capability.

15 The next slide, just sort of to build
16 upon some of the discussion on risk, while there's a
17 discussion of risk about what it does for our
18 financials in the accounting, I just want to just
19 briefly touch on this from a cash perspective.

20 And so during a severe prolonged
21 drought, Manitoba Hydro will -- would provide
22 sufficient cashflows for the continuity of business
23 operations. I mean, we're going to continue to have
24 business as usual for Manitoba Hydro. That's what
25 happened in '03/'04. And Manitoba Hydro's debt will

1 remain to be self-supporting.

2 So what measures would we undertake?

3 There's three (3) measures, and we would use them in
4 some combination of -- and we talk about it generally
5 here, but the first one is cash conservation. So
6 Manitoba Hydro would curtail or delay its operating and
7 capital expenditures as required and as appropriate.
8 And in severe circumstances, this may include
9 exercising the optionality available within the
10 development plans.

11 But our first approach would be to see
12 what can we do, just -- and as any homeowner, any
13 person would do when faced with a situation, we would
14 see what can we do maybe not to have as many cash
15 outflows. And we would certainly and we would do that,
16 and we have done it and we would continue to do that.

17 The second piece to this is bridge
18 financing. I've already indicated that we have our
19 \$500 million short-term borrowing program; or,
20 alternatively, could access the capital markets for
21 shorter-dated debt. You know, could be one (1) year,
22 two (2) year, three (3) years, such that they could be
23 retired upon resumption of positive cashflow from
24 operations.

25 And thirdly, increase the cash inflows

1 through rate increases. And should circumstances
2 warrant, Manitoba Hydro could apply for higher rate
3 increases in order to generate additional cashflows.

4 So the view from the credit-rating
5 agencies is also important to this because you will
6 hear about what we believe and what we think. But what
7 did the credit-rating agencies have to say to this?
8 And as treasurer, I have been involved in the credit-
9 rating agency discussions for the entire time that I've
10 been in this post since 2008, and have had the personal
11 conversations with these folks.

12 And this is a quote from DBRS, Dominion
13 Bond Rating Service, on their report on Manitoba Hydro
14 in September of 2013. And this, I think, is also in
15 the book of documents; and it may be part of the cross-
16 examination from Mr. Peters later on today. But this
17 is from that report. This is -- indicate, actually, is
18 one of their rating strengths for Manitoba Hydro, and
19 again for the -- the conversation we've heard:

20 "Low-cost hydro-based generation --
21 low-cost hydro-based generating
22 capacity results in one of the lowest
23 variable cost structures in North
24 America, which has enabled Manitoba
25 Hydro to provide electricity to its

1 domestic customers..."

2 And this is highlighted. This is my
3 highlighting:

4 "...at one of the lowest rates on the
5 continent."

6 That's further to the comments that Mr.
7 Barnlund had made:

8 "And this gives the Utility the
9 flexibility to increase rates in the
10 future, especially in light of the
11 substantially heightened future
12 capital expenditure requirements."

13 What else is coming up? So the next
14 slide shows what Moody's has to say. So this is
15 Moody's credit-rating agency on their report on the
16 Province of Manitoba, dated July 23rd of 2013.
17 Highlighting was added by Hydro. And in this section
18 on page 3 of this report they indicate:

19 "Significant borrowings for Manitoba
20 Hydro, but self-supporting. Roughly
21 one-third (1/3) of the province's
22 total debt and indirect debt is
23 attributable to Hydro, but it is
24 considered to be self-supporting by
25 the credit-rating agencies."

1 And:

2 "This Crown corporation's -- Manitoba
3 Hydro's ability to meet its own
4 financial obligations without
5 recourse to the province and
6 subsidies is a positive credit
7 attribute to the province."

8 In highlighting here:

9 "In our view the likelihood that the
10 contingent liability represented by
11 Manitoba Hydro's debt would ever
12 materialize remains relatively
13 remote."

14 And then, finally, a fairly long quote,
15 and I won't necessarily read the whole thing out. You
16 can certainly do this. This is from Moody's credit-
17 rating report dated September 23rd of 2013, so not that
18 long ago. And they indicate in the -- in the title of
19 this section, which is, "Financial targets to be
20 challenged by higher capex." And 'capex' meaning
21 capital expenditures in this reference here. And they
22 indicate and have a discussion about the debt
23 management strategy and the expenditure levels.

24 So they are aware of the levels of
25 expenditures we have. They see our IFFs. They're

1 fairly sophisticated reviewers and analysts of our
2 performance and they look at all the utilities across
3 the country and -- and sovereign debt across the world,
4 and so on. And they come to a conclusion, as
5 highlighted. It's:

6 "Given the uptick in capex and -- and
7 corresponding debt, financial metrics
8 are predicted to fall below targets."

9 We've demonstrated that, and that seems
10 entirely logical. However, and I'll come to the
11 highlighting:

12 "We view Manitoba Hydro as being
13 capable of prudently managing debt
14 and mitigating such risk by seeking
15 rate increases and curtailing capital
16 spending to continue as a self-
17 supporting corporation."

18 So the view from the credit-rating
19 agencies is, yes, they see the challenges that are in
20 front of us. We see them, too. However, we are moving
21 forward and they still deem us to be prudently managing
22 the portfolio. And they see no reason to think that we
23 would be anything other than self-supporting moving
24 forward.

25 So in summary, on the financial risk

1 summary, there is three (3) of them that I want to
2 highlight. Firstly, Manitoba Hydro considers business
3 risk as a integral aspect of its plans and operations.
4 Secondly, Manitoba Hydro's financial risk is
5 manageable. And thirdly and finally, Manitoba Hydro
6 will continue to take appropriate actions to ensure its
7 debt remains self-supporting.

8 And so with that I bring to a conclusion
9 the formal piece of the direct evidence brought forth
10 by the finance panel. Open ourselves to any questions
11 we may have on this section or anything else. Thank
12 you.

13 THE CHAIRPERSON: I have a few
14 questions. In respect of slide 73 there is -- you
15 mentioned a provincial debt guarantee fee, which is 1
16 percent.

17 That fee has been in place for how long?

18 MR. MANFRED SCHULZ: There is an IR
19 that was provided in response, I think, to MPA. I
20 don't have it immediately at hand. But the provincial
21 debt guarantee fee, either in that name or some other
22 variation of a name, went back into -- I think into the
23 1960s. At that time I think it was one-quarter (1/4)
24 of 1 percent and it's moved forward. I think it's been
25 at 1 percent since 2006.

1 THE CHAIRPERSON: Now, the spread
2 between the provincial borrowing interest rate that
3 would apply in case of a -- direct provincial borrowing
4 versus Manitoba Hydro going directly to the marketplace
5 and being able to borrow on its own without reference
6 to the provincial government, I mean, that would be
7 speculative, but can we compare that to -- can we look
8 at other utilities in Canada and say, What are they
9 paying for their debt relative to what the provincial
10 government -- the appropriate provincial government is
11 paying?

12 Now, I think we heard some evidence
13 earlier that it ranges -- it ranges, but do you know
14 what that spread is? You know, an example of some
15 spreads between the rate the provincial government is
16 paying versus what the utility is paying?

17 MR. MANFRED SCHULZ: There's an air of
18 speculation. There's also an air of analytics that
19 would have to go into that, so part of -- and I don't
20 know if it's speculation, but, you know, what would the
21 credit rating of Manitoba Hydro be if it didn't have
22 the self-supporting credit rating and flow through
23 capability if we were our own operation and we were on
24 our own?

25 Hard to assess that based on where we

1 are now, but if we were to assume that we would be
2 investment-grade, and then, in that case, if you're
3 looking at what some of the other private utilities
4 might be having, you would see something that would
5 range depending on the term. Near-term and the shorter
6 term, there wouldn't be as much of a spread, but in the
7 longer term, there would be a spread that would be --
8 it could range up to three (3) and four hundred (400)
9 basis points, depending on the financial strength of
10 that entity you're trying to compare it to, or where we
11 would be.

12 So certainly not wanting to sort of say
13 with any kind of definitive air, Mr. Chairman, what
14 that amount would be, and it's not just as well the
15 interest rate. It's also the liquidity. So being part
16 of the province is not just about interest rates and
17 what the spread is. It's also the borrowing capability
18 to take on longer pieces of debt because of the -- the
19 guarantee that's provided by the province.

20 And so the combination of all of those
21 things, if you're looking at what's the value of the 1
22 percent, is that a good value for Manitoba Hydro? I
23 think the answer is that it's a fair exchange.

24 MR. DARREN RAINKIE: Mr. Chairman, I
25 just wanted to add one (1) other thing, and Mr.

1 Schulz's testimony remind -- reminds me of something
2 back in my past, and it's not only about the rate, but
3 it's about the ability to borrow and the covenants that
4 come with borrowing.

5 And in the old Centra Gas days, if we
6 didn't have two (2) times interest coverage, we
7 couldn't borrow a dime, so we often talk about the
8 rate, but part of being part of the provincial
9 apparatus, if you like, in terms of financing, and the
10 flow through of the credit rating, and paying the --
11 the 1 percent fee, is that we don't have any of those
12 types of covenants in our -- in our debt, and that's a
13 very important thing that's often missed, I think.

14 MR. MANFRED SCHULZ: And if, for
15 instance, we were to be on our own, our debt-equity
16 ratio, then, it's coming to the point, perhaps, that
17 Dr. Grant had made, our debt-equity ratio would need to
18 be far stronger in terms of being able to access the
19 liquidity that Mr. Rainkie just spoke to.

20 And -- and another clear example of that
21 was when we had the economic downturn in 2008. For all
22 intents and purposes, there was no break in continuity
23 when Lehman Brothers went bankrupt and all the
24 challenges that were had there. There was no real
25 liquidity challenge that was faced, other than the one

1 (1) or two (2) days where everybody was sort of
2 scratching their head.

3 Manitoba Hydro and the provinces and the
4 sovereigns were one of the earlier ones to be able to
5 readily access the market straightaway. So it's not
6 just about interest rates. It's also about the access
7 to the liquidity and cash, and -- and again, I think
8 that the provincial debt guarantee fee is a fair and
9 reasonable exchange for that.

10

11 (BRIEF PAUSE)

12

13 THE CHAIRPERSON: Now, one of the
14 issues that -- one of the ways in which you will -- you
15 -- you indicated that was open to Manitoba Hydro to use
16 in case of a liquidity issue was to use certain
17 borrowing -- long-term borrowing, and where applicable,
18 sinking fund withdrawals. Could you provide a little
19 bit more detail about that?

20 MR. MANFRED SCHULZ: So the typical
21 ways we would deal with this, first of all, is just
22 cash flow from operation, short term borrowings, long
23 term borrowings. As part of our sinking fund
24 requirements as mando -- mandated by the Manitoba Hydro
25 Act, we have to make contributions into the sinking

1 fund at 1 percent of our gross debt levels plus 4
2 percent of whatever balance there is in the sinking
3 fund at that time at March 31, and that's the
4 contribution we make forward.

5 The typical approach is for us is that
6 that money, which then gets invested in high quality
7 bonds and so on with the Province of Manitoba, is that
8 the withdrawals out of that are for debt retirement
9 that are slated and scheduled against that.

10 So the intention is for the cash to be
11 drawn out in accordance with any debt that might be
12 retiring at that point in time, so that's where we were
13 saying, "Where applicable," depending on where -- what
14 debt might be coming forth.

15 THE CHAIRPERSON: Now, the last drought
16 -- I'm looking at the slide 79. The last drought, '03
17 -- the last -- last drought, '03/'04, you used which
18 measures to address that drought? Which of these
19 measures were used in '03/'04? Do -- do -- were you
20 there at the time, or?

21 MR. MANFRED SCHULZ: I was not at
22 Manitoba Hydro at that time, so I wasn't privy to the
23 pleasures of that entire endeavour, but it's my
24 understanding that all of those would be used. And --
25 and, for instance, cash conservation is a natural

1 thing. That would be the first approach. That
2 certainly was used. There was bridge financing that
3 did occur, so there was a -- a slight movement forward,
4 and we -- on the \$500 million short-term borrowing
5 line, I think we were getting close to the top levels
6 of that, at which point, then, we converted it to long-
7 term debt, and were able to sort of replenish our --
8 our overdraft limit, if you will.

9 So that certainly did happen. In terms
10 of rate increases, it's my understanding that there was
11 an application moving forward in -- to receive some
12 additional increase at that time.

13 THE CHAIRPERSON: Could you remind us
14 the kinds of rate increases were applied, or does
15 somebody remember what the rate increases were at the
16 time that were applied? Rate increases to -- to
17 repairs.

18 MR. DARREN RAINKIE: Mr. Chair, there's
19 a tab in Mr. Peters' book of documents, I think, that
20 quantifies the financial impact of rate increases over
21 the last ten (10) years, and I think the percentages
22 are -- are included in that. If I can source that, I
23 could answer your question. My memory is getting bad.
24 When I do a new IFF, I tend to forget about the last
25 one. When I do a new application I -- well, I don't

1 necessarily forget about the last one, but I -- I don't
2 remember right off. Just give us a second. We'll
3 locate it.

4

5 (BRIEF PAUSE)

6

7 MR. DARREN RAINKIE: Mr. Peters is
8 always kind to -- to put --

9 MR. BOB PETERS: It's Tab 15, Mr.

10 Rainkie --

11 MR. DARREN RAINKIE: -- put the right
12 material in the -- his book of documents for me to use,
13 but yeah, if you looked at page 140. I'm not sure if
14 this has even been marked as an exhibit yet, but --

15 MR. BOB PETERS: We'll have to have it
16 put up on the screen, if you could give Ms. Villegas a
17 few minutes to -- or maybe just a few seconds would be
18 appropriate. Thank you.

19

20 (BRIEF PAUSE)

21

22 MR. MANFRED SCHULZ: And perhaps, Mr.
23 Chairman, while we're deliberating on this, if I can
24 just quickly provide the reference to you, in terms of
25 you asked the question, the historical starting point

1 for the provincial debt guarantee fee, that was in
2 response to MH/MPA-3(a) -- or 3(b) rather, was a -- a
3 quick description of it.

4

5 (BRIEF PAUSE)

6

7 DR. HUGH GRANT: Could I just ask one
8 (1) thing, just for my own clarification? On slide 72,
9 which is a great slide, it's a great economic history,
10 but...

11

12 (BRIEF PAUSE)

13

14 DR. HUGH GRANT: There we go. Yeah.
15 It's a great economic history. Your son's probably not
16 wrong, but it's a great economic history. I guess I
17 just want to try to understand the importance of the
18 debt-equity target, and would I be right to, first of
19 all, say that there's pretty much a direct tradeoff
20 between -- if higher rate increases will generally
21 yield a higher equity-to-debt ratio?

22 So if I put it this way, if you were
23 willing to tolerate a lower equity ratio over a longer
24 period of time, the -- the tradeoff might be you could
25 get away with lower rate increases?

1 Would that be generally correct?

2 MR. MANFRED SCHULZ: Perhaps I'll start
3 with this, and I'm sure Mr. Rainkie will want to jump
4 in on this as well. First of all, I acknowledge that
5 my son -- and when he categorizes me as a nerd, he's
6 probably correct. I don't shy away from that.

7 You know, Dr. Grant, there's the risk in
8 return to all of these things, obviously. And the --
9 the question of how low can you go and how long can you
10 stretch the elastic band of the equity ratio is a -- a
11 question, I think, that's germane.

12 We talked about how far can we move it
13 down the X-axis? I think the commentary would be that
14 you would want to return it as quickly as possible,
15 maintaining balance to all those other matters of
16 customer sensitivity rates and so on. How long can you
17 go is a matter of -- of risk, how much risk tolerance
18 Manitoba Hydro has and so on.

19 The caution here, and it's not just from
20 us, it's also from the credit rating agencies and
21 others who look at this, is how low do you go because
22 of -- of risks that you have that might be hydrology-
23 based or other things that may occur?

24 If -- if you go really low, you're
25 running the risk that adverse situations would have a

1 significant impact on the Corporation, and from my
2 perspective as treasurer, and Mr. Rainkie can probably
3 affirm this and probably add to it, we want to make the
4 risk as manageable as possible, and -- and lower and
5 manageable as possible, so I don't think we're wanting
6 to add and escalate and put more risks onto this.

7 If we were to get rate increases from a
8 cash flow perspective, and this is my perspective as
9 treasurer, there's certainly the aspects as an account,
10 and I -- I am that as well, in terms of the financial
11 statement impact and retained earnings, but from a
12 cashflow perspective, having rate increases provides
13 cash, and having those cash and having that impact not
14 only in the cash, but also on the accounting side,
15 provides an increase to the -- the cashflow that we
16 have incoming now from cash flow from operations to
17 give us that buffer as a proactive measure moving
18 forward.

19 So that's why you'll hear the argument
20 over and over and over again from us, saying that we
21 need to have these rate increases now and not wait
22 until we're at the equity ratios of eleven (11), and
23 that's why it's so important for us, even in the good
24 years, in the wet years, or, you know, the positive
25 years, it's not a time to start chiselling us back,

1 because what you end up having to do, then is having
2 the higher rate increases later.

3 And at that point in time, it becomes
4 problematic, and -- and so you'll hear this from us
5 repeatedly, perhaps. So the cash flow that comes from
6 rate increases is important proactively as we move into
7 it, because, at some point in time, you may -- if --
8 other things were, if you didn't take action, you would
9 end up having to have stronger rate increases, and we
10 would prefer not to do that.

11 MR. DARREN RAINKIE: Maybe I can just
12 add to that, as well, and it's -- I certainly don't
13 disagree with anything that Mr. Schulz said, but one
14 (1) of the other things to keep in mind is that all
15 these financial targets knit together, you know. And
16 so if you start reducing your equity cushion, your
17 interest coverage and your cap -- capital coverage is
18 going to suffer as well. So you -- you have to -- I
19 mean, I'm not going to get into the math of it with
20 you, but they all -- they all knit together in some
21 ways.

22 And as well, we would like to maintain
23 retained earnings sufficient to cover, you know, a -- a
24 five (5) year major drought, and so there's also, I
25 guess, a quantitative minimum, if you like, retained

1 earnings, from our particular perspective that we want
2 to maintain as well.

3 So all of these things work together in
4 ter -- in -- including, as Mr. Schulz said, trying to
5 maintain rate stability for customers. If we kick the
6 can down the road too much on rate increases, we run
7 the risk of then having higher rate increases in the
8 future and building up those pressures.

9 So -- so when we look at our financial
10 targets, we try to mesh all those things together, as
11 well as customer sensitivity. I mean, what you're
12 seeing here on this slide is a patient company, right,
13 that's not asking to return to its, you know, ratios,
14 you know, to two (2) years or three (3) years. We're
15 talking decades.

16 So I think we do demonstrate a -- a
17 balance between financial integrity, customer impacts,
18 and -- but ultimately, the customers pick up in a -- in
19 a decent regulatory regime, the costs of the Company.

20 If we kick the -- if we kick it down the
21 road, we're just putting customers at risk. I don't
22 enjoy the great balance sheet just because I like to
23 see a great balance sheet, as a -- as a CFO. It's
24 there -- it's there on behalf of the customers.
25 There's no -- there's no shareholder getting a return

1 and no bonuses being paid.

2 DR. HUGH GRANT: Yeah, okay. I guess I
3 just -- when I look at the green part and I see
4 prudent, wise management, and then my eye drifts back
5 to the light blue part, at a time when nominal interest
6 rates may have been hitting 15 percent and such. Now,
7 you're -- you're free to answer this, or -- because
8 they're probably all dead now.

9 Is -- were -- were you looking at a
10 period of incredibly reckless financial management of
11 Manitoba Hydro, or has the world changed that
12 dramatically from the '60s and '70s till this period
13 we're looking forward to?

14 MR. MANFRED SCHULZ: Well, I wasn't a
15 part of Manitoba Hydro back in the day.

16 DR. HUGH GRANT: That's why you're free
17 to speak.

18 MR. MANFRED SCHULZ: I -- I would -- I
19 would venture to say, and having worked with Mr.
20 Warden, who is well-known to the regulatory folks here
21 in his long tenure, it would be -- it would be
22 impossible for me to consider that it would have been
23 reckless in any way, shape, or form. The -- the level
24 of prudence that would have been undertaken to get us
25 here was at an exceedingly high level.

