

**MANITOBA HYDRO 2011 GENERAL RATE APPLICATION**

**MIPUG FINAL ARGUMENT  
WRITTEN SUBMISSION  
JUNE 30, 2011**



## PREFACE

Manitoba Hydro's 2010/11 and 2011/12 General Rate Application and the concurrent review of Manitoba Hydro's risks has been the most extensive regulatory proceeding before the Public Utilities Board in recent memory. The record of the proceeding encompasses an unprecedented volume of material: over 150 exhibits filed by Manitoba Hydro (including the application and 85 appendices); numerous exhibits filed by intervenors and the Independent Experts and over 8000 pages of transcript related to more than 40 hearing days.

This written submission has been prepared to assist the Board and other parties in navigating the enormous evidentiary record and sets out MIPUG's position on specific issues identified by the Board or others during the proceeding. The written submission includes the following:

- As a point of reference, this submission provides a copy of the two-pager MIPUG distributed with its opening comments on January 5, 2011. This outline sets out the key issues to be addressed in the hearing, from MIPUG's perspective, and provides a road map to the MIPUG case throughout the proceeding.
- The remainder of the submission is organized by issue, and grouped consistent with the four topic areas outlined in MIPUG exhibit 14:
  - 1) Revenue Requirement and Rates
  - 2) Reserves and Debt:Equity Ratios
  - 3) Risk
  - 4) Power Resource Plan

MIPUG recognizes many of these issues are interrelated and cannot be fully appreciated in complete isolation. Therefore this written submission is intended to supplement, but not substitute for, MIPUG's oral argument. MIPUG appreciates the opportunity to prepare and submit these written comments.

To the extent that MIPUG does not expressly reply to an issue raised or position taken by another party to the proceeding, MIPUG has no position on that matter and should not be deemed to agree with or consent to the other party's position.



## **MIPUG Opening Comments**

MIPUG is an association of major industrial customers operating in Manitoba, working together on issues of common concern related to electricity supply and rates in Manitoba. To that end, MIPUG intervened in each of the Board's reviews of Hydro rates since 1988.

MIPUG members currently include:

- Canexus (Brandon);
- Vale (Thompson);
- HudBay Minerals (Flin Flon);
- Enbridge (Southern Manitoba);
- Gerdau Ameristeel (Selkirk);
- ERCO Worldwide (Hargrave);
- Koch Industries (Brandon);
- Tolko Industries (The Pas);
- Griffin Wheel Company (Winnipeg); and
- TransCanada (Southern Manitoba) re: Keystone pipeline.

Members' concerns are reflective of the size of their investments in Manitoba, the long-term view essential for such investments, and the requirement for continued large-scale purchases from Hydro. Members' concerns also reflect competitive market pressures from selling Manitoba industrial products to external markets, and the need to secure the lowest reasonable costs for power and other production inputs, to offset disadvantages from operating in Manitoba, such as transportation.

MIPUG anticipates full participation in the GRA and risk-related topics. Like other participants, a considerable effort will be required to sort through the information available, to determine the relevant matters for the present review. Recognizing this is fundamentally a Hydro GRA – a request for higher rates – the evidence needs to be tested in light of:

- The anticipated ongoing level of rate changes to ensure rate stability and predictability, and to reflect current economic circumstances.
- The requirement that rate increases intended to fund reserves and aid in future rate stability are assured to be available for this purpose.
- Each customer class being allocated their fair share of Hydro's costs, properly analyzed.

### **Review of Manitoba Hydro's Risks and Risk Management**

In response to ongoing Board concerns, the scope of Hydro's GRA has been expanded to include a broad range of risk-related issues. This includes quantification of drought risks; long term export contracts; various computer models used to operate and plan the system; Hydro's risk management structure; and the degree to which Hydro's preferred development plans affect ratepayer risks over the long term.

An unprecedented volume of information is now on the record to allow for the comprehensive risk review that the Board has sought, including reports by ICF, KPMG and the Independent Experts.

In MIPUG's view, careful focus will be required to arrive at clear conclusions on the issues of concern. It will be easy to lose sight of what is relevant and important to rate-setting and regulation if the hearing is distracted by excessive detail.

MIPUG's participation is focused on the "points of reference" accepted by the Board in Order 30/10 – four questions that go to the core of an examination of risk as it relates to rate regulation:

1. Does Hydro have the required capabilities, internal organization, and qualified staff, policies and procedures and oversight and governance structures needed to appropriately manage the noted risk; can they be improved or modified to reduce the risk exposure imposed on ratepayers?
2. Is Hydro's approach to risk management appropriate for a Crown-owned regulated public utility?
3. Do Hydro's decision making criteria reflect a risk/reward tolerance criteria that is acceptable to Hydro's ratepayers and the Board?
4. Where risk exposure cannot be modified or addressed through other appropriate risk management practices, what are the appropriate financial reserves required to be targeted to address the residual risk items?

Addressing the rate effects arising from Hydro's risks goes to the core of the Board's role in establishing rates, in particular the need to ensure:

- risks being undertaken are aligned with ratepayer risk tolerances.
- risks are properly quantified and a commensurate level of reserves is targeted.
- an appropriate form of reserves is in place to ensure amounts levied from ratepayers to address the impact of exceptional risk circumstances are reliably set aside.

### **Orderly Process For Ongoing Issues**

In light of Hydro's recommended plans for the "decade of investment", the present review must consider how to establish a reasonable and orderly process to address the regulatory challenges that lie ahead, in particular the need to:

- ensure cost control mechanisms are in place for Hydro's O&M and normal capital spending; this includes the requirement for rates to be sufficiently linked to Hydro's reserves such that rate increases targeted towards risk reserves ultimately serve this purpose.
- seek agreement with the Province that the sinking fund obligation is no longer required, reducing the overall costs and risks to both the utility and ratepayer.
- Reflect proper cost-based rates for a measured and predictable rate regime. This includes:
  - Setting rates based on cost of service, including revenue to cost ratios calculated absent policy-related allocations;
  - Prioritization of above cost net export revenues towards building appropriate drought reserves (and aid in management of Hydro's debt);
  - Ensuring today's ratepayers are not burdened with pre-funding equity for capital projects not yet subject to thorough prudence review.

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1   **TOPIC:**           **Final 2010/11 Rates**

3   **BOARD ISSUES:**

5           Should the Board should approve as final the 2.9 percent interim rate increase  
6           granted for April 1st, 2010. (Tr.8315:22-24)

8   **MIPUG POSITION:**

10   In consideration of the potential future need to transition to a higher level of domestic  
11   rates for all rate classes and in the interests of rate stability and predictability, the Board  
12   should finalize the 2.9% interim rate increase approved in Board Order 18-10.

14   However, MIPUG notes concerns with respect to the process for reviewing and  
15   approving interim rates. In MIPUG's view, the onus should be on the applicant to request  
16   and justify the need for interim rates. Interim rates should not be assumed to be granted,  
17   but should be reserved for special circumstances related to extreme financial situations  
18   or extensive delays not attributable to the utility. In future proceedings, the Board should  
19   require the utility to submit an application for interim rates that outlines the specific  
20   request for interim rates and the justification for the request.

22   **DISCUSSION AND SUPPORT:**

24   Order 18/10 notes that during the review of timetables at the December 2009 pre-  
25   hearing conferences, it became clear to the Board there would be no agreement on the  
26   timetable that would facilitate April 1, 2010 rate adjustments, should any be ordered by  
27   the Board. The Board therefore accepted a recommendation by RCM/TREE and  
28   supported by MH that the rate increase request for April 1, 2010 be considered on an  
29   interim basis. The Board then held an interim rate consideration hearing on January 19,  
30   2010 to hear submissions from MH and Interveners.<sup>1</sup>

32   In MIPUG's view the process related to the consideration of the April 1, 2010 interim  
33   rates was problematic. As noted in the Board's Order, the interim rate request was  
34   initiated by an intervener, not the applicant utility. In MIPUG's view this process creates  
35   the potential for procedural fairness issues. Without an initial interim rate application  
36   from the utility, interveners do not have a reasonable opportunity to understand and test

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<sup>1</sup> Pages 3-4. Order 18/10.

- 1 the justification for the interim rate proposal. In the future, the Board should not consider
- 2 or implement interim rates without first receiving an application from the utility.

1   **TOPIC:               Final 2011/12 Rates**

3   **BOARD ISSUES:**

5               Should the 2 percent interim rate increase granted April 1st, 2011 be made final.  
6               (Tr.8315:24-25)

8   **MIPUG POSITION:**

10   No opposition to a 2.0% increase

12   In consideration of the Board's interim decision to impose an overall 2.0% increase in  
13   general consumer rates effective April 1, 2011, as approved in Board Order 40-11.  
14   MIPUG is not opposed to confirming that order subject to the following comments.

16   Plan to rebalance rates based on the Cost of Service Study

18   MIPUG's evidence noted two rate classes have revenue to cost coverage ratios below  
19   95%.<sup>1</sup> Equal across-the-board increases will not enable progress to be made toward  
20   Hydro's stated goal of moving all of the rate classes within the zone of reasonableness  
21   of 95% to 105%.

23   The Board should order Manitoba Hydro to undertake a small rebalancing of rates  
24   between the domestic rate classes in recognition of these differences in revenue to cost  
25   coverage ratios. Classes with revenue to cost coverage ratios below 95% should have  
26   rate increases modestly larger than the 2.0% increase in place prior to April 1, 2011.  
27   Other rate classes should have rate increases somewhat less than 2.0% relative to rates  
28   in place prior to April 1, 2011. All such rate adjustments should be undertaken on a go  
29   forward basis from the date of the Board's Order in this proceeding (i.e. rates from April  
30   1, 2011 to the date of the Board's Order in this proceeding should be crystallized as final  
31   with rebalanced rates going forward).

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<sup>1</sup> Page 61. Pre-filed testimony of P. Bowman and A. McLaren.

1   **DISCUSSION AND SUPPORT:**

2  
3   In Order 40/11, the Board noted that the interest of consumers is a factor considered in  
4   assessing the public interest. The Board noted the economic conditions of the past year  
5   now consist of trying times and challenges for consumers. The Board awarded a 2%  
6   interim increase, lower than the 2.9% requested by Manitoba Hydro for the 2011/12 test  
7   year.

8  
9   During the proceeding, Messrs Bowman and McLaren noted that in general terms, rate  
10   increases in the order of inflation are understandable so long as they are merited and  
11   defensible in terms of Hydro's cost structure and fairly distributed across the rate  
12   classes.<sup>2</sup>

13  
14   With respect to the merits of a rate increase for 2011/12, the following considerations  
15   were noted during the proceeding:

16  
17       1. IFF10 shows:

- 18           a. Hydro meeting or exceeding its debt:equity and interest coverage targets  
19           in 2010/11 and 2011/12.  
20           b. Lower assumptions for inflationary pressures (below 2%) as well as lower  
21           long-term and short-term debt rates than previous IFFs.

22  
23       2. Hydro has been successful in constraining OM&A spending in 2010/11.<sup>3</sup>

24  
25       3. Recovery from the economic downturn of 2008/2009 continues to be a challenge  
26       for many customers.

27  
28   In consideration of these factors, crystallizing the increase in general consumer rates for  
29   2011/12 at 2% (higher than forecast inflation) appears to be reasonable and should be  
30   approved by the Board.

31  
32   With respect to the fair distribution of rate increases and costs to the rate classes, the  
33   witnesses for MIPUG provided evidence that several rate classes had RCC ratios close  
34   to or in excess of 100% prior to the allocation of any policy based credits in the cost-of-  
35   service study. Other classes, notably the Residential and GSL 0-30kV classes had RCC  
36   ratios below 95%. These results were provided in Table 5.2 of the Pre-filed Testimony of

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<sup>2</sup> Tr.7484:5 – 7485:7.

<sup>3</sup> Exhibit MH-112.

Bowman and McLaren, reproduced below. Table 5.2 summarizes data in Table 5.1 which was confirmed by Manitoba Hydro as correct.<sup>4</sup>

**Table 5.2**  
**PCOSS11 Results**

	<b>Total Cost</b>	<b>Class Revenue</b>	<b>Surplus/ (Shortfall) before Policy Based Credits</b>	<b>RCC Before Policy Credits</b>
<b>Residential</b>	\$540,365	\$479,644	(\$60,721)	88.8%
<b>GSS-ND</b>	\$118,628	\$118,331	(\$297)	99.7%
<b>GSS-D</b>	\$114,981	\$114,720	(\$261)	99.8%
<b>GSM</b>	\$168,455	\$164,078	(\$4,377)	97.4%
<b>GSL 0-30kV</b>	\$80,204	\$70,730	(\$9,474)	88.2%
<b>GSL 30-100kV</b>	\$32,915	\$33,070	\$155	100.5%
<b>GSL &gt;100kV</b>	\$173,341	\$188,679	\$15,338	108.8%
<b>Lighting</b>	\$19,574	\$20,109	\$535	102.7%
<b>SEP</b>	\$1,006	\$852	(\$154)	84.7%
<b>Total General Customers</b>	\$1,249,469	\$1,190,214	(\$59,255)	95.3%
<b>Diesel</b>	\$12,375	\$4,793	(\$7,582)	38.7%
<b>Total Domestic</b>	\$1,261,844	\$1,195,007	(\$66,837)	94.7%

Based on this review, Messrs Bowman and McLaren recommended the Board undertake a small, directionally appropriate rate rebalancing with the goal of bringing all customer classes within the zone of reasonableness within a defined future period.<sup>5 6</sup>

<sup>4</sup> Tr.8303:11-8304:10.

<sup>5</sup> Tr.7283:5-7284:23.

<sup>6</sup> Tr.7614:25-7616:1.



1   **TOPIC:               2012/13 Rate Adjustment**

2  
3   **BOARD ISSUES:**

4  
5           RCM/TREE alluded to the prospects of an April 1, 2012 rate adjustment, perhaps  
6           conditional, perhaps interim, with the prospects of an NFAAT ahead.

7  
8           Does such approach meet with the party's interest, particularly with respect to  
9           restraining regulatory costs and avoiding duplication? (Tr.8316:1-7)

10  
11   **MIPUG POSITION:**

12  
13   Manitoba Hydro has applied for rate adjustments for the 2010/11 and 2011/12 test  
14   years. MIPUG opposes awarding any interim or conditional increases for years beyond  
15   the test years applied for by Hydro on the grounds of basic issues related to regulatory  
16   and procedural fairness.

17  
18   **DISCUSSION AND SUPPORT:**

19  
20   In MIPUG's view, the Board should not generally consider or award rate increases  
21   beyond the test years as applied for by the utility. The current proceeding was conducted  
22   on the basis of Manitoba Hydro's request for adjustments to rates for the 2010/11 and  
23   2011/12 fiscal years as clearly set out in Manitoba Hydro's Letter of Application (Tab 1 of  
24   the Application).

25  
26   These requested approvals were confirmed by Manitoba Hydro through information  
27   requests.<sup>1</sup> MIPUG conducted its intervention, including the preparation of evidence and  
28   cross-examination, on this basis. Manitoba Hydro has known for some time that the  
29   2010/11 and 2011/12 GRA process would not be concluded until at least the summer of  
30   2011. Manitoba Hydro has also been aware for some time of the requirement for a  
31   NFAAT proceeding related to the Keeyask Generating station. If Hydro was concerned  
32   there would be a need for a 2012/13 rate increase, and that a 2012/13 GRA might  
33   overlap with an NFAAT proceeding, Hydro should have formally amended its current  
34   application to include consideration of a 2012/13 test year. As there was no such  
35   amendment to the application, consideration at this late date of a further rate increase  
36   for 2012/13 raises considerable procedural fairness issues.

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<sup>1</sup> MIPUG/MH I-1 (a).

1 While recognizing over time there will be a need to increase rates to reflect increased  
2 costs of providing a safe and reliable electric service, MIPUG prefers that such a  
3 transition be undertaken in a manner that is stable and predictable with annual general  
4 consumer rate increases that do not materially exceed overall inflation. Further, MIPUG  
5 has provided substantial evidence in the current proceeding that supports future rate  
6 adjustments focusing on the rate classes whose revenue to cost coverage ratios are  
7 below 95%.

8  
9 Therefore, Manitoba Hydro's inaction with respect to an application for a 2012/13 rate  
10 adjustment assigns intervenors the unfortunate burden of navigating a position between  
11 issues of basic regulatory and procedural fairness and a long-term and orderly  
12 progression of predictable rate adjustments.

13  
14 MIPUG believes the Board should very carefully consider the procedural fairness issues  
15 related to potentially awarding Manitoba Hydro a further rate increase for the 2012/13  
16 fiscal year. In the event the Board does consider it necessary to award an increase for  
17 2012/13, such a rate adjustment should be significantly less than the forecasted  
18 consumer price index to ensure Hydro takes seriously the need to control Operation,  
19 Maintenance and Administration costs going forward. Further, any 2012/13 rate increase  
20 should be targeted at reducing or eliminating the class revenue shortfalls for rate classes  
21 with revenue to cost coverage ratios less than 95% as summarized in Table 5.2 of the  
22 Pre-filed Testimony of P. Bowman and A. McLaren.



1   **TOPIC:                   Treatment of Planning Costs and Intergenerational Equity**

2  
3   **BOARD ISSUES:**

4  
5           Is Hydro's accounting treatment of planning costs, which capitalizes all pre in-  
6           service investments, appropriate? Should some portion of these costs be  
7           recognized or amortized in current rates? (Tr.8317:14–8318:6)

8  
9           Are Hydro's current planning activities, and the development of major new  
10          generation, exposing future generations of customers to material risks which  
11          should at least in part be reflected in rates today? Will it be inequitable for future  
12          generations to have to pay for all of Keeyask and Conawapa when it was this  
13          generation that elected to pursue the projects? (Tr.2485:16–2487:7)

14  
15   **MIPUG POSITION:**

16  
17   On the specific matter of accounting for planning costs in rate setting, Hydro's approach  
18   to capitalization of all pre in-service planning costs follows normal Canadian regulatory  
19   practice and is appropriate. Costs to investigate, plan, design and build specific new  
20   projects, including engineering, licencing, regulatory, consultation and contract  
21   negotiation, are properly tracked in a Work-in-Progress account and not included in  
22   assets-in-service or amortized to income/revenue requirement until the plant is serving  
23   its intended purpose<sup>1</sup>.

24  
25   On the broader question of intergenerational equity, and of concerns over the current  
26   generation of customers burdening future customers with possible risks, MIPUG does  
27   not support any increased recognition of Hydro's future plans and spending in current  
28   rates. Current rates and IFF projections already permit sustained progress towards  
29   Hydro's long-term financial targets. This progress is only being achieved as a result of  
30   material forecast equity contributions towards new developments (e.g., Conawapa,  
31   Keeyask). These financial targets are more than adequately being addressed in the  
32   current IFFs which is evidence in itself of material contributions being made by present  
33   ratepayers towards the capital required for the new developments.

34  

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<sup>1</sup> It is also important to note that while there may be some degree of ongoing evolution to the application of new accounting standards to the capitalization of overheads, these are relatively small and immaterial to the major decisions at hand (\$30 million (Tr.4191:18-25) per year on Manitoba Hydro's entire capital program of approximately \$1 billion-\$2 billion per year per Exhibit MH-73, PUB-Pre-Asks (a) and (c), page 6 of 7).

1 In short, there is little basis for concern that present planning initiatives have set up an  
2 inequitable or unfair burden on future customers.

3  
4 MIPUG supports Hydro continuing to investigate and protect the option of the  
5 Recommended Plan as well as viable alternatives to this plan until such time as  
6 sufficient information is available to determine whether to pursue the Recommended  
7 Plan, referenced in issue 15 on the Power Resource Plan.

8  
9 **DISCUSSION AND SUPPORT:**

10  
11 Manitoba Hydro's approach to capitalization of costs for planning future major projects  
12 was described and justified by Mr. Warden in Hydro's March 9, 2011 submission to the  
13 Board regarding interim rates:

14  
15 Issue number 6 relates to the capitalization practices of Manitoba Hydro.  
16 And there appears to be some concern that Manitoba Hydro's practices  
17 related to the deferral and capitalization of expenses may result in current  
18 ratepayers not paying a sufficient amount of currently incurred costs,  
19 which could result in future ratepayers being burdened with these costs.

20  
21 Manitoba Hydro's not -- does not share this view. In fact, Manitoba Hydro  
22 is fully aware that industry and accounting standards are moving away  
23 from full cost accounting and Manitoba Hydro has taken steps to adjust its  
24 -- its practices accordingly. As evidenced in this proceeding, Manitoba  
25 Hydro had adjusted -- adjusted it -- its accounting such that approximately  
26 \$30 million of costs that were previously capitalized are now being  
27 expensed annually. These costs relate primarily to administrative  
28 functions in the interest costs of tools and facilities that are used both in  
29 the operations and construction activities of the Company.

