

## INDEX

Tab 1	COALITION/MH I-32
Tab 2	PUB/MH I-55a
Tab 3	PUB/MH I-26
Tab 4	MIPUG/MH II-19a-c
Tab 5	PUB/MH II-17a-b
Tab 6	PUB/MH I-61
Tab 7	PUB/MH I-28a-c
Tab 8	COALITION/MH I-15
Tab 9	PUB/MH II-21a-b
Tab 10	AMC/MH I-13a-b

**REFERENCE:**

PUB MFR 65 (Updated), Page 14

**PREAMBLE TO IR (IF ANY):**

It is stated that a more conservative approach was taken to reflect the growth of existing customers.

**QUESTION:**

Please explain the reason for this change in approach and where potential new customers in the long term would be captured in the overall load forecast.

**RATIONALE FOR QUESTION:**

This information is needed to evaluate the reasonability of the load forecast.

**RESPONSE:**

The original intent of Potential Large Industrial Load (“PLIL”) was to capture potential changes of the existing Top Consumers and the potential of a new Top Consumer customer coming to Manitoba beyond the short-term planning horizon. In Order 73/15 the PUB expressed concerns that the approach at that time for forecasting PLIL created “an inappropriate upward adjustment”. Reflecting upon these findings, Manitoba Hydro sought to address its approach to forecasting potential large industrial growth.

Under the more conservative approach taken with the 2017 Load Forecast, the forecast no longer explicitly models a potential new Top Consumer coming to Manitoba within the PLIL planning horizon. The energy requirements of any potential new customers within the Top Consumer sector will be evaluated on a case-by-case basis.

**REFERENCE:**

Appendix 3.1 IFF16 Page 14; Tab 7 Page 6 of 30

**PREAMBLE TO IR (IF ANY):**

**QUESTION:**

- a) Please provide a 20 year IFF scenario that assumes Efficiency Manitoba meets its legislated electricity saving target of 1.5% annually for the 15 year period assuming a commencement date of April 1, 2019. Please state any assumptions made, including with respect to DSM costs or payments to Efficiency Manitoba.

**RATIONALE FOR QUESTION:**

To quantify the effect of a major change in Manitoba Hydro's load related to potentially legislated energy efficiency targets.

**RESPONSE:**

Bill 19 - The Efficiency Manitoba Act received Royal Assent on June 2, 2017. The mandate for the planning, implementation and support of demand side management ("DSM"), specifically to achieve the legislated targets of 1.5% of annual consumption of electrical energy or cumulative total of 22.5% over 15 years, will be assigned to the new Crown Corporation, Efficiency Manitoba. Under the legislation, Efficiency Manitoba is responsible to prepare an efficiency plan that details how it proposes to meet the savings targets, including how these initiatives will assist in achieving the net savings to be required over the next 15 years, along with the budgets/expenditures required to achieve these savings. These plans are to be submitted to the PUB for review and recommendations for approval.

Under the legislation, Manitoba Hydro is only provided the right to provide submission to the PUB on the review of these plans.

At this time, Manitoba Hydro is maintaining the current DSM programming and services in order to minimize any potential disruptions until such time as the DSM activities formally transition over to Efficiency Manitoba. Given the legislation and the stated responsibilities, it is not appropriate at this time for Manitoba Hydro to propose any assumptions related to programs, costs or timelines for how Efficiency Manitoba, a different Crown Corporation, will plan to meet the legislated targets. However, Manitoba Hydro notes as shown in PUB/MH I-55b that the legislated energy savings targets for the 15 year period are in excess of those assumed in MH16.

**REFERENCE:**

Appendix 3.5 Pgs. 7, Appendix 3.6MH16 Update

**PREAMBLE TO IR (IF ANY):**

MH states Internally generated cash flow has been positive and relatively steady averaging over 600 million per year. Nonetheless, pro forma for the in service of Bipole III Manitoba Hydro's current operations are cash negative. Bipole III comes into service in 2019. The cash flow statement indicates cash flow from operations of \$635 million in that year based on 3.95% assumed rate increase.

**QUESTION:**

Please explain how MH's operations on a Proforma basis for Bipole 3 are cash negative?

**RATIONALE FOR QUESTION:****RESPONSE:**

Manitoba Hydro believes the Reference and Preamble to be referring to Appendix 3.7 (MH16 Update – 3.95% in 2017/18 scenario) wherein the \$635 million noted is Interest Paid. Cash flow from operations in this scenario in 2019 is \$776 million presuming a 3.95% interim rate increase at August 1, 2017 (vs. 3.36% per Order 80/17) and a 7.90% increase effective April 1, 2018.

Cash flow from operating activities does not include any outflow whatsoever on account of any capital, deferred or other expenditures required to operate and sustain the system and the business. Moreover, Cash flow from operating activities presented in the projected cash flow statement does not fully reflect the total cash outflow related to interest payments associated with funds borrowed to fund investments required to secure the continued reliable supply of energy to Manitoba customers. As highlighted in Tab 2, Section 2.4.3, the Bipole III Reliability Project is a necessary and essentially non-revenue generative investment to ensure continuity of supply. As such, any complete analysis of Manitoba

Hydro's financial results and condition must incorporate the impact of the additional costs of building and operating this asset both through the construction phase and after it enters service in August 2018. Interest paid and capitalized to such projects for income statement purposes must be added back to fully reflect the cash outflow related to interest payments.

Further, the statement that Manitoba Hydro's current operations are cash negative refers to net cash flow after capital expenditures. The following schedule restates Figure 2.16 (Tab 2, page 20) to show the net cash flow based on MH16 Update with Interim and MH15 Rate Increases. As can be seen, Manitoba Hydro's operations and capital investments are cash flow negative under the 3.95% rate alternative scenario in 2017/18, 2018/19 and 2019/20. Notwithstanding the \$132 million contribution from almost unprecedented water conditions in 2017/18 and 2018/19 (as noted on Page 20 of the Supplement to Tab 3) and the \$334 million contribution from increased rate revenue inclusive of Order 80/17 (Appendix 3.8), Manitoba Hydro is still forecast to be operating at a cumulative cash flow deficiency of \$339 million over the next three years.

**Figure 2.16 Cash Flow Deficiency - MH16 Updated with Interim and MH15 Rate Increases**

**Cash Flow from Operations to CapEx**

<i>For the year ended March 31</i>	Actuals	Forecast				
	2017	2018	2019	2020	2021	2022
Net Income Attributable to MH	53	93	148	66	125	194
Cash Receipts from Customers *	1,997	2,152	2,170	2,173	2,371	2,577
Cash Paid to Suppliers and Employees **	(933)	(892)	(843)	(870)	(885)	(894)
Interest Paid	(553)	(531)	(635)	(704)	(771)	(853)
Add: Total Capitalized Interest	(250)	(360)	(320)	(319)	(333)	(290)
Less: Capitalized Interest related to Keeyask, MMTP & GNTL	110	162	227	297	315	274
Interest Received	17	5	11	22	26	19
<b>Adjusted Cash Flow from Operations ***</b>	<b>387</b>	<b>537</b>	<b>611</b>	<b>600</b>	<b>723</b>	<b>834</b>
<b>CEF16 Expenditures ****</b>	<b>654</b>	<b>688</b>	<b>709</b>	<b>689</b>	<b>674</b>	<b>652</b>
<b>Cash Flow Deficiency</b>	<b>(267)</b>	<b>(151)</b>	<b>(99)</b>	<b>(89)</b>	<b>49</b>	<b>182</b>

\* per Cash Flow Statement restated for Bipole III deferred revenue reclassified from contributions which were net against PP&E (CEF16 Expenditures)

\*\* Adjusted for payables associated with Bipole III and Keeyask

\*\*\* CFO - Internally generated funds less portion of capitalized interest related to (Keeyask, MMTP & GNTL)

\*\*\*\* Total gross capital and deferred expenditures excluding Keeyask, Bipole III, MMTP & GNTL; Bipole III deferred revenue reclassified from PP&E to Cash Flows from Operating Activities

However, the question as framed suggests it is only the impact of Bipole III that leads to Manitoba Hydro deficit-funding its ongoing operations on a current and forecast basis. As Section 2.2 of Tab 2 of the Application makes clear, the Bipole III project is not the only contributor to Manitoba Hydro's current and, without the proposed rate increases, unmitigated forecast cash flow deficiency.

A major additional contributor is that with minimal net income, Manitoba Hydro is not recovering from its ratepayers through depreciation expense anywhere near the ongoing, cash investments needed to maintain the existing system along with other significant, recurring annual expenditures that are capitalized and amortized (therefore are deferred in their net income impact) and are essential to operating the business.

The following table summarizes this reality:

(in millions)

	Actual			Forecast		
	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Depreciation and Amortization Expense*	\$ 350	\$ 364	\$ 372	\$ 392	\$ 404	\$ 415
Business Operations Capital**	\$ 525	\$ 521	\$ 530	\$ 526	\$ 517	\$ 516
<b>Initial Deficiency</b>	<b>\$ (174)</b>	<b>\$ (157)</b>	<b>\$ (158)</b>	<b>\$ (134)</b>	<b>\$ (113)</b>	<b>\$ (101)</b>
Sustaining Expenditures Categorized as MNG&T	\$ 178	\$ 74	\$ 49	\$ 66	\$ 53	\$ 39
<b>Adjusted Deficiency for Capital Only</b>	<b>\$ (352)</b>	<b>\$ (231)</b>	<b>\$ (206)</b>	<b>\$ (200)</b>	<b>\$ (166)</b>	<b>\$ (139)</b>

\*From Statement of Income, adjusted to exclude depreciation on Bipole III (MFR 20)

\*\*As used in Capital Coverage Ratio calculation

The above table makes clear that ratepayers have not been funding the true ongoing costs of operating the system and the business. Depreciation and Amortization Expense has been a poor proxy for the ongoing cash requirements of system operation and renewal. This is due to Depreciation and Amortization being determined basis historical costs while renewal must be paid in present dollars. With significant portions of the generating fleet dating to the 1970s and significant portions of the transmission and distribution network installed in the 1950s or earlier, historical cost bears almost no relation to the expenditures demanded to maintain a modern integrated energy system.

Any analysis of financial health narrowly limited to “net income”, “finance expense” and even “cash provided by operating activities” is susceptible to important gaps in understanding and could create a false sense of confidence in the overall financial condition of the Corporation or sufficiency of domestic rate revenue.



**REFERENCE:**

MIPUG/MH-I-13a

**PREAMBLE TO IR (IF ANY):**

**QUESTION:**

- a) What caused the large 1999 term to maturity jump, from approximately 13 years to over 19 years?
- b) Outside of the large borrowing program, please indicate the reasons and provide any studies in support of Hydro's decision to increase its Weighted Average Term to Maturity (WATM) starting in 2013. For example, did Hydro update the earlier National Bank Financial report (Appendix 13.3 to the 2010 GRA) or have other external reviews conducted of optimum borrowing strategy? If so, please provide any such report(s).
- c) How does Hydro consider the reversion back to the traditional 12-14 year range for WATM to be a new strategy that is somehow dependent on rate increases and cost savings, if this same WATM has been the norm for most of the period since the early 1990s?

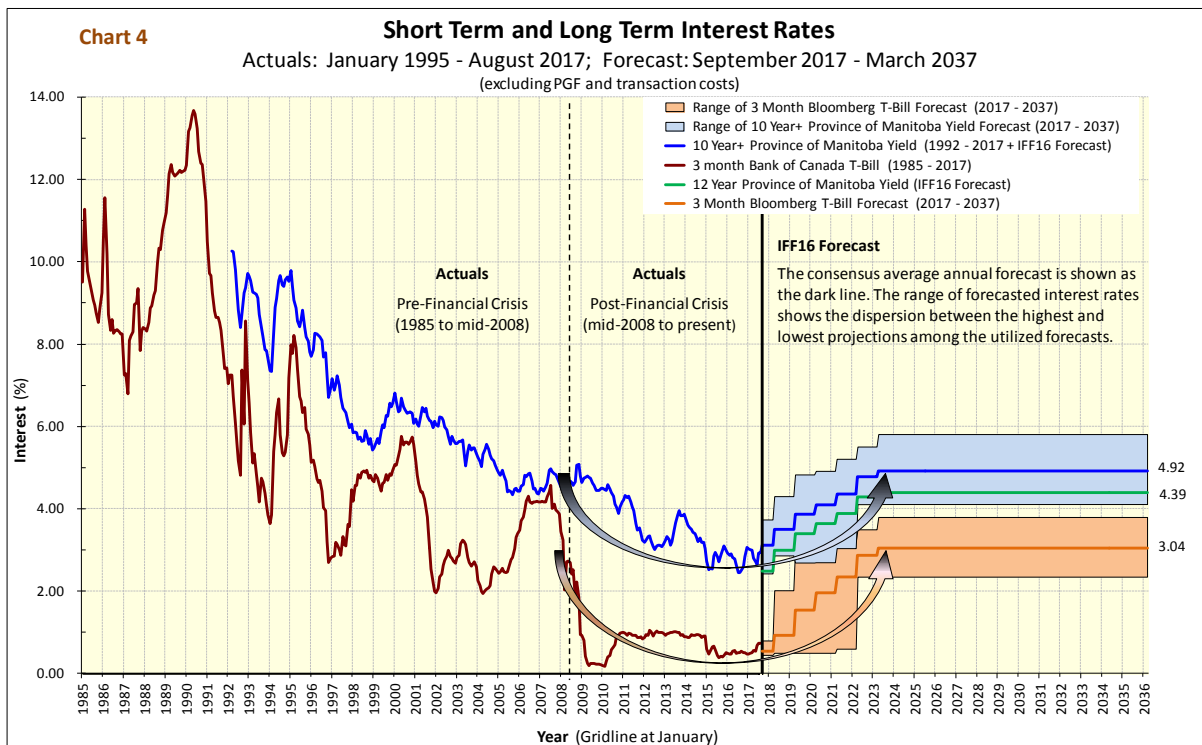
**RATIONALE FOR QUESTION:**

**RESPONSE:**

- a) With respect to debt management strategies, understanding the interest rate environment which existed at the time is crucial in understanding the rationale for the strategies. To provide context, Manitoba Hydro will provide a brief history throughout the response.