1 But, you know, you are where you are.
2 The context is where they were in the '60s to where
3 they are -- where we've grown now. I mean, it is an
4 achievement in terms of the growth and the balance
5 sheet and the strength of it, and as Mr. Rainkie said,
6 it's not just for -- for the aesthetics of the
7 accountants. It -- it's -- it's real and it's
8 beneficial to us.

9 The cautionary aspect on this, and --
10 and one that always needs to be balanced when we talk
11 about risk about, you know, the opportunity and the
12 risk. If you're looking at what happened in the
13 '03/'04 drought, and you can see that equity ratio
14 moving down there in that piece of it, is to make sure
15 that we have a buffer against that. So I would caution
16 against saying, Hey, we're good at eleven (11) and it's
17 perfect, and that, you know, we're never going to have
18 another risk.

19 - We want to have the ability to have that
20 shock absorption, and we want to have that as -- as
21 readily and as -- as earnestly as possible. And so I
22 wouldn't want to, sir, just assume away that we would
23 be able to not have any droughts and no impacts moving
24 forward. That's why we need to have the rate increases
25 now and need to have the strength now in moving

1 forward.

2 MR. DARREN RAINKIE: I would add, Mr.
3 Grant, that I think -- I think the attitude towards
4 government and quasi-government levels of debt has
5 changed over the decades, and probably going more into
6 the economics realm, which is not my -- not my forte.
7 I'm a -- an accountant by trade, but I -- I think that
8 perspectives have shifted. You know, when managing
9 things like inflation, whereas in those years,
10 inflation was fairly sig -- significant, as you would
11 recall.

12 So I think there has been a huge shift
13 in the thinking about this. I don't think it was
14 mismanagement. I think it was just a shift in society
15 over time, and -- and thinking on these matters. And -
16 - and certainly, you see most governments trying to
17 balance their books these days through austerity
18 measures, et cetera, et cetera, and so I think that
19 certainly is -- is all through, you know, government
20 and govern -- quasi-government agencies such as ours.

21 THE CHAIRPERSON: I believe all the
22 questions have been addressed, so I wonder if we should
23 recess now and resume proceedings at about a quarter
24 after 1:00. Does that sound appropriate, Ms. Boyd? Is
25 that enough for your team?

1 MS. MARLA BOYD: It -- it sounds fine,
2 sir. There's just one (1) matter that Mr. Rainkie was
3 pulling up the rate increase you had asked about, and
4 he has it available if you wanted to just finish that
5 off, and then we're -- we're ready for lunch.

6 MR. DARREN RAINKIE: If I can impose
7 upon the document management individual to pull up page
8 140 from Mr. Peters' Volume IV book of documents. You
9 can -- you can see that 2000 -- the 2004/'05, there was
10 a rate increase, shortly after the drought period, of 5
11 percent on August 1st, 2004.

12 What I was trying to recall is one (1)
13 of these rate increases, the Public Utilities Board
14 gave us a higher rate increase than what we -- than
15 what we asked for. And I -- I can't recall offhand if
16 that was one (1) of those cases. But at any rate, what
17 -- between what was asked for and what actually
18 happened, there was a 5 percent rate increase on August
19 1st, 2004, and then two (2) conditional rate increases
20 coming out of that of 2.25 percent on April 1st, 2005,
21 and 2.25 percent on March 1st, 2007, that were
22 ultimately confirmed by the Public Utilities Board.

23 Also, if you look at our historical
24 income statement, I don't think this should get lost in
25 the -- in the shuffle. While we had a loss, I think,

1 of something like \$436 million on a consolidated basis
2 in 2003/'04, the situation actually flipped quite
3 quickly, I think, two (2) years later.

4 If my memory serves me right, we had a
5 very good hydrology year, and we made the largest net
6 income the Corporation's ever seen in terms of 415 or
7 \$16 million. So Mother Nature had a bit to play in
8 that as well, along with the help of the Public
9 Utilities Board.

10 THE CHAIRPERSON: Thank you. I think
11 we should recess now and quarter after 1:00, please.

12 MR. KURT SIMONSEN: Mr. Chair, can we
13 enter Mr. Peters's exhibit as PUB 58-4, since it was
14 referenced in this conversation, if Mr. Peters is
15 comfortable with that?

16 MR. BOB PETERS: Thank you. Yes,
17 please.

18
19 --- EXHIBIT NO. PUB-58-4: MIPUG Volume IV book of
20 documents, page 140

21
22 --- Upon recessing at 12:32 p.m.

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

24

25 THE CHAIRPERSON: Good afternoon. I

1 believe we're ready to resume the proceedings. If
2 there are no administrative matters to attend to, we
3 will -- I will turn over the microphone to Mr. Peters,
4 please.

5 MR. BOB PETERS: Thank you, and good
6 afternoon, Mr. Chairman, panel.

7

8 CROSS-EXAMINATION BY MR. BOB PETERS:

9 MR. BOB PETERS: Good afternoon,
10 witnesses. As I often do, Mr. Rainkie, as I single out
11 who I will suggest is the -- the leader of the team
12 here at this time, and I'm not sure if that's accurate
13 or not, but I'll assume it's you because of your
14 executive position, and you will understand that my
15 questions are for the panel, and not necessarily any
16 individual. Would that be acceptable?

17 MR. DARREN RAINKIE: That's what we've
18 come to know and love, Mr. Peters.

19 MR. BOB PETERS: All right. And so the
20 best -- the best information that Manitoba Hydro has
21 should be provided to the panel, and my questions, Mr.
22 Rainkie, are not designed to elicit commercially
23 sensitive information onto the public record, and so if
24 you or any of your colleagues believe that you need to
25 provide commercially sensitive information to respond

1 to a question, that should be done by way of
2 undertaking, if that would be acceptable to you.

3 MR. DARREN RAINKIE: Yes, Mr. Peters.

4 And, fortunately most of our information is aggregated
5 at -- in -- in income statement line items, so I hope -
6 - hopefully we won't have much of that in this panel.

7 MR. BOB PETERS: And you didn't have
8 very many CSI IRs, if any, did you?

9 MR. DARREN RAINKIE: I've lost track,
10 Mr. Peters. I don't think so.

11 MR. BOB PETERS: Mr. Rainkie, way back
12 when your president was here, I had Manitoba -- I had
13 an Exhibit 58-1, and page 12 of that exhibit set out
14 Manitoba Hydro's development plans, and you'd be
15 familiar with that, would you, sir?

16 MR. DARREN RAINKIE: Yes, sir.

17 MR. BOB PETERS: And when we look at
18 the development plans that were embarked on by the
19 Company, were those development plans selected all by
20 Manitoba Hydro, or was there any -- and any external
21 input into those development plans?

22 MR. DARREN RAINKIE: My understanding,
23 Mr. Peters, is that was -- that was all part of our
24 normal resource planning process. I don't believe
25 there was any external input.

1 MR. BOB PETERS: Manitoba Hydro didn't
2 get a direction from -- from the government, or from
3 this Board in terms of any particular plans that should
4 be run?

5 MS. MARLA BOYD: We're back, Mr.
6 Peters, to communication between the government and
7 Manitoba Hydro, and it's not an area to be discussed.

8

9 CONTINUED BY MR. BOB PETERS:

10 MR. BOB PETERS: All right. Mr.
11 Rainkie, Manitoba Hydro didn't get any requests from
12 this Board as to what the Preferred Development -- or
13 what development plan should be tested, did it?

14 MR. DARREN RAINKIE: No, I don't recall
15 any direction from the Public Utilities Board in terms
16 of what should be tested.

17 MR. BOB PETERS: And none was sought?

18 MR. DARREN RAINKIE: I don't believe
19 so, Mr. Peters.

20 MR. BOB PETERS: And the same answer
21 applies to the Intervenor? Manitoba Hydro didn't ask
22 the Intervenor which development plan should be --
23 should be studied?

24 MR. DARREN RAINKIE: Once again, my
25 understanding is that's -- that's correct.

1 MR. BOB PETERS: And so on page 12,
2 which is shown on the screen in front of you, Manitoba
3 Hydro embarked on their economic analysis of those
4 plans, and even though Manitoba Hydro did the economic
5 analysis on those fifteen (15) plans, Mr. Rainkie, when
6 it came time for the financial evaluation, we see on
7 page 6 of Board counsel's book of documents that's
8 marked as fifty-eight four (584) (phonetic), that would
9 be the one that was handed out for the finance panel,
10 on page 6, Manitoba Hydro whittled down that number
11 from fifteen (15) down to eight (8) plans, on which a
12 financial analysis was going to be conducted, correct?

13 MR. DARREN RAINKIE: Yes, that's
14 correct, Mr. Peters.

15 MR. BOB PETERS: And again, how did
16 Manitoba Hydro select which eight (8) were going to be
17 the subject of the financial analysis? Do you know,
18 Mr. Rainkie?

19 MR. DARREN RAINKIE: I'll let Mr. --
20 Ms. -- Mr. -- Ms. Carriere talk about that, Mr. Peters.

21 MR. BOB PETERS: Thank you.

22 MS. LIZ CARRIERE: The eight (8) that
23 were selected were eight (8) of the more economic plans
24 that the -- the economic evaluation identified. You
25 know, obviously, we'd like to run all of -- all fifteen

1 (15) of them, but the process of -- of running economic
2 and financial evaluation is such that they have to run
3 much of the economic and evaluations before they can
4 pass on data for the financial evaluations, so they run
5 sort of consecutively.

6 So we don't have quite as much time in
7 the financial evaluations as they do in the economic
8 evaluations, so we had to -- to shortlist the -- the
9 list of fifteen (15).

10 MR. BOB PETERS: And now Ms. Boyd
11 referred Mr. Williams this morning to Manitoba Hydro
12 Exhibit 90, and Manitoba Hydro Exhibit 90 was Manitoba
13 Hydro indicating what additional studies would be done
14 based on new information this Board heard during the
15 week of March the 10th, 2014.

16 Am I correct with that, Mr. Carriere?

17 MS. LIZ CARRIERE: That's correct.

18 MR. BOB PETERS: And so when we look at
19 the -- page 1 of 2 of Manitoba Hydro Exhibit 90, we see
20 that under the financial analysis, there's a -- a
21 caveat there that -- here's the timing, but depending
22 on the ability of the panel who will be testifying, as
23 well as working on these issues, it's attempting to get
24 the following information.

25 And so by Monday, March 24th -- and I

1 understood that date is still on track. Did I
2 understand correctly?

3 MS. LIZ CARRIERE: That's correct.
4 That's my understanding.

5 MR. BOB PETERS: And this would be the
6 Preferred Development Plan only against different base
7 levels and options of DSM?

8 MS. LIZ CARRIERE: Correct.

9 MR. BOB PETERS: And that would update
10 it, would it, Mr. Carriere, for the capital costs of
11 Keeyask and Conawapa which have come in?

12 MS. LIZ CARRIERE: Correct.

13 MR. BOB PETERS: And does it -- will it
14 also ensure that the -- the investment in the 750 line
15 is done by Manitoba Hydro and not by a -- a third
16 party?

17 MS. LIZ CARRIERE: That's correct.

18 MR. BOB PETERS: Ms. Carriere, can you
19 inform the panel how long it takes to run a financial
20 plan once the -- once the economic data is dumped on
21 your desk?

22 MS. LIZ CARRIERE: Well, the answer is,
23 it depends. It's a -- a little more onerous to make
24 adjustments to the timing of capital, so that tends to
25 take a little bit longer, and -- but generally, if --

1 if it's just an adjustment to the -- the production
2 flows and so forth, we're seeing about a week to two
3 (2) -- two (2) weeks, and that's once all the data we
4 have in hand is finalized.

5 There's a fair amount of going back and
6 forth with the economic evaluation folks to ensure that
7 we're using and interpreting the data appropriately,
8 but it usually takes about one (1) to two (2) weeks,
9 depending on whether we have to adjust capital.

10 One (1) of the other items that tends to
11 take a little bit longer is where we have to adjust
12 load growth, or -- or the underlying load forecast.
13 That one will take a little bit longer, because all of
14 the -- all of the assumptions throughout then change.

15 MR. BOB PETERS: Now, on Manitoba
16 Hydro's Exhibit 107, Ms. Carriere, we -- this panel
17 heard from Manitoba Hydro, and, in response to
18 Undertaking number 30, some updated information was
19 provided based on some revisions that were made on
20 approximately March 10th of 2014. If we can look to
21 the next page of this we'll see the bar chart -- or the
22 bar graphing of -- of different plans.

23 Would the panel be correct in
24 understanding that from what's shown at the top of the
25 page in terms of the 2012 reference case, and there's

1 six (6) plans shown there, that Manitoba Hydro, based
2 on the newest information and the updated capital costs
3 and DSM, has only updated from an economic analysis
4 three (3) plans?

5 MS. LIZ CARRIERE: That's correct.

6 MR. BOB PETERS: And it's these three
7 (3) plans that are going to find their way -- or did
8 find their way to your desk for the financial analysis
9 to be run?

10 MS. LIZ CARRIERE: That's correct.

11 MR. BOB PETERS: And in terms of
12 numbering, which -- numbering these plans, there is
13 some movement in some of these plans in terms of dates
14 of capital in-service.

15 You're aware of that? For example,
16 Conawapa coming in on different dates.

17 MS. LIZ CARRIERE: Yes, I --

18 MR. BOB PETERS: Did that --

19 MS. LIZ CARRIERE: -- understand that.

20 MR. BOB PETERS: Did that necessitate
21 adjusting the capital for those plans, so that an in-
22 service date of '30 for Conawapa is going to have a
23 different run than an in-service date of '31, or an in-
24 service date of '33?

25 MS. LIZ CARRIERE: Yes, it would have

1 that impact.

2 MR. BOB PETERS: And yet -- and -- and
3 for purposes of our discussion, the K19/Conawapa/750 is
4 -- is what Manitoba Hydro is now considering it's
5 Preferred Plan regardless of the date of Conawapa?

6 MS. LIZ CARRIERE: Well, that's one (1)
7 of the plans we're evaluating, yes.

8 MR. BOB PETERS: And you're evaluating
9 it as the Preferred Development Plan for Manitoba
10 Hydro?

11 MS. LIZ CARRIERE: We're -- the
12 Preferred Development Plan is -- is the same as the --
13 the 2014 update with Keeya -- or Keeyask in '19, and
14 Conawapa in '26 with a 750 interconnection, and the
15 sales.

16 MR. BOB PETERS: Then if we -- if --
17 and -- and then, Ms. Carriere, if we look at the -- the
18 graph in front of you, we see under the solid line the
19 -- the 2013 DSM studies that are being done. We see
20 the middle plan is the K19/C26/750, and that's the
21 Preferred Development Plan as Manitoba Hydro has
22 labelled it?

23 MS. LIZ CARRIERE: That's my
24 understanding, yes.

25 MR. BOB PETERS: Okay. And if we go

1 down though, Ms. Carriere, to -- to look at some of the
2 other 2014 options of the -- of the groupings of three
3 (3) that are shown, one (1) of the groupings has both
4 Keeyask and Conawapa, correct? Each -- each grouping
5 has one (1) plan of --

6 MS. LIZ CARRIERE: Correct.

7 MR. BOB PETERS: -- that includes
8 Keeyask and Conawapa, correct?

9 MS. LIZ CARRIERE: Correct.

10 MR. BOB PETERS: And does that now
11 become Manitoba Hydro's Preferred Development Plan in
12 terms of the study that was done, or is there still
13 going to be a different run done with Conawapa at '26
14 instead of Conawapa in '30 and '31?

15 MS. LIZ CARRIERE: I don't believe
16 we've been asked to run a Keeyask¹⁹/Conawapa²⁶ with a
17 750 megawatt interconnection. I under -- my
18 understanding is that we are running -- taking from the
19 base level of DSM, and the purpose of running this is
20 to demonstrate the impacts of DSM in deferring
21 Conawapa.

22 MR. BOB PETERS: All right. And so
23 when we look at -- at the Exhibit 107 that's in front
24 of us on the screen, Ms. Carriere, which Preferred
25 Development Plan is finance running to have information

1 available for Monday, March 24th?

2 MS. LIZ CARRIERE: Well, under the --
3 the 2013 DSM base level, we will have the
4 Keeyask19/Conawapa26. Under Option 2, we will have
5 Keeyask19/Conawapa31. And under DSM Option 3, we will
6 have Keeyask19/Conawapa33.

7 MR. BOB PETERS: And each one of those
8 then is -- is what Manitoba Hydro is putting forth as
9 the -- as a Preferred Development Plan?

10 MS. LIZ CARRIERE: I'm not sure that
11 you would characterize the Conawapa31 or Conawapa33 as
12 a Preferred Development Plan any longer.

13 MR. BOB PETERS: All right. But can
14 you -- did I hear you correctly that you're not now
15 running the K19/C26/750 Plan anymore through the
16 finances?

17 MS. LIZ CARRIERE: Yes, we will run it
18 through with the DSM base level option. So in this
19 Exhibit 107, we will run three (3) cases exactly as
20 they're shown in -- in this -- this table -- or this
21 graph.

22 MR. BOB PETERS: And so the panel will
23 be clear, maybe we can scroll up a little bit on this
24 and just see the -- the bottom three-quarters (3/4s) of
25 the page.

1 (BRIEF PAUSE)

2

3 MR. BOB PETERS: Which now, of the
4 three (3) sets of three plans, should the Board expect
5 from the finance analysis?

6

7 (BRIEF PAUSE)

8

9 MS. LIZ CARRIERE: Mr. Epp is advising
10 me that there's a -- a level missing on here. We'll be
11 running, for March 24th, the 2013 DSM with the plans
12 that are there. We'll be running a 2014 Option 1 with
13 the plans listed there. And then a 2014 Option 2 and
14 Option 3 with the plans listed there. On March 31st we
15 are anticipating to bring then the analysis of the
16 Options 1, 2, and 3 with the pipeline load.

17 MR. BOB PETERS: And that's the
18 Preferred Development Plan with Options 1, 2, and 3 of
19 DSM?

20 MS. LIZ CARRIERE: Correct.

21

22 (BRIEF PAUSE)

23

24 MR. BOB PETERS: Now, on March 31,
25 under 2(b) on Exhibit Manitoba Hydro 90, the Board sees

1 that on March 31 there's going to be the Keeyask/Gas
2 run provided, correct?

3 MS. LIZ CARRIERE: That's correct.

4 MR. BOB PETERS: And it'll be run, as
5 well, with the base as well as Options 2 and 3 of the
6 DSM, all without the pipeline load?

7 MS. LIZ CARRIERE: As well as the
8 Option 1. There'll be a base level and then Options 1,
9 2, and 3.

10 MR. BOB PETERS: So you're adding
11 Option 1 to that list?

12 MS. LIZ CARRIERE: Correct.

13

14 (BRIEF PAUSE)

15

16 MS. LIZ CARRIERE: I stand corrected.
17 It is base, Option levels 2 and 3.

18 MR. BOB PETERS: Thank you.

19

20 (BRIEF PAUSE)

21

22 MR. BOB PETERS: And back to the -- the
23 Keeyask/Gas/750 that's being run. Is that considered
24 Plan 5 or Plan 6 by Manitoba Hydro?

25 Do you know the number that you're

1 putting on it?

2 MS. LIZ CARRIERE: It's Plan 5.

3 MR. BOB PETERS: All right. Again, if
4 we can go back to Exhibit 107, please, and we look at -
5 - under the solid line. Well, we can start at the top
6 of the page, Keeyask/Gas25/750, that's Plan 5.

7 Would that be correct?

8 MS. LIZ CARRIERE: That's my
9 understanding, yes.

10 MR. BOB PETERS: All right. And then
11 if we go down below that solid line and we look at the
12 first, Keeyask/Gas is now not '25, but it's '26.