30  
31 Manitoba Hydro will continue to monitor accounting trends and practices  
32 and will modify its practices to conform with accepted standards.  
33 Manitoba Hydro has always adhered to generally accepted accounting  
34 prin -- principles and it will continue to do so.<sup>2</sup>

35  
36 This matter was also commented on by the MIPUG witnesses:

37  
38 MR. BYRON WILLIAMS: And you're aware -- let me -- let me try this a  
39 different way. It could be argued Me. Bowman, that by spending that  
40 amount of money and capitalizing it, we're deferring our problems and our

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<sup>2</sup> Tr.4191:5-4192:5

1 risks to a future generation. And without asking you to elaborate, I'll just --  
2 you're -- you're aware that type of argument could be made?

3  
4 How would you respond to it, sir, from a -- and let me try it again. From a  
5 perspective of intergenerational equity, how would you respond to the  
6 argument that by expending, you know, \$25 million a month and  
7 capitalizing those expenditures, we're -- we're violating the principles of  
8 intergenerational equity because we're deferring to those costs to a future  
9 generation?

10  
11 MR. PATRICK BOWMAN: I can respond from a couple of -- of different  
12 perspectives. I don't think you're violating the principle of intergenerational  
13 equity by deferring planning costs. As a matter of fact, I think it's the basic  
14 premise and standard on any project that I've worked on or that I'm aware  
15 of for how you deal with power -- planning power projects and -- and, if  
16 anything, it would probably be a concern on the other side were it not  
17 being capitalized and -- and attempted to be rolled into projects that are  
18 still thought to be -- have a reasonable likelihood of proceeding, to defer  
19 and capitalize those amounts.

20  
21 Otherwise, it'd be back to the situation where I'm talking about of, you  
22 know, today's ratepayers paying for assets or paying for costs that aren't  
23 used and -- and useful to serve them in terms of the costs that they're  
24 being allocated, without getting into rate levels, whether they'd be higher  
25 or whether they'd be any different.

26  
27 So from the per -- perspective of gen -- intergenerational equity, I have -- I  
28 have no major -- no major concern with the ongoing deferral and  
29 capitalization of that. It -- it would be standard practice.

30  
31 But from the perspective of intergenerational equity or -- or any form of  
32 ratepayer equity, the thought that you keep spending material sums to  
33 build towards a project that isn't certain to occur is -- is unfortunate but  
34 absolutely necessary if you're going to make a project work.<sup>3</sup>  
35

36 The only other witness to specifically comment on the issue of regulatory treatment of  
37 intergenerational equity was Mr. Matwichuk at:

38  
39 Intergenerational equity has, and continues to be, a fundamental principle  
40 of rate regulation. Ratepayers in a given period should pay only the costs  
41 necessary to provide them with service in that period. Combined with the  
42 cost of service standard, this principle requires that rates in each period  
43 should recover the costs of providing service in that period.  
44 It generally adheres to the notion that costs should be borne by those  
45 who receive the service generating the cost.

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<sup>3</sup> Tr.7293:14–7295-7

1  
2 A practical example for this point of reference is that in a large  
3 infrastructure organization like Manitoba Hydro and other utilities,  
4 intergenerational equity is generally achieved through the depreciation  
5 and interest charges over the life of an asset. Ratepayers who benefit  
6 from the use of the infrastructure pay the costs of the asset, the cost  
7 allocated over the time that it is used.<sup>4</sup>  
8

9 KPMG was specifically asked about the practice of deferred planning costs at  
10 Tr.3753:24–3755:5 and indicated they had no opinion as to acceptability of Hydro's  
11 specific approach to deferring capital planning expenditures.  
12

13 In respect of the intergenerational implications of this approach, the evidence is clear  
14 that even during the development stages of new projects, before they are in service, to  
15 some degree the spending on the new projects are included in the ratemaking  
16 considerations such as measurements of debt:equity target (i.e., the project spending  
17 affects debt:equity measures both during project development and after the project is in-  
18 service). Despite assertions that it does not "prefund" projects (e.g., Tr.8040:21–  
19 8041:24), Manitoba Hydro confirmed that it does in effect take the overall financial  
20 status, including projects not yet in-service, into account in developing rate proposals –  
21 as such, in a manner of speaking, some degree of planning costs are recognized in  
22 current rates:  
23

24 MR. BOB PETERS: Now, Mr. Warden, is it correct that Manitoba Hydro  
25 has maintained that prior rate increases, prior to this Application, have not  
26 been sought to prefund or precollect for future expenses?  
27

28 MR. VINCE WARDEN: Well, I think any time we have a rate increase that  
29 isn't required for -- strictly for current operations and that there is a -- an  
30 addition to retained earnings, that could be considered a form of  
31 prefunding.  
32

33 MR. BOB PETERS: So would you acknowledge that in the test years  
34 presently before this Board, certainly a portion then of the rate increases  
35 would be to prefund future plans?  
36

37 MR. VINCE WARDEN: Well, it -- it's more so to maintain the financial  
38 ratios, the financial targets that are so important to Manitoba Hydro --  
39 Manitoba Hydro's financial structure.  
40

41 Any -- any time we generate cash internally then we are funding projects,  
42 capital projects, for which debt will not be required, which is a good thing.

---

<sup>4</sup> Tr.7698:1–7699:3

1  
2 MR. BOB PETERS: Well, and that's -- that's in essence what can be  
3 taken to be happening here where there is some -- some cash being  
4 generated internally that will be used to pay the capital costs that are  
5 being incurred of -- of capital expenses?  
6

7 MR. VINCE WARDEN: Yeah, so we have a capital target, a capital  
8 funding target, of one point two zero (1.20) which means that we fund 120  
9 percent of our capital requirements from internally generated funds. So  
10 any time we do that then we are, in effect, pre-funding or providing the  
11 cash for those capital expenditures from internal sources.  
12

13 MR. BOB PETERS: Does the logic flow that if -- if you weren't building on  
14 some of these capital projects there would be no need for new debt?

15 MR. VINCE WARDEN: That logic would flow, yes.  
16

17 MR. BOB PETERS: And then it would flow that there would be no need  
18 for rate increases to keep the debt equity ratio in balance?  
19

20 MR. VINCE WARDEN: Well, as long as our forecast showed progress  
21 towards achieving or -- or maintaining financial targets, then I would  
22 agree with that statement.<sup>5</sup>  
23

24 MIPUG witnesses P. Bowman and A. McLaren addressed this issue at Tr.7520:8–  
25 7528:8, where similar evidence is provided that the present IFF forecasts are indicative  
26 of some degree of “pre-funding” future developments like Keeyask and Conawapa  
27 despite those assets not yet being in service (most particularly forecast equity balances  
28 that attempt to achieve 25% of total capital, including equity amounts required for those  
29 projects). Outside of the basic regulatory principle that ratepayers should not be made to  
30 pay for assets that are not “used and useful”, Messrs Bowman and McLaren note that  
31 the issue of intergenerational equity can be understood by looking back to the  
32 development of Limestone, and the specific situation from the early 1990s where a  
33 negative net income was forecast and a debt:equity ratio of 95:5, and despite this orderly  
34 rate increases were imposed rather than something more severe. Messrs Bowman and  
35 McLaren addressed this matter in their testimony at, as follows:  
36

37 But I think it's also a level of intergenerational equity, which is a term  
38 that's been used here, and I -- I think it's possible we have somewhat  
39 different concept of it, which is that, if you're sitting here today and looking  
40 at the returns that are possible and looking at the rates that are possible  
41 in an advantageous way, and you're looking at the assets that are there,  
42 we -- we wouldn't say that today's ratepayers have been, you know,

---

<sup>5</sup>Tr.1464:1–1465:19

1       prejudiced or -- or given a raw deal by, you know, those folks from the  
2       '80s who didn't pay high enough rates to pre-pay for Limestone. We're  
3       doing okay with Limestone, right? It's -- it's -- we're in the decade of  
4       returns from Limestone, and it's -- and it's helping the overall situation,  
5       and it's true for the other projects, too.

6  
7       And if there was a -- a strong need, a strong -- a rate increase regime that  
8       needed to be imposed in that era because someone argued, We need to  
9       get -- we need to get the equity up, we can't live with this ninety-five (95)  
10      five (5), we have to get more equity here because we're going to build  
11      Limestone and we need to, you know, pre-pay these expenses out of  
12      ongoing rates, we don't want to borrow debt for Limestone, it would have  
13      meant higher rates in that day and age for the benefit of -- of those folks  
14      sitting here today. And I don't think the people sitting here today have a  
15      credible case to say we were prejudiced by the guys in the '80s not  
16      paying high enough rates and not building up enough equity.

17  
18      So it's -- it's that question of -- and you talk about Conawapa. Do we -- to  
19      what extent do you want to burden the system today, or have people pay  
20      higher rates today, that will help ensure that Conawapa's paid for, to  
21      some extent, before it comes into service, so that those people who get  
22      the kilowatt hours out of it don't have to pay as much. And I don -- I -- I  
23      don't think the evidence is that -- that there's -- the people who were there  
24      when Conawapa comes into service and lives out its first twenty (20), or  
25      thirty (30), or forty (40), or fifty (50) years are going to be prejudiced by  
26      the fact that Conawapa's in service.<sup>6</sup>

27  
28      In short, despite regulatory conventions that emphasize the contrary (i.e., ratepayers  
29      should not pre-fund future projects in any material way), and clear long-term business  
30      fundamentals that would permit the costs of future projects to be recovered from  
31      customers who are actually served by those projects, the implications of Hydro's IFF is  
32      that rates today are experiencing upward pressure due to potential future developments.  
33      While this is not a sufficient reason to reject Hydro's basic rate increase request, it  
34      indicates a relatively substantial pre-funding of the potential new projects. As a result,  
35      there is little basis for concern that today's ratepayers have set up an inequitable or  
36      unfair burden on the future customers arising from the present planning initiatives.

---

<sup>6</sup> Tr.7526:10–7527:25

**1 TOPIC: OM&A**

**3 BOARD ISSUES:**

5 How should the Board address the issue of OM&A cost increases? Hydro has  
6 engaged hundreds of new employees that are involved in one (1) capacity or  
7 another, it would appear, in implementing the development plan.  
8 (Tr.8324:17-22)

10 Continuing possible observations for parties to this hearing to consider and  
11 provide comment on, drawing on the evidence filed and given to date, include  
12 Manitoba Hydro's OM&A gross expenditures continue to increase and the Utility's  
13 practice of deferring and capitalizing expenses related to expected future capital  
14 construction continues. Perhaps close to 25 percent of Manitoba Hydro's asset  
15 base is now represented in construction in progress, deferred, intangible, and  
16 regulatory costs. Costs that are mostly pending amortization. Amortization partly  
17 dependent upon the realization of the forecasts of the decade of investment.  
18 (Tr.2482:11-22)

**20 MIPUG POSITION:**

22 In previous Orders, the Board has identified a substantial ongoing concern with the  
23 overall increases in Manitoba Hydro's OM&A costs. In the current proceeding, evidence  
24 was provided that Manitoba Hydro's actual OM&A costs through 2009/10 have  
25 increased dramatically, despite the Board repeatedly expressing concern. Continued  
26 increases in OM&A spending will undermine any efforts to increase the level of Hydro's  
27 reserves. Hydro provided evidence during the proceeding that its President and CEO  
28 shares these concerns, and directed corporate controls on OM&A in 2010/11.

30 Continued restraint and tight controls on OM&A spending during the decade of  
31 investment represent the best opportunity to maintain rate increases at or near the level  
32 of inflation. The Board should confirm its previous directives to Hydro to focus on OM&A  
33 cost control and also require Manitoba Hydro to:

- 35 1. Provide detailed reports to the Board and intervenors on corporate-wide efforts to  
36 restrain OM&A.

1        2. Document and report to the Board and intervenors on quantitative improvements  
2        in efficiency.

3  
4        3. Provide budget scenarios and options considered for maintaining OM&A  
5        spending at inflation and at zero increase levels to the Board and intervenors.

6  
7        **DISCUSSION AND SUPPORT:**

8  
9        For the past several rate proceedings the Board has expressed concerns with respect to  
10       ongoing increases in Hydro's OM&A costs. The Board noted in Order 116/08 it was  
11       particularly concerned with the growth of OM&A prior to deferrals capitalization and  
12       allocations to subsidiaries and that its expectations from past recommendations related  
13       to OM&A expenses have not been met.<sup>1</sup>

14  
15       MIPUG agrees with the Board's comment from 116/08 that in evaluating the  
16       reasonableness of Hydro's OM&A spending the primary focus should be on the change  
17       in the overall level of OM&A, prior to any adjustments for capitalization, deferrals or  
18       accounting changes. Capital order activities, capitalized overheads and changes to  
19       accounting treatment of these costs affect only the timing of the recovery of costs, not  
20       the overall level of spending.

21  
22       Hydro's response to PUB/MH Pre-Ask 15 (b) (Revised) provided information that total  
23       actual OM&A costs prior to any adjustments for capital order activities, overheads or  
24       accounting changes increased from \$569.7 million in 2004/05 to \$723.0 million in  
25       2009/10, an average annual increase of 4.9 per cent. 2010/11 and 2011/12 forecast total  
26       OM&A costs were \$740.2 million and \$755.6 million respectively, reflecting an average  
27       annual increase of 2.2 per cent. This increase is higher than the forecast increase in  
28       Manitoba CPI assumed in IFF10.<sup>2</sup>

29  
30       In their pre-filed testimony, Messrs Bowman and McLaren noted ongoing concerns with  
31       respect to Manitoba Hydro's actual OM&A spending. In particular, Messrs Bowman and  
32       McLaren noted the concern that continued increases in OM&A during the decade of  
33       investment would seriously undermine Hydro's ability to secure and maintain its

---

<sup>1</sup> Order 116/08 page 92.

<sup>2</sup> IFF10 assumed Manitoba CPI increases of 1.6% in 2010/11 and 1.9% in 2011/12.



1 reserves. Therefore they recommended the Board remain focused on OM&A cost  
2 increases as an area of concern.<sup>3</sup>

3 During the proceeding, counsel for MIPUG reviewed Manitoba Hydro's approach to  
4 OMA budgeting and OMA cost-control, including alternatives to budgeting such as zero-  
5 increase or inflation-only increases.<sup>4</sup>

6  
7 In response undertakings during cross-examination by counsel for MIPUG, Hydro  
8 provided a series of memos from Mr. Brennan outlining similar concerns.<sup>5</sup> Specifically,  
9 Mr. Brennan's memos identified the following concerns:

- 10
- 11 • Operating budgets approved in 2008 for the 2008/09 fiscal year considered cost  
12 pressures such as increased regulation; aging infrastructure and increased  
13 emphasis on safety and reliability. Despite this, actual OM&A expenses were  
14 over expended compared to approved budgets.
  - 15 • Increases in wages, salaries and benefits averaged 5.0% annually over the past  
16 five years with equivalent full-time employees peaking at an all-time high of 6620  
17 in 2009/10.
  - 18 • Increases in overtime costs averaged 8.3% annually over the past five years.
  - 19 • Increases in travel costs averaged 6.6% annually over the past five years.
- 20

21 In response to these concerns, Mr. Brennan's memo outlined several cost controls that  
22 were implemented, including:

- 23
- 24 • Restrictions on non-essential travel.
  - 25 • Hiring freezes on vacant positions.
  - 26 • Overtime reductions.
  - 27 • Capital rationalization based on requirements to provide ongoing safe and  
28 reliable supply of energy in the most efficient and environmentally sensitive  
29 manner.
- 30

31 Hydro provided information during the proceeding that indicated these cost control  
32 measures were successful in maintaining electric operations OM&A expenses through

---

<sup>3</sup> Pre-filed Testimony of P. Bowman and A. McLaren. Pages 46-48.

<sup>4</sup> See transcript pages 5664 through 5668.

<sup>5</sup> Hydro provided memos dated March 19, 2009; May 1, 2009 and August 13, 2010 in MH exhibits 112 and 124. Also see Tr.5480:20-5486:17.

- 1 February 2011 at approximately the same levels as for the period through February  
2 2010 (\$349.2 million in 2011 compared to \$348.6 million in 2010).<sup>6</sup>  
3  
4 Clearly, given sufficient Corporate-wide effort and focus, Manitoba Hydro can constrain  
5 OM&A without sacrificing the supply of safe and reliable electricity service. The Board  
6 should confirm its previous directives to Hydro to focus on OM&A cost control.

---

<sup>6</sup> Exhibit MH-112.

1   **TOPIC:               Sinking Funds**

3   **MIPUG POSITION:**

5   The Board should direct Manitoba Hydro to review the treatment of sinking funds in the  
6   IFF to ensure consistency with the way sinking funds are currently operated.

8   The Board should direct Manitoba Hydro to seek relief from the Province of Manitoba  
9   with respect to the sinking fund requirements contained in the *Manitoba Hydro Act*.

11   **DISCUSSION AND SUPPORT:**

13   The *Manitoba Hydro Act* requires Manitoba Hydro to make annual sinking fund  
14   payments to the Minister of Finance of not less than 1% of the debt and 4% of the  
15   sinking fund balance at March 31<sup>st</sup> of the previous year except where exempted by the  
16   Minister.<sup>1</sup> Hydro has provided estimates that the potential savings from the removal of  
17   the sinking funds would be approximately \$8 million per year and that the Province is  
18   aware of Manitoba Hydro's objective to ultimately eliminate the sinking fund  
19   requirements.<sup>2</sup> In the 2008 GRA it was noted potential savings amounted to \$93 million  
20   over the course of the IFF forecasts.<sup>3</sup>

22   During the hearing, Mr. Warden noted changes in the manner in which the sinking funds  
23   are managed and operated:

25           MR. ROBERT MAYER: You quoted from page 123, where you got an  
26           answer from Mr. Page. It appears to be somewhat inconsistent with the  
27           answer Mr. Warden gave to Ms. McCaffrey on page 124 of the book of  
28           documents and transcript page 1,326. Mr. -- at line 13, Mr. Warden says:

30           "Well, Ms. McCaffrey, our evidence is that the sinking fund is used -- has  
31           served a useful purpose in the past and it continues to serve a useful  
32           13 purpose."

34           That sounds a little different than what Mr. Page said. What is your view,  
35           Mr. Warden?

---

<sup>1</sup> MIPUG/MH I-12 (a) from the 2008 GRA.

<sup>2</sup> PUB/MH I-25 (b).

<sup>3</sup> MIPUG/MH I-13 (a) from the 2008 GRA.

1 MR. VINCE WARDEN: No. Yeah, I think you probably have to read the  
2 whole thing, I -- but I don't think we're contradicting at all, actually. I think  
3 elsewhere, and I'd have to find the exact location, where I indicated that  
4 with changes in accounting requirements, it -- it's not serving as useful a  
5 purpose as it did in the past -- and -- yeah, that's on page 124, actually --  
6 and that we go on to say at the opportune time we would look to  
7 eliminating the sinking fund. So, yeah, no, I think those statements made  
8 by the Manitoba Hydro panel were totally consistent.

9  
10 MR. ROBERT MAYER: Well, all right, let's go to the stuff in-between.

11  
12 MR. VINCE WARDEN: Okay.

13  
14 MR. ROBERT MAYER: How would you know if the date was an  
15 opportune time? And then you go to the statement:

16  
17 "It's still serving a useful purpose."

18  
19 Does it still serve a useful purpose, Mr. Warden, today?

20  
21 MR. VINCE WARDEN: Yes. Yes, it is, but diminishing, and that's why  
22 we've drawn down the sinking fund, which was at the start of 2000 and --  
23 well, around 2000/2001 it was up around 1.5 billion; now it's  
24 approximately 200 million. So we've been drawing that sinking fund down  
25 very significantly, and we're on the verge now of -- of eliminating the  
26 sinking fund. So the opportune time has arrived.<sup>4</sup>

27  
28 Mr. Warden summarized the recent changes to the way the sinking funds are operated  
29 later in the proceeding:

30  
31 So we've -- we've reached the point where that doesn't -- isn't as  
32 applicable as it was in the past, but until we change the legislation that  
33 statutory requirement is still there. But, in effect -- and -- and it's -- it's --  
34 even though the statutory requirement is there, we can put this -- make  
35 the payment into the sinking fund one day and draw it out the next, so it's  
36 -- it -- not that we've done that, but there's nothing in the legislation that  
37 really prevents us from doing that.<sup>5</sup>

38  
39 During cross-exam by MIPUG counsel, Mr. Warden reviewed the forecast  
40 sinking fund contributions in the IFF:

---

<sup>4</sup> Tr. 5471:4-5472:18.

<sup>5</sup> Tr. 5474:4-12.

1 MR. ANTOINE HACAULT: Thank you very much for this discussion, and  
2 I'll move on to just some short -- very short matters leading to operating  
3 and maintenance administrative costs.

4  
5 Firstly, could you go to Tab 17 which is a new document that was  
6 distributed this morning?

7  
8 (BRIEF PAUSE)

9  
10 MR. ANTOINE HACAULT: Have you located that document? It should be  
11 identified as page 139(a), firstly, and then 139(b).

12  
13 MR. VINCE WARDEN: Yes, we have it here. Thank you.