In 1990–91 sustained high inflation had contributed to a severe recession in Canada. In February 1991 inflation-reduction targets were adopted by the Bank of Canada and were successfully implemented. In the early 1990s large budget deficits, both at federal and provincial levels were causing a major economic problem. Public debt was accumulating at an unsustainable rate because of these deficits. Investors were nervous

about holding Canadian government bonds and as a result, significant risk premiums were built into interest rates. The following historical interest rate chart shows the history of the Province of Manitoba 10 year + borrowing rate as well as the 3 month Bank of Canada T-Bill rate.



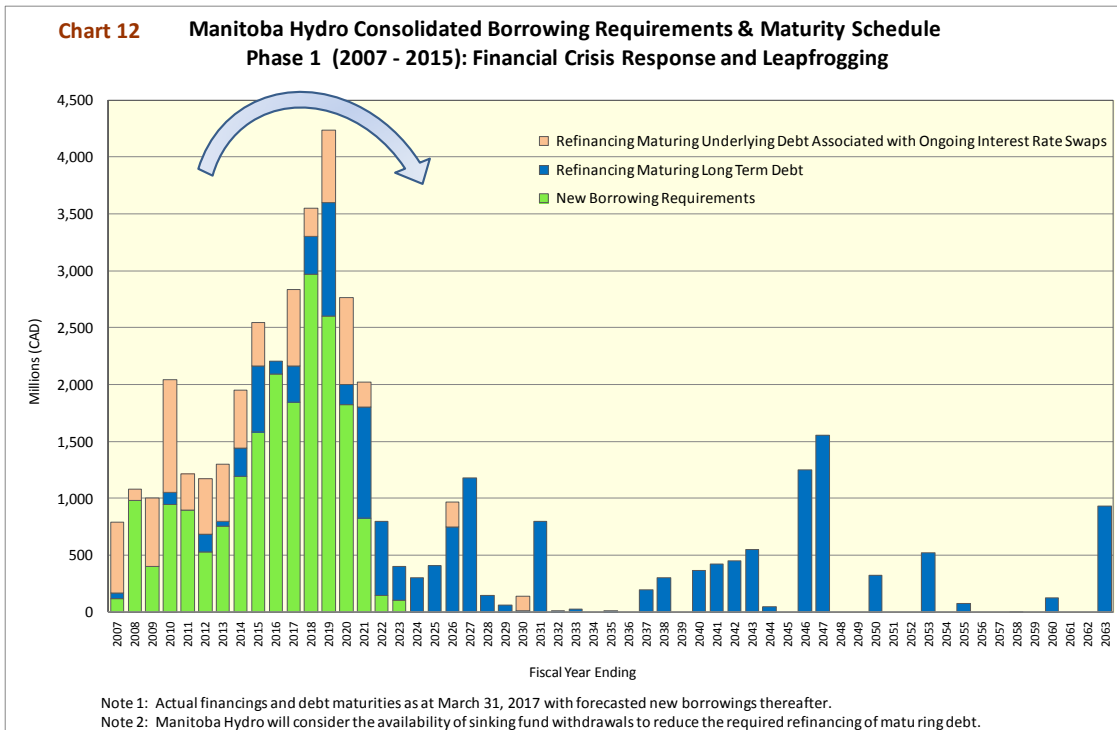
Due to the high interest rate environment during the construction of Limestone, the debt issuance completed to fund the capital expenditures was done at shorter terms to maturity in order to keep borrowing costs down. After February 1991, when the inflation-reduction targets were successfully implemented and interest rates came down, Manitoba Hydro extended its WATM and still managed to reduce its weighted average interest rate (WAIR).

In the mid-1990s federal and provincial governments responded effectively to the need to cut fiscal deficits and slow down the accumulation of public sector debt. The reduction in deficits and the ensuing move to surpluses, together with the declining government debt levels, have helped to eliminate the risk premiums in interest rates

that were so costly in the early 1990s. As evidenced on the historical interest rate chart, the 10 year+ rate dropped from nearly 10% in 1995 to around 5.5% in 1999.

Forward interest rate swaps were used for the first time by Manitoba Hydro during the 1998/99 fiscal year with a goal of restructuring and reducing the cost of debt. The product allowed the Corporation to take advantage of what was then considered to be a low interest rate environment with a flat yield curve by locking in 30 year fixed rate financing on upcoming debt maturities in the existing debt portfolio. Manitoba Hydro executed eight forward interest rate swaps on \$2.3 billion par value US and Canadian debt during the 1998/99 fiscal year. These swap agreements reduced the cost of long term debt from 8.90% (March 1998) to 8.39% (March 1999) (note the WAIR includes short term debt) and extended the WATM of the debt portfolio from 13.4 years (March 1998) to 19.2 years (March 1999).

- b) The following chart from the Debt Management Strategy shows the actual long term debt financing activities that were undertaken from April 1, 2007 to March 31, 2017. The chart also depicts the existing long term debt maturities as at March 31, 2017 along with the forecasted new borrowing requirements.



In preparation for the upcoming period of extensive capital investment, during Phase 1 Manitoba Hydro favoured long term fixed rate financings with maturities of 10 years and longer in order to mitigate the refinancing risk of debt maturities coinciding with the large financing program for new capital investment. This strategy was consistent throughout Phase 1 post-financial crisis with the WATM of new debt issuance each year being in the range of 17 to 28 years. This excludes refinancing of maturing underlying floating rate debt issues that were linked with previously executed interest rate swaps, as Manitoba Hydro includes the later of the debt or swap maturity date in the WATM. The swap usually has the later maturity date, so these financings do not impact the WATM. What did change throughout this phase was the volume of borrowing. For fiscal periods 2010-2013, average yearly borrowing for new debt was approximately \$845 million per year. For the fiscal periods 2014 - 2017, average yearly borrowing for new debt was nearly \$2 billion per year. The significant borrowing for the latter period increased the debt portfolio by nearly 65% from 2013 levels and drove the WATM of the portfolio up as well.

- c) As noted in MIPUG/MH I-19a-b, PUB/MH I-28c, and page 8 of Tab 2, Manitoba Hydro's debt management strategy (inclusive of a target WATM) at any point in time will be a function of its then current corporate circumstances, income levels, outlook and the prevailing interest rate environment (e.g. shape of yield curve). Manitoba Hydro is in the midst of an unprecedented capital investment program that is almost entirely debt financed and that will virtually triple its total assets between 2007 and 2021. As noted in PUB/MH I-28c previous financial plans such as IFF14 and IFF15 featured either minimal or negative net income and cash flow both during the construction period and in the several years following completion of the capital program. As such, a prudent decision was undertaken to extend the WATM on new debt to approximately 20 years in order to reduce refinancing risk while Manitoba Hydro was forecast to be in a continued weakened financial state.

Comparing the Corporation's current target WATM to past levels is, at best, irrelevant given there is almost no relationship between the Corporation's current borrowing needs, refinancing needs, current income levels and debt levels with any precedent for Manitoba Hydro and while interest rates sit at levels not seen in over 80 years.

For illustration, Manitoba Hydro notes that from 1993/94 to 2010/11, Manitoba Hydro averaged consolidated net income of \$171 million (excluding the 2003/04 drought) with average revenue of \$1.6 billion and average year end long term debt of \$6.5 billion. In contrast, since 2012, Manitoba Hydro has had average net income of \$87 million on average revenue of \$2.2 billion and with average year-end net debt of \$12 billion. For the last two fiscal years (2015/16 and 2016/17) and, notwithstanding superb water conditions, generationally low interest rates and no negative impact to net income from the in-flight capital projects, Manitoba Hydro produced a consolidated net income that averaged \$55 million on \$2.3 billion of average revenue and with \$15.1 billion of average long term debt at year end. In other words, the WATM that was the “norm for most of the period since the early 1990s” was in place at a time when Manitoba Hydro’s net income was, in proportion to its debt, almost 6 times greater than from 2012 to 2017 and 7.3x greater than over the last two years. As compared to revenue, since 2012 the Corporation’s profitability, as a percentage of revenue, has been 62% lower than during this same period where the 12-14 year WATM was the “norm” and, for the last two years in spite of excellent conditions, on a relative basis profitability is down 77% from the referenced “norm” years. A debt management strategy and WATM appropriate for these “norm” years is clearly going to be different from what Manitoba Hydro’s outlook has been of late for the diminished profitability of its ongoing operations and the significant increase in its financial leverage.

Manitoba Hydro has already made very clear the linkage between rate increases, cost reduction, increased cash flow, a shortening of the WATM and debt retirement. As has been repeatedly noted in PUB/MH I-28a-c, page 12 and 20 of Manitoba Hydro’s June 20, 2017 Written Submission on Interim Rates for August 1, 2017, page 8 of Tab 2, page 9-10 of Tab 3 and page 17 of Appendix 3.5, the strategy to shorten WATM is driven by the expectation of higher cash flows in the early years of the Corporation’s financial plan as compared to prior financial plans such as IFF14 and IFF15. Those higher cash flows can be used to reduce new borrowings during its capital phase and retire debt in the 2023-27 timeframe. In order to cost effectively retire debt, Manitoba Hydro must issue bond maturities that coincide with expected cash flows. By creating a use for its cash flow (i.e. deleveraging), Manitoba Hydro is also able to capture a significant interest cost

savings by taking advantage of lower rates for shorter maturity debt. This savings was estimated at \$500 million over the next 10 years under IFF16.

To achieve this, Manitoba Hydro must issue proportionally more of shorter term debt (i.e. three, five and 10 year maturities) than if it were targeting a 20 year WATM on new debt. Without the expectation of cash flow stemming from higher rates, lower operating costs and lower financing costs, issuing more shorter term debt would significantly increase the relative level of refinancing risk. Manitoba Hydro has been consistent throughout its application that without an expectation of cash flow, it would need to reconsider the prudence of shortening its WATM and elevating its refinancing risk for the sole purpose of short term interest savings.

**REFERENCE:**

PUB/MH I-32 (a)

**PREAMBLE TO IR (IF ANY):**

**QUESTION:**

- a) Please discuss how the Corporation may revise its debt management strategy based on IFF15-level rate increases (3.95%) rather than what is being proposed in IFF16 Update with Interim.
- b) Please discuss the change in the interest rate refinancing risk profile.

**RATIONALE FOR QUESTION:**

**RESPONSE:**

- a) As seen in chart 13 of the Debt Management Strategy (Appendix 3.5 of the GRA), in order to reduce the weighted average term to maturity (WATM) on new debt issuance to 12 years, Manitoba Hydro would be more heavily weighting maturities of between 3 to 10 years as compared to the WATM modeling of 20 years in previous IFFs. However, as indicated in the Debt Management Strategy, this reduction in forecasted term to maturity is subject to change if operating cost reductions, export price increases, and PUB approved rate increases result in an expectation of insufficient cash flow to enable the risk/reward balance of this new terming strategy.

Due to the layering of additional maturities at the shorter end of the maturity spectrum, it is critical that forecasted cash flows from expected rate increases (and cost savings) do materialize in order to retire a portion of the debt as it matures in order to mitigate refinancing risk. If Keeyask experiences construction delays which extend the in-service date, the delay in new capital borrowings would pressure interest rate risk in a period with higher than previously forecast refinancings.