13 And that's still being run as a Plan --
14 as a Plan 5?

15 MS. LIZ CARRIERE: Yes, Plan 5, but
16 assuming Gas in '26, correct.

17 MR. BOB PETERS: And for all of the
18 rest of the Keeyask/Gas shown on Exhibit 107, does it
19 assume that the in-service of the gas then is '26 and
20 not '25?

21

22 (BRIEF PAUSE)

23

24 MS. LIZ CARRIERE: I'm advised that the
25 -- the gas in each of the subsequent levels of DSM are

1 deferred. I'll have to get you the dates.

2 MR. BOB PETERS: All right, we'll --
3 we'll wait, Mr. Carriere, to see what -- what's filed.

4 MR. ED WOJCZYNSKI: Pardon -- pardon
5 me, if you go to Exhibit -- Manitoba Hydro Exhibit 104-
6 1, which was provided earlier, it provides the in-
7 service dates of the gas turbines in the various plans.
8 And what's being used in the financials is consistent
9 with what was done in the economics.

10

11 (BRIEF PAUSE)

12

13 MR. BOB PETERS: Ms. Carriere, should
14 the panel -- before you request a further run be done
15 from a financial analysis, is that going to add an
16 extra two (2) weeks to the time, in terms of delivery?

17 MS. LIZ CARRIERE: I'm not sure which
18 financial analysis you're requesting.

19 MR. BOB PETERS: Well, if -- if a full
20 set of financial analysis was to be run on a plan
21 that's not one (1) of the three (3) that Manitoba Hydro
22 was going to be working on between now and the end of
23 the month?

24 MS. LIZ CARRIERE: It would likely be
25 longer. What I did not include in that time frame

1 before is it's one (1) to two (2) weeks once the data
2 we receive is final. The back and forth between the
3 economic evaluation folks also takes a few days. And
4 then our own time to analyze and put in a presentation
5 format would add to that, as well, so it might be
6 longer than two (2) weeks.

7

8 (BRIEF PAUSE)

9

10 MR. BOB PETERS: If we go back to page
11 6 of PUB Exhibit 58-4, would the panel understand
12 correctly, Ms. Carriere, that Manitoba Hydro's analysis
13 will now be done on these remain -- on these three (3)
14 plans will -- will only relate now to Pathway 4 and 5?

15 There'll be no other pathways explored
16 in the -- in the updated financial analysis?

17 MS. LIZ CARRIERE: Yeah, Pathway 1 is
18 in there, as well, the All Gas.

19 MR. BOB PETERS: All right, thank you.
20 But there'll be no Pathway 2 or 3?

21 MS. LIZ CARRIERE: That's not my
22 understanding, no.

23 MR. BOB PETERS: There will be
24 additional plans from some of the other pathways?

25 MS. LIZ CARRIERE: No. Sorry, I mean

1 we are -- I don't believe we'll be analyzing anything
2 further in Pathways 2 or 3.

3 MR. BOB PETERS: And there'll be no
4 analysis of any 250 interconnection?

5 MS. LIZ CARRIERE: That's my
6 understanding.

7 MR. BOB PETERS: Mr. Rainkie, if -- if
8 for any reason the province of Manitoba directed
9 Manitoba Hydro to -- to go with a 250 interconnection,
10 then Manitoba Hydro is going to do its level best to
11 make that option work. Would that be a fair
12 assumption?

13

14 (BRIEF PAUSE)

15

16 MR. DARREN RAINKIE: Mr. Peters, I
17 guess my understanding from listening in on the
18 transcript from time to time has -- has been that that
19 option isn't possible any longer, and I'm -- I think
20 we're asking the -- the government for a -- a
21 particular plan. I'm not sure if they're directing us,
22 and I -- I might not be the -- the best person to ask
23 on -- in that regard, but my understanding was the 250
24 line wasn't a real possibility at this point any
25 longer.

1 MR. BOB PETERS: Well, Manitoba Hydro
2 has put evidence forward that it now prefers the 750
3 interconnection for the reasons that this panel heard
4 from Manitoba Hydro's previous witnesses, correct?

5 MR. ED WOJCZYNSKI: Pardon me.
6 Manitoba Hydro has not said that we prefer to do the
7 seven fifty (750) over the two fifty (250). What we
8 said is that the two fifty (250) option, as it stands
9 now, is not a viable option, and is not an option
10 available to Manitoba Hydro. It's off the table. We
11 didn't say we prefer one over the other.

12 We said the two fifty (250) plan is not
13 a viable option, and physically you can do a two fifty
14 (250) line, but the business case and the negotiations
15 that were associated with it would no longer be ones
16 that would, in all likelihood, be one that we can move
17 forward with, even if we tried to.

18 MR. BOB PETERS: Mr. Wojczynski, if the
19 province of Manitoba, for whatever reason, determined
20 that a 750 interconnection, under the terms proposed by
21 Manitoba Hydro, was not supported by the government,
22 but rather, the 250 interconnection was -- was directed
23 to Manitoba Hydro, would it not be the case that
24 Manitoba Hydro would do its level best to try to put
25 together a business case on the 250 interconnection?

1 MR. ED WOJCZYNSKI: Mr. Chair and
2 panel, if the seven fifty (750) panel -- if the 750
3 megawatt interconnection plans were -- were -- we were
4 told by the government that we were not to pursue those
5 anymore, we would not have approval for them, but that
6 if we -- that what might be approved or would be
7 approved would be something like a two fifty (250)
8 plan, Manitoba Hydro would do its absolute level best
9 to pursue that as an option.

10 But the option of a two fifty (250) plan
11 would not look the same as it does now. We would have
12 to -- as Mr. Cormie indicated earlier, we would have to
13 go back to Minnesota Power and tell them we would like
14 them to stop the work they've been doing on the 750
15 Plan, including the Certificate of Need process and
16 everything else, and that we would like them to switch
17 to the two fifty (250), but also that the -- that we
18 would like to proceed with the purchase agreement --
19 the Power Sale Agreement that we have with them on the
20 two fifty (250).

21 And as Mr. Cormie indicated, there --
22 that the chances are that they would want to
23 renegotiate that, and we'd have to now go into an
24 extensive renegotiation process and prob -- and not see
25 the kind of same business case that we have at this

1 time.

2 MR. BOB PETERS: And those business
3 cases, Mr. Wojczynski, developed rather lately in -- in
4 this NFAT process in terms of the signed WPS agreement.
5 Would that be correct?

6 MR. ED WOJCZYNSKI: There was two (2)
7 aspects to this. One (1) is, as we communicated in the
8 IR process in December, and I referenced that in
9 testimony earlier last week, maj -- we had a major
10 concern that is an -- an increasing concern, but even
11 back in the fall we had the concern that we likely
12 would not -- there's a high chance we would not receive
13 regulatory approval in Minnesota for a two fifty (250)
14 option.

15 Secondly, since then, there has been an
16 increasing likelihood that, from the pure business side
17 of it as opposed to the regulatory side, that that
18 would no longer be considered acceptable by -- by
19 Minnesota Power, and that is what Mr. Cormie had
20 communicated, and that was more recent than the fall,
21 yes.

22 MR. BOB PETERS: Well, that was
23 communicated after March the 3rd, after the NFAT
24 started, correct? Wasn't it March the 10th that that
25 was put on the -- put before the panel?

1 MR. ED WOJCZYNSKI: I'm sorry, which
2 one, the regulatory one?

3 MR. BOB PETERS: Well, no --

4 MR. ED WOJCZYNSKI: The regulatory one
5 was December.

6 MR. BOB PETERS: Taking off the 250
7 interconnection pathway.

8 MR. ED WOJCZYNSKI: The -- our concern
9 and thinking that the -- the 250 pathway was not a
10 viable pathway was already an issue in the fall, which
11 is why we had the interrogatory with -- with the
12 expression of that concern in December already. After
13 that, the concern increased further. It's not that it
14 started in March. The -- the concern increased over
15 time, but it had started in the fall already.

16 MR. BOB PETERS: And the final decision
17 was made on March the 10th, 2014, to -- to take the
18 two-fifty (250) pathway out of the NFAT consideration,
19 from Hydro's perspective?

20 MR. ED WOJCZYNSKI: I wouldn't quite
21 say that, no. I would say that we -- prior to coming
22 here, we were thinking that would be the case, but we
23 waited until we had the panel 2 (sic) to fully
24 communicate that, and there was a -- a -- if you want
25 to call it 'the last straw' was when Manitoba Hydro was

1 looking at the impacts with the new capital costs, and
2 I believe Mr. Cormie explained that.

3 MR. BOB PETERS: So, Ms. Carriere,
4 would the panel be correct in understanding that there
5 will be no financial analysis based on the 250
6 interconnection put before them based on the newest
7 information Manitoba Hydro has received in respect of
8 the capital costs and the DSM information?

9 MS. LIZ CARRIERE: That's correct.

10 MR. BOB PETERS: And in looking at the
11 financial scenarios that were analyzed, Ms. Carriere,
12 you had explained with your graphs that the intent was
13 to have rate increases to get to a 75:25 debt-equity-
14 ratio by 2032, correct?

15 MS. LIZ CARRIERE: That was the
16 approach we used to -- to conduct a financial
17 evaluation for comparative purposes between the plans,
18 yes.

19 MR. BOB PETERS: And in doing your
20 evaluations, the variable that would change in your
21 spreadsheets would be what would be that -- that equal
22 annual rate increase to get to that 75:25 debt-equity
23 ratio under whatever plan you were analyzing?

24 MS. LIZ CARRIERE: Well, I don't have
25 spreadsheets, but, yes, we would vary the -- the even-

1 annual rate increase in -- in our analysis.

2 MR. BOB PETERS: And as I think you
3 indicated to Board -- to Board member Grant, that after
4 you achieved 75:25, you then mechanically went over to
5 an interest coverage ratio of one point two-zero
6 (1.20), correct?

7 MS. LIZ CARRIERE: That's correct.

8 MR. BOB PETERS: And that one point
9 two-zero (1.20) interest coverage ratio, Ms. Carriere,
10 it was previously one point one-zero (1.10), was it
11 not, in the not too distant past?

12 MS. LIZ CARRIERE: At one time, yes, it
13 was.

14 MR. BOB PETERS: Do you remember how
15 long ago?

16 MS. LIZ CARRIERE: No, not off the top
17 of my head. It's -- I believe it's in a response to
18 MPA -- MPA IR.

19 MR. BOB PETERS: The economic analysis,
20 Ms. Carriere, excludes the sunk costs, correct?

21 MS. LIZ CARRIERE: I'm sorry, did you
22 say the economic analysis?

23 MR. BOB PETERS: Yes, the economic
24 analysis that you received from your colleagues did not
25 include sunk costs?

1 MS. LIZ CARRIERE: That's correct.

2 MR. BOB PETERS: Maybe a better way to
3 put it is that the sunk costs were made the same for
4 every plan?

5 MS. LIZ CARRIERE: Theoretically, I
6 think the result is the same.

7 MR. BOB PETERS: All right. And from a
8 financial analysis, you can't ignore those sunk costs.
9 You have to somehow account for them, correct?

10 MS. LIZ CARRIERE: That is correct.

11 MR. BOB PETERS: And even in the plans
12 that don't include Keeyask or Conawapa, Manitoba Hydro
13 has added in sunk costs in the financial analysis?

14 MS. LIZ CARRIERE: In the plans that do
15 not include Keeyask and/or Conawapa, the costs incurred
16 to June of '14 are amortized over an eighteen (18) year
17 period.

18 MR. BOB PETERS: And those costs are
19 \$1.6 billion in total?

20 MS. LIZ CARRIERE: That's correct.

21 MR. BOB PETERS: One point two (1.2) of
22 that I think related to Keeyask, and 400 million
23 related to Conawapa?

24 MS. LIZ CARRIERE: Correct.

25 MR. BOB PETERS: And you say in over an

1 eighteen (18) year period, that would take it out to
2 2032, correct?

3 MS. LIZ CARRIERE: Correct.

4 MR. BOB PETERS: And Manitoba Hydro
5 selected that amortization period?

6 MS. LIZ CARRIERE: It was a simplifying
7 assumption for evaluation purposes.

8 MR. BOB PETERS: And does that mean,
9 Ms. Carriere or Mr. Rainkie, that a longer amortization
10 period could be directed by, say, the Public Utilities
11 Board if it was setting rates and that was one of the
12 costs Manitoba Hydro was trying to recover?

13 MR. DARREN RAINKIE: If your question
14 is for rate-setting purposes, yes, Mr. Peters. Whether
15 or not we could amortize that over that period on our
16 books would be dependent on whether rate-regulated
17 accounting continues over the long run. I think we
18 have to distinguish between rate setting and financial
19 statements because of that possibility.

20 MR. BOB PETERS: And at this point in
21 time, all indications are that rate-regulated
22 accounting will continue for Manitoba Hydro, Mr.
23 Rainkie?

24 MR. DARREN RAINKIE: At least for the
25 interim period, Mr. Peters. The International

1 Accounting Standards Board is working on a longer-term
2 project to which -- much like interim orders of the
3 Board, that doesn't mean that they won't go the other
4 way ultimately when they make their final
5 determination. But probably for a couple more years at
6 least, Mr. Peters, or two (2) to three (3) we have a
7 standard -- an interim standard that allows us to
8 continue to practice rate regulated accounting. What
9 happens after that point is uncertain at this point.

10 MR. BOB PETERS: This panel has heard
11 that back in, I think, the 1990 era, Mr. Rainkie,
12 Conawapa had its first review before the Public
13 Utilities Board.

14 And you're aware of that?

15 MR. DARREN RAINKIE: Yes, I wasn't
16 personally involved in that, but I understand it
17 happened.

18 MR. BOB PETERS: You were still in high
19 school, were you, Mr. Rainkie? Mr. Rainkie, at that
20 time -- are any of the costs from back then still on
21 Manitoba Hydro's books?

22

23 (BRIEF PAUSE)

24

25 MS. LIZ CARRIERE: It's my

1 understanding that the cost from that time period were
2 being amortized as part of the planning studies over a
3 fifteen (15) year period. There may have been another
4 portion that had an amortization of ten (10) years.
5 But I can't comment right now on whether there's any
6 unamortized portions left in that -- in that sunk --
7 the sunk cost total of the 400 million. I'd have to
8 confirm that.

9 MR. BOB PETERS: Would it be correct,
10 Ms. Carriere, that if the -- if the plan that was
11 ultimately the one that found approval was Gas/Keeyask,
12 you wouldn't then need to write off any of the Keeyask
13 sunk cost because that would still be in your planning
14 studies, in your planning horizon?

15 MS. LIZ CARRIERE: That's correct.

16 MR. BOB PETERS: And this \$1.6 billion
17 a year over the eighteen (18) years, you're looking at
18 roughly \$90 million a year that's being added to the
19 financial analysis to be recovered in -- in rates?

20 MS. LIZ CARRIERE: Yes, approximately,
21 assuming the eighteen (18) year amortization period.

22 MR. BOB PETERS: And so as long, Ms.
23 Carriere, as the Keeyask or Conawapa generating
24 stations are still in the planning horizon of Manitoba
25 Hydro, those costs would not have to be recovered as

1 sunk costs, would they? They would wait until the --
2 the plant came in service?

3 MS. LIZ CARRIERE: That's correct.

4 MR. BOB PETERS: In terms of on page 9
5 of Board counsel's book of documents, Ms. Carriere, and
6 we look at the Diagram 11.1, would the panel be correct
7 in understanding that the financial analysis looked at
8 the same probability distributions as did the economic
9 analysis?

10 MS. LIZ CARRIERE: Yes, we did.

11 MR. BOB PETERS: Now, we've heard
12 evidence that of these probability distributions, and
13 we go to the energy prices, the high had a 15 percent
14 probability, the reference fifty-five (55), and the
15 load thirty (30).

16 Is that the same numbers that you used?

17 MS. LIZ CARRIERE: That's correct.

18 MR. BOB PETERS: And then for the
19 economic indicators, the high probability was 35
20 percent, the reference was fifty (50), and the low was
21 fifteen (15), again, the same numbers you used?

22 MS. LIZ CARRIERE: That's correct.

23 MR. BOB PETERS: Now, here's where I
24 want to make sure the panel is corre -- is -- is
25 following you, Ms. Carriere, that when it came time for

1 Manitoba Hydro's filing, the probability of high
2 capital costs was 30 percent, the reference was fifty
3 (50), and the low was twenty (20).

4 Would that be correct?

5 MS. LIZ CARRIERE: That's correct.

6 MR. BOB PETERS: But on March the 10th,
7 that probability distribution changed, and the high
8 probability was then 20 percent, the reference became
9 sixty (60), and the low remained at twenty (20), also
10 correct?

11 MS. LIZ CARRIERE: I'd have to check.
12 We're in the process of running that analysis.

13 MR. BOB PETERS: All right. And the
14 reason for my question then, Ms. Carriere, is when
15 you're running your analysis, are you using the
16 probability distribution that was revised on March the
17 10th of 2014, or are you using the probability
18 distribution that was in the original filing?

19 MS. LIZ CARRIERE: We will use the
20 probability distribution that's consistent with the
21 economic evaluations.

22 MR. BOB PETERS: Is there -- are you
23 planning to file new expected values for the different
24 distributions?

25

1 (BRIEF PAUSE)

2

3 MS. LIZ CARRIERE: In our analysis,
4 we're only doing the reference case scenario, so the
5 probability distributions don't apply in this
6 situation, so we will not be providing an expected
7 value.

8 MR. BOB PETERS: So in terms of the --
9 the high/reference/low, and the twenty-seven (27)
10 different scenarios that were run, you're just going to
11 run a reference/reference/reference scenario and not
12 the -- and not -- not the twenty-seven (27) variations
13 of that?

14 MS. LIZ CARRIERE: That's correct.

15

16 (BRIEF PAUSE)

17

18 MR. BOB PETERS: In terms of the
19 financial analysis that you have before the Board, what
20 -- what, Ms. Carriere, are the -- what -- what's the
21 highest sensitive risk factor that you've -- you've
22 uncovered?

23 MS. LIZ CARRIERE: I think the slides
24 in the uncertainty analysis we saw this morning showed
25 that the economic indicators are the highest

1 sensitivity.

2 MR. BOB PETERS: And yet you're not
3 going to run a full suite of those for the -- for the
4 updated information? That's not your plan?

5 MS. LIZ CARRIERE: That's not our plan
6 at this time, given the timeline of this proceeding.

7 MR. BOB PETERS: And how long does it
8 take if the Board was to request that the -- that the
9 runs that are being done in terms of the discrete
10 scenarios would include different levels of the
11 economic indicators, the net present value measure?

12

13 (BRIEF PAUSE)

14

15 MR. ED WOJCZYNSKI: It's Ed Wojczynski
16 here. Just to provide some continuity from the
17 previous evidence, Ms. Flynn, who test -- she testified
18 that the information about the highs and the lows,
19 whether it's the economic indicators, the energy
20 prices, have not been developed by the Corporation, so
21 we're not even in a -- in a position to start doing
22 those right now. Those would have to all be developed,
23 and then the -- and then the runs made using that
24 information.

25 MR. BOB PETERS: Mr. Wojczynski, I

1 don't understand that comment to the panel. Does that
2 suggest that the probability distributions for the
3 energy prices and the economic indicators have changed?

4 MR. ED WOJCZYNSKI: They would change
5 for the 2013, yes.

6 MR. BOB PETERS: But Manitoba Hydro
7 hasn't -- hasn't run those yet?

8 MR. ED WOJCZYNSKI: No, we haven't.
9 We've been preoccupied with trying to get everything
10 for this process. It's the same people again.

11 MR. BOB PETERS: And I'm not pointing
12 fingers, Mr. Wojczynski, so -- so please don't -- don't
13 interpret my questions in that vein.

14 And, Mr. Wojczynski, if this panel
15 wanted those -- those scenarios run, what would be the
16 -- the timeline that Manitoba Hydro would require to
17 provide that information?