14  
15 MR. ANTOINE HACAULT: The reference, as4 previously indicated on the  
16 record, was PUB/MH First Round 25(a). This is a follow-up with respect to  
17 your responses on the issue of -- or the panel's responses on issues with  
18 respect to the sinking fund. I don't know if I'm reading this table correctly,  
19 but there seems to be a decrease in the sinking -- total sinking funds in  
20 Canadian dollars by the years 2013/'14 and 2014/'15.

21  
22 Could you just explain, in the context of your answer the other day that  
23 there's kind of a phasing out in a practical terms with respect to the  
24 sinking funds, why the amounts seem to go up to the three hundred  
25 (300), five hundred (500) and seven hundred thousand dollar (\$700,000)  
26 amounts in the forecasts for the years 2015 to 2018?

27  
28 That would be in millions of dollars.

29  
30 MR. VINCE WARDEN: Well, the amounts that are derived for the  
31 purposes of this table are all formula-based, so it -- it's based on the -- the  
32 formula that's in legislation for the contributions to the sinking fund.<sup>6</sup>

33  
34 The apparent differences between the way Manitoba Hydro's sinking funds are currently  
35 managed, and how the funds are forecast for IFF purposes were discussed later in the  
36 proceeding.

37  
38 MR. ROBERT MAYER: I remember cross examination on that issue, and  
39 I think by Mr. Hacault, and I thought I remember hearing that, basically,  
40 Hydro put the money in and then took it out and spent it as they pleased. I  
41 think that was the end result of the cross-examination, so I'm not  
42 understanding why it's costing them all this money.

43  
44 MR. PATRICK BOWMAN: At a certain level, neither are we. We're relying  
45 on the evidence that was put before us, one (1) set of which indicates

---

<sup>6</sup> Tr. 5546:9-5547:19.

1       there's limited, if any, practical implications of that section of the act  
2       because one can put it in and take it out, that, to the extent one would  
3       want a sinking fund, you can do it without the act telling you to do it, and  
4       that it functions in a -- a limited but important role in --in balancing certain  
5       aspects of the exposure management program, based on the evidence  
6       that we've heard.

7  
8       But when one reviews numbers and IFF forecasts you can see some very  
9       substantial sinking fund balances forecast that don't appear to necessarily  
10      be linked to simply balancing an exposure management program and the  
11      numbers that Mr. McLaren is quoting of, you know, costs up to \$93 million  
12      over the course of the IFF are -- are Hydro's numbers.

13  
14      So it seems that possibly it's a -- it's a difference in the way that one looks  
15      at the issue, possibly it's a difference in the way that one practically  
16      manages it versus the way that a computer generates an IFF, or -- or it's  
17      an inconsistency we -- we can't explain. Either way, I would say we --  
18      looking at the information that's been filed in this hearing in the past, the  
19      financial markets had a high degree of interest in sinking funds and it was  
20      the traditional way to issue debt.

21  
22      We know from other utilities we've worked with some time ago, it is --  
23      they're somewhat more sophisticated now. It's not necessarily the way  
24      that a lot of the Crown utilities are doing it. Some of them have had their  
25      requirements removed, either by the markets or by their legislation, and --  
26      and those that have -- that -- that we've dealt with would say it's a -- it's a  
27      benefit to them.

28  
29      MR. ANTOINE HACAULT: Thank you. Are there any follow-up questions  
30      on that or can we move to the next item?

31  
32      MR. ROBERT MAYER: I -- I'm not sure that I'm a whole lot smarter. It's  
33      just that -- the \$93 million sounds like a lot of money to me and if it's a  
34      funny number then I'd like to know why. If it's not a funny number, I want  
35      to know why we need it. I'm assuming that that is not evidence we can get  
36      from you but I -- and -- and I certainly got a different impression from the  
37      cross-examination of Hydro's witnesses. However, I don't appear to have  
38      been the only one.<sup>7</sup>

39

40      In summary, the evidence before the Board is that the removal of the sinking fund  
41      requirement would lower Manitoba Hydro's forecast interest expense by approximately  
42      \$8 million per year. This would in no way constrain Manitoba Hydro's ability to use  
43      instruments similar to the sinking funds for other purposes where appropriate.

---

<sup>7</sup> Tr.7271:12-7273:16.

- 1 The Board should direct Hydro to review its forecasts of sinking fund requirements in the
- 2 IFF in light of the way sinking funds are currently managed.
- 3
- 4 The Board should also direct Hydro continue to pursue relief from the Province of
- 5 Manitoba Hydro with respect to the sinking fund requirements under the *Manitoba Hydro*
- 6 *Act*.





1   **TOPIC:           Low Income Affordability Programming**

2  
3   **BOARD ISSUES:**

4  
5       Mr. Colton called for a special lower income assistance rate program.

6  
7       What are the parties' views on that recommendation?

8  
9       As for a low income rate affordability program, the Board welcomes a summary  
10      of the gross costs and the net costs to the utility of any proposed program.

11  
12      Should non-utility costs and benefits be included in any cost benefit analysis that  
13      underpins a low income rate affordability program by the utility?

14  
15      Should low income programs be run by agencies outside the utility? (Tr.8323:13-  
16      23)

17  
18   **MIPUG POSITION:**

19  
20   Manitoba Hydro should implement low-income DSM programs that have a robust,  
21   verifiable business case and result in savings to the utility and its customers.

22  
23   MIPUG also has no objection to Manitoba Hydro administering or facilitating bill  
24   assistance programs for low-income customers that are funded on a voluntary basis by  
25   contributions from Hydro's customers. In this proceeding it has been suggested that  
26   there may be a potential bill assistance program concept that has a positive business  
27   case (i.e., saves other ratepayers money compared to the status quo, and thus leads to  
28   rate reductions) – in the event such a program option exists and has a demonstrable  
29   positive effect on earnings, MIPUG takes no issue with Hydro pursuing such a program.  
30   However, Manitoba Hydro should not undertake low-income bill assistance programs  
31   that impose involuntary added costs to other customers (i.e., higher rates that would  
32   otherwise be required).

33  
34   **DISCUSSION AND SUPPORT:**

35  
36   Mr. Colton proposes a rate affordability program for Manitoba Hydro with three broad  
37   components:

1. A rate discount
2. Arrearage management
3. Crisis intervention

Mr. Colton estimates the total cost of the proposed program, including administration, to be \$15.50 million.<sup>1</sup> The largest component of this cost relates to the rate discount portion of the program. Mr. Colton recommends funding the program largely through an additional fixed meter charge supplemented with late fee revenues from residential customers.<sup>2</sup>

During the proceeding, Manitoba Hydro identified certain concerns with the cost estimates prepared by Mr. Colton and requested that he review the calculations. In response to Undertaking #164 Mr. Colton reviewed the calculations and indicated the revised estimated costs for a program with a 6% burden for heating and a 3% burden for baseload would be approximately \$40 million. Mr. Colton indicates that if these program costs are deemed to be “too high”, additional savings could be generated by limiting participation in the program.<sup>3</sup>

Mr. Colton’s evidence is clear that his proposal represents a net increase in rates for domestic customers. By point of comparison, the entire GRA under review comprises an approximately \$40 million increase in annual ratepayer costs; Mr. Colton’s proposed program would double this rate impact (over and above the 2.9% rate increase requested by Manitoba Hydro in 2011/12).

Mr. Colton also recommends that Hydro establish a low-income energy efficiency budget sufficient to address energy efficiency for the full range of low-income customers with bills above the residential average within a time-span of 10 years.<sup>4</sup> Mr. Colton’s evidence does not specifically quantify the dollar amounts required to achieve this objective.

Mr. Colton’s evidence seems to suggest Manitoba Hydro should be able to realize material cost savings from implementing a low income rate discount as a result of having avoided spending on extensive and costly collection practices.

---

<sup>1</sup> Page 56, Roger Colton Exhibit 2.

<sup>2</sup> Page 57, Roger Colton Exhibit 2.

<sup>3</sup> RCM/TREE Exhibit #14.

<sup>4</sup> Page 67, Roger Colton Exhibit 2.

1 In its rebuttal evidence, Manitoba Hydro stated that Mr. Colton's premise that his  
2 Affordable Energy Program is supported by a corporate business case is flawed and  
3 unsupported.<sup>5</sup> The magnitude of the costs involved in Manitoba Hydro's current  
4 collection processes were reviewed during the hearing through cross examination by  
5 Board Counsel:

6  
7 MR. BOB PETERS: And so, for the electric customer who finds themselves  
8 in arrears, whether they are low income or not low income customers,  
9 Manitoba Hydro embarks on a series of steps to attempt to collect the  
10 amount in arrears and keep that customer current?

11  
12 MR. LLOYD KUCZEK: That's correct.

13  
14 MR. BOB PETERS: And all of those steps have costs?

15  
16 MR. LLOYD KUCZEK: That would be fair to say.

17  
18 MR. BOB PETERS: And the costs of those steps are primarily related to  
19 human resource costs or EFT costs or wages and benefits?

20  
21 MR. LLOYD KUCZEK: Mainly, yes.

22  
23 MR. BOB PETERS: It's labour intensive, chasing accounts receivable. I'm  
24 sorry, that wasn't a question. It is labour intensive, isn't it, to -- to chase  
25 accounts receivable?

26  
27 MR. LLOYD KUCZEK: I guess it depends. You know, if you make a  
28 phone call and spend ten (10) minutes with a customer and make  
29 payment arrangements, that's not that costly, so it depends on what the --  
30 the extent of the effort. And then, of course, the other component of the  
31 cost that could be substantial is never being able to collect at all at the  
32 end.<sup>6</sup>

33  
34 Hydro also noted that it considers the business case for continuing to pursue overdue  
35 accounts:

36  
37 MR. BOB PETERS: All right. You're telling the Board in a -- in a subtle  
38 way that it's more likely Manitoba Hydro will have written it off as a bad  
39 debt before it goes to the nth degree to collect it?

40  
41 MR. LLOYD KUCZEK: I -- I think we would make a -- a logical business  
42 decision at some point that made sense from our perspective in terms of

---

<sup>5</sup> Rebuttal evidence of Manitoba Hydro. Page 92.

<sup>6</sup> Tr.4610:21-4611:20.

1 weighing the costs of continuing to pursue collecting the amount or just  
2 writing it off.

3  
4 MR. BOB PETERS: And -- and that's the point, is that there's an  
5 economic point by which seeking to recover the non-payment becomes  
6 just too cost prohibitive?

7  
8 MR. LLOYD KUCZEK: Correct.<sup>7</sup>  
9

10 Manitoba Hydro's testimony suggests that the costs it incurs related to collections are  
11 small in most instances and the Corporation already considers whether to continue to  
12 incur collection costs to pursue certain overdue accounts is a prudent business decision.  
13 Therefore, there seems to be no basis in evidence to support Mr. Colton's assertion that  
14 there is a strong business case or the potential for material (or indeed any) cost savings  
15 as a result of implementing the proposed low income affordability program.

16  
17 Manitoba Hydro also noted in its rebuttal evidence that the low income affordability  
18 program as proposed by Mr. Colton would involve Manitoba Hydro using its funds for  
19 addressing government responsibilities (i.e. directly addressing social issues) which  
20 would be inappropriate and outside of the Corporation's legislative authority.<sup>8</sup>

21  
22 This position was elaborated on during the hearing by Manitoba Hydro:  
23

24 MR. LLOYD KUCZEK: But our position is generally that affordable issues  
25 are -- including energy affordability is outside Manitoba Hydro's legislated  
26 mandate. That's within the rebuttal evidence in pages 88 to 92. In  
27 Canada, our position is affordability issues are the responsibility of the  
28 provincial governments. And the last point related to that is, and we  
29 stated in there, using Manitoba Hydro funds for addressing government  
30 responsibilities would be inappropriate and outside the Corporation's  
31 legislative authority, so.<sup>9</sup>  
32

33 ... we do recognize that it is within our mandate to pursue efficiency in the  
34 end use of electricity. And what becomes blurry and grey at times I think  
35 with some people is that does impact the affordability of energy, but that  
36 is not the driver or -in our decision making, to pursue energy efficiency  
37 programs. It results in energy being more affordable. And we think that's  
38 great, but that is not our objective.<sup>10</sup>  
39

---

<sup>7</sup> Tr.4621:24-4622:12.

<sup>8</sup> Rebuttal evidence of Manitoba Hydro. Page 92.

<sup>9</sup> Tr.4552:14-24.

<sup>10</sup> Tr.4553:2-9.

1 Dr. Carter, a witness for CAC/MSOS, described his view of the proper role for Manitoba  
2 Hydro in regard to low income programming in an IR response:

3  
4 What is the best role for an organization like Manitoba Hydro within this  
5 context? Certainly to be a player in an integrated strategy but not a funder  
6 of programs to alleviate poverty. Manitoba Hydro must play a role in  
7 program design, energy audits, education, promotion, monitoring,  
8 perhaps even delivery in conjunction with community based  
9 organizations. However, funding should rest mainly with governments.<sup>11</sup>

10  
11 During the hearing, Dr. Carter also noted concerns with respect to Manitoba Hydro  
12 taking on a role in administering such a program:

13  
14 I would doubt that Manitoba Hydro is best suited to deliver programs to  
15 low-income people. I'm not sure they would have the same level of  
16 expertise, the same administrative programs in place, the same, shall we  
17 say, connection with the low income people as agencies like Family  
18 Service would have.

19  
20 So I would argue that they are not as well placed to deliver poverty  
21 alleviation programs as, for example, Social Assistance. I also suspect  
22 that Manitoba Hydro, and I could be wrong here, but I also suspect that  
23 they run up against some privacy regulations when they try to identify  
24 people from other files, be it the Social Assistance file or the GST rebate  
25 or -- or Pharmacare, and they may be more likely to run into those  
26 problems than, say, Social Assistance in some of the cases.

27  
28 Also, some of these other agencies like Family Services have places --  
29 have -- have administrative structures in place that they regularly use to  
30 make payments to low-income people. And I would suspect that Manitoba  
31 Hydro would have to develop these frameworks, hire staff, so there would  
32 be an additional staff -- staff burden here.

33  
34 So I guess all things being equal, I would suggest that Manitoba Hydro is  
35 not as well placed as some other departments in government to deliver  
36 energy affordability alleviation programs -- or poverty alleviation programs  
37 in general.<sup>12</sup>

38  
39 In summary, the evidence before the Board is that implementing Mr. Colton's proposal  
40 would impose a substantial rate increase on customers, with little or no ability to for  
41 Manitoba Hydro to achieve cost savings. Further, both Manitoba Hydro and Dr. Carter

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<sup>11</sup> MH/CAC/MSOS (Carter)-7a).

<sup>12</sup> Tr.7956:7-7957:10

- 1 have raised valid concerns with respect to whether Manitoba Hydro has the mandate or
- 2 resources to implement such a program.

1   **TOPIC:                   Cost of Service Study**

2  
3   **BOARD ISSUES:**

4  
5           THE CHAIRPERSON: From the parties perspective are any cost of service or  
6           rate design changes required? (Tr. 8323:11-12)

7  
8   **MIPUG POSITION:**

9  
10   Manitoba Hydro's PCOSS10 and PCOSS11 are substantially consistent with the Board's  
11   previous directives and with core principles of cost causation. Where Manitoba Hydro  
12   has implemented modifications from the Board's directives these are either reasonable  
13   based on cost causation principles or of little consequence to the results of the study or  
14   both. The Board should rely on the results of the embedded cost-of-service study as a  
15   key tool for reviewing and implementing fair and reasonable rates.

16  
17   MIPUG's position with respect to rate design topics are addressed in issue briefs 10 and  
18   11.

19  
20   **DISCUSSION AND SUPPORT:**

21  
22   Manitoba Hydro's cost-of-service methodology was the subject of a full review before the  
23   Board in 2006 comprising 11 days of hearings and over \$1.25 million in costs.<sup>1</sup> The cost  
24   of service study methodology was further reviewed and refined during the 2008 GRA.

25  
26   Manitoba Hydro provided copies of its PCOSS10 and PCOSS11, but recommended they  
27   be accepted for information only, noting that Hydro intends to engage external  
28   consultants to review the study methodology and that its 2010/11 and 2011/12 rate  
29   requests were for an across the board increase.<sup>2</sup>

30  
31   In their pre-filed testimony, Messrs Bowman and McLaren reviewed the Board's  
32   directives from Order 116/08 and the methodology adjustments proposed by Hydro.<sup>3</sup>  
33   Messrs Bowman and McLaren recommended minor improvements to the treatment of  
34   thermal generation costs, but noted the likely effect on the results of the study is small

---

<sup>1</sup> MIPUG/MH II-3(g) from the 2008 GRA. The \$1.25 million excludes MIPUG's costs which were paid by the intervenor directly.

<sup>2</sup> Tab 11. Page 2 lines 4 through 13. Manitoba Hydro 2010/11 and 2011/12 General Rate Application.

<sup>3</sup> Page 53 line 19 through page 56 line 9. Pre-filed testimony of P. Bowman and A. McLaren.

1 and does not undermine the overall conclusions. Based on their review of PCOSS11,  
2 Messrs Bowman and McLaren noted the following observations and conclusions:

- 3
- 4 • PCOSS11 is largely consistent with cost causation principles.
- 5 • However, PCOSS11 includes a number of material variations from normal cost
- 6 causation principles related to a series of policy-related items. These include the
- 7 direct assignment against exports of the Uniform Rate related costs, the
- 8 Affordable Energy Fund related costs and the allocation of net export revenues
- 9 against total allocated costs of each domestic class.

10  
11 The only other intervenor to provide substantive comments on Manitoba Hydro's cost-of-  
12 service methodology was Mr. Chernick, whose comments addressed only the  
13 distribution and subtransmission functions.<sup>4</sup> As a result, any changes implemented to  
14 address issues or concerns identified by Mr. Chernick would not affect the GSL >100kV  
15 rate class who make little or no use of those functions.

16  
17 The cost-of-service study allows for useful observations into the costs to serve various  
18 rate classes.<sup>5</sup> In particular, Messrs Bowman and McLaren provided a table and a chart  
19 showing the calculation of costs and revenue to cost coverage ratios for each rate class  
20 in the response to PUB/MIPUG 1-18 (a). The data in Table 5.1 were confirmed as  
21 correct by Manitoba Hydro.<sup>6</sup>

---

<sup>4</sup> MIPUG/RCM/TREE(Chernick) I-5(a).

<sup>5</sup> Page 56, lines 11-28. Pre-filed Testimony of P. Bowman and A. McLaren.

<sup>6</sup> Tr.8303:11-8304:10.