If Manitoba Hydro were to assume annual rate increases of 3.95% as opposed to the rates being proposed in MH16 Update with Interim, the Corporation would have to consider revising its debt management strategy to increase the WATM of new debt issuance in order to keep the balance of risks at a manageable level and commensurate with the potential savings from borrowing at the lower rates typically associated with shorter maturities. If the outlook for future cash flows and/or the timing of borrowing requirements should change, a longer WATM profile may be found to be prudent risk management and which consequentially would also increase its weighted average interest rate compared to the MH16 Update with Interim forecast. All else being equal, this would be expected to erode or eliminate the interest savings opportunity from a shortened maturity profile. The benefits of interest savings would be re-evaluated in context of increased near-term refinancing risk.

- b) If Manitoba Hydro were to adopt MH15 level rate increases with the MH16 Update with Interim, there would be a significant reduction in cash available for debt retirement as well as an increase in debt maturities in the period 2023-2032. If Manitoba Hydro does not realize the cash flow as planned in MH16 Update with Interim, interest rate risk will increase in comparison to previous plans as the Corporation will be refinancing more long term debt earlier than previously forecast. Without the requested rate increases, the ratio of cash available for debt retirement to debt maturities is significantly reduced thus increasing the Corporation's refinancing risk. As seen in the table below, in the ten year period from 2023-2032, Manitoba Hydro would see a decrease of \$6.1 billion in cash available for debt retirement while in the same timeframe see an increase of \$1.8 billion in debt maturities. The table below summarizes the impact of adopting MH15 level rate increases for 5 and 10 year timeframes:

**Ratio of Cash Available for Debt Retirement to Debt Maturities**  
(in Millions of Dollars)

**5 year Period From 2023-2027**

IFF16 Update with Interim with IFF15 Level Rate Increases  
IFF16 Update with Interim  
Difference

**10 year Period From 2023-2032**

IFF16 Update with Interim with IFF15 Level Rate Increases  
IFF16 Update with Interim  
Difference

	<b>Cash Available for Debt Retirement</b>	<b>Debt Maturities</b>	<b>Ratio</b>
	\$225.1	\$9,665.7	2.3%
	\$3,140.8	\$9,343.2	33.6%
	(\$2,915.8)	\$322.5	
	\$2,411.1	\$16,499.1	14.6%
	\$8,524.8	\$14,724.1	57.9%
	(\$6,113.7)	\$1,775.0	



Without the expectation of having cash flow available for debt retirement as proposed in MH16 Update with Interim, a 12 year WATM terming strategy could unduly pressure the Corporation's risk profile particularly should other forecast risks materialize. As demonstrated in the table above, a significantly lower proportion of maturing debt is "covered" by cash availability if 3.95% rate increases are assumed. Regardless of debt terming strategy or rate increase profile, interest expense will be, by a factor of approximately 1.5x or more, the largest expense of Manitoba Hydro. Therefore, it is a significant contributor to potential volatility in revenue requirement. In the absence of an expectation of sufficient cash flows, Manitoba Hydro is unlikely to conclude its ratepayers are best served by significantly increasing refinancing risk in the fairly near term in order to capture interest savings. The 12 year terming strategy is only prudent as a component of a financial plan that sees the Corporation abating the growth of its debt prior to the completion of Keeyask and accelerating its return to more prudent, manageable and sustainable debt levels thereafter.

**REFERENCE:**

Appendix 4.1. Pgs.6-7

**PREAMBLE TO IR (IF ANY):**

Within the May 2015 Financial Targets Review report prepared by KPMG, they note the following related to self-supporting entities:

*As noted in our analysis in Chapter 6, the exact point at which rating agencies might deem Manitoba Hydro (and its debt) to be no longer self-supporting is not clear. Similarly, it may not be clear when debt reaches a level where it cannot reasonably be expected to be repaid by ratepayers. However, to create a working definition of financial distress for the purposes of scenario analysis, the following general approach was used:*

*Manitoba Hydro would be deemed to be no longer self-supporting once it reaches a position of near zero retained earnings and rates have increased in real terms such that Manitoba can no longer be considered a cost-competitive jurisdiction with respect to electricity rates.*

**QUESTION:**

With reference to the above commentary as well as any communications between Manitoba Hydro and the credit rating agencies, S&P, Moody's and DBRS, please provide a discussion of the point at which Manitoba Hydro would consider itself no longer self-supporting.

**RATIONALE FOR QUESTION:**

**RESPONSE:**

In Manitoba Hydro's experience, credit rating agencies often do not specify or adhere to explicit metrics or tests in concluding whether a given issuer is self-supporting. Please see Manitoba Hydro's response to MIPUG/MH I-8 for information on the approach of S&P Global Ratings. The rating agencies will also typically consider the historical and forecast

trend in numerous quantitative metrics in addition to absolute level of such metrics at any one point in time. Moreover, Manitoba Hydro agrees with KPMG's comment noted above that *"the exact point at which rating agencies might deem Manitoba Hydro (and its debt) to be no longer self-supporting is not clear"*. In Manitoba Hydro's view, the willingness of a credit rating agency (or the capital markets) to continue regarding the Corporation's debt as self-supporting is equally a function of an agency or investor's assessment of willingness and ability of both Manitoba Hydro, its stakeholders and the regulator to take adequate steps to address ongoing financial sustainability. Such assessments by definition include a degree of qualitative judgment.

According to rating agencies, self-supporting government-owned entities have the following attributes:

- Ability to generate sufficient funds to support their own operations (including interest payments)
- Do not require support from governments to avoid financial distress

As articulated in Tab 2 and throughout the Application, at current electricity rates and inclusive of the impact of a significant expense reduction from corporate restructuring, Manitoba Hydro will continue to suffer significant negative cash flow on its core operations including under high water conditions. This means that Manitoba Hydro does not have sufficient cash receipts to cover all of its ongoing costs inclusive of interest on the nearly complete Bipole III Reliability Project. The capital and associated interest costs of the Keeyask project are entirely excluded from this analysis. As noted at Tab 2, page 20, Manitoba Hydro estimates the degree of cash flow deficiency to be approximately \$250 million per annum in the absence of any rate increases or \$200 million taking into account impact of Order 80/17 which approved a 3.36% interim electric rate increase effective August 1, 2017 that will add approximately \$50 million per year to cash flow.

On this basis only, absent ameliorative action, Manitoba Hydro would already fail the above noted test of a self-supporting entity. Manitoba Hydro believes other factors are and will continue to be considered by the rating agencies before concluding Manitoba Hydro is no longer self-supporting. Manitoba Hydro believes that rating agencies and capital markets participants would look to the existence of a financial plan that remediates the above-noted cash flow deficiency over a reasonably short period of time. Rating agencies and capital

market participants would assess such plan for its credibility and likelihood of achievement. Important components of that assessment in the example of Manitoba Hydro would include:

- Availability and likelihood of achieving cost reduction targets to support cash flow
- Magnitude of impact of key risks largely outside of Manitoba Hydro's control such as interest rate escalation, export prices and hydrology
- Likelihood of receiving approval from the regulator for any rate increases that are a component of the plan

Another test of whether an issuer is self-supporting is its ability to raise necessary debt capital in the absence of a government guarantee. S&P Global Ratings has deemed Manitoba Hydro to be not self-supporting by virtue of its current standalone credit profile of non-investment grade ("junk bond") quality. With a non-investment grade (BB+ or below) credit rating, Manitoba Hydro would be highly unlikely to be able to access the capital markets in the amounts required to fund its business plan and even if it were, it would be at an interest cost (measured in credit spread) that would be multiples of what the Corporation enjoys now. Without the guarantee of the Province of Manitoba, Manitoba Hydro would be effectively unable to fund its business plan and meet refinancing obligations as they come due and thus could not support itself. In Manitoba Hydro's view, such a position is largely theoretical as Manitoba Hydro does have its debt guaranteed by the Province of Manitoba and therefore the importance of not being deemed self-sustaining on its own is the contagion impact the Corporation's debt has on the credit profile and borrowing cost for the Province (and itself). The PUB itself recognized this on page 23 of 62 in Order 43/13 wherein it stated:

*"The Board notes that Manitoba Hydro shares the benefit of the flow-through credit rating of the Province, which affords it preferential interest rates on its debt and access to funds to meet its major capital spending program. However, as its debt grows, there is a potential for Manitoba Hydro's financial condition to affect the credit rating of the Province. It is important that Manitoba Hydro remains a financially strong and viable organization."*

Based on its experience as an issuer in the capital markets and its regular dialogue with rating agencies and capital market participants, Manitoba Hydro's view is there is no "bright line" test of self-supporting status. The risk of losing such status exists along a continuum.

Negative cash flow, immaterial net income and rapidly escalating debt balances will cause credit metrics to further deteriorate and move the Corporation farther toward the riskier end of the continuum.

At some point, absent a credible financial plan and consistent progress against same, credit agencies will reach the conclusion that debt on-lent to Manitoba Hydro by the Province of Manitoba cannot be supported by Manitoba Hydro alone. As such, other rating agencies may reach the same point of view that S&P Global Ratings already has which is to include Manitoba Hydro's debt in the calculation of Province of Manitoba credit metrics. Inclusive of borrowings to complete in-flight major capital projects, inclusion of Manitoba Hydro's debt would almost double the debt of the Province of Manitoba which could lead to a major deterioration in its credit standing in the view of such rating agencies.

Regardless of credit rating agency actions, it is capital market participants (bond investors) who set the interest rate at which the Province of Manitoba and Manitoba Hydro borrow. As noted in the response to PUB/MH I-59, a multitude of factors inclusive of credit rating agency downgrades can impact borrowing costs. The degree to which financial deterioration remains unchecked or inadequately addressed increases the likelihood investors perceive increasing levels of risk and thus demand higher levels of compensation in the form of higher interest rates.

Manitoba Hydro believes that the above noted KPMG definition of a point where Manitoba Hydro would be deemed no longer self-supporting as *"once it reaches a position of near zero retained earnings and rates have increased in real terms such that Manitoba can no longer be considered a cost-competitive jurisdiction with respect to electricity rates"* requires the additional context KPMG provides in Chapter 7 of its report (page 115) wherein they state *"Loss of such status could potentially be avoided if Manitoba Hydro immediately takes steps, such as increasing rates, to increase its equity position. On the other hand, self-supporting status could be affected at equity ratios above zero in the event that its ongoing financial trajectory appears to be negative and if there are no steps being taken to correct this"* (emphasis added). In other words, the ability or willingness to take necessary and preemptive action (particularly through rate increases) is a significant factor in assessing self-supporting status. Manitoba Hydro would concur with this view.

Specific commentary from rating agencies on these matters includes:

i. Moody's

At present, Moody's considers Manitoba Hydro to be self-supporting as it states<sup>1</sup>:

"Given its steady revenue stream that generates sufficient cash flow to support operations including interest payments, we view Manitoba Hydro as a self-supporting entity and therefore exclude the related debt from our debt metrics of the province."

Moody's assesses current financial metrics as well as future expectations and note the increase in the contingent liability that Manitoba Hydro's credit profile poses to the Province:

"We note, however, that Manitoba Hydro's total reported debt net of sinking funds has risen considerably, doubling from CAD6.9 billion at March 31, 2008 to an estimated CAD14.2 billion as of March 31, 2016. We expect that its debt will continue to rise over the medium-term as the utility moves forward with construction projects, including the Keeyask hydroelectric station and the Bipole III transmission line, in anticipation of demand increases over the next few years and in order to boost electricity exports. The anticipated increase in debt continues to pressure the province's rating since it raises the contingent liability of the province."

Moody's reinforces Manitoba Hydro's argument that rate increases are required in order for Manitoba Hydro to continue to be self-supporting:

"Manitoba Hydro has flexibility to increase utility rates to ensure that its own revenues will continue to support its operations and debt payments. Political willingness to approve rate increases when Manitoba Hydro's credit metrics will reach their low point will be critical to recover expected capital expenditures and restore credit metrics."

---

<sup>1</sup> All quotes from Moody's Credit Opinion on the Province of Manitoba August 3, 2016

ii. DBRS

DBRS highlights the possibility that it may reassess Manitoba Hydro's self-supporting status in the future as it indicates<sup>2</sup>:

"DBRS considers Manitoba Hydro to be self-supporting, as it is able to fund its own operations and service debt obligations. However, DBRS could consider reclassifying a portion of the Utility's debt to be tax-supported should the financial health of the Utility deteriorate to the point where its expenses cannot be recovered through rates. If this were to occur, it could potentially put downward pressure on the Province's credit rating."

DBRS reinforces Manitoba Hydro's argument that rate increases of 3.95% are no longer sufficient to remain self-supporting given the current circumstances:

"DBRS had noted that rate increases of 3.95% were expected to be insufficient for Manitoba Hydro to recover costs related to major projects for the medium term."