18 MR. ED WOJCZYNSKI: I'm afraid I don't
19 know and I'd have to take that as an undertaking. But
20 I would like to add that we already have strong
21 indications and much information about the impacts of
22 the variability using the 2012 information. And I
23 think with taking the information we're going to be
24 providing and are providing with the reference, that
25 one can use judgment to apply the vast amount of

1 information we already have on the effect of
2 uncertainties, and then transpose that using the -- the
3 new information on the reference case.

4 So I think the combination of the new
5 information with the reference case, combined with the
6 extensive information on the 2012 with the twenty-seven
7 (27) scenarios, in our view, would be sufficient to
8 make judgments on the economics and on the risks.

9 MR. BOB PETERS: What you're telling
10 the panel, Mr. Wojczynski, is that...

11

12 (BRIEF PAUSE)

13

14 MR. BOB PETERS: What you're telling
15 the panel, Mr. Wojczynski, is that, directionally, the
16 Board should be able to decipher which way
17 circumstances would go based on -- on different
18 probabilities, even though it wouldn't have the
19 precision of having those runs done?

20 MR. ED WOJCZYNSKI: It's -- it's not so
21 much the probabilities as -- as the evidence that's
22 being provided, such as what Ms. Carriere provided this
23 morning, giving an indication of how the results vary
24 due to capital costs or -- or economic indicators.

25 Those general indications would still be

1 valid whether we provided an updated one or we were
2 relying on the information already presented. So those
3 general conclusions, those general trends, would still
4 all be valid.

5 MR. BOB PETERS: It's the precision
6 that wouldn't be provided?

7 MR. ED WOJCZYNSKI: Yes.

8 MR. BOB PETERS: And on page 11 of
9 Board counsel's book of documents, the projected
10 cumulative annual percentage rate increases by
11 development plan, Ms. Carriere -- you thought your
12 slide was busy; likewise, this one -- this represents
13 the cumulative annual percentage increase for each of
14 the eight (8) plans that finance initially ran,
15 correct?

16 MS. LIZ CARRIERE: That's correct.

17 MR. BOB PETERS: And these aren't on a
18 net present value basis?

19 MS. LIZ CARRIERE: No, they're the
20 cumulative rates over the fifty (50) year period.

21 MR. BOB PETERS: And they haven't been
22 updated for the -- for the new capital and the no WPS
23 investment and the changed probabilities?

24 MS. LIZ CARRIERE: No, they have not
25 specifically been updated. But the -- like I showed

1 this morning, the high capital cost scenario which
2 falls within that range would -- would appear in -- in
3 that graph.

4 MR. BOB PETERS: Well, let's just talk
5 about that. Manitoba Hydro this morning said that if
6 you use the high capital -- and maybe we can -- we'll
7 just go back to slide -- slide 9, and -- page 9 in
8 Board counsel's book of documents, I apologize, page 9
9 of Exhibit 58-4, and we look, Manitoba Hydro is
10 suggesting to this panel that even though it doesn't
11 have the precision yet, the capital costs on a high
12 basis would be the proxy for what the expected rate
13 increases could be based on the new information from
14 March the 10th, 2014?

15 MS. LIZ CARRIERE: That's correct.

16 MR. BOB PETERS: And did -- did the
17 panel -- would the panel be correct in understanding
18 that, whereas before, the annual cumulative rate
19 increases were 39 -- 3.95 percent, if you used the
20 proxy for high capital costs, that three nine five
21 (3.95) would be replaced by 4.27 -- 4.27 percent?

22 MS. LIZ CARRIERE: That's correct under
23 the methodology we used for the evaluation purposes.

24 MR. BOB PETERS: I'm sorry, I missed
25 your -- your qualification on that, Ms. Carriere.

1 MS. LIZ CARRIERE: Based on the eval --
2 the methodology we used for the evaluation purposes. I
3 think we also said that we would be able -- likely be
4 able to maintain the three nine-five (3.95) if we allow
5 the debt-equity ratio to defer.

6 MR. BOB PETERS: Well, you could keep
7 three nine-five (3.95) -- I mean, you could keep 3
8 percent, I think I heard Mr. Rainkie say this morning,
9 if you wanted to let the debt-equity ratio slide even
10 further into the future, correct?

11 MR. DARREN RAINKIE: In this case, Mr.
12 Peters, I don't think it would be sliding more than a
13 year or two (2) into the future. So I think the -- you
14 know, from the analytical world, the differential was
15 the three nine-five (3.95) to the four two-seven
16 (4.27), as you're indicating, but in the real world
17 certainly management of Manitoba Hydro would try to
18 maintain the three nine-five (3.95).

19 And if we are able to obtain the level
20 of net income and cash flow that's coming in the late
21 '20s after the in-service of Conawapa, we would be
22 fairly easily able to let the equity ratio slip by a
23 year or two (2).

24 MR. BOB PETERS: That's a strategic
25 decision, Mr. Rainkie, where Manitoba Hydro would --

1 would want rate increases to be three nine-five (3.95)
2 and not above four point zero (4.0), just perhaps
3 optics if nothing else?

4 MR. DARREN RAINKIE: Optics and
5 sensitivity to customer rate increases, Mr. -- Mr.
6 Peters. Like we will do our best to hold the line in
7 our forecasts as best we can.

8 MR. BOB PETERS: And so Manitoba Hydro
9 has -- has determined that the line of demarcation is
10 3.95 percent as -- and at that point it's financially
11 responsible and it's not -- it's still responsive to
12 consumers?

13 MR. DARREN RAINKIE: Well, there's --
14 there's no fine point on it, Mr. Peters. It's -- in
15 our judgmental rate setting methodology that we have,
16 you know, it's -- it's a judgment in terms of what the
17 rate increases are. And we do indicate that these are
18 pro formas going out twenty (20) years.

19 But as our -- as our forecast stands
20 right now, we are conscious that the projected rate
21 increases are double the rate of inflation. And, you
22 know, we are ratepayers too. We sympathize with
23 customers. We sit at the kitchen table at Easter and
24 talk to our families, as well, and they ask us, Why are
25 -- why do we need these types of rate increases?

1 So we're going to do our best to manage.
2 I can't predict with certainty what might happen in ten
3 (10) or fifteen (15) years, Mr. Peters, but certainly
4 the discussion that we had at the executive committee
5 and the Board in the last few weeks is we would try to
6 maintain the 4 per -- as close to the 4 percent as we
7 could.

8 MR. BOB PETERS: You won't be sitting
9 with your family this Easter, Mr. Rainkie. You'll be
10 working, from what I'm hearing, so.

11 Ms. Carriere, I want to stay on this
12 slide on the screen on page 9 of Board counsel's book
13 of documents. I'm not sure I understood one of your
14 answers to the panel.

15 When the capital costs were updated for
16 Keeyask and Conawapa, together with capital costs for
17 DSM measures, did that not take it out of the reference
18 range in the initial analysis and actually put it
19 through even higher than what the high level was based
20 on the twenty (20) -- based on the August 16th, 2013,
21 probabilities?

22 MS. LIZ CARRIERE: Yes, I think I
23 mentioned to the panel on that slide this morning that
24 the high capital cost scenario that we filed in this
25 summer turns out to be relatively close to the -- the

1 reference case from the March 10th update.

2 MR. BOB PETERS: But the reference case
3 was even higher than the high, is what I'm -- what I'm
4 asking, was it not?

5

6 (BRIEF PAUSE)

7

8 MS. LIZ CARRIERE: My back row is
9 advising that they're both 6.3 billion.

10 MR. BOB PETERS: And that's for -- for
11 Keeyask, but does that -- was it also the same for --
12 for Conawapa going up from, I believe, ten point two
13 (10.2) up to ten point seven (10.7)?

14

15 (BRIEF PAUSE)

16

17 MS. LIZ CARRIERE: Conawapa is both
18 10.4 billion.

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: Ms. Carriere, help me
22 tidy up the record. Under the -- the capital costs on
23 a high basis for Keeyask, under the August 13 filing
24 was how much?

25 MS. LIZ CARRIERE: Six point three

1 (6.3) billion.

2 MR. BOB PETERS: And Conawapa, at that
3 time, was?

4 MS. LIZ CARRIERE: Nine point four
5 (9.4).

6 MR. BOB PETERS: That would have been
7 the economic number, not the -- not the capital cost
8 in-service number for Conawapa?

9 MS. LIZ CARRIERE: It's the reference
10 in-service.

11 MR. BOB PETERS: All right. Now I've
12 got your point. I've got your point. Thank you.

13

14 (BRIEF PAUSE)

15

16 MR. BOB PETERS: Mr. Rainkie, just --
17 just sliding through pages 20 and 21, this is the IFF
18 that you've tried to forget, I think, isn't it, the
19 2012?

20 It's now been superceded by the IFF13?

21 MR. DARREN RAINKIE: Yes, this is the
22 electric operations portion of that, Mr. Peters.

23 MR. BOB PETERS: And if we turn to page
24 22, Mr. Rainkie, the Board will see that under IFF12,
25 Manitoba Hydro was, in the year 2015, writing off

1 regulated assets of about \$225 million, correct?

2 MR. DARREN RAINKIE: Yes, on the
3 electric side of the business.

4 MR. BOB PETERS: And that's no longer
5 the plan, is it?

6 MR. DARREN RAINKIE: No, Mr. Peters,
7 because on January 30th of this year, the International
8 Accounting Standards Board approved an interim
9 standard, allowing us to transition to IFRS with rate-
10 regulated accounting. We are not planning on writing
11 those off, obviously. We have assumed an IFF thir --
12 I'm -- I'm sure we're going to get into this, so I
13 might as well just give you the answer now, Mr. Peters.
14 Sorry, I don't want to preempt your cross, but let me
15 do my little speech and you can come back.

16 What we assume -- because it's uncertain
17 what the longer-term view on this is going to be, we
18 have just assumed in IFF13 that rate-regulated
19 accounting would continue over the whole twenty (20)
20 year period. When the International Accounting
21 Standards Board makes its final determination, then
22 we'll have to update our forecast as appropriate, but
23 for now we're assuming that that write-off does not
24 occur in the forecast period.

25 MR. BOB PETERS: And the impact of not

1 writing off 225 million, that's like finding an
2 additional 10 percent on your retained earnings?

3 MR. DARREN RAINKIE: Mathematically. I
4 mean, it doesn't change our cash flow, but in terms of
5 retained earnings, yes.

6 MR. BOB PETERS: It puts you in a
7 stronger debt equity position?

8 MR. DARREN RAINKIE: Yes, and I -- and
9 I think you saw in my charts this morning that in the
10 initial years of IFF13, we have a stronger position,
11 and then that generates towards the back end.

12 MR. BOB PETERS: And while you've --
13 you've introduced in your slides, and I guess we'll
14 find on page 30 of Board counsel's book of documents,
15 we'll see the information taken from IFF13, correct,
16 Mr. Rainkie?

17 MR. DARREN RAINKIE: Sorry, Mr. Peters,
18 I'm just getting there. Page 30?

19 MR. BOB PETERS: Yes, sir.

20 MR. DARREN RAINKIE: Yes, that's the
21 summarization of the various key financial metrics from
22 IFF13.

23 MR. BOB PETERS: And this has also been
24 marked as Manitoba Hydro Exhibit 97 in these
25 proceedings, in case you're not aware, but we -- we've

1 got it, the full IFF on the record, Mr. Rainkie, so if
2 there's anything you want to refer to in there, please
3 let the -- the panel know.

4 While we're looking at the summary page,
5 Mr. Rainkie, the panel will note that the net income is
6 now projected from 2018 to 2022 to be in the red, or a
7 -- as a loss, correct?

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

10 MR. BOB PETERS: And that was not the
11 expectation in 2012, was it?

12 MR. DARREN RAINKIE: I believe, Mr.
13 Peters, there was a small loss in one (1) of those four
14 (4) years. But cert -- certainly, as -- as I mentioned,
15 because of the lower load expectations and higher
16 capital costs, that has denigrated a bit.

17 MR. BOB PETERS: And --

18 MR. DARREN RAINKIE: I mean, that --
19 that time period, of course, is -- is coming into
20 service of Bipole III and -- and the Keeyask generating
21 station, which are large assets, suddenly coming into
22 our -- into our income statement, if you like, Mr.
23 Peters.

24 MR. BOB PETERS: And the reason that's
25 significant is when those large assets come onto the

1 income statement, Mr. Rainkie, they bring with them
2 costs that have to be recovered?

3 MR. DARREN RAINKIE: I'm having trouble
4 with the mics, Mr. Peters, so bear with me here.

5 MR. BOB PETERS: Is it on?

6 MR. DARREN RAINKIE: Yeah. Yes, Mr.
7 Peters, that's the case from the cost side, that those
8 -- those plants flip over from being deferred in
9 construction and progress to being in service. And we
10 start to depreciate those plants, and the finance costs
11 associated with those plants come into our income
12 statement. But as I was trying to indicate this
13 morning, that doesn't mean that there's a 1:1 increase
14 in our rates.

15 MR. BOB PETERS: I have your point, but
16 what you -- what you told the Chairman this morning was
17 that when these large capital assets come onto the
18 operating statement, they bring with them depreciation
19 expense, finance expense, and I guess the operating and
20 maintenance expense?

21 MR. DARREN RAINKIE: We'll make an
22 accountant out of you yet, Mr. Peters. That's correct.

23 MR. BOB PETERS: Well, thank you for
24 trying. The -- you and the Chairman got it up to about
25 8 percent of the capital cost in terms of what would

1 hit the operating statement. But when you add the
2 operating and maintenance, it's probably closer to 9
3 percent.

4 Would you agree with me on that?

5 MR. DARREN RAINKIE: You know, Mr.
6 Peters, I think you've been down this road with Mr.
7 Warden a number of times in the last two (2) GRAs.
8 And, you know, that's -- that's probably -- probably
9 close if you -- if you look at interest costs at 6
10 percent and depreciation at 2. I'm not sure if
11 operating cost is a full point or not.

12 I guess my only point is that when you -
13 - when you look at the life cycle of a hydroelectric
14 generating station, it could be misleading to look at
15 the carrying cost in year 1. A better metric is to
16 look at the levelized cost over -- over time, Mr. --
17 Mr. Peters.

18 MR. BOB PETERS: All right. A
19 levelized cost view is a different metric than in-
20 service cost, correct?

21 MR. DARREN RAINKIE: Yes, and it aligns
22 well with our rate-setting methodology, where we smooth
23 in rate increases over time.

24 MR. BOB PETERS: And so -- so in IFF12
25 Manitoba Hydro was, I think, projecting losses through

1 -- from '19 to '21 -- or 2019 to 2021 of about 84
2 million. Those losses are now closer to 145 million,
3 but over a five (5) year period.

4 You'd accept that, Mr. Rainkie, as
5 accurate?

6 MR. DARREN RAINKIE: Subject to check,
7 Mr. Peters. Once again, this is -- this is the
8 confluence of all of the assumptions in the financial
9 model. Obviously, as we get closer to those years, we
10 would try to take any management actions that are
11 possible to -- to manage those numbers more into the --
12 into the black than in the red. But that is the
13 forecast as it stands right now.

14 MR. BOB PETERS: All right. And it's
15 been Manitoba Hydro's pension not to want red ink on
16 its net income line.

17 Isn't that also correct?

18 MR. DARREN RAINKIE: Yes, it has been,
19 Mr. Peters. But once again, if you want to be
20 sensitive to customer rate impacts and -- and smooth in
21 rate increases over time, we -- when large assets such
22 as Bipole III and Keeyask come into -- into service,
23 it's -- it's difficult to maintain a healthy net
24 income. When the last generating units of Conaw -- I'm
25 sorry, Limestone came into service many years ago, Mr.

1 Peters, we had a loss then as well.

2 MR. BOB PETERS: That'd be the last
3 example you can provide the panel of when -- when
4 losses were deliberately carried on the net income
5 line?

6 MR. DARREN RAINKIE: Mr. Peters, you
7 know, there probably have been other times if --
8 because of water flows that there have been losses in
9 that period of time, up to particularly 2003/'04, Mr. -
10 - Mr. Peters, comes to mind. But it's -- it's just --
11 it's just the nature of our business. We're -- we're
12 always investing in assets and we're trying to smooth
13 rates for customers. And -- and when you have large
14 assets coming into service, that can result in -- in
15 red ink. We don't like it, but the alternative is
16 having, you know, volatile rate increases or large one
17 (1) time rate increases. We don't like that worse.

18 MR. BOB PETERS: Volatile rates are
19 worse than -- than red ink?

20 MR. DARREN RAINKIE: I think from a
21 customer perspective, they are. I think customers
22 would prefer to have rates smoothed over time, Mr.
23 Peters.

24 MR. BOB PETERS: And just to -- to
25 conclude on this, Mr. Rainkie, when the panel looks at

1 page 30 and sees under the, "Net income," line those --
2 those losses that are shown, what would be the
3 approximate rate increases that would be needed to --
4 to wipe out those losses, or remove the losses, I
5 guess?

6 MR. DARREN RAINKIE: Well, Mr. Peters,
7 just using a rough guide, as I indicated, our -- our
8 revenue requirement at current rates is about \$1.4
9 billion, so a 1 percent rate increase is, you know, \$14
10 million. Of course, that will increase with time over
11 rate increases.

12 But let's say just for rounding's sake,
13 \$15 million is a 1 percent rate increase. So a -- a 3
14 percent higher rate increase would probably cover off
15 the 55 million in 2018/'19, and then, of course, that
16 stays there and overshoots the 19 million in the next
17 year, et cetera, so. But that just gives you, you
18 know, a rough indi -- indication. One (1) percent is
19 14, \$15 million.

20 MR. BOB PETERS: So an additional 4
21 percent rate increase in 2018 would wipe out the losses
22 for the next few years?

23 MR. DARREN RAINKIE: It might be three
24 and a half (3 1/2), but somewhere in that range, Mr.
25 Peters.

1 MR. BOB PETERS: Thanks for the order
2 of magnitude, Mr. Rainkie. And in these expenditures,
3 Mr. Rainkie, Manitoba Hydro is planning to spend -- is
4 it about \$2 billion, or a -- a bit more than \$2 billion
5 on capital expenditures throughout this period,
6 including new capital as well as the base capital?

7 MR. DARREN RAINKIE: Sorry, Mr. Peters.
8 Our capital program is moving in the range of a billion
9 and a half to 2 1/2 billion in the next few years, so I
10 think you're -- you're cutting a -- a line somewhere
11 different than what I'm thinking.

12 MR. BOB PETERS: All right. Let's turn
13 to page 36 of Board counsel's book of documents, Mr.
14 Rainkie, and go down to the investing activities in
15 the, "Property plant and equipment net of
16 contributions."

17

18 (BRIEF PAUSE)

19

20 MR. DARREN RAINKIE: I have that, sir.

21 MR. BOB PETERS: And if the panel looks
22 to the, "Property plant and equipment net of
23 contributions," it sees a line of, in 2015, about \$2
24 billion, and it's over \$2 billion for the next five (5)
25 or six (6) years, Mr. Rainkie?

1 MR. DARREN RAINKIE: Yes, on an annual
2 basis.

3 MR. BOB PETERS: And that would --

4 MR. DARREN RAINKIE: I think that's
5 where we were disconnecting.

6 MR. BOB PETERS: Okay. Yes. And --
7 and that would -- that would include the base capital,
8 as well as the capital spent on major capital projects?

9 MR. DARREN RAINKIE: That's right. It
10 would include all of our capital.

11 MR. BOB PETERS: And when this panel
12 hears the words 'base capital,' they should think, Mr.
13 Rainkie, of it being the capital that is spent each and
14 every year by Manitoba Hydro on maintaining the system
15 and upgrading it as the system -- as the system grows?

16 MR. DARREN RAINKIE: Yes. A more
17 common word would be 'sustaining capital', Mr. Peters,
18 but I -- I agree with your characterization.

19 MR. BOB PETERS: And that sustaining
20 capital, Mr. Rainkie, is about \$500 million a year?

21 MR. DARREN RAINKIE: It too can range
22 in the 5 to \$600 million range, Mr. -- Mr. Peters.

23 MR. BOB PETERS: And everything above
24 that 5 or 6 million -- 6 billion -- sorry, everything
25 above that 500 to \$600 million number, Mr. Rainkie,

1 that is spent on capital goes primarily, then, to the
2 major capital projects, which include the Bipole III,
3 Keeyask, Conawapa, as well as other ones that would be
4 listed in your capital expenditure forecast?