1

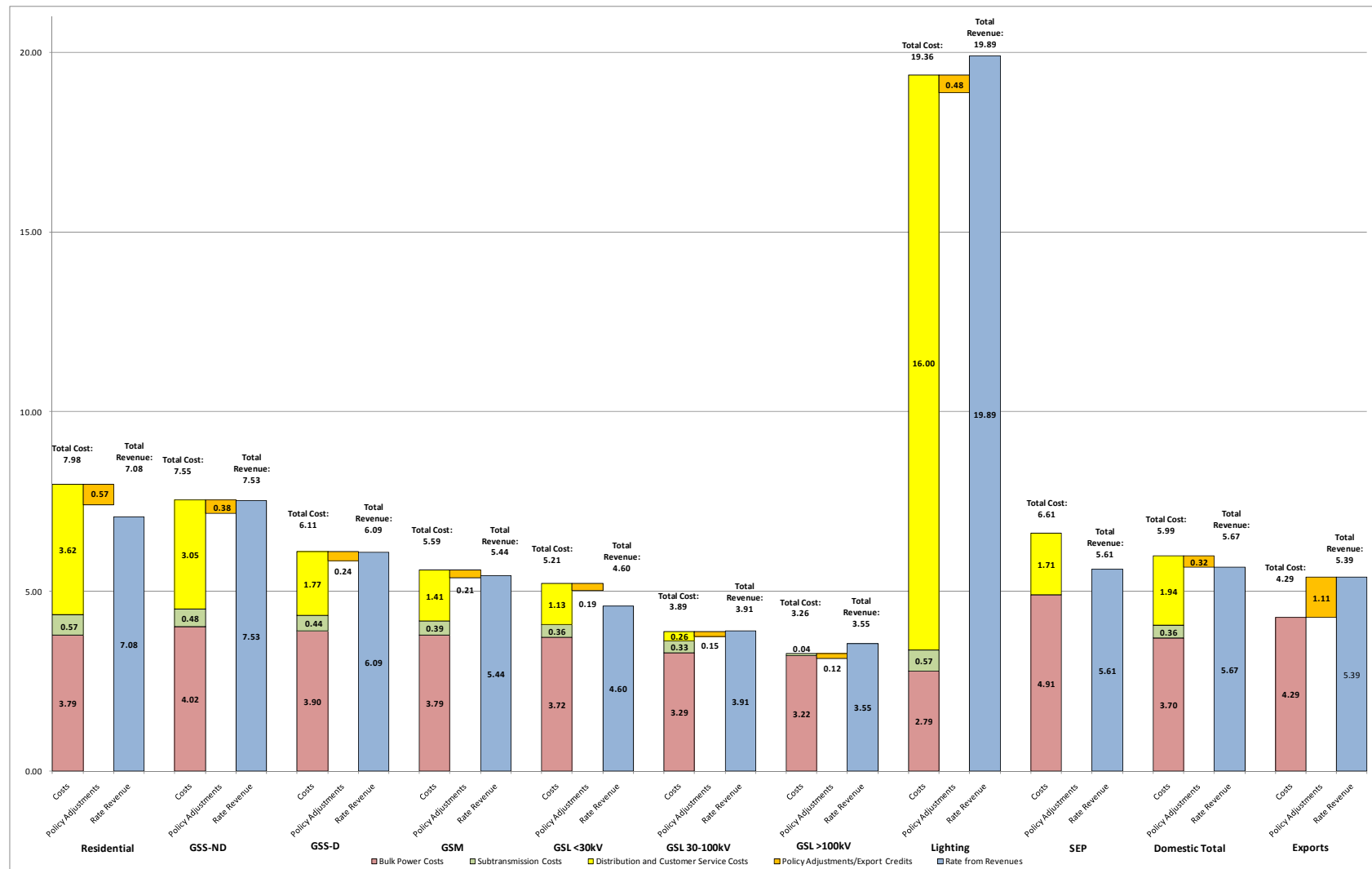
### Levelized RCC Ratios per kW.h PCOSS11

	<b>Residential</b>		<b>GSS-ND</b>		<b>GSS-D</b>		<b>GSM</b>		<b>GSL&lt;30kV</b>		<b>GSL 30-100kV</b>		<b>GSL&gt;100kV</b>	
	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)
<b>Costs</b>														
1 Bulk Power Costs	\$256.32	3.79	\$63.19	4.02	\$73.39	3.90	\$114.28	3.79	57.22	3.72	27.90	3.29	171.02	3.22
2 plus: Subtransmission-related	\$38.75	0.57	\$7.58	0.48	\$8.34	0.44	\$11.70	0.39	5.53	0.36	2.78	0.33	0.00	0.00
3 plus: Distrib. and Cust. Serv.	\$245.29	3.62	\$47.87	3.05	\$33.24	1.77	\$42.48	1.41	17.45	1.13	2.24	0.26	2.32	0.04
<b>4 Total Costs</b>	<b>\$540.37</b>	<b>7.98</b>	<b>\$118.64</b>	<b>7.55</b>	<b>\$114.98</b>	<b>6.11</b>	<b>\$168.45</b>	<b>5.59</b>	<b>80.20</b>	<b>5.21</b>	<b>32.91</b>	<b>3.89</b>	<b>173.34</b>	<b>3.26</b>
<b>Rates</b>														
<b>5 Total PCOSS Sales Revenue</b>	<b>\$479.64</b>	<b>7.08</b>	<b>\$118.33</b>	<b>7.53</b>	<b>\$114.72</b>	<b>6.09</b>	<b>\$164.08</b>	<b>5.44</b>	<b>70.73</b>	<b>4.60</b>	<b>33.07</b>	<b>3.91</b>	<b>188.68</b>	<b>3.55</b>
<b>Surplus/Shortfall before Net Export Credits</b>														
<b>6 Rates compared to costs (5-4)</b>	<b>(\$60.72)</b>	<b>-0.90</b>	<b>(\$0.31)</b>	<b>-0.02</b>	<b>(\$0.26)</b>	<b>-0.01</b>	<b>(\$4.38)</b>	<b>-0.15</b>	<b>(\$9.47)</b>	<b>-0.62</b>	<b>\$0.16</b>	<b>0.02</b>	<b>\$15.34</b>	<b>0.29</b>
7 Revenue:Cost Ratio (Net of Policy Adjustments and Export Credits) (line 5/ line 4)	88.76%		99.74%		99.78%		97.40%		88.19%		100.47%		108.85%	
<b>Policy Adjustments</b>														
8 Uniform Rate Credit	\$17.81	0.26	\$1.58	0.10	\$0.37	0.02	\$0.04	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
9 Affordable Energy Fund Expenditures	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
10 Net Export Revenue Allocation	\$20.54	0.30	\$4.38	0.28	\$4.22	0.22	\$6.24	0.21	\$2.96	0.19	\$1.24	0.15	\$6.50	0.12
<b>11 Surplus/(Shortfall) after net export revenue credits (6+8+9+10)</b>	<b>(\$22.38)</b>	<b>-0.33</b>	<b>\$5.66</b>	<b>0.36</b>	<b>\$4.33</b>	<b>0.23</b>	<b>\$1.90</b>	<b>0.06</b>	<b>(\$6.51)</b>	<b>-0.42</b>	<b>\$1.40</b>	<b>0.16</b>	<b>\$21.84</b>	<b>0.41</b>
12 Total Class Metered Energy (GW.h)	6,772		1,571		1,883		3,015		1,539		847		5,311	

	<b>Lighting</b>		<b>SEP</b>		<b>Diesel</b>		<b>Domestic Total</b>		<b>Exports</b>	
	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)	(\$ M)	(¢/kWh)
<b>Costs</b>										
1 Bulk Power Costs	\$2.82	2.79	\$0.75	4.91	\$11.67	85.38	\$778.55	3.70	\$305.23	4.29
2 plus: Subtransmission-related	\$0.58	0.57	\$0.00	0.00	\$0.00	0.00	\$75.26	0.36	\$0.00	0.00
3 plus: Distrib. and Cust. Serv.	\$16.18	16.00	\$0.26	1.71	\$0.71	5.19	\$408.04	1.94	\$0.00	0.00
<b>4 Total Costs</b>	<b>\$19.57</b>	<b>19.36</b>	<b>\$1.01</b>	<b>6.61</b>	<b>\$12.38</b>	<b>90.57</b>	<b>\$1,261.85</b>	<b>5.99</b>	<b>\$305.23</b>	<b>4.29</b>
<b>Rates</b>										
<b>5 Total PCOSS Sales Revenue</b>	<b>\$20.11</b>	<b>19.89</b>	<b>\$0.85</b>	<b>5.61</b>	<b>\$4.79</b>	<b>35.08</b>	<b>\$1,195.01</b>	<b>5.67</b>	<b>\$384.06</b>	<b>5.39</b>
<b>Surplus/Shortfall before Net Export Credits</b>										
<b>6 Rates compared to costs (5-4)</b>	<b>\$0.54</b>	<b>0.53</b>	<b>(\$0.15)</b>	<b>-1.01</b>	<b>(\$7.58)</b>	<b>-55.49</b>	<b>(\$66.84)</b>	<b>-0.32</b>	<b>\$78.84</b>	<b>1.11</b>
7 Revenue:Cost Ratio (Net of Policy Adjustments and Export Credits) (line 5/ line 4)	102.73%		84.79%		38.73%		94.70%		125.83%	
<b>Policy Adjustments</b>										
8 Uniform Rate Credit	\$0.23	0.23	\$0.00	0.00	\$0.00	0.00	\$20.03	0.10	(\$20.03)	-0.28
9 Affordable Energy Fund Expenditures	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	(\$12.00)	-0.17
10 Net Export Revenue Allocation	\$0.26	0.26	\$0.00	0.00	\$0.48	3.49	\$46.81	0.22	(\$46.81)	-0.66
<b>11 Surplus/(Shortfall) after net export revenue credits (6+8+9+10)</b>	<b>\$1.02</b>	<b>1.01</b>	<b>(\$0.15)</b>	<b>-1.01</b>	<b>(\$7.10)</b>	<b>-52.00</b>	<b>(\$0.00)</b>	<b>-0.00</b>	<b>(\$0.00)</b>	<b>-0.00</b>
12 Total Class Metered Energy (GW.h)	101		15		14		21,067		7,122	

2

1 **Customer Class Costs and Revenues for PCOSS11 Data**



Based on this analysis, Messrs Bowman and McLaren noted that several rate classes have revenue to cost coverage ratios close to or higher than 100%. Revenues from these rate classes fully recover the costs to serve them without any policy based credits. By contrast, two rate classes, residential and GSL 0-30kV have revenue to cost coverage ratios below 95%. This analysis was summarized in Table 5.2 of Messrs Bowman and McLaren's pre-filed testimony and reviewed during the proceeding.<sup>7</sup>

**Table 5.2**  
**PCOSS11 Results<sup>8</sup>**

			<b>Surplus/ (Shortfall)</b>	
	<b>Total Cost</b>	<b>Class Revenue</b>	<b>before Policy Based Credits</b>	<b>RCC Before Policy Credits</b>
<b>Residential</b>	\$540,365	\$479,644	(\$60,721)	88.8%
<b>GSS-ND</b>	\$118,628	\$118,331	(\$297)	99.7%
<b>GSS-D</b>	\$114,981	\$114,720	(\$261)	99.8%
<b>GSM</b>	\$168,455	\$164,078	(\$4,377)	97.4%
<b>GSL 0-30kV</b>	\$80,204	\$70,730	(\$9,474)	88.2%
<b>GSL 30-100kV</b>	\$32,915	\$33,070	\$155	100.5%
<b>GSL &gt;100kV</b>	\$173,341	\$188,679	\$15,338	108.8%
<b>Lighting</b>	\$19,574	\$20,109	\$535	102.7%
<b>SEP</b>	\$1,006	\$852	(\$154)	84.7%
<b>Total General Customers</b>	\$1,249,469	\$1,190,214	(\$59,255)	95.3%
<b>Diesel</b>	\$12,375	\$4,793	(\$7,582)	38.7%
<b>Total Domestic</b>	\$1,261,844	\$1,195,007	(\$66,837)	94.7%

All data from Schedule B1 of PCOSS11. Class Revenue does not include uniform rate credits.

Messrs Bowman and McLaren noted in their evidence that while Hydro's across-the-board rate proposals are simple, they are not supported by the cost-of-service study results. Further, Hydro has a stated objective of gradually moving class revenue to cost coverage ratios to unity and acknowledged that attainment of this objective will take longer than anticipated as a result of the across-the-board rate proposal.<sup>9</sup> On this basis

<sup>7</sup> Tr.7277:22-7283:4.

<sup>8</sup> Table 5.2, page 61, Pre-filed Testimony of P. Bowman and A. McLaren.

<sup>9</sup> Page 62, lines 8-12. Pre-filed Testimony of P. Bowman and A. McLaren.

- 1 Messrs Bowman and McLaren recommended that any further rate adjustments coming
- 2 out of this proceeding should reflect the RCC ratios summarized in Table 5.2.<sup>10</sup>

---

<sup>10</sup> Tr.7284:11-17.

1   **TOPIC:           Demand Billing Concession**

3   **BOARD ISSUES:**

5           Manitoba Hydro is requesting final approval of Order 126/09 and to make  
6           permanent the bill adjustments made under the Temporary Billing Demand  
7           Concession Program.

9   **MIPUG POSITION:**

11   The Board should approve Manitoba Hydro's request for final approval of Order 126/09  
12   to make permanent the adjustments granted under the Temporary Billing Demand  
13   Concessions program.

15   The program was necessary to:

- 17           1. Address the unintended consequences of a rate design deficiency for General  
18           Service Large and General Service Medium customers.
- 20           2. Stabilize Manitoba Hydro's revenues during a period when short-term export  
21           market prices were low as a result of the economic downturn.

23   **DISCUSSION AND SUPPORT:**

25   On August 7, 2009, Hydro applied to the Board for approval of a Temporary Billing  
26   Demand Concession program for General Service Large (GSL) and General Service  
27   Medium (GSM) customers that experienced reduced electrical demand as a direct result  
28   of reductions in their operations caused by the global economic downturn. In order to  
29   qualify for the program customers were required to:

- 31           1. Submit a written request with supporting evidence documenting the impact of the  
32           global economic downturn on their business. A clear indication of a change in  
33           operational behavior as a result of the economic downturn was required in order  
34           to be eligible for the program.

- 1        2. Have experienced an increase in unit energy costs<sup>1</sup> of at least 10% relative to  
2        historic levels (defined as a 24 month baseline period from September 2006  
3        through August 2008).

4  
5        For qualifying customers, Hydro adjusted the customer's monthly demand charge so that  
6        the customer's unit energy cost was stabilized at 110% of the unit energy cost for the  
7        baseline period.<sup>2</sup> It is important to note that as part of the program:

- 8  
9        1. Customers paid bills that resulted in unit energy costs that were 10% higher than  
10       the baseline period prior to the economic downturn.  
11  
12       2. The energy rate portion of the customer's bill was paid in full. No adjustments  
13       were made to the energy rate.

14  
15       In its Order 126/09, the Board authorized Hydro to implement a partial bill deferral  
16       program for qualifying GSL and GSM customers and to apply for finalization no later  
17       than concurrent with the next GRA. The Board directed Hydro to carry amounts deferred  
18       under the program at its short-term borrowing rate.

19  
20       MIPUG supports Manitoba Hydro's application on the basis that the program was  
21       necessary to:

- 22  
23       1. Address the unintended consequences of a rate design deficiency for General  
24       Service Large and General Service Medium customers.  
25  
26       2. Stabilize Manitoba Hydro's revenues during a period when short-term export  
27       market prices were low as a result of the economic downturn.

28  
29       With respect to the first point, Mr. Wiens explained during the proceeding that the  
30       dramatic increase in unit energy costs was an unintended consequence of the existing  
31       rate structure:

32  
33       MR. ROBIN WIENS: Mr. Peters, what we saw in the case of a number of  
34       our large industrial customers back in 2009 was a situation in which many

---

<sup>1</sup> That is, the sum of the total applicable demand and energy charges divided by the kW.h consumed during the billing period.

<sup>2</sup> Hydro provided detailed examples of the calculations in the response to MIPUG/MH I -21 (a).

1 of them were forced to operate outside the parameters that we  
2 considered the rate had been designed for.

3  
4 In effect that their kilowatt -- cost per kilowatt hour as a result of the  
5 demand in energy structure of the rate that they faced had increased  
6 significantly because they were operating on -- if they - - if their typical  
7 operation had been a two (2) or three (3) shift operation they were down  
8 to one (1) shift, or they were into batch processing.

9  
10 So the demand charges were causing their rate to, in effect -- their -- their  
11 unit rate, their unit cost of energy, and therefore, their cost of production  
12 to escalate considerably.<sup>3</sup>

13  
14 During the proceeding, Mr. Bowman addressed the issue of the revenue impact of the  
15 program on Manitoba Hydro, noting that the program allowed Manitoba Hydro to obtain  
16 higher revenues from domestic customers than would have been available on the export  
17 market:

18  
19 MR. PATRICK BOWMAN:

20  
21 Had these type of programs not been in place -- and I'm not attesting to  
22 whether a customer would have operated at a high level or a low level,  
23 that -- you'll have to hear from the customers on that. But, the premise is  
24 that this was an opportunity to sell the customer some power at 10  
25 percent more on an average energy rate than they normally buy it and,  
26 absent that, they wouldn't have bought the power and Hydro would have  
27 had to deal with its power somewhere else.

28  
29 And if you go to the Board's orders for the SEP rates at that time, Hydro  
30 would have been selling to the US for an average about two (2) cents,  
31 and I'm quoting Board Order 156/09, which is the SEP rates that - - that  
32 show the graph for that period.

33  
34 So the -- in the context of that program, I think it's -- it's quite important to  
35 -- to keep in mind that -- that's it's not just a, you know, run two (2) sets of  
36 -- of rate numbers against a load and see what the numbers come out at.

37  
38 With tha -- facing that set of choices, I think the program that Hydro came  
39 forward with and -- and proposed was -- was reasonable. It was probably  
40 more limited than one could have justified but it was definitely reasonable  
41 and it -- and it rose out of the -- the form of rate design.

42  
43 I guess the other question that comes up is, you know, a sort of who --  
44 well, then who pays for it co -- co -- sort of concept. And -- and I guess  
45 the issue is -- is the revenues were higher than they would have been had

---

<sup>3</sup> Tr.4554:22-4555:12.

1 the program not been put in place because the alternative was to sell the  
2 -- the power on the export market.<sup>4</sup>  
3

4 In MIPUG's view, these two factors provide compelling support for the approval of  
5 Manitoba Hydro's request.  
6

7 In Order 126/09 the Board set out nine factors or information it might consider for  
8 finalization of the program. Hydro provided updated information on each of these topics  
9 in the response to PUB/MH I-167 and the Board heard further information on many of  
10 these topics from other parties during the hearing. A brief summary of the material  
11 provided on the record of the proceeding on these nine factors is provided below.  
12

13 **Should there be a requirement for qualifying customers to file or have reviewed its**  
14 **financial information?**  
15

- 16 • Manitoba Hydro noted the Corporation's objective was to ensure that energy  
17 costs, which are universal to operations in all jurisdictions, not contribute  
18 negatively to the competitiveness of a Manitoba-based operation. Therefore  
19 Manitoba Hydro did not require qualifying customers to file or have their financial  
20 information reviewed.<sup>5</sup>
- 21 • Gerdau provided information that during the economic downturn, the average  
22 unit cost of electricity at the Manitoba mill increased by over 40 percent and  
23 became a major issue for continued operation.<sup>6</sup>
- 24 • Mr. Forsyth noted during his presentation on behalf of Gerdau that the program  
25 allowed qualifying customers to continue operating, keep people employed and  
26 ensured that Manitoba Hydro's revenue stream was secured.<sup>7</sup>  
27

28 **Total gross and net financial impact on Manitoba Hydro and its customers**  
29

- 30 • During the proceeding, Mr. Bowman noted that SEP rates were averaging  
31 approximately two cents and therefore the revenues received from industrial  
32 customers under the demand billing concession were higher than Manitoba

---

<sup>4</sup> Tr. 7291:6-7292:5.

<sup>5</sup> PUB/MH I-167 (b).

<sup>6</sup> Tr.7707:11-13.

<sup>7</sup> Tr.7710:16-21.



Hydro would have received in the export market if these customers had ceased operations in Manitoba during the economic downturn.<sup>8</sup>

- During the hearing, Manitoba Hydro provided information that the financial impact of the demand billing concession program, compared to revenues that would have arisen at the full tariff demand rate, was approximately \$1.291 million<sup>9</sup>, lower than the estimate of \$2.022 million provided at the time of Manitoba Hydro's original filing.<sup>10</sup>
- In their Pre-filed testimony, Messrs Bowman and McLaren noted there were no adverse effects on Manitoba Hydro's rates or revenues for other customer classes. In particular, Messrs Bowman and McLaren noted the additional revenue obtained by Manitoba Hydro from excessive delays in eliminating the winter ratchet far exceeded any foregone revenues as a result of the demand billing concession.<sup>11</sup>

**Further duration and impact of the current recession on Manitoba Hydro's customers**

- Manitoba Hydro provided information that the economic recovery varies by sector and rate of improvement is susceptible to significant variation.<sup>12</sup>

**Specifics of financial assistance strategy announced by the Province for resource-based companies in Northern Manitoba**

- In its response to PUB/MH I-167 (b) Manitoba Hydro noted it is not aware of the specific nature of assistance provided to resource-based companies in Northern Manitoba.
- During the proceeding, the Board heard from two customers located in Southern Manitoba, Gerdau and Amsted Rail, who participated in the program and would not have qualified for any financial assistance strategies implemented for resource-based companies in Northern Manitoba.

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<sup>8</sup> Tr.7291:15–7292:12.

<sup>9</sup> Exhibit MH-96.

<sup>10</sup> Appendix 13.1. Manitoba Hydro 2010/11 & 2011/12 General Rate Application.

<sup>11</sup> Page 64, lines five through ten. Pre-filed Testimony of P. Bowman and A. McLaren.

<sup>12</sup> PUB/MH I-167 (b).

**Consideration of the existence or non-existence of similar concessions being granted by other Canadian electricity utilities**

- Manitoba Hydro provided evidence that the Quebec government authorized industrial customers whose power demand exceeded 50MW to benefit from a reduction in contract power during the period April 1, 2009 to March 31, 2010. Manitoba Hydro also noted that Hydro Quebec offers a load retention rate to large customers (5000 kW or more) that are experiencing financial difficulties and who can demonstrate they are obtaining nonrefundable reductions from their other suppliers.<sup>13</sup>
- Manitoba Hydro's current rate structure did not have the similar ability to react to significant changing circumstances in Manitoba such as that which occurred globally in 2008/2009.
- During his presentation on behalf of Gerdau, Mr. Forsyth noted almost all of Gerdau's North American facilities have the opportunity to control costs when situations such as the economic downturn arise. In Ontario, the major component of the demand charge can be avoided by shifting production to off-peak periods. In New Jersey, Gerdau can avoid the highest demand periods and benefit by reducing fixed costs to a fraction of the total bill. Mr. Forsyth also noted in other facilities Gerdau participates in interruptible rate contracts; however no such program is available in Manitoba for new subscribers. As a result, Gerdau has no other rate options available in Manitoba.<sup>14</sup>

**Consideration of other reports to be filed by Manitoba Hydro respecting lower-income bill assistance plans and rate for diesel communities**

- Manitoba Hydro and other parties to the proceeding have filed substantial information for the Board to consider with respect to programs respecting lower-income bill assistance plans.
- Subsequent to Order 126/09, the Board conducted a review of rates in diesel communities, leading to Order 134/10.
- As the Board noted in its Order, the residential rate structure does not include an explicit demand component and Residential customer's unit energy costs have not increased as a result of the recession.<sup>15</sup>

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<sup>13</sup> PUB/MH I-167 (b).