DBRS provides support for Manitoba Hydro's current financial plan:

"...the Utility has begun reviewing initiatives to help alleviate pressure on its key financial ratios, such as improving operational efficiencies, requesting annual rate increases higher than the previously planned 3.95%, as well as a potential equity injection from the Province. DBRS sees these initiatives, if actualized, as positive to Manitoba Hydro's financial profile, as they will provide some financial flexibility for the Utility, especially in the event of adverse drought conditions or further cost overruns on the projects."

iii. S&P Global Ratings

Of the three credit rating agencies, S&P raises the bar on risk and indicates that self-supporting entities generally have an investment grade stand-alone credit profile.<sup>3</sup> On July 14, 2016, S&P downgraded the Province of Manitoba, placed it on negative outlook, indicated that it no longer viewed Manitoba Hydro as being self-supporting

---

<sup>2</sup> All quotes from DBRS rating report on Manitoba Hydro November 25, 2016

<sup>3</sup> Standard & Poors Methodology For Rating Non-U.S. Local And Regional Governments, page 44

and chose to include all of Manitoba Hydro's on-lent debt in the Province's total debt. For the first time in Manitoba Hydro's history, a credit rating agency did not consider Manitoba Hydro to be self-supporting. On July 21, 2017, S&P downgraded the Province of Manitoba once again.

"By our estimates, Manitoba's tax-supported debt (including debt on-lent to MHEB) will exceed 300% of operating revenues by fiscal 2020. Our assessment of the province's debt burden fully incorporates the debt on-lent to MHEB, which accounts for more than 40% of total tax-supported debt and for which the province expects to borrow heavily to finance capital projects over the next several years. We do not view MHEB as self-supporting due to its very high and rising leverage."<sup>4</sup>

---

<sup>4</sup> All quotes from S&P Credit Opinion on the Province of Manitoba July 29, 2016



**REFERENCE:**

Appendix 3.5 Interest Rate Risk Chart 13

**PREAMBLE TO IR (IF ANY):**

MH is forecasting changing the distribution of debt issues to achieve a 12 year terming: 15% floating and 85% fixed (40% in 5-year issuance, 25% in 10-year issuance, 20% in 30+ year issuance).

MH has stated in order to mitigate the pressure on Manitoba credit spreads, that it would reduce the interest rate risk exposure on the existing debt portfolio by maintaining the proportion of floating rate debt at or below 10% of the total debt portfolio.

At the 2015 & 2016 GRA MH articulated a further strategy of reducing the interest rate risk exposure on the existing debt portfolio by extending the weighted average term to maturity by issuing longer dated debt, including the issuance of ultra-long debt with terms to maturity beyond 30 years. [ PUB/MH II-72 a-d]

**QUESTION:**

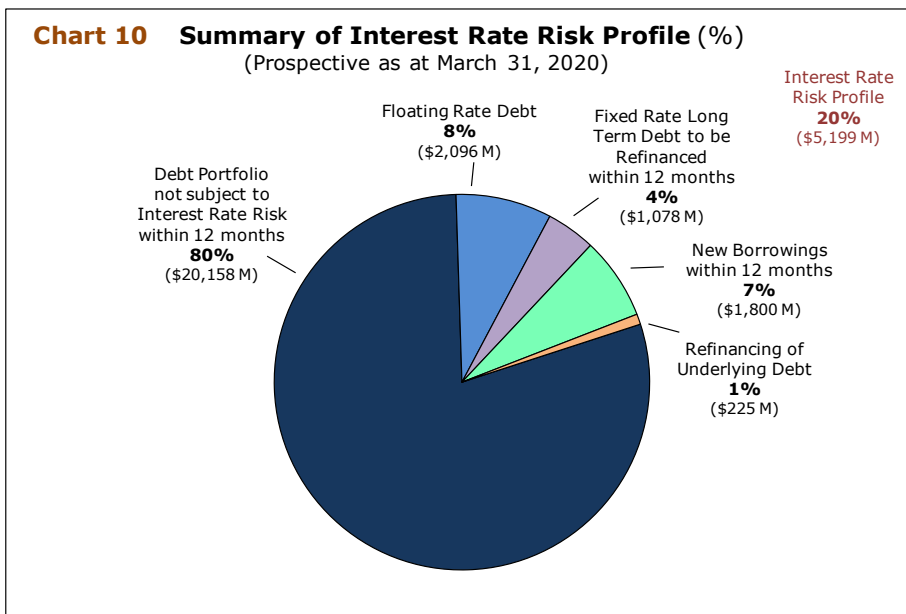
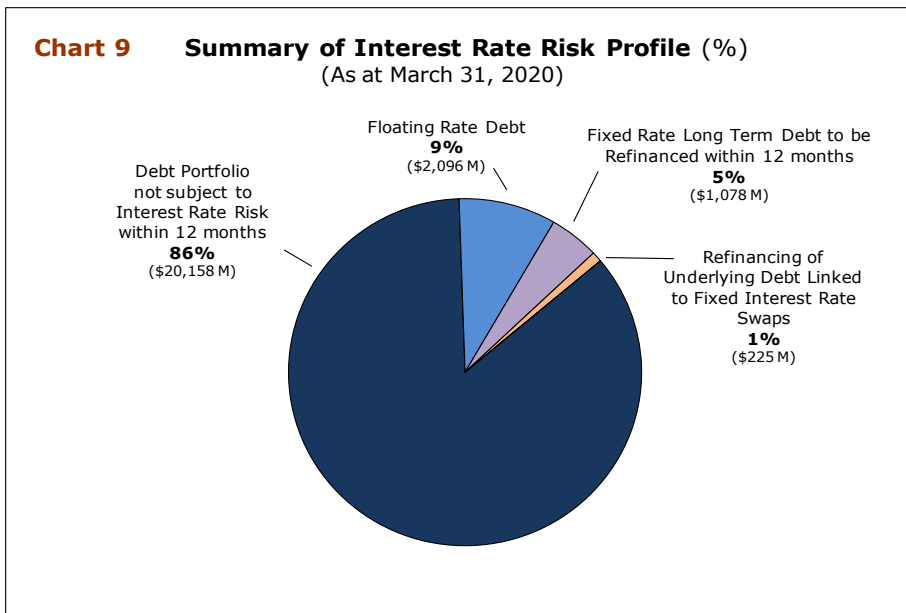
- a) Given the forecast mix of borrowings please provide an update to Chart 9 and Chart 10 in 2020.
- b) Please explain whether the 40% assumed issuance maturing in 5 years increases or decrease Interest rate risk.
- c) Please explain why MH has dropped the strategy of extending the weighted average term to maturity given the interest rate environment.

**RATIONALE FOR QUESTION:**

**RESPONSE:**

- a) Given the planned mix of borrowings in the Debt Management Strategy (which was prepared in conjunction with IFF16), the projected interest rate risk profiles as of

March 31, 2020 are provided. Chart 10 below, which includes new borrowings within the next 12 months, shows that approximately 20% (or \$5.2 billion) of the prospective debt portfolio will be subject to interest rate risk over the next 12 months as at March 31, 2020. While this is down from 22% at March 31, 2017 in Appendix 3.5, there has been a trade off in risk between that stemming from new borrowings (down 9%) and that related to floating rate & refinancing risk (up 7%).



- b) Manitoba Hydro's current financial plan addresses the serious deterioration in the Corporation's financial position. In order to mitigate customer rate impacts, Manitoba Hydro explored opportunities that would provide cost savings to the Corporation. With the increased expected cash flow from IFF16, Manitoba Hydro will be able to retire long term debt in advance of previous IFFs. If all forecast assumptions hold, an increase in planned 5 year debt issuance will provide cost savings to the Corporation while maintaining interest rate risk at reasonable levels. There is no interest rate risk on debt which is reasonably anticipated to be retired upon maturity using positive cash flow. However, if Manitoba Hydro does not obtain its requested level of rate increases and is not able to realize the cash flow as planned, interest rate risk will increase in comparison to previous plans as the Corporation will be refinancing more long term debt earlier than previously forecast.
- c) In the decade prior to the preparation of IFF16, Manitoba Hydro's debt management strategies and activities were significantly impacted by the Corporation's increasing cash requirements, as well as the financial market conditions arising out of the global financial crisis. In preparation for the increasing levels of capital investment and debt financing, the interest rate risk on the existing debt portfolio was reduced during this time frame by decreasing the percentage of floating rate debt within the existing debt portfolio. In order to mitigate refinancing risk, Manitoba Hydro also adopted a "leapfrogging" strategy that favored longer dated debt maturities that largely skipped over the future period of unprecedented borrowings for new cash requirements, thereby also enhancing debt stability by extending the debt portfolio's weighted average term to maturity (WATM) by 5 years from 12.5 years at March 31, 2007 to 17.5 years at March 31, 2017. Manitoba Hydro also took advantage of the low interest rate environment to decrease the debt portfolio's weighted average interest rate (WAIR) by over 2% from 7.75% at March 31, 2007 to 5.41% at March 31, 2017.

The leapfrogging approach undertaken since 2008 along with Manitoba Hydro's new financial plan, have provided the opportunity for the Corporation to consider shortening the term to maturity of new debt issuance. However, there are risk and reward tradeoffs that must be considered when adjusting the expectations for shorter weighted average term to maturity and the associated reduction in weighted average interest rate:

- The financial benefit associated with this opportunity has the potential to provide approximately \$500 million reduction in debt servicing costs over the next 10 years to the end of 2026/27.
- The amount of debt maturing increases in 2023-2027 due to an increased amount of three and five year debt issued in 2018-2022. During this period, the proposed change in weightings will add approximately \$3 billion in debt coming due as compared to previous weightings which produce a WATM for new debt issuance of 20 years. As discussed in part b) above, without increased cash flow expectations, this would elevate refinancing risk as compared to previous IFFs. Previous IFFs projected minimal net income and cash flow during this period. Should cash flows from expected rate increases and cost savings not materialize, this refinancing risk will not have been mitigated as surplus cash will not be available for debt retirement.

Manitoba Hydro's interest rate policy on its existing debt portfolio is to limit the aggregate of:

- i. floating rate debt,
- ii. short term debt, and
- iii. fixed rate long term debt to be refinanced within the subsequent 12 month period;
- iv. to a maximum of 35% of the total debt portfolio.

Manitoba Hydro's interest rate risk guidelines for its existing debt portfolio include maintaining an aggregate of floating rate debt and short term debt within 15 – 25% of the total debt portfolio, and having the fixed rate long term debt to be refinanced within a 12 month period being less than 15% of the total debt portfolio.

When selecting the new forecast weightings for new debt issuance that are used in IFF16, Manitoba Hydro considered the impact to the interest rate risk profile and selected weightings which would keep the risk profile within Manitoba Hydro policy and guideline limits and targets, while providing for cost savings versus the previously used forecast weightings.

IFF16, with the new 12 year weighted average term to maturity for new debt issuance assumption, provides for interest rate risk profiles in all years of the forecast which are below the policy and guideline limits thus limiting interest rate risk for Manitoba Hydro. Given the current expectation that interest rates are expected to rise in the next few years, Manitoba Hydro deems it to be prudent to remain at the lower end of its interest rate risk policy and guideline limits.

Should underlying forecast assumptions (including rate increases, cost savings, export prices, interest rates, in-service dates) not materialize as planned, Manitoba Hydro will re-evaluate and adjust its debt management strategy and the targeted weighted average term to maturity of new debt issuance as it deems necessary. All else being equal, this would be expected to erode the interest savings opportunity from a shortened maturity profile. The benefits of interest savings would be re-evaluated in context of increased near-term refinancing risk.

**REFERENCE:**

Tab 2, Page 28, Lines 8 to10

**PREAMBLE TO IR (IF ANY):**

Manitoba Hydro writes:

“In Manitoba Hydro’s view, a financial plan that returns the Corporation to a 25% equity level over almost 20 years is not credible as a commitment to being a self-supporting entity.” (emphasis added)

**QUESTION:**

Please provide any analysis completed, or any specific references to third party analyses which support this assertion. In particular, please refer to any documentation which specifically compares and contrasts the outcomes of choosing a 20 year plan versus a 10 year plan.

**RATIONALE FOR QUESTION:**

The time period over which a target debt to equity ratio is reached is critically important to setting customer rates.

**RESPONSE:**

Previous financial plans did not adequately address the risks facing the Corporation or its customers in both the near term and over the longer term. Previous financial plans did not address significant and unmitigated risk exposure in the first 10 or more years of those plans.

A 20 year plan (now 17 years to provide a common reference point of 2033/34 for reaching 25% equity), in Manitoba Hydro’s circumstances, completely fails to provide any reasonable expectation of maintenance of financial health in that the vast majority of progress toward financial goals is only made in the latter half of such a long forecast period.