5 MR. DARREN RAINKIE: Yes, Mr. Peters.
6 Typically those projects that increase -- that are
7 large in size and increase the capability of our
8 system.

9 MR. BOB PETERS: And the largest of
10 those major capital projects are the ones that I've
11 listed, which was Bipole III, Keeyask, and Conawapa?

12 MR. DARREN RAINKIE: Yes, Mr. Peters.

13

14 (BRIEF PAUSE)

15

16 MR. BOB PETERS: Mr. Rainkie and Ms.
17 Carriere, if Conawapa was deferred, and I'm going to go
18 back to page 30 for that summary table that we were
19 looking at just a few minutes ago.

20

21 (BRIEF PAUSE)

22

23 MR. BOB PETERS: That summary table of
24 rate increases, Mr. Rainkie, includes the Preferred
25 Development Plan, correct?

1 MR. DARREN RAINKIE: Yes, Mr. Peters.

2 MR. BOB PETERS: Did -- did Manitoba
3 Hydro, from a financial point of view, look at it to
4 say what would happen if -- if Keeyask was -- was not
5 proceeded with?

6 MR. DARREN RAINKIE: Well, Mr. Peters,
7 maybe I'm not understanding your question, but in the
8 financial, and -- sorry, the financial analy --
9 analysis information that Mr. -- Ms. Carriere was
10 talking about this morning, we did have an All Gas
11 Plan, so we have analyzed a -- a situation in which we
12 are not going with a hydroelectric plant like you --

13 MR. BOB PETERS: But I was thinking of
14 Keeyask being included, and so that you'd draw the
15 Board to the Keeyask/Gas Plan to look at those -- those
16 representative rate increases, which would implicitly
17 exclude Conawapa?

18 MR. DARREN RAINKIE: Well, we're back
19 to the eight (8) plans we talked about that we analysed
20 with -- with all the variants, Mr. Peters, yeah.

21 MR. BOB PETERS: And on page 32 of the
22 book of documents, Mr. Rainkie, the panel will see that
23 there's a new line item that you've added for 2013, and
24 it's the Bipole III reserve account, correct?

25 MR. DARREN RAINKIE: Correct.

1 MR. BOB PETERS: And that represents
2 monies that have been ordered by the Public Utilities
3 Board to be held in a deferral account out of consumer
4 rates from the last PUB Board order?

5 MR. DARREN RAINKIE: Yes, that was 1
6 1/2 percent under the 3 1/2 percent rate increase on
7 May 1st, 2013, was designed to be included in a capital
8 reserve account.

9 MR. BOB PETERS: And the intention was,
10 from Manitoba Hydro's understanding, to help feather in
11 the impacts of Bipole III?

12 MR. DARREN RAINKIE: Yes, that was the
13 stated intention in Order 43/'13.

14 MR. BOB PETERS: Will it have that
15 impact, Mr. Rainkie?

16 MR. DARREN RAINKIE: It -- it will --
17 it will help, Mr. Peters. As you can see, it's --
18 it'll build up to a certain amount, and in -- in the
19 forecast, that we've assumed a fairly quick
20 amortization period, because there was no amortization
21 period specified in Order 43/'13. I think it was to be
22 determined at a future general rate application.

23 MR. BOB PETERS: But my point, Mr.
24 Rainkie, is that even with the Board having put away
25 the proceeds from 1 1/2 percent rate increase at the

1 last GRA, Manitoba Hydro still intends to come forward
2 and -- at a 3.95 percent annual request?

3 MR. DARREN RAINKIE: Yes, Mr. Peters.
4 We asked for 3 1/2 percent in the last general rate
5 application for the '13/'14 fiscal year. The Public
6 Utilities Board gave us 3 1/2 percent. They just
7 divvied it up a little differently than how we were
8 going to use it.

9 So I'm not sure why there would be any
10 expectation that with all the same parameters, IFF13
11 would result in anything but the 3.95 percent rate
12 increases, because simply designating a point and a
13 half, taking that out of your current income statement
14 and pushing it over a few years isn't really going to
15 change the equation all that much.

16

17 (BRIEF PAUSE)

18

19 MR. BOB PETERS: What I hear you
20 saying, Mr. Rainkie, is that regardless of how the
21 Board directed it, it doesn't change the fact that the
22 percent increase that's going to be sought by Manitoba
23 Hydro will -- will not change.

24 MR. DARREN RAINKIE: That's right. And
25 -- and you have to add to the fact that, as I mentioned

1 this morning, the net income outlook is worse in IFF13
2 than IFF12, so certainly for that -- in that reason
3 alone, I don't think you would expect us to pull back
4 from the 3.95 percent rate increases.

5 MR. BOB PETERS: And the reason the --
6 the revenues were down, Mr. Rainkie, I think Ms.
7 Carriere said it this morning, the primary reasons were
8 the reduced domestic load, and the second reason was
9 that the off -- sorry, the on-peak opportunity export
10 price was down about 3 percent.

11 MR. DARREN RAINKIE: Yes, that and
12 higher capital costs, Mr. Peters.

13 MR. BOB PETERS: Higher capital costs,
14 including those that are going forward for the -- for
15 the projects, for the major capital projects?

16 MR. DARREN RAINKIE: Major capital
17 projects and re-estimates of base capital projects as
18 well, Mr. Peters.

19 MR. BOB PETERS: And on page 30 of
20 Board counsel's book of documents, Mr. Rainkie, you
21 have two (2) columns. One is called, "Interest
22 Coverage," and we heard -- Ms. Carriere, you can jump
23 in any time if you -- if you choose, the interest
24 coverage ratio that Manitoba Hydro now has as its
25 newest -- the latest number is a 1.20 percent, correct?

1 MR. DARREN RAINKIE: It's one point
2 two-zero (1.20), not a percent, Mr. Peters, but yes.

3 MR. BOB PETERS: It -- it's a ratio?

4 MR. DARREN RAINKIE: You're one (1)
5 step closer to that accounting designation, Mr. Peters.

6 MR. BOB PETERS: And when the Board
7 looks at the interest coverage ratios shown on page 30
8 that's before them on the screen, they're going to note
9 that, starting in 2019, Manitoba Hydro dips below one
10 point zero (1.0), correct?

11 MR. DARREN RAINKIE: Yes, it -- it
12 does. It's -- point nine-five (.95) is the projection.

13 MR. BOB PETERS: And it goes down -- it
14 goes to point nine-eight (.98), point nine-five (.95),
15 point nine-seven (.97) for the next four (4) years,
16 there?

17 MR. DARREN RAINKIE: That's correct.

18 MR. BOB PETERS: Would it be simplistic
19 for the panel to understand it, Mr. Rainkie, is that
20 when that happens to Manitoba Hydro, Manitoba Hydro now
21 has to send Mr. Schulz out to borrow money to pay for
22 interest, because there wasn't enough money from
23 operating?

24 MR. MANFRED SCHULZ: At a capital cover
25 -- or interest coverage ratio of one point zero (1.0),

1 just because of the way the mechanics of that ratio
2 works, it's an accounting net income driven
3 calculation. There's always depreciation and
4 amortization that's part of the accounting equation.

5 So in terms of the amount of money that
6 would be still needing to be paid out as gross interest
7 to bond holders, it is not exactly true to say that we
8 can go -- any -- if we're below one point zero (1.0) on
9 the interest coverage ratio, that the corporate
10 treasurer needs to go and -- and borrow the incremental
11 amount in the capital debt markets.

12 MR. BOB PETERS: So you're saying you
13 can meet that interest coverage -- that interest
14 expense from internally generated funds, even if it's
15 below one (1)?

16 MR. MANFRED SCHULZ: The payments to
17 bond holders can be made if the interest coverage ratio
18 is below one (1). At one (1), the interest coverage to
19 bond holders and to interest payments can still be
20 made.

21 MR. BOB PETERS: And if it's below one
22 (1), Mr. Schulz?

23 MR. MANFRED SCHULZ: And if it's below
24 one (1), it depends how far low we go, because net
25 income also includes, from an accounting perspective,

1 noncash items for depreciation and amortization. If
2 one were to add those items back into the amount of
3 available cash available to pay for bond holders, you
4 would find that at measures slightly below one (1), we
5 still have funds available to meet all of the interest
6 payment requirements.

7 MR. BOB PETERS: So you don't need a
8 one point two (1.2) ratio. You need at least a one
9 point zero (1.0)?

10 MR. MANFRED SCHULZ: No. The one point
11 two (1.2) interest coverage ratio is a really sound and
12 solid ratio for the consideration of the Corporation's
13 financial strength on an ongoing sustenance basis. The
14 -- the notion that you have the point two (.2) above
15 the one (1) is a -- is a sound and solid and prudent
16 cushion that we would have.

17 I'm just saying as a technical matter,
18 if one were to look at the precision of the calculation
19 for the determination of precise cash flow requirements
20 to meet bondholder interest payments, you can go -- go
21 below one (1) on the interest coverage ratio. If
22 you're looking at the interest coverage ratio, not as
23 an ongoing measure, but rather, as a strict definition
24 of liquidity and -- and to meet the bondholder
25 requirements, you still have room to go below one point

1 zero (1.0).

2 MR. BOB PETERS: All right. At what
3 point in time do you -- do you go cap in hand looking
4 for money to pay your bondholders?

5 MR. MANFRED SCHULZ: How low can you go
6 is the question? It does depend somewhat on the --
7 again, from the net income perspective, if you were to
8 add back the amortization/depreciation amounts to see
9 how much head room you have, it does depend -- so it --
10 it's not easily determined and deciphered from a ratio
11 perspective, but generally, we find that if you go down
12 to about point eight (.8) on our definition of interest
13 coverage ratio, we generally still have sufficient
14 headroom to make all of our interest payments.

15 MR. BOB PETERS: Thank you, Mr. Schulz.
16 On the capital coverage ratio, you use the same -- the
17 same target of one point two-zero (1.20)?

18 MR. MANFRED SCHULZ: The capital
19 coverage ratio is one point two-zero (1.20).

20 MR. BOB PETERS: And the Board will see
21 in the capital coverage column that's on page 30 in
22 front of them on the screen, that the capital coverage
23 ratio goes below one point zero (1.0) starting as early
24 as 2015, through 2016 and 2017, correct, sir?

25 MR. MANFRED SCHULZ: Correct.

1 MR. BOB PETERS: And the notion is that
2 if the capital coverage ratio gets too low, Manitoba
3 Hydro will have to go borrow money for the base
4 capital, or the sustaining capital, that Manitoba Hydro
5 wants to spend every year, correct?

6 MR. MANFRED SCHULZ: The general
7 proposition is, is that if you have a capital coverage
8 ratio of one (1), you have enough cashflow from
9 operations to meet all of your base capital
10 requirements. Should it be below one (1), then the
11 incremental difference is something that you would need
12 for debt financing to meet not only the base capital
13 requirements, but any other incremental new borrowings
14 -- or new capital projects.

15 MR. BOB PETERS: And can you -- how low
16 can you go on the capital coverage ratio before you
17 have to borrow to pay for your capital -- for your base
18 capital or sustaining capital expenses?

19 MR. MANFRED SCHULZ: Any amount below
20 one (1) by the arithmetic of that calculation would be
21 incrementally having to be borrowed in the capital
22 markets.

23 MR. BOB PETERS: All right. Thank you,
24 sir. Mr. Rainkie, have you got the electric operations
25 financial forecast, Manitoba Hydro 13, with the

1 electric financial ratios shown on the bottom, as often
2 as requested of Manitoba Hydro?

3 MR. DARREN RAINKIE: Not in my hands as
4 I sit here, Mr. Peters. We do that -- let me back up
5 one (1) -- one (1) touch here. We only have financial
6 targets at the corporate level. Given the scale and
7 the scope of our electric business, it doesn't make
8 sense to have two (2) sets of financial targets.

9 We do calculate those for the PUB and
10 the PUB advisors during GRAs. So we -- we can produce
11 that. It -- it's usually pretty close to what the --
12 the corporate ratios are. It's -- it -- it won't show
13 you anything much different, Mr. Peters.

14 MR. BOB PETERS: If you could provide
15 that as an undertaking, Mr. Rainkie, that would be
16 appreciated.

17 MR. DARREN RAINKIE: Sure, Mr. Peters.
18 For the court reporter, we'll undertake to provide the
19 financial ratios associated with electric operations in
20 IFF13.

21 Is that acceptable, sir?

22 MR. BOB PETERS: Yes, it is. Thank
23 you, Mr. Rainkie.

24

25 --- UNDERTAKING NO. 47: Manitoba Hydro to provide

1 the financial ratios
2 associated with electric
3 operations in IFF13
4

5 MR. BOB PETERS: And, Mr. Chairman, in
6 light of the hour, this might be an opportune time for
7 the afternoon recess. I'll continue after the recess,
8 if that suits the panel?

9 THE CHAIRPERSON: I have some questions
10 for Mr. Wojczynski. Is he -- is he coming back, or...?

11 MS. PATTI RAMAGE: Yes. I just excused
12 him.

13 THE CHAIRPERSON: If he's coming back
14 after -- after the break, I can -- I can reserve the
15 questions for the break.
16

17 (BRIEF PAUSE)
18

19 THE CHAIRPERSON: Mr. Wojczynski, I
20 guess it's a -- it's a combined question, I guess, in
21 the sense that I'd like to address the issue of the
22 approval of a 750 megawatt line in the US, and if you
23 had a scenario where the -- that line was not approved
24 by US authorities, we would -- we would have
25 constructed Keeyask and we would still be able to -- to

1 sell the power generated from Keeyask into that US
2 marketplace, all of it, would we?

3 MR. ED WOJCZYNSKI: Yes, we would, and
4 if you look at the Keeyask/Gas Plan, you'll see in that
5 case that is exactly what happens in that -- that we
6 don't have any additional interconnection capacity, and
7 we're still able to sell the power from Keeyask. What
8 -- what would happen in some situations -- well, at
9 least some situations, you couldn't shift as much into
10 the on-peak, because you don't have the tie-line
11 capacity.

12 There will be times when you can't shift
13 as much of the energy from Keeyask into the on-peak.
14 You have to sell it in the off peak, so you wouldn't
15 get as much benefit from Keeyask as if you had the
16 bigger tie-line, but you could still -- most of the
17 time, you could still sell the Keeyask power.

18 THE CHAIRPERSON: So you would then
19 have removed the costs associated with the intertie,
20 the 750 intertie out of the -- out of the equation. I
21 guess what I'm trying to establish is that are there
22 costs related to such a decision, from your
23 perspective?

24 In other words, if the US authorities
25 don't -- don't approve the line, the -- are there cost

1 consequences to Manitoba Hydro resulting from that, in
2 other words, if we get a scenario where Keeyask
3 effectively becomes a bit of a stranded asset?

4 MR. ED WOJCZYNSKI: It -- it doesn't
5 become a stranded asset. It becomes an asset which
6 isn't worth quite as much as it was with the
7 interconnection. Again, if you go to the plan with
8 Keeyask/Gas, you -- I don't -- as we've demonstrated,
9 it is still beneficial compared to the All Gas Plan,
10 and even with the higher capital costs, that's still
11 the case.

12 So if you lose the interconnection, you
13 lose two (2) -- you lose two (2) things. The
14 interconnection brings benefits to the existing system
15 by enabling it to move energy from the off peak to the
16 on peak, and it provides imports in emergencies and all
17 those other things we've talked about -- into -- it
18 loses that, plus Keeyask.

19 When you add Keeyask with the
20 interconnection, you're able to take more of Keeyask's
21 off-peak energy and put it into the on peak, and export
22 it and get a higher value from it, whereas if you don't
23 have the interconnection, you can still sell the power
24 most of the time. It's just that a larger percentage
25 would be in the off peak, and would -- would have a

1 somewhat lower value.

2 So it's not that it's stranded. It's
3 just not quite as valuable as with the interconnection.

4 THE CHAIRPERSON: What would become
5 stranded though would be any cost that you've spent
6 trying to get approval of the line, any preparation
7 costs you would have incurred to set the line up and so
8 on, right?

9 MR. ED WOJCZYNSKI: That's correct.
10 There would be costs related to the engineering and the
11 planning, the community consultations that are underway
12 right now, and I -- I might add a -- a small -- add an
13 addition to that. You weren't asking, but I'll take
14 the opportunity to mention that, as we said in our
15 submission, we would fully expect, and it's scheduled
16 that we'd have all our approvals for the 750 megawatt
17 export line and import line before we have to make any
18 commitments to Conawapa.

19 And if we did not have those yet, if
20 there was -- there were delays in that, what we can
21 fully expect is that no commitment would be made to
22 Conawapa until we did have that.

23 If, for some reason, the -- we -- let's
24 say we were proceeding with the full Development Plan
25 with both Keeyask and Conawapa, and let's say, for some

1 reason, that we're -- we get surprised and the
2 interconnection approval process takes longer than we
3 anticipate, for whatever reason, and we had already --
4 have sales agreements that would be looking at
5 Conawapa. What I would fully expect is we would defer
6 Conawapa commitment until we actually had those
7 approvals on the -- the new interconnection.

8 THE CHAIRPERSON: What then becomes
9 stranded though, is any costs you would have spent on
10 Conawapa to prepare the -- to -- to protect the in-
11 service date?

12 MR. ED WOJCZYNSKI: Yes. That is true,
13 yes. But we -- having said all that, we think it would
14 be a very low risk that 750 megawatt interconnection
15 would not be approved. The -- it's shown to have a lot
16 of benefits into the Minnesota area as well -- well as
17 the Wisconsin area. There are so -- there are local
18 supporters for it. The state regulators, the MISO
19 entities, and -- and the regulatory authorities are all
20 seeing a -- a need for -- and -- and the federal
21 regulators, a need for transmission enhancements, and
22 they see this as being very beneficial to the
23 ratepayers, to the customers in Minnesota and
24 Wisconsin.

25 And -- and that's -- Mr. Cormie and Mr.

1 Jacobson had explained that with those wind studies,
2 how -- how the interconnection and the addition of the
3 generation in Manitoba assists in -- with their wind
4 plans, as well as providing our power to them.

5 So we think the -- the risk of not
6 getting the 750 megawatt line approved is -- is low,
7 but it's -- there's no guarantee.

8 THE CHAIRPERSON: Now, there are two
9 (2) permits involved in that line, aren't there?
10 There's a certificate of need, which is done by one (1)
11 authority, and then the siting is done by another
12 authority.

13 Am I right?

14 MR. ED WOJCZYNSKI: Yes, that's
15 correct. And as I -- that's correct.

16 THE CHAIRPERSON: But the opposition
17 from the public, if it were to come, would likely come
18 through the siting permit, wouldn't it?

19 MR. ED WOJCZYNSKI: Yes. And as
20 Manitoba Hydro has extensive experience with -- and
21 every other transmission line builder, you -- you will
22 -- you will just about always have some opposition to
23 the local siting, routing of the line. And one of the
24 things that you can do with a transmission line that
25 you can't do with generation is you can shift where it

1 is.

2 You can -- you can take jogs in it. You
3 can -- you can go around corners. So unlike the
4 generation station, you can't move it around; with the
5 transmission line you start with a broad swath, and
6 then -- then you narrow down to -- to one (1) broad
7 swath. But then within that you have a lot of
8 flexibility. And one of the -- one of the advantages
9 that we'd be looking at in the States is using existing
10 right-of-ways, for example, or road -- road -- I can't
11 remember what they're called.

12

13 (BRIEF PAUSE)

14

15 MR. ED WOJCZYNSKI: Allowances, and --
16 to -- to minimize the -- the perturbation to the local
17 activities. So the -- the -- so that greatly reduces
18 the risk associated with the siting process.

19 THE CHAIRPERSON: Now, the rate
20 consequences of Conawapa not proceeding, are you in a
21 position to -- to expose those?