<sup>14</sup> Tr.7709:15-7710:5.

<sup>15</sup> Page 23. Order 126/09.

**Specific details of all other bill reductions and concessions granted by Manitoba Hydro**

- Manitoba Hydro provided information related to a demand concession administered to a customer related to equipment testing in its response to PUB/MH I-167 (b). The value of the concession was small (less than \$3,000).

**The desirability of the “retroactive” nature of the deferrals**

- Manitoba Hydro provided information that the program start date of June 2009 was determined by the timing of customer-initiated communication related to anticipated higher unit energy costs. Therefore, the period between June 2009 and the approval of the program in early September 2009 essentially relates to administrative delays beyond the control of customers.

**Submissions of any interested parties which are unknown during this *ex parte* proceeding**

- The Board received submissions from Amsted Rail and Gerdau. These submissions noted the significant operating challenges during the economic downturn and the extensive actions taken by the companies to continue operations and maintain employment in Manitoba. Both submissions supported Manitoba Hydro’s request to finalize the concessions granted under the program.



1   **TOPIC:                   Energy Intensive Industrial Rate**

2  
3   **BOARD ISSUES:**

4  
5           Do the parties have any updated views on the need for and/or prospects for a  
6           future energy intensive industry rate, or are the parties satisfied with Manitoba  
7           Hydro's ongoing consultation with large industry, soon, apparently, to be  
8           expanded to include other parties?

9  
10          Is sufficient consideration of the ERI being prudently set back given the  
11          circumstances? (Tr.8323:3-12)

12  
13   **MIPUG POSITION:**

14  
15   It should be noted there is no EIIR proposal before the Board in this proceeding.

16  
17   The Board should be satisfied that Manitoba Hydro's approach to consultation with  
18   respect to a new industrial rate proposal is consistent with previous Board directives.  
19   Manitoba Hydro should be encouraged to continue its consultative approach with  
20   industrial customers and other interested parties prior to filing a new proposal for  
21   industrial rates.

22  
23   **DISCUSSION AND SUPPORT:**

24  
25   In its procedural Order 17/10, the Board noted it had not included consideration of any  
26   new Energy Intensive Industrial Rates (EIIR) application within the scope of the GRA  
27   proceeding. The Board noted it was awaiting further information from Hydro and that any  
28   new industrial rate application would be best reviewed in a separate proceeding.<sup>1</sup>  
29   Manitoba Hydro did file a separate application for an EIIR on February 12, 2010.  
30   However, citing the current economic downturn, Manitoba Hydro withdrew that  
31   application by letter dated October 19, 2010 and indicated its intent to pursue further  
32   consultation with customers and other parties in an effort to move toward consensus on  
33   the terms and structure of a new industrial rate. This approach is consistent with the  
34   Board's Order 112/09 where the Board indicated it expected Hydro, in consultation with  
35   Stakeholders, to develop and submit additional alternatives.<sup>2</sup>

---

<sup>1</sup> Page 15, Order 17/10.

<sup>2</sup> Page 137, Order 112/09.

1 During the proceeding, witnesses for Manitoba Hydro and MIPUG provided evidence  
2 that:

- 3
- 4 • The economic downturn and reduced expectations for expansion of industrial
- 5 loads have provided an opportunity to improve and broaden consultation with
- 6 respect to industrial rate design.
- 7 • A series of working group meetings between Manitoba Hydro and MIPUG
- 8 members over the past year has provided an opportunity for both parties to
- 9 examine and discuss difficult issues related to future industrial rate proposals.
- 10 • The discussions are focused on rate design options that could be supported by
- 11 both Manitoba Hydro and MIPUG while focusing on issues raised by the Board in
- 12 previous Orders.
- 13 • To date consultation meetings have involved MIPUG members and other >30kV
- 14 industrial customers, with plans to involve other stakeholders prior to an
- 15 application.
- 16 • From MIPUG's perspective, the process to date has been more positive and
- 17 more likely to result in a proposal acceptable to all parties than previous industrial
- 18 rate proposals.<sup>3</sup>
- 19

20 Based on this, in MIPUG's view the Board should be satisfied that Manitoba Hydro's  
21 approach to consultation with respect to a new industrial rate proposal is consistent with  
22 previous Board directives. The Board should encourage Manitoba Hydro to continue its  
23 consultative approach with industrial customers and other interested parties prior to filing  
24 a new proposal for industrial rates.

---

<sup>3</sup>Tr.4183:6-4184:10; Tr.4606:14-4608:13; Tr.7602:24-7607:6.

**TOPIC: Rate Design**

**BOARD ISSUES:**

What position do the parties take on:

- rate class consolidation;
- rate re-balancing;
- limited use billing demand;
- surplus energy program;
- curtailable rate program; and
- the time of use rates, if any views are out there? (Tr.8324:5-9)

**MIPUG POSITION:**

Hydro's request to finalize *ex parte* orders related to the Surplus Energy Program (SEP) and the Curtailable Rate Program (CRP) should be approved.

MIPUG's positions with respect to rate re-balancing and time of use rates are set out in issues 2 and 10.

**DISCUSSION AND SUPPORT:**

Hydro's application notes Board Order 57/09 approved the extension of the SEP to March 31, 2013. Hydro's only proposed change to the SEP relates to the elimination of the winter ratchet. In Order 57/09 the Board expressed a concern with respect to low summer off-peak energy revenues both under the SEP and on the export market. The Board directed Hydro to provide an explanation and justification for continued sales of off-peak overnight summer exports.

Hydro responded to this directive in Appendix 13.2 of the Application noting:

Manitoba Hydro always prices SEP energy sales with the intent of achieving revenue neutrality with respect to the export revenue foregone, or the import purchase cost incurred to make the energy available to SEP customers. Manitoba Hydro cannot make itself better off by reducing the availability of energy to SEP customers during the off-peak or any other period. Manitoba Hydro already stores or releases water to optimize its value and cannot improve its situation by storing more than the optimum amount of water to reduce energy sales to SEP customers. If the

1 customer chooses to purchase the energy, then the customer is obtaining  
2 value. As long as Manitoba Hydro is not harmed by the sale, there is no  
3 reason to deprive the customer of the value they obtain from it. If a  
4 situation arises where Manitoba Hydro could potentially be harmed by  
5 making SEP sales, there are provisions in the terms and conditions to  
6 interrupt those sales in any or all time periods, with appropriate notice to  
7 the customer.<sup>1</sup>  
8

9 The Board can be satisfied that the program provides benefits to customers and is at  
10 least revenue neutral to Hydro. Further, Hydro has appropriate conditions in place to  
11 limit any potential downside exposure.  
12

13 With respect to the CRP, under the terms and conditions of service, Manitoba Hydro is  
14 required to file to adjust the CRP credit for inflation on an annual basis. Orders 46-09;  
15 42-10 and 63-11 approved annual adjustments to the CRP credit on an interim ex parte  
16 basis. Hydro's applications and the Board's interim Orders are consistent with the terms  
17 and conditions of the program and should be approved.

---

<sup>1</sup> Appendix 13.2 Page 10. Manitoba Hydro 2010/11 and 2011/12 General Rate Application.



1   **TOPIC:           Basic Monthly Charge**

2  
3   **BOARD ISSUES:**

4  
5           Should the Board approve Manitoba Hydro's request to reduce the basic monthly  
6           charge? (Tr.8323:24-25)

7  
8           If the basic monthly charge were to be reduced, would it be best reduced in a  
9           way that retained revenue neutrality, i.e., rates increased to cover off lost  
10          income? (Tr.8324:1-4)

11  
12   **MIPUG POSITION:**

13  
14   In setting just and reasonable rates for each of the rate classes, the Board should seek  
15   to ensure that approved rates for each rate class fairly recover the costs of serving that  
16   class as measured by Hydro's embedded cost of service study.

17  
18   MIPUG takes no position with respect to the appropriate portion of the residential class  
19   revenue requirement that should be recovered from the customer charge or energy  
20   charges. However, if the basic monthly charge is reduced, the energy charge should be  
21   raised in order to ensure that the residential class revenue to cost coverage ratio does  
22   not further erode.

23  
24   **DISCUSSION AND SUPPORT:**

25  
26   The evidence of Messrs Bowman and McLaren noted Manitoba Hydro's PCOSS10 and  
27   PCOSS11 are largely consistent with cost causation principles and offered useful  
28   insights into the costs to serve the different rate classes.<sup>1</sup> In particular, it was noted the  
29   revenue to cost coverage ratios for the Residential class and the GSL 0-30kV class are  
30   well below 95%.

31  
32   Reducing the basic monthly charge without an offsetting increase to the energy charge  
33   would cause the Residential class revenue to cost coverage ratio to erode further and  
34   ultimately impede Manitoba Hydro's ability to enhance its reserves.

---

<sup>1</sup> Page 56. Pre-filed testimony of P. Bowman and A. McLaren.



**TOPIC: Drought Risk, Reserves and Financial Targets**

**BOARD ISSUES:**

How costly could a major drought be to Manitoba Hydro? How exposed is Hydro to this risk at the present time? (Tr.8320:14-16)

What level of retained earnings should be accumulated to buttress against a five or seven year drought without reducing the Manitoba advantage through higher domestic rates? (Tr.8321:19-23)

Are Manitoba Hydro's projections of needed retained earnings level considered sufficient for the risk involved? (Tr.8320:17-19)

Will major new Hydro generation and transmission and firm export contracts make Hydro more vulnerable to the effects of a major drought? (Tr. 8320:8-14)

Is a seventy-five (75)/twenty-five (25) debt equity ratio still a valid target when the balance sheet debt is expected to materially increase? (Tr.8321:24-8322:1)

**MIPUG POSITION:**

Hydro is today in the best financial position in its history, having exceeded a 75:25 debt:equity ratio and imminently approaching \$2.5 billion in retained earnings, and \$4.3 billion by the end of 10 years based on the IFF-10 scenario presented.

The best evidence available to the Board of Hydro's major drought risk is provided in Appendix 15, page 14-19. That document indicates an immediate five year drought as severe as the worst on record would leave Hydro with material positive retained earnings at the end of the drought (\$0.6 billion) and the \$2.5 billion level of retained earnings would be re-achieved within 9 years after the drought ended without any increase to rates beyond that already forecast in the IFF. Based on this evidence, the Board can feel comfortable that Manitoba Hydro has sufficient retained earnings to address the major risks it faces without a need to resort to dramatically higher rates or rate shocks (now or following a drought).

With the present secure status having been achieved, a predicable series of relatively modest rate adjustments can be assumed to be advised for the term of the IFF (ideally in

1 line with inflation), with the focus being on maintaining an orderly increase to retained  
2 earnings (and continuation of a interest coverage ratio greater than 1.0). In short, IFF10  
3 shows a reasonable projection of net income and retained earnings; efforts should be  
4 sustained to have Hydro show greater constraint on O&M and normal capital spending  
5 to permit the rate increase requirements to remain in line with inflation and still retain the  
6 net income and retained earnings level shown in IFF10.

7  
8 With respect to the Power Resource Plan scenarios, the only evidence available to the  
9 Board about the risks of drought under the various options is provided in KPMG,  
10 Appendix J. In short, as summarized by KPMG, this evidence indicates that “entering  
11 into these sale contracts and advancing the plans actually mitigates the financial impacts  
12 for drought”<sup>1</sup>. While the information to fully test this conclusion was not available in the  
13 proceeding, MIPUG views the conclusion as credible and supportive of continuing to  
14 explore the potential to proceed with the Recommended Plan. In the meantime, MIPUG  
15 concludes that the Preferred Plan is not expected to undermine Hydro’s ability to deal  
16 with drought.

17  
18 As the degree of capital investment increases in future years, the relevance of a  
19 debt:equity target for rate setting will diminish as it will have a tendency to drive  
20 materially higher equity levels beyond that required to protect ratepayers and maintain  
21 stable rates. The Board should move, in the next GRA proceeding, to investigate and  
22 implement a more developed form of financial reserves for Hydro.

## 23 24 **DISCUSSION AND SUPPORT:**

25  
26 The evidence in this proceeding is that the worst single financial risk that Hydro faces  
27 leading to variability in financial results from year-to-year (considering both severity and  
28 likelihood) remains a sustained drought. Consistent with all of the previous GRAs, this  
29 was asserted by Hydro<sup>2</sup> and effectively confirmed by KPMG<sup>3</sup>, KM<sup>4</sup>, and ICF<sup>5</sup>.

30  
31 As to magnitude, the most up-to-date baseline estimate of the “costs” of a sustained 5  
32 year drought from Manitoba Hydro are in Exhibit MH-154, at page 18, totaling \$2.1 billion

---

<sup>1</sup> Tr.3747:1-4

<sup>2</sup> For example, the risk scenarios in Exhibit MH-154, page 18 Table 2.

<sup>3</sup> Tr.3745:19-24 notes it is likely the largest, but certainly in the top three.

<sup>4</sup> KM report, page xxxvii notes in the summary of findings that: “First, low water flows have the largest impacts on net revenue of MH.”

<sup>5</sup> Tr.2562:6-18.

1 (where “costs” reflect a comparison of retained earnings at the end of the drought versus  
2 the forecast retained earnings absent a drought). A number of other witnesses in the  
3 hearing (e.g., KPMG<sup>6</sup>, ICF<sup>7</sup>, Messrs Bowman and McLaren<sup>8</sup>) confirmed they were  
4 accepting of Hydro’s calculations, and KM confirmed they were satisfied that the  
5 SPLASH model, which is at the root of the drought cost calculations, was generally  
6 reliable<sup>9</sup>. Additionally, Hydro provided information on other peer reviews that have  
7 occurred on the SPLASH model which similarly indicated positive reviews regarding its  
8 capabilities<sup>10</sup>.

9  
10 A number of methodological concerns were raised about modeling and planning for  
11 droughts, that received considerable attention during the hearing:

12  
13 **1. Is the approach used by Hydro to reporting the “cost” of a 5 year drought**  
14 **appropriate?**

15  
16 On cross-examination from MIPUG, at Tr.5627-5628 Manitoba Hydro confirmed  
17 that the “cost” of a drought as measured by Hydro for any period is the reduction  
18 from the net income from that which Hydro would have otherwise earned in the  
19 year absent the drought (KM also confirmed this relationship at Tr. 6590-6591). It  
20 is important to recognize, however, that this drought impact is not equivalent to a  
21 net loss for the Corporation. This concept was explored by MIPUG counsel using  
22 the example of a graph that showed the water flow variability from year to year,  
23 and the negative impact of any given drought year as compared to long-term  
24 average flows. In particular, cross examination indicated that a negative impact  
25 on this diagram, so long as that impact was smaller than the net income

---

<sup>6</sup> KPMG Report, Appendix H to Board Order 95/10, page 119.

<sup>7</sup> Tr.2577:10-13.

<sup>8</sup> Tr.7327-7328.

<sup>9</sup> In particular, in the KM “Response Papers” (Exhibit KM-3) the professors note “It is correct that KM found the MH models to be on the whole satisfactory but this is not an argument that they cannot and should not be improved” (pg 3 of the response to MH rebuttal) and further that “Dr. Kubursi was able to see a demonstration of the SPLASH model on January 15, 2011, and notes with satisfaction that the demonstration clarified many issues and increased the level of comfort with the system.” (pg 6 of the response to MH rebuttal). Also see Tr.6780-6782.

<sup>10</sup> In particular, Appendix 74 Attachments 2-5 set out the comments of three independent experts in hydrological modeling who reviewed SPLASH on behalf of the Government of Manitoba in 2005. For example, the comments of Dr. Jay Doering were quoted by Manitoba Water Resources as follows: “In my opinion the SPLASH model does a good job of doing what it was designed to do, i.e., simulate the long-term operation of a complex system of (predominantly hydro-) electric generation within an imposed set of constraints. I am not aware of a better decision support system software package. The SPLASH model represents many years of development by Manitoba Hydro. It is an impressive package!”

1 otherwise forecast for that year, would still retain a positive net income for the  
2 year, per Tr.5627:22-5628:8, as follows:

3  
4 MR. ANTOINE HACAULT: So if I did something really absurd, like  
5 putting my line of paper at the minus 200 million on this graph,  
6 using my example, all the lines above that 200 million would be a  
7 situation where Manitoba Hydro is actually earning net revenues.

8  
9 It's only if the negative variation goes below the 200 million,  
10 because we've got the assumption we've been making \$200  
11 million net profit, that we actually get into losses.

12  
13 MR. HAROLD SURMINSKI: Yes, for the absolute end result, that -  
14 - that would be the case if you were expecting 200 million initially  
15 on the average.

16  
17 The issue with this approach was described by Messrs Bowman and McLaren:

18  
19 In the bigger type of numbers, like Hydro's estimate of 2.5 billion,  
20 what you're saying is, I was on an upward path, I'm no longer on  
21 that upward path, I've dropped off of it, how far am I from the  
22 upward path I would have been on. You can measure that as the  
23 2.5 billion type of number.

24  
25 And it's -- and it's not to say that's an incorrect type of number.  
26 That is telling you the -- the variation from where you thought you  
27 would have been. **But implicit in that set of analyses is that**  
28 **you are in effect lamenting the fact that you weren't able to**  
29 **save for a drought during a drought.**

30  
31 **And I think the -- in a more sort of common-sense basis what**  
32 **you'd be saying is, Those years where I'm not in a drought I**  
33 **want to save for a drought. Those years where I'm in a**  
34 **drought I want to survive. I want to be able to make it through**  
35 **without having to tap my reserves too much. I'm not going to**  
36 **spend a lot of time fussing about the fact that I wasn't saving**  
37 **for a drought during a drought. [emphasis added]<sup>11</sup>**

38  
39 Using this logical approach, it is a stronger logic for Hydro to report its "costs" of  
40 drought as the sum total negative net income over the period of the below  
41 average flows. This would prevent stating excessively large drought cost values  
42 that in effect confuse failure to save for a (non) rainy day with true negative  
43 financial effects.

---

<sup>11</sup> Tr. 7309:3-22

1 Using this approach, the total negative net income over the 5 year drought  
2 modeled in Exhibit MH-154 is less than \$1 billion<sup>12</sup> including the effects of  
3 compounding interest.

4  
5 **2. Is the worst 5 year drought on record sufficiently severe as a stress test?**

6  
7 Various parties commented on the severity of Hydro's selected drought "stress  
8 test" (the worst 5 year drought on record) as compared to available alternatives,  
9 notably ICF, KM and Messrs Bowman and McLaren.

10  
11 ICF noted that the worst five year drought case selected by Hydro was the  
12 second worst contiguous event in the historical record of nearly a century, and as  
13 such was in the order of a 2 percent threshold.<sup>13</sup> ICF noted that this was  
14 relatively consistent with the quantitative stress tests applied to other power  
15 utilities (and similarly to banks) and as such was reasonable.<sup>14</sup> ICF further noted  
16 that more stringent stress tests should be considered in a qualitative manner (the  
17 "black swan") and that this is what Hydro has done in the structuring of its new  
18 contracts and establishing potential new cross-border transmission.<sup>15</sup>

19  
20 KM also considered the potential for a more severe stress case and concluded  
21 that Hydro's stress case was reasonable, as follows:

22  
23 I think if -- if you think of the -- asking the question, suppose we go  
24 another ninety-four (94) years, what -- what is the worst drought  
25 likely to look like compared to what we saw in the historical record,  
26 what both methods said was, Well, it could be worse. It could be  
27 better than the actual worst drought that we saw in the last ninety-  
28 four (94) years, which I guess is not too surprising. But, on  
29 average, the worst drought over the next -- that you could expect  
30 over the next ninety-four (94) years will be on average about the  
31 same as the worst drought that we saw in the last ninety four (94)  
32 years.<sup>16</sup>  
33

---

<sup>12</sup> The level of retained earnings at 2016/17 absent the drought is \$3.521 billion. The level with the drought is \$2.107 billion lower, or \$1.414 billion. This compares to \$2.398 billion in retained earnings at year end 2010/11, before the start of the drought.

<sup>13</sup> Tr.2565.

<sup>14</sup> Tr.2565:17-2567:1.

<sup>15</sup> Tr.2569-2572; Tr.2533-2534.

<sup>16</sup> Tr.5995:17-5996:3.