The table below illustrates this point:

	25% Equity Attained	Years	Rate Increase Profile	Total Net Income in Years 1-10	Cumulative Net Income Years 11-2033/34	% of Net Income in Years 1-10	% of Net Income in Years 11-2033/34
MH14	2033/34	19	3.95% x 16, 2% x 3	(\$716)	\$3,615	-24.7%	124.7%
MH15 - PUB Scenario*	2033/34	18	3.36% x 18	\$153	\$3,183	4.6%	95.4%
MH16 Updated - PUB Scenario**	2033/34	17	4.05% x 17	\$390	\$3,240	10.7%	89.3%

\* Scenario 1, Attachment 46, pages 9 and 10, 2016/17 Supplemental Filing

\*\* PUB MFR 73 Updated, Pages 7 and 8

As can be seen above, MH14 along with scenarios of MH15 - PUB Scenario 1 (2016/17 Supplemental Filing, Attachment 46, pages 9 and 10) and MH16 Update - PUB Scenario (PUB MFR 73 Updated, pages 7 and 8) that target the achievement of a 25% equity ratio by 2033/34, all share a common feature: approximately 90% or more of the cumulative net income of these plans occurs after the completion of the 10th fiscal year.

The following table compares key metrics under the MH16 Update – PUB Scenario.

	MH16 Update – PUB Scenario (\$ Millions)			
	Cumulative Income/(Loss)	Average Income/(Loss)	Average Revenues	Net Debt (Opening to Closing for Period)
Years 1 – 10 (2017/18 – 2026-27)	\$390	\$39	\$2637	\$15 792 - \$24 312
Years 3 – 10 (2019/20 – 2026/27)	\$86	\$11	\$2765	\$20 786 - \$24 312
Years 6 -10 (2022/23 – 2026/27)	(\$326)	(\$65)	\$2939	\$24 275 - \$24 312

Under the MH16 Update - PUB Scenario, Manitoba Hydro would be forecast to earn aggregate net income of \$390 million inclusive of \$132 million of additional earnings from above average water in the first two years of the forecast (2017/18 and 2018/19). In the same scenario, the aggregate income is forecast to be \$86 million for the 8 years from 2019/20 to 2026/27 resulting in an average net income of under \$11 million in those years

on average revenues of \$2.94 billion. In Years 6 through 10 (2022/23 to 2026/27) Manitoba Hydro would be forecast to have an aggregate net loss of \$326 million notwithstanding 10 consecutive years of 4.05% annual rate increases by the end of that period.

It should be noted that Years 6 thru 10 are the first five years where both the Keeyask Generating Station and Bipole III Reliability Project are in service and that over this period, Manitoba Hydro's credit profile would actually further deteriorate. Net debt will stand at \$24.3 billion at the end of 2026/27 virtually unchanged in the almost six years since Keeyask would have come into service.

It must be recognized that the forecast assumptions beyond the first few years bear a great deal of uncertainty. When the consequences of forecast deviations are so grave, such a forecast should be less relied upon as the foundation for financial recovery. As demonstrated in the table above, a 17 to 20 year plan to achieve 25% equity, when built on the foundation of even annual rate increases over that period, will result in a "back-loading" of nearly all of the income and cash flow generation required achieve a minimum level of financial health. Such a plan presumes and relies on the accuracy of forecasts for business drivers, many of which are uncontrollable, that begin at least a decade in the future when, inevitably, forecast uncertainty is going to be higher.

The above table demonstrates that a plan to restore Manitoba Hydro's health that makes no discernible progress toward such goals in its first decade is not credible and does not address existing rate inadequacy. These plans rely on long range forecasts materializing as planned, which carries a high degree of risk. Should key variables, 10+ years in the future, deviate even modestly from forecast, such variance will have a significant impact on the earnings of the Corporation in the longer term. When one considers the volatility already demonstrated in export prices, interest rates, load growth and so on over the last 20 years, the likelihood of experiencing error that far in the future is almost certain.

If Manitoba Hydro's regulator foregoes higher rate increases today there will be little latitude to avoid significant future rate action simply to deal with relatively modest forecast deviations. This also completely ignores additional financial requirements should event risks such as asset failures or drought occur. It is much more prudent and credible to build a financial plan and rate increase profile predicated on adequate levels of income and cash



flow in the short to intermediate term. Doing so positions Manitoba Hydro and its regulator to adjust the rate increase trajectory in future years as circumstances (i.e. actual results) warrant. A 17 to 20 year plan does not afford this luxury.

Moreover, as discussed in PUB/MH I-61 and PUB/MH I-59, the credibility of a financial plan is a critical evaluation made by rating agencies and bond investors. Manitoba Hydro believes that capital markets participants will be doubtful of a plan based on rate increases and revenues so far in the future. In order to satisfy their credit concerns a financial plan must be one that is seen to make immediate and near term improvement in key financial performance metrics; increase the ability to manage the inherent operational and financial risks facing the Corporation; and demonstrate that the regulator is committed to making rate decisions that address current rate inadequacies rather than waiting to address material risks reactively as they materialize.

**REFERENCE:**

PUB/MH I-42

**PREAMBLE TO IR (IF ANY):**

Manitoba Hydro states: “Manitoba Hydro does not have the goal of achieving a debt:equity capital structure consistent with that typically seen in a stand-alone investor owned utility. Manitoba Hydro observes that stand-alone investor owned utilities typically maintain equity levels that of 40%, significantly greater than Manitoba Hydro’s equity target of 25%.

In Manitoba Hydro’s view, achievement of a capital structure consistent with that of a typical stand-alone investor owned utility would be inconsistent with the regulatory framework that exists in Manitoba which, unlike many other jurisdictions, is not predicated on a rate of return construct.”

BCG also recommended that “[the 5-year] "workout program" would accelerate meeting 25% target equity from 2035 to 2024. Creates "surplus" equity position which can be used to maintain investment grade rating, issue government dividend and/or fund future capital projects”

Manitoba Hydro’s 20-year forecast based on Appendix 3.8 reflects an equity ratio exceeding 25% and achieving a ratio of 64% at the end of the 20-year forecast.

**QUESTION:**

- a) Please explain what action MH plans on taking to address this trajectory which achieves an equity level well above the approved target and inconsistent with the regulatory framework in Manitoba.
- b) Please provide an IFF with indicated rate changes to maintain a 75:25 debt to equity ratio throughout the 20-year forecast once achieved.

**RATIONALE FOR QUESTION:**

**RESPONSE:**

Manitoba Hydro's financial plan reflects a goal to return to its target 25% equity to capitalization ratio in 10 years. The focus of the Corporation's application is on the next 10 years of forecast financial results through 2026/27. 20 year financial forecasts have been provided in response to Minimum Filing Requirements and Information Requests. Manitoba Hydro ascribes limited value to forecasts a decade or more in the future given the potential for volatility in key assumptions many of which are beyond Manitoba Hydro's ability to accurately predict or control. The 20 year forecasts provided to date have essentially reflected a simplifying assumption that domestic rates and operating costs increase at 2% per annum as a proxy for inflation. PUB/MH II-28 provides some additional commentary on important limitations to the practical use of 20 year forecasts.

That said, the value to Manitoba Hydro's customers and the broader Manitoba economy from meeting Manitoba Hydro's 10 year target is apparent as discussed below as well as Coalition/MH II-19.

As compared to a plan to reach 25% equity by 2033/34 using even annual rate increases of 4.14% (Coalition/MH II-19), MH16 Update with Interim would leave forecast net debt \$3.4 billion or 14% lower at the end of the 10 year period ending 2026/27. As a consequence, annual interest expense is reduced by \$170 million in 2027/28 generating lower revenue requirement in 2027/28 and beyond.

With significantly less debt to service and a healthier financial condition, Manitoba Hydro and its regulator will have established the flexibility to consider future rate changes with a then much clearer understanding than is available today of load growth, export pricing, interest rates and reinvestment needs for the years beyond 2027.

As noted throughout this application, significantly higher levels of revenue from domestic rates are required in order to generate the income and cash flow necessary over the next 10 years to restore Manitoba Hydro's financial health. However, once the target debt/equity levels are reached, the necessity of the same level of income diminishes to a degree dependent on then estimates of future capital needs, growth expectations and interest

rates. As noted above, a \$3.4 billion reduction in net debt has a material consequent impact on revenue requirement. With a sound balance sheet, Manitoba Hydro and its regulator will be in a substantially preferred position to consider sub-inflationary rate increases or even rate decreases depending on the then understanding of business needs.

Due to the inherent uncertainty associated with attempting to forecast results in the 2028 to 2036 time frame, it is impossible to predict the measures Manitoba Hydro would propose to abate equity growth to unnecessary levels. However, should Manitoba Hydro find itself in a relatively stable operating environment but with significant capital investment needs on the near to intermediate term horizon, it is reasonable to expect the pace and extent of rate increases necessary to support major renewal and growth investments will be significantly abated by entering this period with a balance sheet and rate levels capable of absorbing incremental debt financing needs. In the alternative, without major expansion or other capital needs during or just beyond the 2028-2036 horizon, rate relief may be affordable and prudent.

The response to PUB/MH II-21b below offers an illustration of a potential outcome where rate changes are designed to keep the equity ratio at 25% each year in 2027/28 and thereafter. As can be seen, a substantial rate decrease of 19.8% is forecast for 2027/28. While Manitoba Hydro does not regard as prudent any financial plan that forecasts minimal or negative net income (as the scenario in part b) contemplates), the Corporation does note certain important conclusions with respect to ratepayer impacts. Coalition/MH II-6 provides further analysis.

The response to PUB/MH II-21b forecasts cumulative rate increases through 2033/34 of 38.8% after peaking (on a cumulative basis) at 77.4% in 2026/27. In a scenario of even annual rate increases of 4.14% to achieve an equity ratio of 25% by 2033/34 (Coalition/MH II-19), the cumulative rate increases amount to 97.7%. In other words, the cumulative rate increases in 2033/34 would be 60% less than under a more prolonged plan to address Manitoba Hydro's financial health. In absolute terms, for the average residential customer, electricity bills would be 30% lower in 2033/34 as compared to under the alternate plan of even annual rate increases of 4.14% over 16 years. Moreover, while Manitoba Hydro acknowledges its customers pay higher rates during the period of recovery,

a residential customer using 1,000 kWh/month would experience lower bills over the period from 2017/18 to 2033/34, as shown in the table below.

	25% Equity Ratio <u>Achieved</u>	Cumulative Increase		Average Monthly Bill - 2033/34	Cumulative Bills 2017/18 to 2033/34
		<u>To 2026/27</u>	<u>To 2033/34</u>		
PUB/MH II-21b Scenario based on MH16 - Update with Interim	2026/27	77.4%	38.8%	\$121	\$25,173
Coalition / MH II-19 Scenario even annual rate increases to 2033/34	2033/34	48.9%	97.7%	\$172	\$25,881
Difference			-60.3%	-29.9%	-2.7%

Customer interests and the long-run health of the economy of the Province of Manitoba are best served by a 10 year plan to reduce the Corporation’s debt to more manageable levels. The IFF scenario presented in the response to part b) provides a powerful and plausible illustration of the importance of strong near-term action to address Manitoba Hydro’s deteriorating financial condition. In doing so, Manitoba Hydro’s customers enjoy both a substantially diminished risk of rate volatility and a significantly higher probability of lower rates beyond 2026/27 as compared to plans to address the Corporation’s condition over 15 or 20 years. This advantage holds true regardless of eventual outcomes for key uncontrollable variables such as interest rates. This is illustrated in the following table comparing cumulative rates in 2033/34 under the Manitoba Hydro’s 10-year plan to restore financial stability and an alternative 17-year plan.

	Cumulative Rate Increases in 2033/34	
	MH 10-Year Plan 25% Equity Ratio 2026/27	Alternative 17-Year Plan 25% Equity Ratio 2033/34
MH16 Update with Interim	38.75% (PUB/MH II-21b)	97.73% (Coalition/MH II-19)
Interest Rates + 50 basis points	42.08%	106.86%
Interest Rates + 100 basis points	45.81%	114.07%

In addition to the response to PUB/MH II-21b Manitoba Hydro offers two further alternative scenarios for consideration that are likely more plausible than a strict adherence to an exact target equity level once met. In the Alternative 1 (pages 11 to 16 of this response), even annual rate decreases of 5.7% are implemented in the three years from

2027/28 to 2029/30 in order to methodically reduce Manitoba Hydro's forecast net income to the range of \$200 million per year. Manitoba Hydro reiterates its view that targeting \$nil or negative net income as a planning matter is imprudent given the scale of the Corporation's business and assets and the potential for volatility in its results. While still targeting (for planning) a reasonable level of income, Manitoba Hydro notes that the cumulative annual rate increase by 2033/34 is 48.8% as compared to 97.7% under the "even annual increases to 2033/34" scenario (Coalition/MH II-19). This represents a 50% improvement over the "even annual rate increases" plan and, overall, 25% lower bills for residential customers as compared to the deferred alternative. Alternative 2 (pages 17 to 22 of this response) contemplates 0% rate increases in 2027/28 and every year after. Again, by 2033/34, cumulative rate increases of 77.4% under this scenario compare to 97.7% in the "even annual increases to 2033/34" scenario, a 21% improvement. Income levels and equity ratio growth in the second decade of the IFF are beyond what Manitoba Hydro would regard as needed absent an expectation of significant capital needs in the years beyond the 20 year horizon.