22 In other words, are you prepared to --
23 are -- are -- can we get access to what the rate
24 consequences would be if Conawapa is not part of the
25 picture?

1 MR. ED WOJCZYNSKI: Well, first of all
2 I think if we're talking about the rates, we'll have to
3 ask the -- the financial people on the panel. But
4 maybe if we can just explore what the question is. I
5 think what you're asking is if we're planning to do
6 Conawapa in the Preferred Plan, and then for whatever
7 reason we -- we -- let's say we proceed with Keeyask
8 and the interconnection but then we stop working on
9 Conawapa, what are the impacts of that?

10 Was that your question, sir?

11 THE CHAIRPERSON: Yes, I think it is.

12 MR. ED WOJCZYNSKI: So let me do the
13 front end of that, and then the financial people will
14 do the tail end. As I don't have it at my fingertips,
15 but we have provided in interrogatories what we'd be
16 spending roughly every year with Conawapa to protect
17 it. And -- and, so you know, depending on which year
18 you -- we -- we would stop work on Conawapa, that would
19 dictate how much money we'd have spent.

20 So we can certainly bring that forward
21 again as a reminder. The second issue then comes out
22 as: Are you assuming that Conawapa never happens, or
23 is it that it's just delayed a number of years? And
24 that would affect the financial people. But at this
25 point I think they have to take over from there.

1 THE CHAIRPERSON: Well, look at it from
2 our perspective, you know. You -- you've introduced a
3 level of uncertainty now with respect to the Preferred
4 Development Plan. You -- you indicated that Conawapa
5 is sort of hanging in the wind for the time being. So
6 I think the panel would need to know, if -- if Conawapa
7 does not proceed, what would be the rate consequences
8 to -- to Manitobans?

9 And -- and I think -- you know, I'm --
10 I'm not presupposing that any decision has been made
11 about Conawapa. I'm just simply indicating that it
12 should be a relatively easy part of the mix to
13 establish a picture, were Conawapa not to be part of
14 the package that's approved by government.

15 MR. ED WOJCZYNSKI: I -- I think
16 Manitoba Hydro would agree. That's an important piece
17 of information. If we carry on and then we ultimately
18 don't proceed with Conawapa but we've invested in the
19 front and the infrastructure -- well, it's not so much
20 the infrastructure, it's in the preparation -- what are
21 the consequences of that. And that's why we have
22 provided the -- the cost information from what we'd
23 expend.

24 Maybe what we could do is come back with
25 an -- unless the financial -- other financial people --

1 the financial people can say something otherwise now,
2 we could do a worst-case scenario and say, What if we
3 went up to the summer -- summer or fall -- fall, you
4 know, to the end of 2017 and stopped work, we have that
5 number, how -- that's -- how many hundred million
6 dollars that is; and -- and then secondly the financial
7 people, whether they can give some indication of what
8 the rate impacts of that would be.

9 But I -- I suspect they can't do it on -
10 - at the table today, but I think Ms. Carriere or Mr.
11 Rainkie would have to comment on that.

12 MS. LIZ CARRIERE: We'd have to take an
13 undertaking to do that.

14 THE CHAIRPERSON: Maybe I could -- I
15 could express the undertaking. If Manitoba Hydro will
16 let you -- let Manitoba Hydro do their own undertaking.
17 I -- I'm trying to get at the information regarding
18 rates applicable to a scenario whereby Conawapa does
19 not proceed for whatever reason. I -- I think, even
20 better, I think --

21 MR. ED WOJCZYNSKI: So I -- what --
22 what we're talking about is we proceed with the
23 Preferred Plan, and you switch from the Preferred Plan
24 to Pathway 5 in the end of 2017, and then what is the
25 impacts of that? So that would be the undertaking.

1 --- UNDERTAKING NO. 48: Manitoba Hydro to indicate
2 the impact of proceeding
3 with the Preferred Plan,
4 and then switching from the
5 Preferred Plan to Pathway 5
6 in the end of 2017
7

8 MR. RICHARD BEL: Mr. Wojczynski, I
9 have a related question. If Conawapa doesn't proceed,
10 which was one (1) of the pathways, it was
11 Keeyask/750/Gas, was the net cost of not connecting
12 Bipole III to the Conawapa section netted from that
13 capital, because there was a -- there was a \$300
14 million cost to hook Conawapa into Bipole III?

15 MR. ED WOJCZYNSKI: The -- the cost to
16 connect Conawapa itself into the Bipole III station at
17 Keewatinook, that would not be incurred, and that would
18 be part of the cost saving. Yeah, and -- and perhaps
19 also the other part that's worth mentioning is the --
20 the AC system upgrades from the north to the south out
21 have to happen in addition to Bipole III. That would
22 not -- also not have to be incurred, and so that -- so
23 that cost saving would also be eliminated from the
24 Preferred Plan.

25 MR. RICHARD BEL: So -- so --

1 MR. ED WOJCZYNSKI: So what we would
2 eliminate from the Preferred Plan is the cost of the
3 generating station itself, the cost of the transmission
4 to hook Conawapa into the northern collector system,
5 into the DC collector system, and the third is we would
6 save the cost of the upgrades in the HV -- high voltage
7 AC system from the north to the south that Dr. Jacobson
8 talked about.

9 MR. RICHARD BEL: Was that -- was that
10 part taken out when we -- when we're comparing the
11 plans and the economics?

12 MR. ED WOJCZYNSKI: Yes, that -- that
13 is -- that is part of it, so when we compare plan --
14 the Preferred Plan to -- to Plan 5 or to Plan 6, as Ms.
15 Carriere did earlier today, that was already a
16 difference that was incorporated in what she presented
17 to you.

18 MR. RICHARD BEL: Thank you.

19 MS. MARLA BOYD: Mr. Chair, just before
20 we break, I do have some filings I could make now, if
21 you'd like them. There's a series of exhibits to be
22 filed, which I believe are making their way to you.

23

24 (BRIEF PAUSE)

25

1 MS. MARLA BOYD: The first two (2) are
2 part of Exhibit 104. They would be 104-3 and 104-4.
3 So that provides the supply and demand tables for the
4 DSM evaluation, and the economic summary tables.

5

6 --- EXHIBIT NO. MH-104-3: Supply and demand tables
7 for the DSM

8

9 --- EXHIBIT NO. MH-104-4: Economic summary tables

10

11 MS. MARLA BOYD: Also, behind those in
12 the package is the response to Manitoba Hydro
13 undertaking number 24. We would propose that that be
14 Manitoba Hydro Exhibit 112.

15

16 --- EXHIBIT NO. MH-112: Response to Undertaking 24

17

18 MS. MARLA BOYD: Next is Manitoba Hydro
19 Undertaking number 35. That's from transcript page
20 1820, and we would suggest that that be Manitoba Hydro
21 Exhibit number 113.

22

23 --- EXHIBIT NO. MH-113: Response to Undertaking 35

24

25 MS. MARLA BOYD: Next is the response

1 to Manitoba Hydro undertaking number 41. That's from
2 transcript page 2081, and we would suggest it be marked
3 as Manitoba Hydro Exhibit 114.

4

5 --- EXHIBIT NO. MH-114: Response to Undertaking 41

6

7 MS. MARLA BOYD: Following that,
8 response to Manitoba Hydro Undertaking number 37, from
9 transcript page 2050, and we'd propose that that be
10 Manitoba Hydro Exhibit 115.

11

12 --- EXHIBIT NO. MH-115: Response to Undertaking 37

13

14 MS. MARLA BOYD: Next is the response
15 to Manitoba Hydro Undertaking number 38, from
16 transcript page 2-71, and we would propose that that be
17 marked as Manitoba Hydro Exhibit 116.

18

19 --- EXHIBIT NO. MH-116: Response to Undertaking 38

20

21 MS. MARLA BOYD: Then we have the
22 response to Manitoba Hydro undertaking number 39, from
23 transcripts page 2,040 -- sorry, twenty seventy-four
24 (2,074), and we'd propose that that be Manitoba Hydro
25 Exhibit 117.

1 --- EXHIBIT NO. MH-117: Response to Undertaking 39

2

3 MS. MARLA BOYD: And the last page in
4 that package does not have a transcript number. It's
5 just from the request this morning, so we've proposed
6 that that be marked as Manitoba Hydro Exhibit 118.

7 And that comes from your request to
8 include the information for residential bills in North
9 Dakota, Minnesota, and Wisconsin. You'll see them
10 added on the graph. Thank you.

11

12 --- EXHIBIT NO. MH-118: Response to Undertaking 45

13

14 THE CHAIRPERSON: I propose that we
15 take a fifteen (15) minute break, so back here at
16 fifteen (15) after. Thank you.

17

18 --- Upon recessing at 2:58 p.m.

19 --- Upon resuming at 3:17 p.m.

20

21 THE CHAIRPERSON: Mr. Peters, I believe
22 we are ready to resume the proceedings.

23 MR. BOB PETERS: Yes, thank you, Mr.
24 Chairman.

25

1 CONTINUED BY MR. BOB PETERS:

2 MR. BOB PETERS: I'd like to move along
3 to page 39 of Board counsel's book of documents. And,
4 Ms. Carriere, you'll find an extract from Appendix 11.4
5 at page 39 of Board Counsel's book of documents.

6 You have that, ma'am?

7 MS. LIZ CARRIERE: Yes.

8 MR. BOB PETERS: And this is the
9 financial forecast that represents the Preferred
10 Development Plan, correct?

11 MS. LIZ CARRIERE: That's correct.

12 MR. BOB PETERS: And this plan is being
13 updated as one (1) of the three (3) plans that you are
14 providing additional financial analysis on?

15 MS. LIZ CARRIERE: For the DSM analysis
16 and the capital cost increase, correct.

17 MR. BOB PETERS: Is the DSM analysis
18 and capital cost increase coming as two (2) separate
19 analyses, or is it going to be combined into one (1)?

20 MS. LIZ CARRIERE: It will be one (1).

21 MR. BOB PETERS: Thank you. And what's
22 before the Board here doesn't include the additional
23 capital cost increases that were incorporated into
24 CEF13 or the capital cost increases announced on March
25 the 10th, 2014?

1 MS. LIZ CARRIERE: That's correct.

2 MR. BOB PETERS: And this is an example
3 of Manitoba Hydro seeking to recover the rates -- or,
4 sorry, design the rates to have equal annual increases
5 to get to a 75:25 debt-equity value by 2120 -- by 2031
6 and 2032?

7 MS. LIZ CARRIERE: That's correct.

8 MR. BOB PETERS: And what the Board
9 will see under the column of 2032 is that the
10 cumulative general consumers revenue percent increase
11 line under that 2032 column is at 107.76 percent, Ms.
12 Carriere?

13 MS. LIZ CARRIERE: That's correct.

14 MR. BOB PETERS: And that indicates to
15 the panel that at that point in time domestic rates
16 under this proposal would have increased 107 percent
17 from where they are today?

18 MS. LIZ CARRIERE: That's correct.

19 MR. BOB PETERS: And at the top of the
20 page, when the Board looks at additional general
21 consumers revenue line item, that number of 1.8 billion
22 is the actual revenues that will have been coll --
23 collected if the PUB approves the rate increases shown
24 on this table?

25 MS. LIZ CARRIERE: That's the amount of

1 additional revenue, yes.

2 MR. BOB PETERS: And at that point, the
3 consumers will have paid \$1.9 billion more, and the
4 extra-provincial revenue on that date looks like it
5 comes in at about \$1.2 billion, correct?

6 MS. LIZ CARRIERE: Correct.

7 MR. BOB PETERS: And last point, just
8 to be clear, the 2020 -- 2033 column shows that the
9 additional general consumers revenue percent increase
10 has a drop of 23 percent, and that was the sharp
11 downturn where Manitoba Hydro mechanically adjusted its
12 for -- its analyses to switch to a debt-equity ratio
13 over to the interest coverage ratio?

14 MS. LIZ CARRIERE: That's correct, yes.

15 MR. BOB PETERS: And on page 40, Ms.
16 Carriere, Manitoba Hydro ran this out over a fifty (50)
17 year time horizon, correct?

18 MS. LIZ CARRIERE: Correct.

19 MR. BOB PETERS: And what confidence
20 should the panel have in the information that's shown
21 some fifty (50) years out?

22 MS. LIZ CARRIERE: Well, it's -- it's a
23 forecast, so we know there's going to be changes
24 between now and fifty (50) years from now. But
25 assuming all things remain constant in the assumptions

1 today, this shows you the general direction of trends
2 in rates relative to the other -- the other development
3 plans. It's not necessarily the -- the absolute value
4 of the rate increases in that -- at that very point in
5 time, and in 2062 that is particularly meaningful, it's
6 what it is in relation to the other development plans.

7 MR. BOB PETERS: And on this particular
8 operating statement, looking out at 2048, Ms. Carriere,
9 that appears to be the year in which Manitoba Hydro
10 makes an assumption that there will be no additional
11 general consumers revenue at approved rates?

12 MS. LIZ CARRIERE: Similar to the
13 economic evaluation, the load growth is assumed to be
14 zero from that point forward.

15 MR. BOB PETERS: What wasn't assumed to
16 be zero was the increase in export revenues from that
17 point on, correct?

18 MS. LIZ CARRIERE: The export revenues
19 are an average of the last three (3) years, and they're
20 growing by inflation at that point.

21 MR. BOB PETERS: Does Manitoba Hydro
22 then suggest that rather than there being consumer
23 incre -- growth, whatever growth would be only on the
24 export market?

25 MS. LIZ CARRIERE: Inflationary growth.

1 MR. BOB PETERS: It takes -- it takes
2 the energy that would have been used for domestic
3 customers and exports it at inflationary increases?

4

5 (BRIEF PAUSE)

6

7 MS. LIZ CARRIERE: There's no real
8 growth in the export revenues beyond that point, so
9 it's simply an average of the -- the last three (3)
10 years that we have the detailed information. So if you
11 have a net flow related revenue of, for example, \$60
12 million, that it would grow just at inflation from that
13 point.

14 MR. BOB PETERS: Turning the page, Mr.
15 Carriere, to page 41, we see the balance sheet for the
16 Preferred Development Plan run that was done and filed
17 on August 16th of 2013; and it's not updated. But
18 under 2028, it appears that the long-term debt hits the
19 peak at around \$28.4 billion?

20 MS. LIZ CARRIERE: Correct.

21 MR. BOB PETERS: With the new
22 information coming, that number's expected to increase,
23 is it, Ms. Carriere?

24 MS. LIZ CARRIERE: Yes, I would expect
25 that to increase.

1 MR. BOB PETERS: And on page 46 under
2 Tab 5 of the book of documents, this run, Mr. Carriere,
3 also came out of Appendix 11.4, and it's the Preferred
4 Development Plan except under a scenario where there
5 are low export revenues forecast, correct?

6 MS. LIZ CARRIERE: Low export and gas
7 prices.

8 MR. BOB PETERS: And under this
9 scenario, the cumulative annual rate increases out to
10 2032 would be as much as 131 percent compared to today?

11 MS. LIZ CARRIERE: Yeah, a hundred and
12 thirty-two (132).

13 MR. BOB PETERS: Thank you. And the
14 additional revenue from those domestic customers at
15 that point would be \$2.3 billion of additional revenues
16 coming out of ratepayers?

17 MS. LIZ CARRIERE: Correct.

18

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: On page 53, Ms.
22 Carriere, under Tab 6, there's the All Gas analysis.
23 And All Gas is -- it's the least capital intensive
24 alternative that Manitoba Hydro studied?

25

1 (BRIEF PAUSE)

2

3 MS. LIZ CARRIERE: I think it has the
4 lowest capital cost, but I'd have -- subject to check.

5 MR. BOB PETERS: Thank you. And the
6 panel will see that under 2032 the cumulative annual
7 rate increases out to 2032 would be in the range of 90
8 percent?

9 MS. LIZ CARRIERE: Correct.

10 MR. BOB PETERS: And this includes
11 recovery of the \$1.6 billion of sunk costs that you had
12 mentioned earlier in your testimony today, Ms.
13 Carriere?

14 MS. LIZ CARRIERE: That is correct.

15 MR. DARREN RAINKIE: Mr. Peters, I -- I
16 think I'm doing a pretty quick run here, not to
17 interrupt you -- but I think you have to look at that
18 89 percent in 2060 -- sorry '32. If you focus towards
19 the left-hand you see the losses that come out of the
20 All Gas Plan between 2015 and 2020 as a result of the
21 mechanical way of calculating this. I -- I suggest to
22 you that 89 percent rate increases by 2032 would not be
23 sufficient. I think the -- the rate increases would
24 have to be higher upfront. And -- and for some reason
25 we're stopping at year 20 in this analysis -- I'm --

1 I'm not sure why -- because of the correction factor
2 right after -- in year 21. I mean, the real point of
3 this exercise is going out over the long-term and
4 seeing what the -- what the rate increases are over
5 time.

6 I mean, the -- the whole point of a
7 hydroelectric generating system it's going to have a
8 long life, so to do a proper comparison against other
9 shorter life assets you have to compare the -- the time
10 periods.

11 I'm not sure if we're going to point
12 that out to the Board or not, but certainly -- if you
13 were going to point that out to the Board through your
14 cross, but certainly we would want to make sure that
15 the Board is looking over these entire -- this entire
16 time frame in terms of understanding the various
17 alternatives; particularly because of that correction
18 factor stopping at year 20, I don't think is
19 necessarily a fair picture of the -- of the
20 alternatives.

21 MR. BOB PETERS: Well, let's do what
22 you're suggesting then, Mr. Rainkie.

23 On page 54, out to 2062 the accumulative
24 annual increases are 176 percent. Is that the number
25 you wanted to draw to the Board's attention?

1 MR. DARREN RAINKIE: That's correct.

2 And I think then if you compare that a couple tabs back
3 to the Preferred Development Plan, that number's 106
4 percent. So there's a 70 percent differential going
5 out fifty (50) years, which is quite significant.

6 MR. BOB PETERS: And this All Gas Plan,
7 Mr. Rainkie, does not include any export revenue as a
8 result of the gas plant.

9 Is that correct?

10 MR. DARREN RAINKIE: There is still
11 export revenue, Mr. Peters, but it wouldn't be as high
12 as in a hydraulic situation.

13

14 (BRIEF PAUSE)

15

16 MR. BOB PETERS: At what point, Mr.
17 Rainkie, does the Preferred Development Plan crossover
18 with the All Gas Plan? How many years out in terms of
19 the rate increases, including the correction that
20 you've -- you've noted?

21 MS. LIZ CARRIERE: It's -- it crosses
22 over in 2035, which is fifteen (15), sixteen (16):
23 seventeen (17) years.

24 MR. BOB PETERS: All right. Hang onto
25 that thought, Ms. Carriere. We'll come back to that.

1 In Tab 7 of the book of documents, on
2 page 58, there was discussion about consumer rate
3 impacts happen over time and they have
4 intergenerational impacts.

5 Would you agree with that?

6

7 (BRIEF PAUSE)

8

9 MS. LIZ CARRIERE: I'm sorry, what's
10 the question?

11 MR. BOB PETERS: Manitoba Hydro's
12 consumer rates are expected to happen over time, and
13 have intergenerational impacts?

14

15 (BRIEF PAUSE)

16

17 MS. LIZ CARRIERE: Yes.

18 MR. BOB PETERS: For all plans?

19 MS. LIZ CARRIERE: For all plans,
20 correct.

21 MR. BOB PETERS: And in terms of
22 evaluating them, while I think Manitoba Hydro was asked
23 to provide a net present value of those rates at a --
24 at a 5.05 percent discount rate, Manitoba Hydro used
25 the one point eight-six (1.86) that you spoke of in

1 your evidence, correct?

2 MS. LIZ CARRIERE: That's correct.

3 MR. BOB PETERS: And if we see on page
4 61, the derivation of your 1.86 percent, Manitoba Hydro
5 equates that to the short-term Canadian T-Bill rate
6 after adjusting it for the consumer price index.

7 MS. LIZ CARRIERE: Yes. The -- it's
8 based on real dollars -- or real -- a real rate, and
9 after removing the guarantee fee from Manitoba Hydro's
10 forecast of short-term Canadian T-Bill rates.