1 However, KM continue by noting that it is important to model the potential for a  
2 worse drought than the worst on record (which they cite as being as low as 39  
3 kcfs as opposed to the 54 kcfs lowest recorded one year flow<sup>17</sup>). However, when  
4 these results are modeled by KM the conclusion is that with the new curtailment  
5 provisions being pursued by Hydro, a more severe drought than any previously  
6 experienced results in less financial impact than the 1940 drought.<sup>18</sup>

7  
8 Messrs Bowman and McLaren similarly test the implications of a drought of  
9 sustained duration longer than the 5 year stress test modeled by Hydro. The  
10 conclusion is that more stressful events in the form of longer droughts are not  
11 necessarily a greater financial impact on Hydro than shorter (e.g., 5 year)  
12 droughts given the tendency for very long droughts to have lesser impact years  
13 in the series. In this case, the 14 year drought from 1929 to 1942 is analyzed  
14 which is in effect a 7 year drought and a 5 year drought nearly back-to-back. The  
15 analysis of the total net loss to Hydro during the period is only \$700 million, as  
16 described using Tab 75 from the MIPUG Book of Documents, as follows:

17  
18 MR. PATRICK BOWMAN: So this table, without getting into  
19 overlaps of compounding interest and all the like, can be used to  
20 say if my IFF was otherwise forecasting \$202 million in -- in net  
21 income what would my net income be, given the -- the flow related  
22 changes in each particular year?

23  
24 Now using that concept you can move down this table and look at  
25 the fourteen (14) year period that's -- the over -- the -- the  
26 dramatic-looking series of -- of years starting 1929 and going to  
27 1942.

28  
29 MR. ANTOINE HACAULT: And that is illustrated at page 313 in a  
30 visual way with the green bars, is that correct? And we see two  
31 big circles in the -- I'm going to say, dirty thirties type of time  
32 frame?

33  
34 MR. PATRICK BOWMAN: Yes, there's a five (5) year drought  
35 followed by two (2) years of -- of positive flow followed by a seven  
36 (7) year drought that's been referenced here before.

37  
38 When you look at these years and you add them up, what you  
39 start to find is over these long-term horizons droughts aren't  
40 tending to be at the drastic level on a sustained basis. The  
41 droughts can occur at a drastic level more than once in the -- in

---

<sup>17</sup> Kubursi Magee report, page 151.

<sup>18</sup> Tr.6530-6531.



1 the series and it can be for -- there for a few years but these  
2 intervening years are actually quite important to looking at the  
3 overall financial impact.

4  
5 And if you go to the section of the numerical document, the table,  
6 and add up those fourteen (14) years, what you find is the total  
7 impact on -- on net income had -- had you otherwise been  
8 forecasting about \$200 million in net income would be about a  
9 \$700 million loss. Now, that ignores compounding interest, but it  
10 would be a \$700 million net loss over that period, some positive  
11 years, some negative years.<sup>19</sup>  
12

13 **3. Does pursuit of the Recommended Plan make Hydro's drought risks**  
14 **worse?**

15  
16 The only party to the hearing to conduct analysis of this question is KPMG, as set  
17 out in the MIPUG Written Argument Issue Tab # 16. The clear conclusion from  
18 the KPMG team is that the Recommended Plan actually serves to mitigate the  
19 net financial effects of drought risk on Hydro's system, and not to exacerbate it.

20  
21 With respect to modeling drought costs, each party to the hearing who addressed the  
22 issues tested and analyzed Hydro's models and scenarios, with the exception of KM  
23 who also undertook to develop their own modeling. The KM modeling provides an  
24 intriguing insight into some of the tools available to Hydro to incorporate more statistical  
25 methods into their mathematical analyses. Both KM<sup>20</sup> and Hydro<sup>21</sup> confirmed that this  
26 approach is directionally consistent with some of the more recent evolution in Hydro's  
27 models (e.g., PRISM).

28  
29 With respect to the specific numbers that KM have produced from their analyses, there  
30 is the basis for significant concern that these values are not reliable and ought not be  
31 used as a foundation for arriving at conclusions in this proceeding. Two significant  
32 examples underline this conclusion:

- 33  
34 **1. Input data:** KM prepared their model on the basis of 7 years of input data from  
35 Statistics Canada. In numerous locations throughout the proceeding, Hydro  
36 illustrated the issues with this input data, and in that regard the evidence is clear

---

<sup>19</sup> Tr. 7307:8-7308:16.

<sup>20</sup> Tr. 6797:24-6798:5.

<sup>21</sup> Tr. 5378:18-25.

1       that the input data cannot be relied upon<sup>22</sup>. KM provided their response that their  
2       intention was not to prioritize precise correctness in their modeling, but rather  
3       transparency<sup>23</sup> (even at the expense of correctness). Examples of the issues with  
4       the Statistics Canada data were provided by Mr. Cormie:

5  
6       Yes, that was a small set of example calculations where actual  
7       results were significantly different than what was shown in Table  
8       6.1.

9  
10      And -- and a -- and a very good example of this is when you go to  
11      the Table 6.1, and there's a section there on export price. And the  
12      third line down talks about firm Canadian export prices. And if you  
13      -- you go across to the 2007 number, it shows fifteen dollars and  
14      seventy-two cents (\$15.72) per -- or fifteen point seven two  
15      (15.72) cents per kilowatt hour as the price received for a firm  
16      export to a Canadian source. Unfortunately, Manitoba Hydro  
17      doesn't have any -- we'd love to have a sale that was providing us  
18      with fifteen point seven (15.7) cents a kilowatt hour, but we -- we  
19      have no firm Canadian exports.

20  
21      And this is an example of where the table is -- is just -- the  
22      information in the table is not -- is not good, and that the  
23      calculations that were based on that aren't -- aren't good ba -- and  
24      -- and it -- it generates information that never occurred. We didn't  
25      have a firm export sale, so we couldn't have an export price of  
26      fifteen point seven (15.7) cents.<sup>24</sup>

27  
28      Mr. Cormie goes on to note:

29  
30      These aren't prices that -- that Sta -- Statistics Canada has  
31      provided them. These are prices that they calculated based on the  
32      information.

33  
34      And -- and -- and to their credit, you would think that they would --  
35      you could rely on the Statistic Canada data as accurate  
36      representation, but, unfortunately, in this case, it's not a good  
37      source of information for calculating average prices.

38  
39      And then they take those prices, the prices -- let's say for firm US  
40      exports starting in 2001 at three point nine seven (3.97) cents, and  
41      going all the way across to fourteen point six three (14.63) cents in  
42      2007, and they say that's the distribution of prices that Manitoba

---

<sup>22</sup> See, for example, pages 83-85 of Manitoba Hydro's rebuttal evidence.

<sup>23</sup> For example, see below re: elimination of the Curtailability provision in the June 23, 2011 response to undertakings, in order to increase transparency. Also see Tr. 6079:5-6081:7.

<sup>24</sup> Tr. 5375:13-5376:9.

1 Hydro can assume to get on an annual basis. It could be low, it  
2 could be high, but there's some kind of probability distribution  
3 associated with that. And they -- they -- they calibrate their model  
4 around those prices.  
5

6 And our -- our -- our rebuttal evidence says, Well, you can't do that  
7 because -- and have a reliable model because the data that's  
8 going into the model is -- is flawed, and it's flawed, unfortunately,  
9 because Statistics Canada hasn't -- doesn't have a good  
10 representation of -- of Manitoba Hydro's actual result.  
11

12 MR. BYRON WILLIAMS: And I don't want to belabour the data  
13 issues, but if one looked at pages 84 and -- and 85, concerns in  
14 terms of load, revenues generation, some of the salient concerns  
15 of Hydro in terms of the inconsistencies between the two (2)  
16 pieces of information are -- are set out there.  
17

18 Would that be accurate?  
19

20 MR. DAVID CORMIE: Yes. And -- and, you know, I think -- I think  
21 the -- the doctors, at a conceptual level, have done the right thing.  
22 They're looking at the -- the variation in Manitoba Hydro results,  
23 the -- the Monte Carlo modelling. And the at-risk model is the  
24 same model that Manitoba Hydro uses in its PRISM model, it's  
25 identical. It's just that, unfortunately, it's been calibrated to -- to a  
26 flawed data set.<sup>25</sup>  
27

28 For these reasons, the KM modeling in Chapter 6 of their original report, and  
29 other KM derived estimates of drought costs, are subject to severe data quality  
30 related concerns and should not be relied upon.  
31

32 **2. Updated KM Estimates:** The second item of note with respect to the KM  
33 estimates is the updates and changes provided in the new response to  
34 undertaking document distributed June 23 (no Exhibit number yet provided). In  
35 that document, at the final page, KM provide a revision to their drought cost  
36 estimates. These revisions reflect the fact that KM have reviewed their  
37 methodology and concluded that their original work failed to take into account the  
38 benefits of storage on Hydro's system. This is a significant improvement in the  
39 KM model approach.  
40

41 At the last page of the updated KM report it is stated that the figures are "not  
42 much different" than the original KM report. However, examination of the figures

---

<sup>25</sup> Tr. 5377:11-5378:25

1 indicates they are in fact materially different and increase the degree of concern  
2 with the KM model output. Two items are of particular note:  
3

4 **a) Cost of 1940 drought reduced from \$788 million to \$197.9 million:** The  
5 new KM numbers indicate a much lower cost for a one year drought than had  
6 previously been calculated. This relationship is understandable, given the  
7 failure to consider storage in the original modeling. However, the result is  
8 clearly a material change, and is unreasonable. In particular, the result is  
9 inconsistent with clear recent experience in 2004 where the utility  
10 experienced a drought with far more severe consequence than \$197.9 million  
11 despite water flows being considerably higher than the 1940 level.  
12

13 **b) Implications of droughts worse than 1940 level no longer consider**  
14 **benefits of contractual curtailments:** KM had previously modeled the  
15 financial implications of droughts worse than the 1940s level by reflecting the  
16 implications of the proposed new curtailment provisions that Hydro is looking  
17 to have included in new export contracts. In their original analysis KM  
18 concluded that the result of these provisions was that a drought worse than  
19 the 1940 level (i.e., a 39 kcfs drought, compared to the 1940 54 kcfs drought)  
20 would in fact have less financial implications for the utility than the 1940  
21 drought. In other words, KM concluded that the curtailment proposals were  
22 likely to be successful at reducing risk. In their new analysis, KM no longer  
23 seeks to model this relationship as described in the introduction to that  
24 document, as follows: "Fifth, we have avoided the use of Curtailable  
25 Generation that was used in some of the scenarios in the KM Report. Since  
26 we opted to put all our data in a transparent and replicable way, we were  
27 concerned that Curtailable levels would expose terms of contracts that are  
28 subject to the Confidentiality Agreement we signed with MH."  
29

30 In short, it is not apparent that there is any reliability to the KM modeling outputs except  
31 as a demonstration of some methods Hydro may want to consider in future updates of its  
32 own models.  
33

34 The final matter of some discussion at the hearing was the appropriate metric for long-  
35 term financial targets and reserves. Hydro has advocated a 75:25 debt:equity target for  
36 establishing broad forecasts of rate changes required over the long-term, along with an  
37 Interest Coverage target and a Capital Coverage target. From the perspective of rate-

1 setting, a number of perspectives were addressed in relation to this type of debt:equity  
2 target:

3  
4 1. The measure of equity used in the target is fundamentally Hydro's retained  
5 earnings, which are based on historical or book value. While this is consistent  
6 with standard practice for accounting, it does not reflect the degree of financial  
7 strength in the utility as represented by other alternative valuations methods  
8 (e.g., replacement value or market value). Book value is an appropriate method  
9 for determining revenue requirements and cost-of-service, but when used in a  
10 risk assessment context, it is important to consider that in cases such as  
11 Manitoba Hydro, which owns long-lived assets and many older vintage assets,  
12 the utility has a material financial strength beyond simple book valuations.<sup>26</sup>

13  
14 2. The 75:25 debt:equity target has proven to be relatively equal to Hydro's  
15 calculated cost of a 5 year drought in the past, but based on current forecasts  
16 this linkage is diminishing into the future due to the degree of capital spending  
17 occurring, as noted by Messrs. Bowman and McLaren as follows:

18  
19 That has tended to correspond to a 75:25 debt-equity ratio in the  
20 past. But when we look over the longer term, the IFF scenario, it  
21 doesn't necessarily correspond the same way. The -- the  
22 requirements to meet a 75:25 debt-equity ratio actually, by the end  
23 of the long-term IFF period with all the massive investment we're  
24 talking about, actually exceed the estimates of the five (5) year  
25 drought by the end of that scenario by about a billion dollars.

26  
27 So it -- this is shown best in the KPMG evidence where they  
28 summarize it, Appendix J, but the droughts at the end of the long-  
29 term IFF, 2029, are around 4.5 billion in costs and 75:25 would  
30 say you need about 5.5 billion in -- in reserves.

31  
32 So there's a little bit of a discomfort that those two (2) get a bit  
33 delinked as you go forward and -- and it underlines caution we've  
34 had about -- about using a -- a 75:25 measure as -- as -- as the  
35 overriding factor. It doesn't undermine them greatly. They're not  
36 horrendously different but it -- it's -- it's important to cross-check.<sup>27</sup>

37  
38 3. As noted by the chairman, Hydro's retained earnings and equity are not in the  
39 form of cash, and to a large degree are intangible; further "Without retained

---

<sup>26</sup> Tr. 5290-5292.

<sup>27</sup> Tr.7314:17-7315:12.

1 earnings that are comprised of liquid assets, presumably borrowings will be  
2 required to meet any major setback.”<sup>28</sup> For this reason, the debt:equity measure  
3 in itself is not a good indication of the utility being able to survive and finance a  
4 material adverse event like a drought, nor is it a good indication of the ability to  
5 maintain stable rates through such an adverse period. For this reason, testing the  
6 adequacy of Hydro’s reserves against a severe event like a drought is best  
7 analyzed by measures such as those discussed above rather than a pure book  
8 value debt:equity test (i.e., what would be the total net loss during the drought,  
9 how quickly would the utility recover that net loss without imposing rate shocks  
10 on customers, etc.).  
11  
12  
13  
14

---

<sup>28</sup> Tr.8321:16-18.

1   **TOPIC:                   Risk Management Practices**

2  
3   **BOARD ISSUES:**

4  
5           Recommendations calling for risk management improvements were made by  
6           KPMG, ICF and the Doctors Kubursi and Magee, and reports were given by  
7           Manitoba Hydro of ongoing improvements to their approach.

8  
9           Are the parties confident that the current risk practices as they continue to  
10          develop are sufficient to allow for confidence in Manitoba Hydro's plans and how  
11          or should the Board address recommendations on that -- in that nature in its  
12          upcoming order? (Tr.8322:2-11)

13  
14   **MIPUG POSITION:**

15  
16   Hydro appears to possess the required capabilities, internal organization, and qualified  
17   staff, policies and procedures, and oversight and governance structures needed to  
18   appropriately manage the major risks facing the organization. Although numerous  
19   suggestions were raised in this proceeding for "evolutionary" improvements (not  
20   revolutionary changes), those suggestions tended to be related to areas appropriately  
21   addressed by Hydro's management, which cannot be imposed by a regulator. It is the  
22   responsibility of Hydro's management to develop and maintain prudent risk management  
23   systems in a manner that is appropriately accountable to the Board in relation to the  
24   impact of potential risks and risk management on rates.

25  
26   Hydro's approach to risk management in both operations (particularly system  
27   operations) and planning (including power resource planning) is appropriate for a Crown-  
28   owned regulated public utility. The lone possible exception is participation in merchant  
29   arbitrage transactions where the evidence in this proceeding is inconclusive as to the  
30   balance of risks and benefits to ratepayers; however, there are additional, clear,  
31   qualitative benefits to this activity (i.e., increased market intelligence, increased staff  
32   capabilities) that suggest it can be appropriately included in Hydro's export market  
33   activities.

34  
35   Hydro's decision making criteria are appropriate for a Crown-owned regulated utility and  
36   have been appropriately aligned with ratepayer risk tolerances in the past. The most  
37   notable implications of balancing risks and rewards are in respect to major commitments

1 to development plans. Suitable testing of future plans, at the designated time, will be  
2 necessary to confirm that these plans are of manageable risk, and provide sufficient  
3 rewards to ratepayers who will ultimately be saddled with the costs of any plans.  
4 Terminating investigations into the expensive potential development plans now, will  
5 change, but not necessarily reduce, Hydro's risk profile (including the fact that more  
6 limited development plans provide less flexibility and potential for financial benefits than  
7 the Recommended Plan).

8  
9 **DISCUSSION AND SUPPORT:**

10  
11 MIPUG's participation in this risk proceeding was based on the focused "points of  
12 reference" accepted by the Board in Order 30/10 – four questions that go to the core of  
13 an examination of risk as it relates to rate regulation:

- 14  
15 1. Does Hydro have the required capabilities, internal organization, and qualified  
16 staff, policies and procedures and oversight and governance structures needed  
17 to appropriately manage the noted risk; can they be improved or modified to  
18 reduce the risk exposure imposed on ratepayers?  
19  
20 2. Is Hydro's approach to risk management appropriate for a Crown-owned  
21 regulated public utility?  
22  
23 3. Do Hydro's decision making criteria reflect a risk/reward tolerance criteria that is  
24 acceptable to Hydro's ratepayers and the Board?  
25  
26 4. Where risk exposure cannot be modified or addressed through other appropriate  
27 risk management practices, what are the appropriate financial reserves required  
28 to be targeted to address the residual risk items?  
29

30 Item #4 is addressed in MIPUG Written Argument Issue Tab #13 in regards to risk  
31 quantification, drought and reserves.  
32

33 To assist in dealing with the risk management topics, Hydro retained two consulting  
34 firms: ICF and KPMG. Each had a unique assignment: ICF to focus on market  
35 participation and how Hydro manages its export business, and KPMG primarily to  
36 respond to the assertions of the New York Consultant. Neither was retained specifically



1 in response to the Board directives in Order 116/08 or 32/09, despite the Board being  
2 clear that it expected a broad-ranging review of its concerns to be completed.

3  
4 KPMG in particular was apparently retained by Hydro primarily to respond to Hydro's  
5 own priority of countering adverse media reports regarding the New York Consultant.<sup>1</sup>  
6 While it may have been Hydro's priority for KPMG to focus on matters of relevance to  
7 Hydro's reputation, the Board's concerns were somewhat different in focus, scope and  
8 timing<sup>2</sup>. It is clearly unfortunate that Hydro did not engage KPMG until its own  
9 reputational concerns were at an acute level, and the assignment was fundamentally  
10 oriented to addressing that issue.

11  
12 However, despite this unfortunate origin, each of ICF and KPMG produced professional  
13 products, were able to largely defend their work under cross-examination, and their  
14 conclusions can be relied upon for decision-making in this proceeding. Neither gave rise  
15 to any fundamental issues of independence or credibility.

16  
17 During the hearing, Mr. Bowman reviewed summary comments on Hydro's risk  
18 management practices:

19  
20 MR. PATRICK BOWMAN: On risk-management practices, starting at the  
21 top of page 4, the first bullet that we had. We noted that this is the sort of  
22 most voluminous review of Hydro's plans, procedures, structures, models  
23 that has occurred before this Board and that, in our review of them, and  
24 consistent with our view in all material respects, it appears to conclude  
25 that -- that Hydro has suitable and adequate approaches that - and  
26 practices.

27  
28 There are some recommendations for improvement, some of which we  
29 agree with, some of which are outside our -- our area. And -- and it -- it  
30 would seem appropriate over this hearing that -- that Hydro move forward  
31 to implement those that have merit.

32 We're also cognizant of the fact that, in practice, the management of a  
33 utility has to be left the job of managing the utility, and no one else in this  
34 room can really do it for -- for them on a -- on a very fine basis. So  
35 keeping the management of the utility in charge of -- of doing their job and

---

<sup>1</sup> For example, see Hydro's description of the KPMG assignment at Exhibit MIPUG-9, which is an extract from Hydro's Corporate Risk Management Report.

<sup>2</sup> For example, the Board's Order 32/09 directed the terms of reference for the review to be filed with the Board by September 30, 2009, but the request for proposals to KPMG were not issued until November 10, 2009. The KPMG terms were not reviewed with participants to the PUB hearings and were not written to focus on any stated concerns in the Board's orders, but rather entirely to the New York Consultant.

1           being accountable to this Board is -- is key, much more than imposing  
2           specific answers in areas that -- that go to a very fine level of detail.<sup>3</sup>

3  
4       On the first question of **capability, internal organization, qualified staff, policies and**  
5       **procedures and oversight and governance**, the following evidence is noted.

6  
7       KPMG were asked for their conclusions on these areas, and confirmed they viewed  
8       Hydro as possessing each of: the needed capabilities to manage risk,<sup>4</sup> internal  
9       organization,<sup>5</sup> qualified staff,<sup>6</sup> policies and procedures,<sup>7</sup> and oversight and governance.<sup>8</sup>

10  
11       Similarly, ICF provided positive responses regarding their views that Hydro possessed  
12       satisfactory capabilities to manage risk.<sup>9</sup>

13  
14       Drs Kubursi and Magee noted that they "... felt that the systems at Manitoba Hydro are  
15       well done. They're run by excellent people, knowledgeable people with lots of expertise,  
16       commitment, dedication, and knowledge, but we wanted this to be more codified, we  
17       want it to be more documented, we want it to be vetted.<sup>10</sup>" They also noted at page 191  
18       of their report:

19  
20           MH has made major progress in streamlining its risk management  
21           governance architecture and is continuing to make strides towards best  
22           practice. The Middle Office is functional and is entrusted with increasing  
23           risk management policy formulation, oversight responsibilities,  
24           identification of risk and some risk measurement. A large set of  
25           committees and procedures have been instituted to ground governance of  
26           risk into the full spectrum of the organization.