**ELECTRIC OPERATIONS**  
**PROJECTED OPERATING STATEMENT**  
**PUB/MH II-21b**  
**(In Millions of Dollars)**

*For the year ended March 31*

	<b>ACTUAL</b>										
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>REVENUES</b>											
Domestic Revenue											
at approved rates	1 515	1 578	1 565	1 551	1 537	1 544	1 542	1 542	1 553	1 567	1 583
additional*	-	37	179	315	458	619	789	973	1 094	1 158	1 224
BP/III Reserve Account	(96)	(151)	1	80	80	80	80	27	-	-	-
Extraprovincial	460	514	469	420	567	693	779	788	805	667	671
Other	28	30	31	31	33	33	34	34	35	35	36
	<b>1 907</b>	<b>2 008</b>	<b>2 246</b>	<b>2 398</b>	<b>2 674</b>	<b>2 970</b>	<b>3 223</b>	<b>3 364</b>	<b>3 487</b>	<b>3 426</b>	<b>3 513</b>
<b>EXPENSES</b>											
Operating and Administrative	536	518	501	511	513	524	536	548	559	571	583
Finance Expense	608	587	677	744	817	882	1 115	1 140	1 123	1 092	1 056
Finance Income	(17)	(17)	(21)	(28)	(35)	(34)	(39)	(18)	(24)	(27)	(21)
Depreciation and Amortization	375	396	471	515	555	597	689	714	726	739	752
Water Rentals and Assessments	131	130	120	110	113	117	127	128	131	131	131
Fuel and Power Purchased	132	124	140	158	165	156	140	135	138	127	129
Capital and Other Taxes	119	132	145	154	161	165	174	175	175	175	176
Other Expenses	60	116	109	481	94	92	71	64	67	71	76
Corporate Allocation	8	8	8	8	8	8	8	8	8	8	8
	<b>1 952</b>	<b>1 995</b>	<b>2 150</b>	<b>2 655</b>	<b>2 392</b>	<b>2 507</b>	<b>2 822</b>	<b>2 893</b>	<b>2 904</b>	<b>2 887</b>	<b>2 889</b>
Net Income before Net Movement in Reg. Deferral	(46)	13	96	(257)	283	463	401	470	582	540	625
Net Movement in Regulatory Deferral	66	72	114	464	71	64	43	(48)	(50)	(49)	(45)
Non-recurring Gain	20	-	-	-	-	-	-	-	-	-	-
<b>Net Income</b>	<b>41</b>	<b>85</b>	<b>209</b>	<b>208</b>	<b>354</b>	<b>526</b>	<b>443</b>	<b>423</b>	<b>533</b>	<b>491</b>	<b>580</b>
<b>Net Income Attributable to:</b>											
Manitoba Hydro before Non-recurring Item	33	93	211	205	349	518	434	411	530	489	577
Non-recurring Gain	20	-	-	-	-	-	-	-	-	-	-
<b>Manitoba Hydro</b>	<b>53</b>	<b>93</b>	<b>211</b>	<b>205</b>	<b>349</b>	<b>518</b>	<b>434</b>	<b>411</b>	<b>530</b>	<b>489</b>	<b>577</b>
Non-controlling Interest	(12)	(8)	(1)	2	5	9	10	11	3	2	3
	<b>41</b>	<b>85</b>	<b>209</b>	<b>208</b>	<b>354</b>	<b>526</b>	<b>443</b>	<b>423</b>	<b>533</b>	<b>491</b>	<b>580</b>
* Additional Domestic Revenue											
Percent Increase		3.36%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	4.54%	2.00%	2.00%
Cumulative Percent Increase		3.36%	11.53%	20.34%	29.84%	40.10%	51.17%	63.11%	70.52%	73.93%	77.40%
<b>Financial Ratios</b>											
Equity	16%	15%	14%	14%	15%	17%	17%	19%	21%	23%	25%
EBITDA Interest Coverage	1.51	1.54	1.71	1.72	1.84	2.01	2.03	2.08	2.22	2.24	2.36
Capital Coverage	1.53	1.40	1.48	1.47	1.88	2.34	2.25	2.37	2.34	2.20	2.29

**ELECTRIC OPERATIONS  
PROJECTED OPERATING STATEMENT  
PUB/MH II-21b  
(In Millions of Dollars)**

For the year ended March 31

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>REVENUES</b>									
Domestic Revenue at approved rates	1 599	1 614	1 630	1 647	1 673	1 701	1 729	1 757	1 786
additional*	677	612	593	640	626	649	669	698	791
BP/III Reserve Account	-	-	-	-	-	-	-	-	-
Extraprovincial	662	677	697	709	705	701	696	694	602
Other	36	37	38	38	39	40	40	40	41
	<b>2 975</b>	<b>2 940</b>	<b>2 958</b>	<b>3 035</b>	<b>3 044</b>	<b>3 091</b>	<b>3 134</b>	<b>3 189</b>	<b>3 219</b>
<b>EXPENSES</b>									
Operating and Administrative	595	607	620	633	646	660	674	688	702
Finance Expense	1 037	1 020	1 012	1 047	1 045	1 062	1 069	1 065	1 062
Finance Income	(21)	(18)	(16)	(16)	(17)	(18)	(20)	(19)	(17)
Depreciation and Amortization	765	776	790	805	822	840	857	872	888
Water Rentals and Assessments	132	132	132	133	133	133	134	134	134
Fuel and Power Purchased	131	134	138	147	129	128	134	143	133
Capital and Other Taxes	177	177	178	179	180	181	182	183	189
Other Expenses	79	84	87	87	89	91	92	95	96
Corporate Allocation	8	8	5	3	3	3	3	3	3
	<b>2 901</b>	<b>2 920</b>	<b>2 947</b>	<b>3 018</b>	<b>3 030</b>	<b>3 081</b>	<b>3 124</b>	<b>3 164</b>	<b>3 191</b>
Net Income before Net Movement in Reg. Deferral	73	20	11	17	13	10	9	25	29
Net Movement in Regulatory Deferral	(44)	(40)	(35)	(33)	(31)	(28)	(28)	(28)	(30)
Non-recurring Gain	-	-	-	-	-	-	-	-	-
<b>Net Income</b>	<b>30</b>	<b>(20)</b>	<b>(24)</b>	<b>(16)</b>	<b>(18)</b>	<b>(18)</b>	<b>(19)</b>	<b>(3)</b>	<b>(1)</b>
<b>Net Income Attributable to:</b>									
Manitoba Hydro before Non-recurring Item	26	(25)	(31)	(26)	(29)	(30)	(33)	(19)	(17)
Non-recurring Gain	-	-	-	-	-	-	-	-	-
<b>Manitoba Hydro</b>	<b>26</b>	<b>(25)</b>	<b>(31)</b>	<b>(26)</b>	<b>(29)</b>	<b>(30)</b>	<b>(33)</b>	<b>(19)</b>	<b>(17)</b>
Non-controlling Interest	4	5	8	10	11	13	14	15	16
	<b>30</b>	<b>(20)</b>	<b>(24)</b>	<b>(16)</b>	<b>(18)</b>	<b>(18)</b>	<b>(19)</b>	<b>(3)</b>	<b>(1)</b>
* Additional Domestic Revenue									
Percent Increase	-19.75%	-3.12%	-1.11%	1.81%	-1.05%	0.57%	0.40%	0.72%	3.26%
Cumulative Percent Increase	42.37%	37.92%	36.39%	38.86%	37.41%	38.19%	38.75%	39.74%	44.29%
<b>Financial Ratios</b>									
Equity	25%	25%	25%	25%	25%	25%	25%	25%	25%
EBITDA Interest Coverage	1.87	1.85	1.86	1.85	1.87	1.87	1.88	1.91	1.93
Capital Coverage	1.46	1.35	1.37	1.33	1.34	1.34	1.34	1.26	1.26



**ELECTRIC OPERATIONS**  
**PROJECTED BALANCE SHEET**  
**PUB/MH II-21b**  
**(In Millions of Dollars)**

*For the year ended March 31*

	<b>ACTUAL</b>										
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>ASSETS</b>											
Plant in Service	13 065	13 679	19 062	19 684	20 747	26 168	30 504	31 034	31 670	32 334	32 945
Accumulated Depreciation	(972)	(1 301)	(1 731)	(2 178)	(2 616)	(3 125)	(3 705)	(4 328)	(4 942)	(5 607)	(6 212)
Net Plant in Service	12 093	12 378	17 332	17 506	18 131	23 043	26 799	26 706	26 727	26 727	26 732
Construction in Progress	7 079	9 471	6 745	7 522	8 012	3 836	367	454	418	414	411
Current and Other Assets	1 773	1 915	2 269	2 498	2 569	1 943	1 773	1 989	2 230	2 086	2 199
Goodwill and Intangible Assets	327	541	782	926	1 348	1 302	1 256	1 211	1 167	1 123	1 081
Total Assets before Regulatory Deferral	21 272	24 305	27 127	28 452	30 060	30 123	30 194	30 360	30 542	30 350	30 423
Regulatory Deferral Balance	462	533	647	1 111	1 182	1 246	1 289	1 241	1 192	1 143	1 098
	<u>21 733</u>	<u>24 839</u>	<u>27 774</u>	<u>29 563</u>	<u>31 243</u>	<u>31 369</u>	<u>31 483</u>	<u>31 601</u>	<u>31 734</u>	<u>31 493</u>	<u>31 522</u>
<b>LIABILITIES AND EQUITY</b>											
Long-Term Debt	15 725	18 141	21 376	22 189	22 994	22 850	23 674	23 173	22 485	21 223	21 666
Current and Other Liabilities	3 204	3 643	3 046	3 815	4 356	4 142	3 020	3 174	3 455	3 976	2 976
Provisions	70	50	49	48	46	45	43	42	41	40	39
Deferred Revenue	450	465	491	520	542	551	561	571	582	593	603
BPIII Reserve Account	196	347	346	266	186	106	27	(0)	(0)	(0)	(0)
Retained Earnings	2 749	2 842	3 053	3 258	3 606	4 124	4 557	4 969	5 498	5 987	6 564
Accumulated Other Comprehensive Income	(709)	(699)	(636)	(580)	(537)	(497)	(449)	(377)	(376)	(375)	(375)
Total Liabilities and Equity before Regulatory Deferral	21 684	24 790	27 725	29 515	31 194	31 321	31 434	31 552	31 685	31 444	31 473
Regulatory Deferral Balance	49	49	49	49	49	49	49	49	49	49	49
	<u>21 733</u>	<u>24 839</u>	<u>27 774</u>	<u>29 563</u>	<u>31 243</u>	<u>31 369</u>	<u>31 483</u>	<u>31 601</u>	<u>31 734</u>	<u>31 493</u>	<u>31 522</u>
Net Debt	15 427	18 473	20 743	22 407	23 296	23 609	23 388	22 831	22 201	21 613	20 947
Total Equity	2 856	3 163	3 511	3 770	4 143	4 666	4 783	5 262	5 806	6 309	6 900
Equity Ratio	16%	15%	14%	14%	15%	17%	17%	19%	21%	23%	25%