11 MR. BOB PETERS: And you probably got
12 assigned reading by Ms. Ramage like the rest of us, did
13 you, Ms. Carriere?

14 MS. LIZ CARRIERE: Yes.

15 MR. BOB PETERS: And in -- in the
16 literature that was circulated, it -- it -- would it be
17 correct to say that there are a number of different
18 views in terms of what's the appropriate discount rate
19 for the -- for whatever problem was trying to be
20 examined?

21 MS. LIZ CARRIERE: I would agree that
22 there's a lot of views in economic theory.

23 MR. BOB PETERS: And Manitoba Hydro
24 selected 1.86 percent, which represents Manitoba
25 Hydro's determination of a risk-free savings for -- for

1 customers -- for its customers?

2 MS. LIZ CARRIERE: Yes, we used a
3 consumption rate.

4 MR. BOB PETERS: And Manitoba Hydro --
5 I think in your direct evidence, you called this, "The
6 social time preference rate?"

7 MS. LIZ CARRIERE: Correct. That's the
8 economic term for it.

9 MR. BOB PETERS: And by doing that,
10 would you agree that Manitoba Hydro is valuing
11 ratepayers' long-term considerations with a short-term
12 interest rate?

13

14 (BRIEF PAUSE)

15

16 MR. DARREN RAINKIE: Mr. Peters, I'll -
17 - I'll start out here and Ms. Carriere can add to this
18 if she wants. I -- I don't think that's the proper
19 perspective. I think what we're saying is, is that
20 when you're discounting a revenue requirement, the
21 revenue requirement already has the cost of capital,
22 you know, the debt requirements, the cost of our debt,
23 as well as any reserve requirements built into it.

24 So if you're going to discount at a
25 weighted average cost of capital, you're double

1 counting that in the calculation. So it's not a matter
2 of matching up short and long-term rates. It's a
3 matter of, What are your -- what are you doing
4 mechanically? And while there's a number of different
5 technical perspectives on the record in terms of, you
6 know, how to calculate discount rates, there's a policy
7 perspective here, as well.

8 If you use a really high discount rate,
9 by the time you get out to twenty (20) years, you're
10 essentially putting no value, just mechanically, by
11 calculating a discount rate. You're putting no value
12 on -- on future benefits, particularly from a long-
13 lived hydro plant. So we can have a lot -- you know,
14 some great technical discussions about this, but the
15 implications of, number 1, either truncating the
16 analysis period to a short period of time, or jacking
17 up the -- the discount rate unnecessarily is that
18 you're essentially scoping out a hydroelectric plant.

19 You -- we can have technical discussions
20 about rate of returns and all those types of things,
21 but you have to be careful about that. What are you
22 doing? You're trying to -- in using that 1.86 percent
23 discount rate, equate kind of a time value of money,
24 because the cost of capital is already included in the
25 revenue requirement, and we don't want to double count

1 that, which is different than the economic analysis,
2 where in the economic analysis you're looking at the
3 revenue and expense flows only, and you have no
4 interest costs in that calculation, so you're embedding
5 the cost of capital, interest, and equity in the
6 discount rate.

7 So whenever you're discounting anything
8 you have to be careful: What are you discounting? And
9 whether, you know, that's -- it's the same thing for
10 real and nominal. If you're going to take a -- a
11 nominal flow, you have to use a nominal discount rate.
12 If you're going to take a real flow, you have to take a
13 real discount rate. If you mix and match those, the
14 results you get are meaningless.

15 MR. BOB PETERS: Shouldn't you include,
16 Mr. Rainkie, a rate for the opportunity of foregone
17 investments by that consumer?

18 MR. DARREN RAINKIE: That's what's
19 already in here, Mr. Peters. And as I said, we'd be --
20 I think we'd be double counting. We're -- we're
21 looking at discounting a revenue requirement, and if
22 we're going to put a -- a second return in there, we're
23 double counting, Mr. Peters.

24 So, I'm not sure -- I'm not sure I can
25 get past that -- that part.

1 MR. BOB PETERS: Well, if you're taking

2 --

3 MR. DARREN RAINKIE: -- double

4 counting.

5 MR. BOB PETERS: Okay. If you're
6 taking money out of consumers' pockets, in terms of my
7 vernacular, Mr. Rainkie, that means the consumer
8 doesn't have the opportunity to invest that as that
9 consumer sees fit.

10 Do you agree with that?

11 MR. DARREN RAINKIE: And that's what
12 this one point eight six (1.86) discount rate is doing,
13 Mr. Peters. I mean, I'm not -- I'm not sure if you're
14 trying to impute, like, a 10 or 20 percent rate of
15 return, that Manitoba Hydro like a financial
16 institution, that we pay you a 20 percent return for --
17 in -- in exchange for our rates. I'm not kind of
18 getting the -- the discussion here.

19 I mean, I -- I've seen discount rates in
20 -- in the material of 10 percent. And if you assume a
21 75:25 capital structure, a 10 percent discount rate at
22 about a 6 percent -- weighting a 6 percent long-term
23 debt rate is like imputing a 21 percent rate of return.
24 And -- and I guess I've never, from a policy
25 perspective, ever thought that Manitoba Hydro was going

1 to offer a 21 percent rate of return, especially since
2 we don't, in our -- in our actual revenue requirements,
3 we don't follow a rate-based rate of return
4 methodology. We don't charge the customers a 9 or 10
5 percent rate of return. In fact, if you look at our
6 net income and -- and -- and kind of back calculate
7 that over our equity, we probably charge a 3 to 5
8 percent rate of return.

9 So, am I going to pay the customer 21
10 percent when I'm only charging them, you know, 3 to 5
11 percent in the first -- first instance? That would
12 seem rather perverse. I -- I've never thought of
13 Manitoba Hydro as a financial institution where you put
14 your money and we offer a rate of return. We provide a
15 critical service to Manitobans at a fair cost.

16 So I -- I guess I'm having trouble from
17 a policy perspective, in terms of -- of -- of this, and
18 I think, you know, all the technical arguments aside,
19 I'd hoped the Board would consider that as well.

20 MR. BOB PETERS: I have your point, Mr.
21 Rainkie, but you're not paying the customer. The
22 customer is paying Manitoba Hydro by way of money out
23 of the customers' pockets, correct?

24 MR. DARREN RAINKIE: That's correct.
25 But by using a discount rate, Mr. Peters, you're saying

1 that I -- I should, in -- in looking at different
2 options over time and the revenue that I collect, I
3 should embed, you know, anywhere from a 10 to 21
4 percent -- and I'm looking at the discount rates of 5
5 to 10 percent that have been, you know, put in some of
6 the material that's on the record. To me, that's
7 saying that I have to look at the opportunity cost of
8 capital as being 10 to 21 percent for the customer, and
9 yet I'm not requiring that. So why would I -- why
10 would I think that way?

11 I'm not requiring the customer to pay 21
12 percent, so why would I, when I was trying to evaluate
13 options for the customer, impute a 21 percent rate of
14 return? And when I do that -- when I impute a 21
15 percent rate of return and use a 10 percent discount
16 rate, essentially what I'm saying is: I don't really
17 care what happens to, you know, rates ten (10) or
18 twenty (20) years down the line. I'm only worried
19 about the -- you know, the next five (5) or ten (10)
20 years. Because, mathematically, at that type of a
21 discount rate, the -- the fact that -- that you're
22 multiplying any value of it is so small.

23 So, I think what you're doing is
24 actually imputing intergenerational inequity in the
25 situation. You just have to be careful that by jacking

1 up discount rates or truncating evaluation periods,
2 that you're really not just screening hydro-electric
3 power out; the very same fuel that's got us to the --
4 you know, the favourable rate position that we have
5 right now.

6 MR. BOB PETERS: Why shouldn't the
7 ratepayers' perspective be consistent with how Hydro
8 views the opportunity?

9 MR. DARREN RAINKIE: It is, Mr. Peters.
10 We -- we --

11 MR. BOB PETERS: Well, if Manitoba
12 Hydro is using a discount rate of five point four zero
13 (5.40)...

14 MR. DARREN RAINKIE: But it's a
15 different flow, Mr. Peters. The -- the five-o-five
16 (505) that Manitoba Hydro is using -- first of all,
17 that includes a rate of return of 9.3 percent, if I --
18 if I'm correct. Now, that discount rate -- we could
19 have put in a much lower discount rate, Mr. -- Mr.
20 Peters, just a debt discount rate. We didn't have to
21 put in the nine point three-o (9.30). We do that. It's
22 a stringent test. It's a corporate-like test.

23 But in discounting -- in the economic
24 analysis what you have is you have the incremental
25 revenues and you have the incremental expenses.

1 There's no interest cost in that -- in those
2 calculations. So you're using the full kind of a
3 corporate discount rate, which I would argue is a very
4 stringent test in the economic analysis.

5 But when we -- when we come to the
6 ratepayer analysis we've already included in the
7 revenue requirements the return that Manitoba Hydro
8 requires in terms of paying our bondholders and a very
9 small return that we require in terms of contribution
10 to reserves. So if I'm not charging the customer 10
11 percent in my revenue requirement -- or sorry, 9.3
12 percent rate of return, why would I discount at that?
13 It would seem to me that we're looking at like Manitoba
14 Hydro as a financial institution. It's -- actually,
15 you know, you're putting your money and you're getting
16 a greater return or something like -- almost like
17 you're investing it in an investors' group or something
18 like that.

19 I just have never thought of our
20 business in that context, for the provision of a public
21 service.

22 MR. BOB PETERS: But you'll go so far
23 as to say that there may be different econo --
24 different views by -- by economists on that subject?

25 MR. DARREN RAINKIE: Yes, there are,

1 Mr. Peters. But I -- I just -- you know, whenever
2 you're entering into any type of financial analysis you
3 have to ask yourself, Why am I doing it and what are my
4 -- what are -- you know, what's the outcome of it.

5 And I'm -- I'm just -- when -- when I
6 see 10 percent discount rates, that to me means that
7 you're saying -- it's like we're having a rate case and
8 we're worried about the next couple years of -- of rate
9 increases: I really don't care about what happens in
10 year 20, 30, and 40.

11 Manitoba Hydro is here, through its
12 mandate, to provide power for the long-term. We have
13 to care about what's happening in the current
14 generation and the future generation -- future
15 generations of Manitobans.

16 So be careful that, in getting mixed up
17 in the theory and imputing high rates, you don't throw
18 the baby out with the bathwater, so to speak, and say,
19 We don't care, for theoretical reasons, about customers
20 in year 20 and 30 and 40. That's my -- that's my -- my
21 proviso.

22 MR. BOB PETERS: Anything to add, Mr.
23 Carriere?

24 MS. LIZ CARRIERE: I think Darren did
25 quite well. Thank you.

1 MR. BOB PETERS: Okay. On page 70 of
2 the -- 69 and 70 of the book of documents, this table
3 reflects the cumulative domestic revenue collected from
4 ratepayers, including what's in base rates.

5 Would that be correct, Ms. Carriere?

6 MS. LIZ CARRIERE: Sixty-nine (69), I
7 believe that's the case, And seventy (70), I think so,
8 too.

9 MR. BOB PETERS: Seventy (70) wasn't
10 prepared by Manitoba Hydro; it was a PUB-prepared
11 document. But this was to reflect Table 11.2 values by
12 way of -- I guess we call these quilts.

13 Is that what we do?

14 MS. LIZ CARRIERE: I believe they use
15 them in the economic evaluation, yes.

16 MR. BOB PETERS: And these cumulative
17 domestic revenue -- revenues collected from ratepayers
18 have been discounted at the 1.86 percent that Mr.
19 Rainkie was defending?

20 MS. LIZ CARRIERE: Yes, they seem to be
21 the same numbers.

22 MR. BOB PETERS: And on the colour
23 chart, green being lower cost to ratepayers, would that
24 be correct?

25 MS. MARLA BOYD: I think we need to be

1 a bit careful about this. I had a discussion with Mr.
2 Cas -- Cathcart earlier, that the colour coding here is
3 done by Mr. Cathcart, as I understand, and doesn't
4 reflect the --necessarily the same kind of ranges and
5 degrees that you might otherwise find. So you need to
6 be careful about laying this against a quilt of a
7 different kind in Manitoba Hydro's application.

8 He assures me he learned it in
9 kindergarten; however, it's a little bit different.

10

11 CONTINUED BY MR. BOB PETERS:

12 MR. BOB PETERS: Well, I'm sure Excel
13 has their own gradient. But we can see from the
14 values, can we, Ms. Carriere, that the green on any
15 particular plan in any particular year, the darker the
16 green, the less money collected from the ratepayers?

17

18 (BRIEF PAUSE)

19

20 MS. LIZ CARRIERE: A quick glance at
21 it, that seems to be what's happening.

22 MR. BOB PETERS: Would the panel be
23 correct, Ms. Carriere, in -- in reviewing this to -- to
24 look to see that the crossover point of impact on
25 ratepayers in respect of the All Gas versus the

1 Preferred Development Plan, that would be Plan 1, All
2 Gas versus Plan 14, K19/C25/750, comes around 2046?

3 MS. LIZ CARRIERE: I think I agreed
4 with you in my presentation this morning.

5 MR. BOB PETERS: Earlier, I had asked
6 you a similar question, and I think your answer was it
7 -- it was some seventeen (17) years out in which the
8 crossover point came. Was that on a different -- in --
9 in respect of a different -- a different matter?

10 MS. LIZ CARRIERE: No. That is true
11 for the present value analysis.

12 MR. BOB PETERS: Ms. Carriere, from a
13 present value analysis, using the 1.86 percent real
14 discount rate, the crossover point here is 2046,
15 correct?

16 MS. LIZ CARRIERE: Correct.

17 MR. BOB PETERS: All right. And that's
18 approximately thirty-three (33) years out into the
19 future?

20 MS. LIZ CARRIERE: Thirty-three (33)
21 years from today, but seventeen (17) years from when
22 Conawapa's last unit is in service.

23 MR. BOB PETERS: All right, fair
24 enough. And so the value that you had pointed out in
25 your slides in terms of accruing to the ratepayers,

1 that additional benefit to ratepayers then accrues in
2 the last seventeen (17) years of the forecast?

3 MS. LIZ CARRIERE: On a present value
4 basis, but the nominal rates are lower much earlier
5 than that.

6 MR. BOB PETERS: On page 75, Ms.
7 Carriere, I think we can flip ahead to one of the
8 graphs, this was prepared using the high economics?
9 The export revenue was low and the capital was high,
10 correct?

11 MS. LIZ CARRIERE: That's correct.

12 MR. BOB PETERS: And what this -- and
13 this also uses the 1.86 percent discount analysis on
14 the consumers' revenues?

15 MS. LIZ CARRIERE: Correct.

16 MR. BOB PETERS: And under these
17 conditions, several plans collect less from ratepayers
18 than the Preferred Development Plan over the -- over
19 the full six (6) -- the full fifty (50) year analysis?

20 MS. LIZ CARRIERE: That's correct.

21 MR. BOB PETERS: The green line that
22 runs horizontal at the zero intercept is the -- is the
23 Preferred Development Plan?

24 MS. LIZ CARRIERE: Yes.

25 MR. BOB PETERS: And, so every plan

1 that is charted below that horizontal line would
2 indicate to the panel that less money is being
3 requested from the ratepayers?

4 MS. LIZ CARRIERE: On a present value
5 basis.

6

7 (BRIEF PAUSE)

8

9 MR. BOB PETERS: Does that answer, Ms.
10 Carriere...?

11

12 (BRIEF PAUSE)

13

14 MR. BOB PETERS: Ms. Carriere, does
15 your last answer suggest that it would be ina -- it's
16 inappropriate for the panel to look at it with a -- a
17 discounted -- a discounted perspective?

18 MS. LIZ CARRIERE: I'm just suggesting
19 that there's another perspective, if we looked also at
20 the nominal rates being charged to customers.

21 MR. BOB PETERS: And I think we saw
22 that in your presentation this morning?

23 MS. LIZ CARRIERE: That's correct.

24 MR. BOB PETERS: All right. Sliding
25 ahead to pages 89 and 90.

1 (BRIEF PAUSE)

2

3 MS. LIZ CARRIERE: I'm sorry, what
4 page?

5 MR. BOB PETERS: Start on page 89,
6 please, ma'am.

7

8 (BRIEF PAUSE)

9

10 MR. BOB PETERS: What Manitoba Hydro
11 was doing on -- on this chart was to show the Board the
12 impact of equal annual rate increases for the next
13 twenty (20) years under the different plans?

14 MS. LIZ CARRIERE: That's correct.

15 MR. BOB PETERS: And in this particular
16 case, the Preferred Development Plan is the green plan?

17 MS. LIZ CARRIERE: Correct.

18 MR. BOB PETERS: All Gas is red?

19 MS. LIZ CARRIERE: Correct.

20 MR. BOB PETERS: And the Board will be
21 familiar that -- I think these -- Mr. Wojczynski
22 introduced us to them as the -- the box-and-whiskers
23 charts, if I have that right. What the box does is it
24 bookends the P25 and P75 levels of probability of those
25 rates being in effect under those plans?

1 MS. LIZ CARRIERE: That's correct.

2 MR. BOB PETERS: And then the whiskers
3 take it out further to the -- at the high end, the P90,
4 and at the low end, the P10 levels, correct?

5 MS. LIZ CARRIERE: That's correct.

6 MR. BOB PETERS: On page 90, we have
7 the -- the fifty (50) year view as opposed to the --
8 the twenty (20) year view that we saw on the previous
9 page, correct?

10 MS. LIZ CARRIERE: That's correct.

11 MR. BOB PETERS: And when the Board
12 looks at page -- page 90 and it sees the probabilities
13 of equal annual rate increases under the Preferred
14 Development Plan, at the -- the P50 level, that can be
15 compared to the -- the P50 level of the other plans as
16 well, correct, and that's the solid line in the middle
17 of the box?

18 MS. LIZ CARRIERE: That's correct.

19 MR. BOB PETERS: All right. We have
20 that. Thank you. And this has not yet been updated
21 for the new capital costs, correct?

22 MS. LIZ CARRIERE: No, not
23 specifically, but the -- the reference -- the
24 ref/ref/high capital cost scenario would fall within
25 that -- this range.

1 MR. BOB PETERS: Does that suggest that
2 the P50 level for the Preferred Development Plan, which
3 is in green, would move up from where it's shown at
4 1.47 percent up closer to the 2.19 percent?

5 MS. LIZ CARRIERE: No.

6

7 (BRIEF PAUSE)

8

9 MS. LIZ CARRIERE: No, I would -- I
10 don't know the exact value, but we slightly are higher
11 than the one (1) -- one point four-seven (1.47).

12 MR. BOB PETERS: And what -- what does
13 a higher level of DSM impact -- how does that impact
14 this analysis?

15 MS. LIZ CARRIERE: I don't know yet.

16 MR. BOB PETERS: Directionally?

17 MS. LIZ CARRIERE: I don't know yet.

18

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: Ms. Carriere, are you
22 going to be able to provide updates to these -- these
23 charts when you provide your updated information?

24 MS. LIZ CARRIERE: I don't know that we
25 would update the chart, but we can certainly insert the

1 new evaluation in these charts.

2 MR. BOB PETERS: All right. Please do
3 when you -- when you do your filing. No, we won't put
4 that as an undertaking. That'll be just part of the --
5 the work already assigned, I believe.

6 And I suppose I should have asked you
7 for the benefit of the panel, Ms. Carriere, when we
8 look at these -- these eight (8) plans that are shown
9 here, which -- which three (3) will show up on the --
10 on the next version?

11 It'll be the All Gas. It'll be the
12 Preferred Development Plan, and I take it it's going to
13 include the Keeyask19/Import Gas/750 on the far right
14 side?

15 MS. LIZ CARRIERE: That's correct. The
16 red, green and gold-y-brown.

17 MR. BOB PETERS: All right.

18 MS. LIZ CARRIERE: I'm getting my seven
19 fifty (750) cases mixed up. The plan -- plan -- the
20 gold-brown plan on the far right is Plan 6. We're
21 actually going to be running Plan 5, and the difference
22 is the timing of the gas plant, as well as the sale --
23 WPS sale. Yeah.