27  
28       Specifically on models, the perspectives of the various experts on the SPLASH model  
29       are addressed in MIPUG Final Argument Issue summary #13. On HERMES, the  
30       summary comments of Drs Kubursi and Magee at page 123 of their report include the  
31       fact that "by any standard HERMES is an impressive system; it developed over time and

---

<sup>3</sup> Tr.7258:4-7259:5.

<sup>4</sup> Tr.3652:25-3653:7.

<sup>5</sup> Tr.3653:21-3654:22 and Tr.3455:21-3457:20.

<sup>6</sup> Tr.3655:3-3656:8.

<sup>7</sup> Tr.3657:17-3658:11.

<sup>8</sup> Tr.3659:5-16.

<sup>9</sup> Tr.3087:6-3093:25.

<sup>10</sup> Tr.5969:1-6.

1 grew in complexity and utility”; that “its developers are on staff and the source code is  
2 home stored” and that “we are satisfied that the technical staff that support and run the  
3 model are competent and committed.”

4  
5 On the second question as to the **approach to risk management**, the following was  
6 noted.

7  
8 On the matters of approaches to risk management, each of ICF and KPMG addressed  
9 subjects within their scope of assignment. In this regard, ICF more directly addressed  
10 long-term contracting and planning, while KPMG focused more on the shorter-term  
11 system management models (HERMES) and forward sales.

12  
13 ICF's comments on long-term contracting were tested at Tr.3094:1-3111:4 where Mr.  
14 Rose noted that participation in export markets is effectively a requirement for Manitoba  
15 Hydro, if nothing else in order to market its surplus power. However, interconnections  
16 also provide security based on the ability to import power, and provide economic  
17 benefits from sales of longer-term dependable power. ICF confirmed in their view that  
18 Hydro was appropriately entering into long-term dependable contracts, and was  
19 appropriately structuring the contracts with respect to termination dates, indexing,  
20 seeking to secure “socialized” US transmission, flexibility to deal with droughts (including  
21 droughts worse than the worst on record), and prices. Summarizing, Mr. Rose noted:  
22 “Yes, there are – there are risks associated with long-term contracts. You know, overall,  
23 I feel like they're a risk managing tool, but there are risks”<sup>11</sup> and further:

24  
25 MR. ANTOINE HACAULT: Okay. Thank you. Now, I'm not sure I'm going  
26 to be able to word this exactly so that I can avoid a long discussion, but is  
27 it your opinion, sir, that based on the information available to Manitoba  
28 Hydro at the time of the relevant negotiations of the term sheets, that  
29 Manitoba Hydro has acted prudently and reasonably, resulting in at least  
30 a reasonable, negotiated term and condition sheets in each of the three  
31 (3) instances?

32  
33 MR. JUDAH ROSE: Yes, sir, that is my opinion, and I apologize, but I did  
34 want to mention that some of the things I was discussing in the answer to  
35 the previous question are on pages 96 and 97. But to your question, I -- I  
36 do think that they've acted reasonably and prudently.<sup>12</sup>  
37

---

<sup>11</sup> Tr.3107:4-7.

<sup>12</sup> Tr.3111:5-19.

1 KPMG's focus was more on shorter-term operating approaches used by Hydro in  
2 managing its water and reservoirs, and making decisions to release water. In particular,  
3 KPMG noted that Hydro's approach to managing water reflected "a very conservative  
4 objective" balance when making forward sale commitments (95% confidence during  
5 normal periods, 99% during drought)<sup>13</sup>. KPMG also noted that more stringent practices  
6 could be adopted (such as the KM suggestion of keeping increased "water in storage")  
7 but that this would materially increase the risks of true economic losses due to increase  
8 spillage.<sup>14</sup>

9  
10 Further comments on Hydro's approach to managing risk with particular reference to  
11 drought were summarized in the pre-filed testimony of Messrs Bowman and McLaren as  
12 follows:

13  
14 For example, the KPMG report indicates "Manitoba Hydro's drought  
15 management strategies are prudent in the context of a hydro-based  
16 generation system" at page 281; further, "To summarize, on the basis of  
17 the policy decisions in place with respect to risk tolerance, Manitoba  
18 Hydro quantifies its drought risk appropriately and currently provides for  
19 appropriate levels of reserves of risk capital against its projected drought  
20 risk" at page xxii. The ICF report provides that "The reasonableness of  
21 Manitoba Hydro's quantification of risk exposure related to an extended  
22 (5-year) drought" is "reasonable"; that "The Corporation's drought risk  
23 mitigation measures are adequate"; that "the Corporation has a  
24 reasonable targeted equity cushion"; and that "The 2003 drought resulted  
25 in less of a financial impact than the stress test case. This was one of the  
26 three worst single years in MH hydrological history. This supports MH's  
27 choice of its stress case".<sup>15</sup>

28  
29 Finally, on the **risk/reward tolerance**, the evidence of most experts in the proceeding  
30 was unable to provide conclusions as to the acceptability of Hydro's risk tolerance to its  
31 ratepayers. Messrs Bowman and McLaren did attempt an analysis of this topic in their  
32 pre-filed testimony, noting "In regard to risk tolerance, the key benchmark for Hydro's  
33 willingness to accept risk in the operation of its system must be the risk tolerance of its  
34 Manitoba ratepayers (i.e., not the shareholders or citizens generally, to extent these  
35 tolerances may differ). In all material respects, the evidence in this proceeding confirms  
36 Hydro's thresholds in this regard are appropriate",<sup>16</sup> and further:

---

<sup>13</sup> Tr.3679:13-3685:15.

<sup>14</sup> Tr.3689:18-3691:21.

<sup>15</sup> Page 19. Pre-filed testimony of P. Bowman and A. McLaren. See discussion at pages 25, 26 and 22.

<sup>16</sup> Page 4. Pre-filed testimony of P. Bowman and A. McLaren.

1 In summary, the evidence available indicates Manitoba's ratepayer risk  
2 tolerance to be borne through rates over the short-term is relatively low.  
3 This is consistent with the broad assumptions in the KM Report (page 6,  
4 which indicates citizens in general are risk averse). At the same time, as  
5 reviewed below, this low risk tolerance to rate instability is not  
6 determinative to the decision to pursue long-term opportunities (such as  
7 investment in plant), nor even to all short-term opportunities (such as  
8 merchant trading). Where these opportunities are sufficiently analyzed  
9 and bounded, and provide the means for ratepayers to benefit from the  
10 risks that they bear (such as through lower or more stable rates in future)  
11 they have been viewed as a suitable addition to the assets and activities  
12 underlying regulated rates.<sup>17</sup>  
13

14 In short, the evidence provided during the proceeding supports the conclusion that  
15 Manitoba Hydro has in place an appropriate risk management framework and is suitably  
16 focussed on reviewing and improving its processes. It is the responsibility of Manitoba  
17 Hydro's management to continue to develop and improve the Corporation's risk  
18 management processes, with appropriate accountability to and oversight by the Board,  
19 where such management processes relate to the review and evaluation of just and  
20 reasonable rates.

---

<sup>17</sup> Page 28. Pre-filed testimony of P. Bowman and A. McLaren.



1   **TOPIC:                   Power Resource Plan-Dependable Energy**

2  
3   **BOARD ISSUES:**

4  
5           Do any of the parties differ from Manitoba Hydro's perspective as what  
6           represents dependable energy, a perspective that includes thermal, wind and  
7           firm imports? (Tr.8322:11-14)

8  
9   **MIPUG POSITION:**

10  
11   Manitoba Hydro's Power Resource Plan appropriately models thermal generation; wind  
12   generation and firm imports as dependable energy for planning purposes.

13  
14   **DISCUSSION AND SUPPORT:**

15  
16   During the proceeding, the issue of whether certain generation resources should be  
17   treated as dependable energy was raised. In their report, Drs. Kubursi and Magee state  
18   "The inclusion of wind and out of money thermal energy in dependable energy is a  
19   stretch but they represent such a small portion of total generation that their inclusion or  
20   exclusion is not a material concern."<sup>1</sup>

21  
22   With respect to wind energy, Manitoba Hydro noted it includes 85 per cent of average  
23   wind generation as dependable energy in the Power Resource Plan:

24  
25           MR. BOB PETERS: When the Board looks at -- I guess on page 66 of the  
26           Tab 32 of the book of documents, just looking at wind in the top part of  
27           the page there's a chart showing the Board the wind resource, its  
28           dependable energy, and it's shown as 320 gigawatt hours. It shows then  
29           that the average energy from that is 375 gigawatt hours. Correct, Mr.  
30           Surminski?

31  
32           MR. HAROLD SURMINSKI: Yes, correct.

33  
34           MR. BOB PETERS: Does that mean that the low flow, or the low -- the --  
35           the dependable level, the -- the low wind level is 85 percent of average?

36  
37           MR. HAROLD SURMINSKI: Yes, we assume that the -- the worst year of  
38           wind generation is 85 percent of average.<sup>2</sup>

---

<sup>1</sup> Page 214. Report of Drs. Kubursi and Magee. November 15, 2010.

<sup>2</sup> Tr.1784:20-1785:8.

1 In his presentation to the Board, Mr. Rose addressed this issue and indicated it was  
2 appropriate for Manitoba Hydro to consider wind generation as a dependable energy  
3 resource.

4  
5 MR. JUDAH ROSE:.....And here you'll see, on the bottom of page  
6 87, they've expressed the concern that wind should not be considered as  
7 its -- energy output of the wind plant shouldn't be available to meet  
8 dependable demand, or shouldn't contribute to that, and then it mentions  
9 that NERC is essentially not including wind in its reliability criteria. And I  
10 think that, you know, what's happening here is is that NERC, the North  
11 American Electric Reliability Council, is dealing with primarily thermal  
12 based systems -- excuse me -- without much -- without anywhere near as  
13 much storage as Manitoba Hydro. Manitoba Hydro is I think a special  
14 circumstance. Energy -- electricity is generally not stored, but you have a  
15 demand of around 20 terawatt hours and a storage capability of 10  
16 terawatt hours, and within that storage capability you have the ability to  
17 adapt to the -- the momentary fluctuations of the wind output by either  
18 storing more or less energy. And so the primary problem that you face is  
19 not having enough megawatts or capacity or power, it's having enough  
20 megawatt hours or electrical energy, and you're not so much concerned  
21 about the peak demand and the capacity, but having enough electrical  
22 energy in the storage or in the -- or in the system. And the wind does  
23 contribute to that and it -- and its energy output should be considered.<sup>3</sup>  
24

25 Mr. Rose elaborated on this view in response to an undertaking, where it was noted "The  
26 ample energy storage capability of the MH system and its need for energy makes typical  
27 NERC treatment of capacity in low storage systems inappropriate in the MH case. Wind  
28 energy should be considered for reliability purposes."<sup>4</sup>

29  
30 During cross-examination, the witness for Manitoba Hydro elaborated on the difference  
31 between dependable or firm capacity and dependable energy in the Power Resource  
32 Plan:

33  
34 MR. ANTOINE HACAULT: A different subject matter and then I think it  
35 will lead us to the break. It's a short -- on wind and thermal. That's Tab  
36 71.

37 The issue here, in part, is whether it's appropriate to include wind and  
38 thermal in the capacity and dependable aspects.

39  
40 So, firstly, at Tab 71, I believe it's been confirmed and the heading  
41 indicates that the wind on this table is included as dependable. Is that  
42 correct?

---

<sup>3</sup> Tr.2592:14-2593:14.

<sup>4</sup> Page 14. Exhibit MH-113.



1 MR. HAROLD SURMINSKI: Yes, that's correct.

2  
3 MR. ANTOINE HACAULT: Is it included as a capacity resource,  
4 however?

5  
6 MR. HAROLD SURMINSKI: No, we include zero megawatts on the  
7 capacity side. There's a parallel table to the energy one like this, and it  
8 would show that there's zero capacity.

9  
10 MR. ANTOINE HACAULT: Okay. Doctors Kubursi and Magee, as I  
11 understand or recollect, had suggested that relying on wind as  
12 dependable energy was a stretch. That's actually at Tab 72, I believe. I  
13 may be paraphrasing it, but the answer is:

14  
15 "KM's view is that when an energy resource cannot be displaced, such as  
16 wind, it would be difficult to rely upon it to meet dependable demand."

17  
18 Do you disagree with that conclusion?

19  
20 MR. HAROLD SURMINSKI: Yes. Yes, I do.

21  
22 MR. ANTOINE HACAULT: Why?

23  
24 MR. HAROLD SURMINSKI: Because dependable -- because there is a  
25 quantity of energy over the entire year that Manitoba Hydro can count on,  
26 and Manitoba Hydro has reservoir flexibility to -- to absorb the wind  
27 energy whenever it is available.<sup>5</sup>

28  
29 With respect to thermal resources, Dr. Kubursi noted in his view there is a difference  
30 between an engineering planning concept of "dependable energy" and an economic  
31 concept of whether it would be economic to dispatch the resource:

32  
33 DR. ATIF KUBURSI: Ma -- maybe I would like to say something. It's a bit  
34 controversial. I know Manitoba Hydro is not very happy about this. It's a  
35 reasonable position for people to have different views. We argued against  
36 the inclusion of wind in dependable energy. And, in some sense, we also  
37 were -- felt that including out-of-the-money thermal generation, a stretch,  
38 that these are extremely costly, that somehow engineers tend to think of  
39 supply to be a physical thing.

40  
41 Economists, we never accept it as a physical thing. We think that supply  
42 is sensitive to prices, and an amount that you're willing to put on the  
43 market is not independent of what it would cost you and what are the  
44 likelihood of selling it at the higher price.<sup>6</sup>

---

<sup>5</sup> Tr.5639:4-5640:14.

<sup>6</sup> Tr.6063:6-20.

1 The distinction between engineering planning concepts and economic operating  
2 decisions was reviewed by counsel for Manitoba Hydro with Dr. Kubursi:

3  
4 MS. PATTI RAMAGE: And when ManitobaHydro estimates its cost of a  
5 drought, it -- it -- you would agree that it considers its natural gas, its coal  
6 fired and firm import energy as dependable energy, correct?

7  
8 DR. ATIF KUBURSI: Correct.

9  
10 MS. PATTI RAMAGE: And if lower-priced non-firm import energy is  
11 available, Manitoba Hydro would, in -- in actual operations, substitute that  
12 lower cost energy instead of running its out-of-the-money combustion  
13 turbines that were assumed in planning, correct?

14  
15 DR. ATIF KUBURSI: If it's available.

16  
17 MS. PATTI RAMAGE: And that substitution would reduce Manitoba  
18 Hydro's actual cost of drought compared to the SPLASH estimate,  
19 correct?

20  
21 DR. ATIF KUBURSI: Correct.<sup>7</sup>

22  
23 Finally, during cross-examination by Board counsel, a witness for Manitoba Hydro  
24 commented on the difference between prices for dependable energy versus prices for  
25 spot market energy:

26  
27 MR. BOB PETERS: And that begs the question as to why Manitoba  
28 Hydro would -- would im -- import dependable energy when it could bring  
29 it in at half the price from another resource?

30  
31 MR. DAVID CORMIE: Well, the -- the -- the majority of that dependable  
32 energy is take or pay, Mr. Peters. We -- we have a contract to buy the  
33 output from the wind farm and it's regardless of what the market price is  
34 at -- at that time.

35  
36 MR. BOB PETERS: Which means that, in essence, Manitoba Hydro is  
37 losing money on its wind purchases?

38  
39 MR. DAVID CORMIE: No, because from an all-in perspective Manitoba  
40 Hydro chose to purchase and compared it to its alternative costs of  
41 generating, you know, and they're -- are building a new long-term power  
42 resource in the province. And so the -- the price that we're paying to  
43 purchase wind is comparable to the -- to the -- to what we would invest in

---

<sup>7</sup> Tr.6848:12-6849:3.

1       our own new generating facilities or in DSM. They're all priced against the  
2       same benchmark.

3  
4       MR. BOB PETERS: But if you benchmark it against what it could cost  
5       Manitoba Hydro to buy that energy on the market, it's more expensive to  
6       buy it from wind than it is on the market, you'd agree with that?

7  
8       MR. DAVID CORMIE: No, I wouldn't agree with that, because it -- what  
9       you're comparing is a dependable product, one that Manitoba Hydro has  
10      the right to at all times to spot-market prices that we have no right to that  
11      fluctuate wildly, and may or may not be there under dependable flow  
12      conditions. So you're comparing -- it's not a fair comparison. This is -- this  
13      is a -- a dependable resource and it's not a interruptible spot market,  
14      highly volatile price we know we -- they're not comparable.<sup>8</sup>  
15

16     It is reasonable for Manitoba Hydro to consider wind generation, thermal generation and  
17     firm imports as dependable energy for planning purposes. This does not preclude  
18     Manitoba Hydro from making operational decisions on the basis of the market conditions  
19     in place in each circumstance.

---

<sup>8</sup> Tr.1185:19-1187:3.



**TOPIC:                   Development Scenarios**

**BOARD ISSUES:**

What are the parties' views on the wisdom of testing alternate development approaches? Should not all possible development scenarios be tested? Should such testing take place before further hundreds of millions of dollars are invested in the current plans? (Tr.8320:1-7)

Based on the evidence before this hearing, do the forecast exports support the advancement of the proposed projects? (Tr.8317:1-9) To what extent is shale gas a concern? (Tr.2481:11-20)

In light of the expectations of a needs and justification hearing to be held prior to final commitment to the Manitoba Hydro's major capital plans and new export contracts, should the Board rely on the expected needs and justification hearing and avoid duplication? Should there be some involvement of the Board in such a hearing? (Tr.8325:1-14)

**MIPUG POSITION:**

At the present time, the evidence before this Board indicates that the rate increases required over the long-term under the Recommended Development Plan (i.e., including Keeyask, Conawapa, and new cross-border transmission, as well as expanded firm exports) are not materially different than those required under the Alternative Plan (i.e., including only Conawapa for domestic supply, but no Keeyask and no new cross-border transmission) for the IFF period and beyond. Based on this information, the Board can be satisfied that the test year rate increase proposals are robust regardless as to the plan ultimately selected.

Further alternative development scenarios should be reviewed by Hydro and tested in an appropriate forum, to confirm the advisability of the Recommended Plan. MIPUG takes no position as to whether this should be under the PUB or another body, so long as the process is thorough, open and transparent, permits full examination and testing of the evidence by all interested parties, and provides independent conclusions at the end of the submissions.

1 Based on the evidence in this hearing, the Recommended Plan is sufficiently positive to  
2 support continued investigation and “protection” of the option to proceed with this plan.  
3 Despite recent announcements, there are no guarantees that the required pieces of the  
4 plan will come together and no final decisions can yet be made.

5  
6 **DISCUSSION AND SUPPORT:**  
7

8 Hydro's latest complete information about the implications of the Power Resource Plan  
9 are provided in Exhibit MH-72, which is dated March 2011<sup>1</sup>. This document supports the  
10 following conclusions (all conclusions based on the same rate increases being applied in  
11 all scenarios being analyzed):  
12

- 13 • Per Figure 12: The implications of the Recommended Plan is greater retained  
14 earnings in effectively every year of the 20 year outlook, with these increases  
15 becoming very material (in excess of \$1 billion) by approximately 2032 (eight  
16 years after Conawapa is scheduled to come into service).
- 17 • Per Figure 13, the equity ratio under the Recommended Plan erodes (due to  
18 major new added debt) but the re-achievement of a 25% equity ratio (which is  
19 present today, but erodes by approximately 2014 due to major capital spending)  
20 is delayed by only approximately 3 years – from 2024 to 2027. This delay is due  
21 to the higher equity levels needed to reach 25% of total capital with a larger asset  
22 base in place, and as such is not an indication of reduced financial strength.  
23

24 The assessment of the alternative plans includes not only consideration of the forecast  
25 financial results, but also the implications for the risk of the utility and its financial results.  
26 In respect of the Recommended Plan, the following risk-related considerations are  
27 noted:  
28

- 29 1. **Capital Cost:** The degree of spending imposed by the Recommended Plan  
30 versus the alternative plan that is solely focused on domestic supply is as not  
31 large as might be assumed. In particular, of the approximately \$20 billion in major  
32 capital projects included in Exhibit MH-72, only approximately one-third  
33 (Keeyask, plus new US border transmission) are avoided by changing from the  
34 Recommended Plan to the Alternative Plan (and this ignores the need for added

---

<sup>1</sup> Exhibit MH-72 was produced prior to the Bipole cost updates (per Exhibit MH-154) but as it only updates the cost of the Bipole III project, which is common to both options above, this change would not affect the basic conclusions from Exhibit MH-72.

1 thermal generation at 2033/34 under the Alternative Plan). In this regard, the risk  
2 related to borrowings arising from the Recommended Plan, while not small, is  
3 well below the \$20 billion figure cited.