**ELECTRIC OPERATIONS**  
**PROJECTED BALANCE SHEET**  
**PUB/MH II-21b**  
**(In Millions of Dollars)**

*For the year ended March 31*

	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>
<b>ASSETS</b>									
Plant in Service	33 553	34 299	34 958	35 790	36 566	37 361	38 104	38 907	39 975
Accumulated Depreciation	(6 906)	(7 603)	(8 311)	(9 040)	(9 788)	(10 577)	(11 366)	(12 168)	(12 975)
Net Plant in Service	26 647	26 696	26 647	26 749	26 778	26 785	26 739	26 739	26 999
Construction in Progress	493	454	490	400	374	366	406	461	257
Current and Other Assets	2 200	2 225	2 254	2 131	2 398	2 442	2 794	3 048	3 806
Goodwill and Intangible Assets	1 040	1 001	962	924	885	848	810	773	736
Total Assets before Regulatory Deferral	30 380	30 376	30 353	30 204	30 435	30 440	30 749	31 021	31 799
Regulatory Deferral Balance	1 055	1 014	980	947	916	888	860	832	802
	<b>31 434</b>	<b>31 391</b>	<b>31 333</b>	<b>31 151</b>	<b>31 352</b>	<b>31 328</b>	<b>31 609</b>	<b>31 852</b>	<b>32 600</b>
<b>LIABILITIES AND EQUITY</b>									
Long-Term Debt	21 598	19 221	17 128	19 188	19 351	20 577	20 680	21 659	22 543
Current and Other Liabilities	2 920	5 271	7 329	5 103	5 160	3 932	4 133	3 405	3 276
Provisions	38	37	36	35	34	33	32	31	30
Deferred Revenue	615	624	634	644	654	665	676	687	699
BPll Reserve Account	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Retained Earnings	6 590	6 564	6 533	6 507	6 478	6 448	6 415	6 396	6 379
Accumulated Other Comprehensive Income	(375)	(375)	(375)	(375)	(375)	(375)	(375)	(375)	(375)
Total Liabilities and Equity before Regulatory Deferral	31 385	31 342	31 284	31 102	31 303	31 279	31 560	31 804	32 552
Regulatory Deferral Balance	49	49	49	49	49	49	49	49	49
	<b>31 434</b>	<b>31 391</b>	<b>31 333</b>	<b>31 151</b>	<b>31 352</b>	<b>31 328</b>	<b>31 609</b>	<b>31 852</b>	<b>32 600</b>
Net Debt	20 821	20 762	20 691	20 637	20 573	20 508	20 435	20 407	20 380
Total Equity	6 940	6 921	6 897	6 879	6 858	6 836	6 812	6 802	6 795
Equity Ratio	25%	25%	25%	25%	25%	25%	25%	25%	25%

**ELECTRIC OPERATIONS**  
**PROJECTED CASH FLOW STATEMENT**  
**PUB/MH II-21b**  
**(In Millions of Dollars)**

*For the year ended March 31*

	<b>ACTUAL</b>										
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>OPERATING ACTIVITIES</b>											
Cash Receipts from Customers	1 901	2 152	2 233	2 307	2 582	2 877	3 130	3 325	3 474	3 414	3 500
Cash Paid to Suppliers and Employees	(555)	(892)	(843)	(870)	(885)	(894)	(904)	(935)	(953)	(953)	(966)
Interest Paid	(553)	(531)	(635)	(700)	(762)	(834)	(1 063)	(1 112)	(1 101)	(1 072)	(1 037)
Interest Received	17	5	12	22	26	20	8	10	17	20	14
	<u>810</u>	<u>734</u>	<u>767</u>	<u>759</u>	<u>961</u>	<u>1 169</u>	<u>1 171</u>	<u>1 287</u>	<u>1 437</u>	<u>1 408</u>	<u>1 512</u>
<b>FINANCING ACTIVITIES</b>											
Proceeds from Long-Term Debt	2 166	3 468	3 600	2 160	2 190	990	1 160	(10)	(10)	(50)	590
Sinking Fund Withdrawals	146	0	0	120	318	813	182	46	337	138	232
Sinking Fund Payment	(146)	(182)	(222)	(260)	(296)	(353)	(240)	(249)	(253)	(245)	(242)
Retirement of Long-Term Debt	(320)	(407)	(1 002)	(349)	(1 293)	(1 366)	(1 141)	(290)	(412)	(715)	(1 178)
Other	(5)	(10)	(10)	(11)	(11)	(11)	11	(5)	(5)	(5)	(5)
	<u>1 841</u>	<u>2 869</u>	<u>2 366</u>	<u>1 661</u>	<u>908</u>	<u>73</u>	<u>(28)</u>	<u>(507)</u>	<u>(342)</u>	<u>(877)</u>	<u>(603)</u>
<b>INVESTING ACTIVITIES</b>											
Property, Plant and Equipment, net of contributions	(2 925)	(3 660)	(3 002)	(2 391)	(1 760)	(1 368)	(898)	(700)	(704)	(732)	(756)
Other	(35)	(89)	(57)	(46)	(89)	(109)	(99)	(96)	(96)	(82)	(81)
	<u>(2 960)</u>	<u>(3 749)</u>	<u>(3 059)</u>	<u>(2 438)</u>	<u>(1 850)</u>	<u>(1 477)</u>	<u>(997)</u>	<u>(796)</u>	<u>(800)</u>	<u>(814)</u>	<u>(838)</u>
<b>Net Increase (Decrease) in Cash</b>	(309)	(145)	74	(18)	19	(236)	146	(16)	295	(283)	71
<b>Cash at Beginning of Year</b>	<u>943</u>	<u>634</u>	<u>488</u>	<u>562</u>	<u>544</u>	<u>564</u>	<u>328</u>	<u>474</u>	<u>458</u>	<u>754</u>	<u>471</u>
<b>Cash at End of Year</b>	<u>634</u>	<u>488</u>	<u>562</u>	<u>544</u>	<u>564</u>	<u>328</u>	<u>474</u>	<u>458</u>	<u>754</u>	<u>471</u>	<u>541</u>

**ELECTRIC OPERATIONS**  
**PROJECTED CASH FLOW STATEMENT**  
**PUB/MH II-21b**  
**(In Millions of Dollars)**

*For the year ended March 31*

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>OPERATING ACTIVITIES</b>									
Cash Receipts from Customers	2 961	2 927	2 944	3 021	3 029	3 076	3 119	3 174	3 205
Cash Paid to Suppliers and Employees	(980)	(996)	(1 012)	(1 035)	(1 030)	(1 043)	(1 063)	(1 086)	(1 096)
Interest Paid	(1 019)	(1 014)	(1 011)	(1 036)	(1 027)	(1 052)	(1 060)	(1 069)	(1 073)
Interest Received	18	22	22	18	12	23	24	33	33
	980	939	943	967	985	1 004	1 021	1 052	1 069
<b>FINANCING ACTIVITIES</b>									
Proceeds from Long-Term Debt	(10)	(10)	2 370	4 190	2 350	2 140	1 160	1 300	970
Sinking Fund Withdrawals	150	60	310	542	0	230	36	10	275
Sinking Fund Payment	(237)	(239)	(243)	(240)	(228)	(239)	(239)	(250)	(262)
Retirement of Long-Term Debt	(150)	(60)	(2 440)	(4 396)	(2 173)	(2 190)	(908)	(1 100)	(265)
Other	(5)	(5)	(5)	(5)	(5)	(7)	(4)	(4)	(5)
	(252)	(254)	(8)	91	(56)	(66)	44	(45)	714
<b>INVESTING ACTIVITIES</b>									
Property, Plant and Equipment, net of contributions	(767)	(798)	(793)	(832)	(840)	(857)	(870)	(948)	(966)
Other	(80)	(74)	(72)	(73)	(72)	(71)	(70)	(68)	(67)
	(847)	(873)	(864)	(905)	(913)	(928)	(940)	(1 016)	(1 033)
<b>Net Increase (Decrease) in Cash</b>	(119)	(187)	70	154	16	10	125	(8)	750
<b>Cash at Beginning of Year</b>	541	422	236	306	460	476	486	611	603
<b>Cash at End of Year</b>	422	236	306	460	476	486	611	603	1 353

**ELECTRIC OPERATIONS**  
**PROJECTED OPERATING STATEMENT**  
Alternate 1: MH16 Update with Interim with 5.70% Rate Decrease from 2028-2030  
(In Millions of Dollars)

For the year ended March 31

	ACTUAL 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>REVENUES</b>											
Domestic Revenue at approved rates	1 515	1 578	1 565	1 551	1 537	1 544	1 542	1 542	1 553	1 567	1 583
additional*	-	37	179	315	458	619	789	973	1 094	1 158	1 224
BPIII Reserve Account	(96)	(151)	1	80	80	80	80	27	-	-	-
Extraprovincial	460	514	469	420	567	693	779	788	805	667	671
Other	28	30	31	31	33	33	34	34	35	35	36
	<u>1 907</u>	<u>2 008</u>	<u>2 246</u>	<u>2 398</u>	<u>2 674</u>	<u>2 970</u>	<u>3 223</u>	<u>3 364</u>	<u>3 487</u>	<u>3 426</u>	<u>3 513</u>
<b>EXPENSES</b>											
Operating and Administrative	536	518	501	511	513	524	536	548	559	571	583
Finance Expense	608	587	677	744	817	882	1 115	1 140	1 123	1 092	1 056
Finance Income	(17)	(17)	(21)	(28)	(35)	(34)	(39)	(18)	(24)	(27)	(21)
Depreciation and Amortization	375	396	471	515	555	597	689	714	726	739	752
Water Rentals and Assessments	131	130	120	110	113	117	127	128	131	131	131
Fuel and Power Purchased	132	124	140	158	165	156	140	135	138	127	129
Capital and Other Taxes	119	132	145	154	161	165	174	175	175	175	176
Other Expenses	60	116	109	481	94	92	71	64	67	71	76
Corporate Allocation	8	8	8	8	8	8	8	8	8	8	8
	<u>1 952</u>	<u>1 995</u>	<u>2 150</u>	<u>2 655</u>	<u>2 392</u>	<u>2 507</u>	<u>2 822</u>	<u>2 893</u>	<u>2 904</u>	<u>2 887</u>	<u>2 889</u>
Net Income before Net Movement in Reg. Deferral	(46)	13	96	(257)	283	463	401	470	582	540	625
Net Movement in Regulatory Deferral	66	72	114	464	71	64	43	(48)	(50)	(49)	(45)
Non-recurring Gain	20	-	-	-	-	-	-	-	-	-	-
<b>Net Income</b>	<u>41</u>	<u>85</u>	<u>209</u>	<u>208</u>	<u>354</u>	<u>526</u>	<u>443</u>	<u>423</u>	<u>533</u>	<u>491</u>	<u>580</u>
<b>Net Income Attributable to:</b>											
Manitoba Hydro before Non-recurring Item	33	93	211	205	349	518	434	411	530	489	577
Non-recurring Gain	20	-	-	-	-	-	-	-	-	-	-
<b>Manitoba Hydro</b>	<u>53</u>	<u>93</u>	<u>211</u>	<u>205</u>	<u>349</u>	<u>518</u>	<u>434</u>	<u>411</u>	<u>530</u>	<u>489</u>	<u>577</u>
Non-controlling Interest	(12)	(8)	(1)	2	5	9	10	11	3	2	3
	<u>41</u>	<u>85</u>	<u>209</u>	<u>208</u>	<u>354</u>	<u>526</u>	<u>443</u>	<u>423</u>	<u>533</u>	<u>491</u>	<u>580</u>
* Additional Domestic Revenue											
Percent Increase		3.36%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	4.54%	2.00%	2.00%
Cumulative Percent Increase		3.36%	11.53%	20.34%	29.84%	40.10%	51.17%	63.11%	70.52%	73.93%	77.40%
<b>Financial Ratios</b>											
Equity	16%	15%	14%	14%	15%	17%	17%	19%	21%	23%	25%
EBITDA Interest Coverage	1.51	1.54	1.71	1.72	1.84	2.01	2.03	2.08	2.22	2.24	2.36
Capital Coverage	1.53	1.40	1.48	1.47	1.88	2.34	2.25	2.37	2.34	2.20	2.29

**ELECTRIC OPERATIONS**  
**PROJECTED OPERATING STATEMENT**  
Alternate 1: MH16 Update with Interim with 5.70% Rate Decrease from 2028-2030  
(In Millions of Dollars)