24 MR. BOB PETERS: And -- and so, which
25 one is -- is it that you're going to include on the

1 updated view?

2 MS. LIZ CARRIERE: It will be Plan 5,
3 but it's not on here.

4 MR. BOB PETERS: Oh, I see. All right.
5 Ms. Carriere, if we can move to page 95, Tab 10?
6 Again, it's not a Manitoba Hydro document, but it was
7 to represent the net present value of additional
8 incremental domestic revenue over periods of time.

9 Is that how you understood it?

10 MR. RICHARD BEL: Could I -- could I --
11 I'm a little confused between Plan 5 and Plan 6.

12 MR. BOB PETERS: Perhaps I can ask Ms.
13 Villegas to put up out of PUB 58 -- Exhibit 58-1 -- put
14 up page 12, and...

15 MR. RICHARD BEL: So are -- so are we -
16 - are we going to be seeing the Keeyask/Gas/750
17 including the WPS sale, but not including the
18 investment, or is the WPS sale being taken out of?
19 It's a big deal.

20

21 (BRIEF PAUSE)

22

23 MS. LIZ CARRIERE: When we evaluate
24 Plan 5 for the DSM evaluations, the WPS sale will be in
25 -- in the evaluation, but there will be no WPS

1 investment.

2 MR. RICHARD BEL: Okay, so then that's
3 the one we're going to run --

4 MS. LIZ CARRIERE: That's the one we're
5 running.

6 MR. RICHARD BEL: -- okay.

7 MR. BOB PETERS: Ms. Carriere, back to
8 page 95 briefly. These -- ninety-five (95) at Exhibit
9 PUB-58-4 -- this is the net present value of additional
10 domestic revenue over various periods of time. Is that
11 how you interpreted it?

12 MS. LIZ CARRIERE: Well, I think it's
13 based on the additional revenue and not total general
14 consumers revenue, and that appears to be what it's
15 doing, although we were not able to reproduce the same
16 values.

17 MR. BOB PETERS: Well, let's take the -
18 - the very first sliver at the top. The Board will see
19 that it was done at a discount rate of three point
20 eight-zero (3.80) nominal, which equated to your one
21 point eight-six (1.86) real?

22 Would that be -- that be correct?

23 MS. LIZ CARRIERE: Close.

24 MR. BOB PETERS: And under the
25 reference case, the Preferred Development Plan would

1 collect more incremental domestic revenue on an NPV
2 basis over the next thirty (30) years?

3 MS. LIZ CARRIERE: I'm sorry, where are
4 you looking?

5 MR. BOB PETERS: If we look to the
6 Preferred Development Plan, Plan 14, at the far right-
7 hand column?

8 MS. LIZ CARRIERE: M-hm. Okay.

9 MR. BOB PETERS: Let's start at the NPV
10 twenty (20) year number, comparing -- and we'll just
11 compare the All Gas to the Preferred Development Plan.
12 The All Gas appears to be seeking additional domestic
13 revenues of about nine (9) -- \$9 billion, and the
14 Preferred Development Plan is ten point seven (10.7)?

15 MS. LIZ CARRIERE: After twenty (20)
16 years?

17 MR. BOB PETERS: Yes.

18 MS. LIZ CARRIERE: Okay.

19 MR. BOB PETERS: And on the face of it,
20 could the panel conclude that Plan 6 is more beneficial
21 to ratepayers, as it collects less moneys from them
22 over those first -- at least the first thirty (30)
23 years?

24 MS. LIZ CARRIERE: Relative to what?

25 MR. BOB PETERS: Relative to the

1 Preferred Development Plan.

2 MS. LIZ CARRIERE: In that short time
3 frame, I would say so, but you're cutting off almost
4 entirely the benefits that might accrue to customers
5 after that time period for the rest of the ninety (90)
6 plus years of the asset.

7 MR. BOB PETERS: Well, then let's look
8 at -- at the -- at forty (40) years out of this fifty
9 (50) year analysis. At forty (40) years out, the --
10 the Preferred Development Plan collects \$20.751
11 billion, and the All Gas would be \$22 billion, correct?
12 So it's crossed over, and the benefits are now seen
13 under the Preferred Development Plan starting after
14 about forty (40) years?

15 MS. LIZ CARRIERE: That's correct. And
16 --

17 MR. BOB PETERS: And then it follows
18 through to fifty (50) year -- fifty (50) years, and
19 again, the amounts can be compared from amongst any of
20 the plans, correct?

21 MS. LIZ CARRIERE: That's correct.

22 MR. BOB PETERS: And Plan 4 was
23 included in here. That was the Keeyask19/Gas250. And
24 it, likewise, had benefits up to forty (40) years out,
25 relative to the Preferred Development Plan. but after

1 that, the Preferred Development Plan had greater
2 benefits, correct?

3 MS. LIZ CARRIERE: That may have been
4 true when we prepared the analysis, but my
5 understanding, that that's not an option -- that Plan 4
6 is not an option any longer.

7

8 (BRIEF PAUSE)

9

10 MR. BOB PETERS: The last one of these
11 I want to look at with you, Ms. Carriere, is the high
12 capital one, which is the second analysis down on these
13 fifty (50) year cuts. And again, this one hasn't been
14 updated for the current information, but Manitoba Hydro
15 is using high capital as the proxy for what has
16 happened on March the 10th?

17 MS. LIZ CARRIERE: Yes, that's the
18 correct -- the high capital scenario. The Keeyask and
19 Conawapa are almost identical to what's in the -- the
20 new reference case. The other thing is, is that this -
21 - the high capital scenario, relative to the new -- the
22 new update scenario that we're going to be running, the
23 cap -- high capital scenario in this case is -- also
24 has high gas capital in it under the All Gas Plan, and
25 also for the later combined -- sorry, the simple cycle

1 turbines later on in the Preferred Development Plan.

2 MR. BOB PETERS: Did Manitoba Hydro
3 obtain updated capital costs on the gas turbines?

4 MS. LIZ CARRIERE: No, there's no
5 updated capital costs on the gas turbines. All I'm
6 saying is that if you want to use this as a proxy -- so
7 when we're saying the rate increase is at 4.27 percent,
8 it's probably actually higher than -- than what they
9 would need to be under just the Keeyask and Conawapa
10 high capital.

11

12 (BRIEF PAUSE)

13

14 MR. BOB PETERS: Mr. Rainkie, if we
15 turn to Tab 11 and page 122 of the materials, the panel
16 will see what -- what payments to the province of
17 Manitoba and the various provincial municipalities has
18 been by Manitoba Hydro? And this comes from some usual
19 information provided at general rate application, sir?

20 MR. DARREN RAINKIE: Yes, Mr. Peters,
21 it looks familiar.

22 MR. BOB PETERS: And the provincial
23 payment as a percentage of gross revenues of Manitoba
24 Hydro, the far right-hand column, shows relatively
25 consistently that based on the gross revenues of

1 Manitoba Hydro, approximately 15 percent is paid over
2 to the province.

3 MR. DARREN RAINKIE: Yes, it's in that
4 15 to 16 percent range in the years current.

5 MR. BOB PETERS: And then it -- it does
6 drop, Mr. Rainkie, down as low as 12 percent, and is
7 that expected to -- to hold constant over the -- the
8 financial planning horizon?

9 MR. DARREN RAINKIE: I'm not sure I
10 understand your question, Mr. Peters. It -- sorry,
11 it's moving down from sixteen (16) to twelve (12). Are
12 you ask -- are you asking me, with IFF13, is that
13 relationship changing, or maybe I didn't understand the
14 question?

15 MR. BOB PETERS: When the Board -- when
16 we get past 2032, Mr. Rainkie, based on the most
17 current IFF, do the payments to government as a
18 percentage stay around the 12/13 percent number?

19

20 (BRIEF PAUSE)

21

22 MR. DARREN RAINKIE: Mr. Peters, I -- I
23 thought somewhere in this mass of information there was
24 a -- an IR that runs this out to the end of the -- to
25 the fifty (50) year period, but I'd have to see that --

1 it's not intuitive to me what the answer to that
2 question is right now.

3 MR. BOB PETERS: All right. I -- I'm
4 just wondering if it was -- if formulaically it held
5 true, or whether there would be some moving parts that
6 could cause this number to change, Mr. Rainkie?

7 MR. DARREN RAINKIE: I must admit, Mr.
8 Peters, that's not one of the relationships I've got in
9 my head as we sit here, but I'll try to source that
10 Information Request to see where that relationship goes
11 over time.

12 MR. BOB PETERS: All right. Thank you,
13 sir. No, it's not an undertaking.

14

15 (BRIEF PAUSE)

16

17 MR. BOB PETERS: Mr. Rainkie, if we
18 just pick the 2014 or 2015 year and just run across
19 this table, the water rentals we've heard are charged
20 on both export and on domestic use, correct?

21 MR. DARREN RAINKIE: Yes, it's on total
22 -- total hydraulic generation.

23 MR. BOB PETERS: And again -- the debt
24 guarantee fee is based on the year-end debt of Manitoba
25 Hydro?

1 MR. DARREN RAINKIE: Yes, the prior
2 year-end debt.

3 MR. BOB PETERS: And capital taxes
4 still apply to -- to Manitoba Hydro, even if they don't
5 apply to other corporations?

6 MR. DARREN RAINKIE: Yes, still us, and
7 I think financial institutions.

8 MR. BOB PETERS: The total provincial
9 payments in 2014 are about \$271 million?

10 MR. DARREN RAINKIE: Yes, just net of
11 any business taxes, I think that that's what that
12 column is trying to do. It's more the provincial
13 guarantee fee, water rentals, and capital taxes in that
14 calculation, Mr. Peters.

15 MR. BOB PETERS: You were taking out
16 the payments to municipalities?

17 MR. DARREN RAINKIE: Yes, I think
18 that's the way it was it was asked in this IR.

19 MR. BOB PETERS: And then post-
20 Conawapa, under the Preferred Development Plan, if we
21 go down to, say, 2026/'27, the total provincial
22 payments would essentially double from the \$270 million
23 over to \$520 million?

24 MR. DARREN RAINKIE: Yes, Mr. Peters.
25 As our asset base increases, those payments follow that

1 -- that same type of pattern.

2

3 (BRIEF PAUSE)

4

5 MR. BOB PETERS: In terms of the study,
6 and this might be Mr. Wojczynski's area, although I
7 think I've managed to out-weight him, Mr. Rainkie, see
8 if you can field this one.

9 MR. DARREN RAINKIE: Mr. Peters, I
10 think I found the IR that I was looking for. Sorry, I
11 keep interrupting you.

12 MR. BOB PETERS: You've done your
13 homework.

14 MR. DARREN RAINKIE: Maybe --

15 MR. BOB PETERS: You were going to tell
16 the Board what happens to the -- to the provincial
17 payments as a percentage of gross revenue out -- out to
18 -- at least till '62?

19 MR. DARREN RAINKIE: Okay. So we filed
20 in the response to PUB/Manitoba Hydro First Round 73a,
21 two hundred and sixteen (216) analysis of this for
22 every one (1) of our -- our financial pro formas. If
23 you look on page 136 of 216, we calculate that very
24 percentage. Now, this one (1) includes grants in lieu
25 of taxes, property taxes in it, but -- so we see the

1 relationship going down to about, you know, 10 to 12
2 percent.

3 Sorry, you can't see it unless somebody
4 can pull it up, but -- it may be hard and -- it's page
5 136 of 216. Yeah, the attachment...

6

7 (BRIEF PAUSE)

8

9 MR. DARREN RAINKIE: I'm not sure what
10 attachment. This is a long Information Request. I
11 think there's more than one (1) attachment in it.

12 MS. MARLA BOYD: Try about page 741 or
13 thereabouts.

14

15 (BRIEF PAUSE)

16

17 MR. DARREN RAINKIE: So you can see,
18 Mr. Peters, that it -- over time, it chips down a
19 little bit to about the 10 or 11 percent level on the
20 long -- on the long run from that Information Request,
21 including grants in lieu of taxes.

22

23 (BRIEF PAUSE)

24

25 MR. BOB PETERS: This one just didn't

1 net out the provincial payments then, Mr. Rainkie?

2 MR. DARREN RAINKIE: That's correct.

3 It includes the grants in lieu of taxes.

4 MR. BOB PETERS: All right. Thank you
5 for that.

6

7 (BRIEF PAUSE)

8

9 MR. DARREN RAINKIE: Grants --

10 MR. BOB PETERS: Grants in lieu of
11 taxes is what you've is what you said.

12 MS. PATTI RAMAGE: Mr. Peters, you
13 didn't outlast Mr. Wojczynski, just to let you know.

14

15 (BRIEF PAUSE)

16

17 CONTINUED BY MR. BOB PETERS:

18 MR. BOB PETERS: On page 123, just so
19 we can clean this area up, the -- I think this was from
20 the pre-filed testimony of Mr. Bowman.

21

22 (BRIEF PAUSE)

23

24 MR. BOB PETERS: Would it be correct if
25 we followed, I suppose, Pathway 5, Plan 14, the present

1 value of government benefits are about \$3.5 billion out
2 to --

3 MR. DARREN RAINKIE: Sorry, Mr. Peters,
4 which -- which --

5 MR. BOB PETERS: -- over the fifty (50)
6 years?

7 MR. DARREN RAINKIE: -- scenario are
8 you in?

9 MR. BOB PETERS: I was looking at page
10 123, Mr. Rainkie.

11 MR. DARREN RAINKIE: Pathway 5, but
12 which of the various economic assumptions are you in?

13

14 (BRIEF PAUSE)

15

16 MR. BOB PETERS: Mr. Rainkie, let's --
17 let's -- for the benefit of the panel, let's look at
18 the ref/ref/ref case. Take it right in the middle
19 where the highest probability of occurrence was, \$3.89
20 billion would be the present value of government
21 benefits over a fifty (50) year horizon?

22 MR. DARREN RAINKIE: This is Mr.
23 Bowman's calculation at 5.05 percent real. I -- I know
24 we've done a similar calculation, I think on the
25 multiple ben -- a multiple account analysis, but I'm

1 not sure what discount rate we used as -- as we sit
2 here, but I'm not sure that's important at this point
3 to your -- to your line of questioning, Mr. Peters, but
4 I -- I -- I'm not sure. I think the next panel would
5 tell you how they valued the -- the payments to
6 government.

7 MR. BOB PETERS: Are -- are you
8 suggesting, Mr. Rainkie, that the five point zero-five
9 (5.05) real discount rate is not the appropriate
10 number?

11 MR. DARREN RAINKIE: You know what, Mr.
12 Peters, to be fair, I've been looking at the financial
13 analysis and not this an -- this analysis, and I -- I
14 don't personally have a preference of the discount rate
15 to use here, and I think we filed evidence on terms of
16 what we would like to use, so I would rather that, you
17 know, that be taken as our preferred calculation.

18

19 (BRIEF PAUSE)

20

21 MR. BOB PETERS: Mr. Rainkie, if we
22 turn from the benefits to the government and turn over
23 to page 125 of the book of documents, again, we see
24 some evidence from Mr. Bowman, and I'm not sure how far
25 you want to go with these, Mr. -- Mr. Rainkie, but the

1 -- does this suggest that over fifty (50) years,
2 there's a downside risk to the ratepayers based on
3 what's -- what's shown in red at the top part of the
4 chart?

5 MR. DARREN RAINKIE: Well, the red
6 would be the -- if I understand how this table is
7 constructed -- All Gas is a zero, so an NPV with a
8 negative bracket around it in the red would be a higher
9 cost to ratepayers than the All Gas pathway, if I'm
10 understanding this evidence correctly.

11 MR. BOB PETERS: And the -- the
12 negative, or the -- the benefits to ratepayers is
13 grouped primarily where export revenue is higher than
14 forecast?

15

16 (BRIEF PAUSE)

17

18 MR. DARREN RAINKIE: It's getting late
19 in the day, Mr. Peters. I'm not sure I understand --
20 understand your -- your question.

21 MR. BOB PETERS: All right, well, let's
22 start -- let's just back up a little bit here, then.
23 Under certain plans, and -- and in particular, where
24 export prices are lower than forecasts, there would be
25 negative implications to ratepayers, and that would be

1 seen in the predominately red areas of the chart on the
2 fifty (50) year analysis?

3 MR. DARREN RAINKIE: Yes, Mr. Peters.
4 You're pointing to the quadrant where energy prices are
5 low and they seem to be in the red.

6 MR. BOB PETERS: And the present value
7 of benefits to ratepayers -- where the export revenue
8 is higher, we end up seeing that's where the ratepayers
9 benefits would come in?

10 MR. DARREN RAINKIE: Certainly the
11 benefits of the -- sorry -- relative all -- to All Gas,
12 yes, but it's getting larger as you go further down the
13 table. It doesn't mean that there's no benefits of
14 other scenarios, Mr. Peters, but as the energy prices
15 get higher directionally, the NPV, as calculated by Mr.
16 Bowman here, is getting larger.

17 MR. BOB PETERS: But back on page 124,
18 Mr. Rainkie, even though there may be an upside and a
19 downside, as you pointed out, to the ratepayer, the
20 government benefits seem to be throughout all the
21 plans, correct?

22 I'm looking at Pathway 4 and 5 in the
23 green from top to bottom.

24 MR. DARREN RAINKIE: Well, Mr. Peters,
25 because most of the payments -- I mean, water rentals,

1 of course, are based on hydraulic generation. The
2 larger of the payments to government being the
3 provincial guarantee fee, and the capital tax is based
4 on the size of our balance sheet -- the amount of debt
5 that we have, or the amount of -- in the case of
6 provincial guarantee fee, and the amount of total
7 capital that we employ both debt and equity in terms of
8 the capital tax calculation.

9 So, simply by a -- the function of
10 hydroelectric options, we'll have a bigger balance
11 sheet, which will result in higher payments to
12 government.

13 MR. BOB PETERS: Mr. Rainkie, you might
14 be right -- it is getting late in the day. And Mr.
15 Chairman, I'm going to move on to a new subject here in
16 terms of some debt questions.

17 I wonder if this would be an opportune
18 time to adjourn for the day, and I'd pick it up
19 tomorrow morning at nine o'clock with an expectation to
20 -- to conclude certainly by the lunch hour before I
21 hand it over to counsel opposite.

22 THE CHAIRPERSON: Unless there is some
23 additional business to attend to, I propose that we
24 adjourn right away. Just to put you on notice that
25 tomorrow afternoon we will be adjourning at 4:20, so

1 you can bank on that because somebody wants to leave.

2 So, Mr. Peters, in terms of tomorrow,
3 the -- the -- tomorrow afternoon, the proceedings will
4 be how? How will they proceed?

5 MR. BOB PETERS: Good question, Mr.
6 Chairman. I -- I should counsel with members opposite
7 here, but I do believe that Mr. Williams will take the
8 microphone as soon as I'm finished, and he's been
9 allocated, I believe, a half a day. And then after Mr.
10 Williams, it would go to Mr. Gange, and then following
11 Mr. Gange will be Mr. Hacault.

12 So that'll be our normal roster, unless
13 counsel have agreed amongst themselves to change the
14 order, but at -- that appears to be the order that
15 we're going to be working in.

16 MR. BYRON WILLIAMS: Mr. Chair, just in
17 terms of time allocation, I believe the MMF will not
18 have a very long cross-examination, if any, and I think
19 at least one (1) other party sitting to my left may
20 have a shorter -- a shorter cross-examination, as -- as
21 well, just in terms of our schedule.

22 THE CHAIRPERSON: Thank you. So with
23 that, I will adjourn today's proceedings, and we will
24 see each other again tomorrow morning at nine o'clock.
25 Thank you very much. Have a good evening, everyone.

1 (PANEL RETIRES)

2

3 --- Upon adjourning at 4:23 p.m.

4

5

6

7

8 Certified correct,

9

10

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12 _____

13 Cheryl Lavigne, Ms.

14

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