- 4
- 5 2. **Drought:** The exposure to drought risk under the Recommended Plan, according  
6 to KPMG, is actually reduced compared to the Alternative Plan. This conclusion  
7 is set out in detail in the KPMG Report, Appendix J, where detailed comparisons  
8 of the future scenarios “with sale” (Recommended Plan) and “no sale”  
9 (Alternative Plan) are provided. The conclusion from this section is set out at  
10 page Appendix J-27 where it notes:

11

12 As previously stated, the Sale Scenario provides MH with  
13 improved Retained Earnings and Debt Ratios compared to the No  
14 Sale Scenario. The improved Retained Earnings and Debt Ratios  
15 are due primarily to the increased surplus export sales associated  
16 with the new generation and US transmission interconnection  
17 capabilities. The new US transmission interconnection capabilities  
18 also provide for increased import capabilities in low flow periods,  
19 which should reduce costs required to run the thermal gas units in  
20 order to meet Manitoba load requirements.

21

22 Accordingly, the Sale Scenario appears to reduce the overall risk  
23 of a five year drought compared to a No Sale Scenario, since it  
24 provides greater Retained Earnings and improved Debt Ratios to  
25 withstand the financial impact of a five year drought.

26

27 In oral testimony, Mr. Gupta from KPMG further noted as follows:

28

29 I think one (1) of the things we found counterintuitively is that the  
30 sale -- entering into these sale contracts and advancing the plans  
31 actually mitigates the financial impacts for drought.<sup>2</sup>

32

33 Mr. Lipson further noted:

34

35 The -- you know, the -- the key -- one (1) of the absolute key  
36 findings of our assignment was what Mr. Gupta just talked about,  
37 that the development program, again coupled with getting the  
38 long-term contracts in place and the timing and everything else it's  
39 associated with, that plan and the analysis -- or the -- the inputs  
40 that went into the analysis through the SPLASH model are such

---

<sup>2</sup> Tr.3747:1-4

1           that, you know, the -- the -- it -- it -- this is a very big step forward  
2           to mitigating that risk of drought.<sup>3</sup>

- 3  
4       3. **Flexibility:** Also, in the testimony of Bowman and McLaren, the relative profiles  
5       of the alternative scenarios with respect to supply sufficiency and robustness of  
6       the development plan for changes in Manitoba load was addressed. In particular,  
7       the focus was on the added flexibility that a larger development plan provides to  
8       address potential load scenarios in Manitoba, should these arise:

9  
10       MR. BOB PETERS: Well, let's just quickly look at that from a risk  
11       perspective with a different set of glasses perhaps, Mr. Bowman  
12       and Mr. McLaren. If the risk of this construction program exists  
13       and it exists today, shouldn't those who are making the decision  
14       today and today's ratepayers bear some responsibility for the risk  
15       they're creating?

16  
17       (BRIEF PAUSE)

18  
19       MR. PATRICK BOWMAN: I guess the premise of the question is  
20       that the decision to proceed on this plan causes risks. And while  
21       the recommended plan, in the event that's what Manitoba was  
22       afforded with, has risks associated with it, the preferred plan also  
23       has risks associated with it, as does the third way, if there is one  
24       (1) out there that we yet need to investigate and explore.

25       If I look at the -- the graph that I went to before lunch, on the basis  
26       of forecasts from three (3) months ago, which may be current or  
27       may be dated, maybe change every day, the recommended plan  
28       has a better financial outcome in the event these forecasts hold  
29       up.

30  
31       If I look at things like the -- the load forecast, which I did find the  
32       numbers on, and -- and it says that if -- if there's a major  
33       conversion to electric heat in Manitoba, within twenty (20) years  
34       you can see 2,000 megawatts of load arise on electric heat, 6,000  
35       gigawatt hours.

36  
37       Now, what's the risk of that arising if you're not pursuing the  
38       recommended plan, if you're sitting -- only targeting the alternative  
39       plan, and how quickly do you have to respond to find 6,000  
40       gigawatt hours in twenty (20) years?

41  
42       I don't know the risks of that scenario. I know it's Hydro's scenario  
43       they created. And I would say that there's a good chance that the

---

<sup>3</sup> Tr.3748:6-15



recommended plan is more robust against that set -- that type of circumstance.

So the -- I -- I guess there's -- it's a bit of a rejection of the premise that -- that building more and borrowing more automatically means more risk.<sup>4</sup>

4. **Lost Opportunity:** The concept of risk related to lost opportunities was expressed concisely by Professor Magee, when discussing a diagram provided in the Exhibit KM-4, page 63 as follows:

	Favourable	Not Favourable
Expand	High returns	Major losses
Do Not Expand	Lost Opportunities and possible failure to meet load	Avoided Costs

... going back to the -- the diagram, the -- the four (4) box diagram on -- on page 63, the -- there is some huge risk involved, but I think from our point of view there's risk -- it's -- it's unavoidable risk, regardless whether you expand or don't expand. There's risks either way.

And it might seem like you're taking on more risk by expanding because in the top-right box you see it could turn out not favourable, major losses, there's -- there would be these white elephants, these symbols of some sort of gamble that didn't work out, let's say.

But on the bottom left, that's an equally -- equally risky in -- in -- in the sense that if you don't expand, sure you could expand later, but if you don't expand, hydro prices go up, there's -- could be even be more money involved in the lower-left box being lost than in the upper-right box. You could be losing -- Manitoba citizens

---

<sup>4</sup> Tr.7528:9-7529:25

1           could be losing a fortune. It -- the difference is that there would be  
2           no sort of symbol of the mistake. There would be no 'thing' sitting  
3           there that people could say, Well, that was wrong. It would just be  
4           money -- a lost -- a huge lost opportunity without a convenient  
5           symbol to -- to point at.

6  
7           So I think it's -- it's helpful to -- it could be helpful to keep in mind  
8           that there's no way out of this -- of avoiding this risk. Either way,  
9           there's a big risk.<sup>5</sup>

10  
11       Against this backdrop, Hydro is not today proposing to provide any final commitments to  
12       the Recommended Plan. Before a decision to build any project can be made, all  
13       environmental reviews must be completed and final licences received, partnership  
14       agreements with other participants must be final, tendered pricing must be available and  
15       acceptable. The actions being pursued by Hydro are those required to “protect” the  
16       option to pursue the plans:

17  
18       MR. BOB PETERS: So what the Board can take from your answers is  
19       that Manitoba Hydro is building Keeyask and Conawapa right now for the  
20       in-service dates that -- for the in-service dates of Keeyask in 2020 and  
21       Conawapa in 2024 whether or not they're needed for the export  
22       contracts?

23  
24       (BRIEF PAUSE)

25  
26       MR. HAROLD SURMINSKI: Manitoba Hydro is doing whatever is  
27       necessary to have those stations produce power in that in-service year.

28  
29       MR. BOB PETERS: And I -- I think I understood your answer previous to  
30       be that you're going down that route whether or not Manitoba Hydro has a  
31       binding long-term contract, correct?

32  
33       (BRIEF PAUSE)

34  
35       MR. VINCE WARDEN: Mr. Peters, I think what we're doing is protecting  
36       those in-service dates.

37  
38       MR. BOB PETERS: And, Mr. Warden, I apologize for jumping the gun --  
39       gun in maybe your brief absence, but I'm just exploring what protecting  
40       those in service dates means and it's my understanding, I'm not sure how  
41       the Board understands it at this point, but Manitoba Hydro wants to be  
42       able to generate first power on whatever those in-service dates are -- are  
43       set at. That's what protecting an in-service date means?

---

<sup>5</sup> Tr.6123:11-6124:14

1 MR. VINCE WARDEN: It does. So two (2) -- 2019 for Keeyask, 2020 as  
2 you call it. But 2019/'20 for Keeyask and 2023/'24 for Conawapa.

3  
4 (BRIEF PAUSE)

5  
6 MR. BOB PETERS: And so, Mr. Surminski, did you have anything further  
7 to add to that before I move on?

8  
9 MR HAROLD SURMINSKI: Well, the only further comment there is --  
10 there is no commitment to either Keeyask or Conawapa at this point. All  
11 activities are -- are in line with meeting those potential dates.

12  
13 MR. BOB PETERS: I -- I understand that. What you're telling the Board is  
14 you want to put the first kilowatt hours out of Keeyask in 2019/'20 and  
15 you're proceeding to do that even though Manitoba Hydro does not yet  
16 have a binding contract with a counterparty for the long-term export of  
17 that energy?

18  
19 MR HAROLD SURMINSKI: Yes. There are certain activities that are  
20 required to be completed in order to be on track to be able to meet that  
21 date. So Manitoba Hydro is undertaking those activities that are -- that are  
22 on the critical path that are required for those particular in-service dates.

23  
24 MR. BOB PETERS: That includes the spending of hundreds of millions of  
25 dollars every year to proceed so that the first electricity can flow from  
26 Keeyask in 2019/'20 even though there's no binding export contract to  
27 deliver that energy to?

28  
29 MR HAROLD SURMINSKI: Yes, that's correct. And whatever the cost to -  
30 - to maintain that schedule is Manitoba Hydro undertakes those  
31 expenses.<sup>6</sup>

32  
33 This was further summarized succinctly by Mr. Warden as follows:

34  
35 We don't spend any money before we have to.<sup>7</sup>

36  
37 On the issue of reviewing and assessing Hydro's Power Resource Plan, Messrs  
38 Bowman and McLaren explained the caution that must be raised about trying to  
39 precisely forecast or debate which future scenario is likely to arise, such as loads or gas  
40 prices. Instead, the approach must be based around assessing various development  
41 options (or plans) against all credible future scenarios to understand the profile of each  
42 option available, as follows:

---

<sup>6</sup> Tr.1575:11-1577:22

<sup>7</sup> Tr.1578:21-22

1 MS. PATTI RAMAGE: So you see the bigger risk being that load will arise  
2 that -- at a faster pace than -- than might be expected?

3  
4 (BRIEF PAUSE)

5  
6 MR. PATRICK BOWMAN: I think if one looks at the load forecast on the --  
7 on the balance of probabilities it's hard to say which way it will go, but  
8 there is credible scenarios that show that it could be considerably higher  
9 than is in the forecast.

10  
11 But the key to working your way through a power resource plan or  
12 through a set of developments is the discipline to know that it's not about  
13 picking your scenario. It's going to be what it's going to be in -- in large  
14 part. It's to say I want to assess my scenarios for the robustness against  
15 these types of outcomes that might arise. And if you err a certain way or  
16 go a certain direction on the plan you may not be very robust for -- for  
17 high load growth.

18  
19 If you go another direction you may not be very robust for a stagnating  
20 economy and -- and so you have to assess it against those and -- and --  
21 and very much refrain your -- restrain yourself from trying to say I -- I  
22 gotta sort of pick the winner or pick the scenario or -- or -- you know, I -- I  
23 have to somehow solve whether -- whether shale gas is going to become  
24 the -- the best source of energy ever found or whether it's going to  
25 become the -- you know, en -- environmental nightmare that's it's banned  
26 and it never arises.

27  
28 If you're -- you're in real trouble if it -- if it hinges on your guessing the  
29 right future path. It's -- it's a question of flexibility and robustness to deal  
30 with whichever path arises.<sup>8</sup>

31  
32 With respect to the eventual regulatory review of the proposed projects, all reasonable  
33 alternative development scenarios must be provided for proper evaluation. These  
34 scenarios must be credible and workable. For example the main Alternative  
35 Development scenario presented by Hydro is premised on a Conawapa ISD of 2022/23.  
36 However evidence in the hearing is that a Conawapa ISD of 2021/22 can no longer be  
37 met<sup>9</sup>, so 2022/23 is the absolute earliest it could be completed. It is not apparent from  
38 the record what efforts must be maintained to sustain this potential Conawapa ISD and  
39 not have it slip further, but should these not be maintained the Alternative Development  
40 sequence is no longer being maintained as the default alternative, and the implications  
41 of this slippage must be understood.

---

<sup>8</sup> Tr.7464:2-7465:10

<sup>9</sup> Tr.1581:21-22

1 In providing summary comments on the advisability or credibility of the Power Resource  
2 Plans, and in particular the Recommended Plan, three main parties to the hearing  
3 provided their views:

- 4
- 5 • **KPMG:** The views of KPMG were set out by Mr. Lipson as follows:
- 6

7 I think our view is -- is quite favourable. I think again there is a  
8 tremendous opportunity here to develop new capacity, have it  
9 largely sup -- well, and significantly supported by external  
10 customers through the long-term contracts, and to take advantage  
11 of -- of the resource that, you know, residents of Manitoba have  
12 been blessed with.

13  
14 So, overall, as -- as a basic concept, I -- I think you're in a very  
15 good position, and there's lots of jurisdictions that would be very  
16 enviable of the position you're in. The key, obviously, is to, you  
17 know, proceed ahead, and as we discussed earlier, ma -- you  
18 know, make sure the costs don't go way out of wack, make sure  
19 that the benefits do eventually flow back through, you know, a)  
20 good prices in the contracts, and b) you know, for example, not  
21 sharing the benefits of that too widely with other parties, of things -  
22 - things of that sort that, you know, we've been discussing over the  
23 last three (3) days.

24  
25 But, overall, as a -- as a basic strategy, I would say KPMG's very  
26 supportive of what we see happening here at Manitoba Hydro.<sup>10</sup>  
27

- 28 • **KM:** The comments of Kubursi and Magee in respect of the Preferred  
29 Development Plans focused around the export contracts that these plans permit  
30 and their views on the assertions of the New York Consultant that these plans  
31 should "scrapped", as set out at page 209 of their original report, as follows:
- 32

33 Scrapping contracts on the presumption that MH would realize  
34 more gains in another agreement is not realistic or to be expected.  
35 A single party cannot be expected to recontract a better deal. MH  
36 invests a great deal of effort and care on structuring these  
37 contracts in a manner that would maximize its rent (gains from  
38 trade) subject to the willingness of the counterparty to remain in  
39 the agreement. Trying to extract more benefits from the  
40 counterparty would not work; the counterparty could walk away  
41 from the agreement should it feel that it can do better without it.  
42 The Consultant seems to believe that the counterparties have had

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<sup>10</sup> Tr.3741:3-24

1 the better deal, but it would be costly and risky to test this  
2 sensitivity at a time when the energy market is becoming more  
3 volatile (large wind energy in the pipelines) and current electricity  
4 prices are extremely low (with natural gas prices at their lowest  
5 levels) and will remain so for a while. Higher fixed prices could  
6 perhaps be extracted but perhaps at the expense of the large  
7 transmission investments to be made by the counterparty. These  
8 investments are crucial for MH to remain in the firm and reliable  
9 status in MISO. In their absence firm prices of MH could easily  
10 turn into lower non-firm prices. Curtailment provisions are  
11 advantageous and a major risk mitigation measure to have.  
12 Higher prices than those negotiated may have to be compared to  
13 the opportunity of securing firm transmissions and/or curtailment  
14 clauses.  
15

- 16 • **Bowman and McLaren:** The summary of views regarding the Recommended  
17 Plan were provided as follows:

18  
19 And, at its core, our evidence points out that, from our view, the  
20 power resource plan, including the recommended plan, is credible  
21 enough -- it's a credible enough opportunity with enough possible  
22 benefits that one would have to advise Manitoba Hydro to  
23 continue to protect the option to pursue it. And that is very  
24 different than saying it's the right plan.<sup>11</sup>  
25

26 Further elaboration was provided at Tr.7564:24-7569:13 which sets out some of  
27 the considerations that went into Messrs Bowman and McLaren's views that the  
28 Recommended Plan is "intriguing" and that it would not be advisable today to put  
29 a stop to protecting this option, as follows":  
30

31 MR. BOB PETERS: Well, I was just trying to give you an example  
32 of using absolute numbers rather than the answer you gave me  
33 Mr. Bowman, that as you look through the IFF going forward and  
34 how profitable it -- it -- the preferred development plan may be, is  
35 it your expectation that the rates will return to, let's say today's  
36 rates at seven (7) cents a kilowatt hour, sometime in the future, or  
37 is that an unreasonable expectation?  
38

39 (BRIEF PAUSE)  
40

41 MR. PATRICK BOWMAN: I guess my -- you -- you wanted to talk  
42 in -- in firm numbers and I guess my first is that seven (7) cents  
43 isn't really the right benchmark today. We're really talking about a

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<sup>11</sup> Tr.7345:23-7346:4

1 bulk power system that's more like three (3) to four (4) cents, right.  
2 Seven (7) is if you add in a bunch of distribution.

3  
4 But -- and -- and it -- it draws out all the more starkly the -- the  
5 type of comparison you're making, that we've got 5,000  
6 megawatts of three (3) to four (4) cent power, and we're talking  
7 about adding, you know, fifteen hundred (1,500) or something for  
8 almost 2,000 megawatts of say, you know, ten (10) cent power, to  
9 use rough numbers. So if you -- if you were to sort of put that  
10 together in a package, your -- your three (3) to four (4) cents  
11 maybe needs to be five (5) once that is all put together. The -- I'm  
12 -- I'm doing quick back of the envelope calculations obviously. And  
13 that would be a basic type of assumption that we would make, that  
14 if your man -- that one (1) of the reasons Manitoba had fairly low  
15 power rates for quite a while is because we hadn't built a lot  
16 recently, and we have a lot of assets that are built in 1980s  
17 dollars, or -- or before, '70s dollars, '60s dollars.

18  
19 And that if you start building assets of -- in the modern context,  
20 your -- your rates are going to have to transition to a new level.  
21 And if we take that as a working assumption, and we've seen it  
22 through quite a few GRAs, we've commented on it before. And we  
23 sit with MIPUG members and sort of explained that to them.  
24 People understand it, that -- that, you know, as the loads grow we  
25 need to bring on Conawapa -- Conawapa's higher costs. It gets  
26 averaged in, and -- and all of us, whether it's residences or  
27 businesses or industry, need to see our bulk power costs  
28 transition up to reflect that new sort of average -- average level.  
29 And that would be the basic working assumption up until we saw  
30 that one (1) curious IR, that's -- like I said, is one (1) we'd want to  
31 track, which seems to suggest that -- that potentially the three (3)  
32 to four (4) cent level you're at today could -- is insufficient to pump  
33 out the cash needed to fund 25 percent of -- of the new projects.  
34 But that in the event you were to be able to finance 25 percent of  
35 their -- of their development with -- with cash generated from  
36 rates, you could transition right back down to the three (3) for four  
37 (4) cent levels of bulk power, and -- and hold the whole system  
38 steady, which is sort of interesting, and curious, and probably a --  
39 a good surprise to us.

40  
41 I'm not -- like I said, I'm not sure we -- we understand it perfectly. It  
42 was in the MIPUG book of documents Mr. Hacaault points out to  
43 me, in Tab 3. The -- the numbers I'm talking about. That the rates  
44 in order to do what I'm talking about, they'd bump up about 30  
45 percent, hold that level for a number of years, and could bump  
46 back down about 30 percent once the developments are done,  
47 and -- and end up about the same level.  
48

1 THE CHAIRPERSON: That is actually quite an interesting chart,  
2 isn't it. It gives the -- it suggests basically that twenty (20) years  
3 out, despite inflation going on at 2 percent to 3 percent a year,  
4 despite for example BC Hydro talking about something like a 50  
5 percent rate hike over five (5) years, and -- and other --  
6 Saskatchewan's huge investment in so-called clean coal, and  
7 Alberta's \$2 billion set -- reserve, that that table suggest that after  
8 twenty (20) years rates would be the same basically as they are  
9 today.

10  
11 MR. PATRICK BOWMAN: Yes, that was -- that was our  
12 conclusion out of it, too. And I -- I don't want to hang too much on  
13 it, but there's a lot of paper in this hearing, and as we poured  
14 through it, in doing the type of job we do, you -- it's good to be  
15 able to let your -- let your clients know if they're in for, you know,  
16 nasty surprises, or -- or if the out -- if it's -- there's something in  
17 here.

18  
19 And so we tend to flag those off on the -- the side of the paper,  
20 and -- and as much as there's, you know, \$15 billion in debt, and -  
21 - and, you know, pretty big exposure to shale gas, and a lot of  
22 uncertainties in the future, there -- there's a surprising number of --  
23 of bits of information in this hearing that -- that, if anything, might,  
24 you know, err the other way. It might suggest that -- that there's  
25 things we can't fully understand, and that -- that may be overly  
26 optimistic, or that may be a bit dated in terms of their capital costs,  
27 but that suggest the -- the very thing that -- that lead to our initial  
28 conclusion, which is you don't have all the answers. But it doesn't  
29 look like you're at a stage where you'd want to shut off the taps  
30 and say, Abandon this, because it -- it looks like it -- like there's  
31 enough positive -- positive news or upside that -- that you should  
32 really make sure you understand the option.

33  
34 And that -- you know, that -- that's some -- it's -- it's a pretty -- I  
35 won't say it's the most robust conclusion because we're not in the  
36 -- a hearing, or we're not with all the information that one would  
37 need to test -- test it across different scenarios and the like, but it's  
38 -- but it's interesting. It's intriguing.