For the year ended March 31

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>REVENUES</b>									
Domestic Revenue at approved rates	1 599	1 614	1 630	1 647	1 673	1 701	1 729	1 757	1 786
additional*	1 075	932	794	803	815	829	842	856	870
BPIII Reserve Account	-	-	-	-	-	-	-	-	-
Extraprovincial	662	677	697	709	705	701	696	694	602
Other	36	37	38	38	39	40	40	40	41
	<u>3 373</u>	<u>3 260</u>	<u>3 159</u>	<u>3 197</u>	<u>3 233</u>	<u>3 270</u>	<u>3 307</u>	<u>3 347</u>	<u>3 299</u>
<b>EXPENSES</b>									
Operating and Administrative	595	607	620	633	646	660	674	688	702
Finance Expense	1 037	1 020	995	990	977	979	975	958	945
Finance Income	(26)	(34)	(29)	(16)	(17)	(17)	(21)	(20)	(20)
Depreciation and Amortization	765	776	790	805	822	840	857	872	888
Water Rentals and Assessments	132	132	132	133	133	133	134	134	134
Fuel and Power Purchased	131	134	138	147	129	128	134	143	133
Capital and Other Taxes	177	177	178	179	180	181	182	183	189
Other Expenses	79	84	87	87	89	91	92	95	96
Corporate Allocation	8	8	5	3	3	3	3	3	3
	<u>2 896</u>	<u>2 904</u>	<u>2 917</u>	<u>2 962</u>	<u>2 962</u>	<u>2 999</u>	<u>3 029</u>	<u>3 056</u>	<u>3 071</u>
Net Income before Net Movement in Reg. Deferral	477	356	242	236	271	271	277	291	228
Net Movement in Regulatory Deferral	(44)	(40)	(35)	(33)	(31)	(28)	(28)	(28)	(30)
Non-recurring Gain	-	-	-	-	-	-	-	-	-
<b>Net Income</b>	<u>433</u>	<u>316</u>	<u>208</u>	<u>203</u>	<u>240</u>	<u>244</u>	<u>249</u>	<u>263</u>	<u>198</u>
<b>Net Income Attributable to:</b>									
Manitoba Hydro before Non-recurring Item	429	311	200	193	229	231	235	247	182
Non-recurring Gain	-	-	-	-	-	-	-	-	-
<b>Manitoba Hydro</b>	<u>429</u>	<u>311</u>	<u>200</u>	<u>193</u>	<u>229</u>	<u>231</u>	<u>235</u>	<u>247</u>	<u>182</u>
Non-controlling Interest	4	5	8	10	11	13	14	15	16
	<u>433</u>	<u>316</u>	<u>208</u>	<u>203</u>	<u>240</u>	<u>244</u>	<u>249</u>	<u>263</u>	<u>198</u>
<b>* Additional Domestic Revenue</b>									
Percent Increase	-5.70%	-5.70%	-5.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative Percent Increase	67.29%	57.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%
<b>Financial Ratios</b>									
Equity	26%	28%	29%	29%	30%	31%	32%	33%	34%
EBITDA Interest Coverage	2.27	2.19	2.12	2.12	2.19	2.21	2.24	2.29	2.26
Capital Coverage	2.06	1.83	1.70	1.63	1.69	1.68	1.70	1.57	1.49

**ELECTRIC OPERATIONS**  
**PROJECTED BALANCE SHEET**  
Alternate 1: MH16 Update with Interim with 5.70% Rate Decrease from 2028-2030  
(In Millions of Dollars)

*For the year ended March 31*

	ACTUAL 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>ASSETS</b>											
Plant in Service	13 065	13 679	19 062	19 684	20 747	26 168	30 504	31 034	31 670	32 334	32 945
Accumulated Depreciation	(972)	(1 301)	(1 731)	(2 178)	(2 616)	(3 125)	(3 705)	(4 328)	(4 942)	(5 607)	(6 212)
Net Plant in Service	12 093	12 378	17 332	17 506	18 131	23 043	26 799	26 706	26 727	26 727	26 732
Construction in Progress	7 079	9 471	6 745	7 522	8 012	3 836	367	454	418	414	411
Current and Other Assets	1 773	1 915	2 269	2 498	2 569	1 943	1 773	1 989	2 230	2 086	2 199
Goodwill and Intangible Assets	327	541	782	926	1 348	1 302	1 256	1 211	1 167	1 123	1 081
Total Assets before Regulatory Deferral	21 272	24 305	27 127	28 452	30 060	30 123	30 194	30 360	30 542	30 350	30 423
Regulatory Deferral Balance	462	533	647	1 111	1 182	1 246	1 289	1 241	1 192	1 143	1 098
	21 733	24 839	27 774	29 563	31 243	31 369	31 483	31 601	31 734	31 493	31 522
<b>LIABILITIES AND EQUITY</b>											
Long-Term Debt	15 725	18 141	21 376	22 189	22 994	22 850	23 674	23 173	22 485	21 223	21 666
Current and Other Liabilities	3 204	3 643	3 046	3 815	4 356	4 142	3 020	3 174	3 455	3 976	2 976
Provisions	70	50	49	48	46	45	43	42	41	40	39
Deferred Revenue	450	465	491	520	542	551	561	571	582	593	603
BPIII Reserve Account	196	347	346	266	186	106	27	(0)	(0)	(0)	(0)
Retained Earnings	2 749	2 842	3 053	3 258	3 606	4 124	4 557	4 969	5 498	5 987	6 564
Accumulated Other Comprehensive Income	(709)	(699)	(636)	(580)	(537)	(497)	(449)	(377)	(376)	(375)	(375)
Total Liabilities and Equity before Regulatory Deferral	21 684	24 790	27 725	29 515	31 194	31 321	31 434	31 552	31 685	31 444	31 473
Regulatory Deferral Balance	49	49	49	49	49	49	49	49	49	49	49
	21 733	24 839	27 774	29 563	31 243	31 369	31 483	31 601	31 734	31 493	31 522
Net Debt	15 427	18 473	20 743	22 407	23 296	23 609	23 388	22 831	22 201	21 613	20 947
Total Equity	2 856	3 163	3 511	3 770	4 143	4 666	4 783	5 262	5 806	6 309	6 900
Equity Ratio	16%	15%	14%	14%	15%	17%	17%	19%	21%	23%	25%

**ELECTRIC OPERATIONS**  
**PROJECTED BALANCE SHEET**  
**Alternate 1: MH16 Update with Interim with 5.70% Rate Decrease from 2028-2030**  
**(In Millions of Dollars)**

*For the year ended March 31*

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>ASSETS</b>									
Plant in Service	33 553	34 299	34 958	35 790	36 566	37 361	38 104	38 907	39 975
Accumulated Depreciation	(6 906)	(7 603)	(8 311)	(9 040)	(9 788)	(10 577)	(11 366)	(12 168)	(12 975)
Net Plant in Service	26 647	26 696	26 647	26 749	26 778	26 785	26 739	26 739	26 999
Construction in Progress	493	454	490	400	374	366	406	461	257
Current and Other Assets	2 603	2 964	2 221	2 114	2 436	2 336	2 956	3 072	4 029
Goodwill and Intangible Assets	1 040	1 001	962	924	885	848	810	773	736
Total Assets before Regulatory Deferral	30 783	31 115	30 321	30 187	30 473	30 334	30 911	31 045	32 021
Regulatory Deferral Balance	1 055	1 014	980	947	916	888	860	832	802
	31 837	32 130	31 300	31 134	31 389	31 222	31 771	31 876	32 823
<b>LIABILITIES AND EQUITY</b>									
Long-Term Debt	21 598	19 221	16 128	17 988	17 951	18 777	18 880	19 459	20 343
Current and Other Liabilities	2 920	5 271	7 326	5 097	5 150	3 918	4 118	3 387	3 256
Provisions	38	37	36	35	34	33	32	31	30
Deferred Revenue	615	624	634	644	654	665	676	687	699
BPIII Reserve Account	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Retained Earnings	6 993	7 303	7 503	7 697	7 926	8 156	8 392	8 639	8 821
Accumulated Other Comprehensive Income	(375)	(375)	(375)	(375)	(375)	(375)	(375)	(375)	(375)
Total Liabilities and Equity before Regulatory Deferral	31 788	32 081	31 252	31 085	31 340	31 174	31 722	31 827	32 774
Regulatory Deferral Balance	49	49	49	49	49	49	49	49	49
	31 837	32 130	31 300	31 134	31 389	31 222	31 771	31 876	32 823
Net Debt	20 418	20 023	19 724	19 454	19 136	18 814	18 473	18 183	17 957
Total Equity	7 343	7 660	7 867	8 068	8 305	8 545	8 788	9 045	9 237
Equity Ratio	26%	28%	29%	29%	30%	31%	32%	33%	34%



**ELECTRIC OPERATIONS**  
**PROJECTED CASH FLOW STATEMENT**  
**Alternate 1: MH16 Update with Interim with 5.70% Rate Decrease from 2028-2030**  
**(In Millions of Dollars)**

*For the year ended March 31*

	<b>ACTUAL</b>										
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>OPERATING ACTIVITIES</b>											
Cash Receipts from Customers	1 901	2 152	2 233	2 307	2 582	2 877	3 130	3 325	3 474	3 414	3 500
Cash Paid to Suppliers and Employees	(555)	(892)	(843)	(870)	(885)	(894)	(904)	(935)	(953)	(953)	(966)
Interest Paid	(553)	(531)	(635)	(700)	(762)	(834)	(1 063)	(1 112)	(1 101)	(1 072)	(1 037)
Interest Received	17	5	12	22	26	20	8	10	17	20	14
	<u>810</u>	<u>734</u>	<u>767</u>	<u>759</u>	<u>961</u>	<u>1 169</u>	<u>1 171</u>	<u>1 287</u>	<u>1 437</u>	<u>1 408</u>	<u>1 512</u>
<b>FINANCING ACTIVITIES</b>											
Proceeds from Long-Term Debt	2 166	3 468	3 600	2 160	2 190	990	1 160	(10)	(10)	(50)	590
Sinking Fund Withdrawals	146	0	0	120	318	813	182	46	337	138	232
Sinking Fund Payment	(146)	(182)	(222)	(260)	(296)	(353)	(240)	(249)	(253)	(245)	(242)
Retirement of Long-Term Debt	(320)	(407)	(1 002)	(349)	(1 293)	(1 366)	(1 141)	(290)	(412)	(715)	(1 178)
Other	(5)	(10)	(10)	(11)	(11)	(11)	11	(5)	(5)	(5)	(5)
	<u>1 841</u>	<u>2 869</u>	<u>2 366</u>	<u>1 661</u>	<u>908</u>	<u>73</u>	<u>(28)</u>	<u>(507)</u>	<u>(342)</u>	<u>(877)</u>	<u>(603)</u>
<b>INVESTING ACTIVITIES</b>											
Property, Plant and Equipment, net of contributions	(2 925)	(3 660)	(3 002)	(2 391)	(1 760)	(1 368)	(898)	(700)	(704)	(732)	(756)
Other	(35)	(89)	(57)	(46)	(89)	(109)	(99)	(96)	(96)	(82)	(81)
	<u>(2 960)</u>	<u>(3 749)</u>	<u>(3 059)</u>	<u>(2 438)</u>	<u>(1 850)</u>	<u>(1 477)</u>	<u>(997)</u>	<u>(796)</u>	<u>(800)</u>	<u>(814)</u>	<u>(838)</u>
<b>Net Increase (Decrease) in Cash</b>	(309)	(145)	74	(18)	19	(236)	146	(16)	295	(283)	71
<b>Cash at Beginning of Year</b>	943	634	488	562	544	564	328	474	458	754	471
<b>Cash at End of Year</b>	<u>634</u>	<u>488</u>	<u>562</u>	<u>544</u>	<u>564</u>	<u>328</u>	<u>474</u>	<u>458</u>	<u>754</u>	<u>471</u>	<u>541</u>

**ELECTRIC OPERATIONS  
PROJECTED CASH FLOW STATEMENT  
Alternate 1: MH16 Update with Interim with 5.70% Rate Decrease from 2028-2030  
(In Millions of Dollars)**

*For the year ended March 31*

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>OPERATING ACTIVITIES</b>									
Cash Receipts from Customers	3 360	3 247	3 146	3 183	3 219	3 256	3 292	3 333	3 284
Cash Paid to Suppliers and Employees	(980)	(996)	(1 012)	(1 035)	(1 030)	(1 043)	(1 063)	(1 086)	(1 096)
Interest Paid	(1 019)	(1 014)	(997)	(983)	(962)	(973)	(965)	(965)	(955)
Interest Received	23	39	36	17	13	21	25	32	34
	<u>1 383</u>	<u>1 275</u>	<u>1 172</u>	<u>1 183</u>	<u>1 239</u>	<u>1 261</u>	<u>1 289</u>	<u>1 314</u>	<u>1 268</u>
<b>FINANCING ACTIVITIES</b>									
Proceeds from Long-Term Debt	(10)	(10)	1 370	3 990	2 150	1 740	1 160	900	970
Sinking Fund Withdrawals	150	60	310	532	0	230	36	10	271
Sinking Fund Payment	(237)	(239)	(243)	(230)	(216)	(225)	(221)	(230)	(237)
Retirement of Long-Term Debt	(150)	(60)	(2 440)	(4 396)	(2 173)	(2 190)	(908)	(1 100)	(265)
Other	(5)	(5)	(5)	(5)	(5)	(7)	(4)	(4)	(5)
	<u>(252)</u>	<u>(254)</u>	<u>(1 008)</u>	<u>(109)</u>	<u>(244)</u>	<u>(451)</u>	<u>63</u>	<u>(425)</u>	<u>734</u>
<b>INVESTING ACTIVITIES</b>									
Property, Plant and Equipment, net of contributions	(767)	(798)	(793)	(832)	(840)	(857)	(870)	(948)	(966)
Other	(80)	(74)	(72)	(73)	(72)	(71)	(70)	(68)	(67)
	<u>(847)</u>	<u>(873)</u>	<u>(864)</u>	<u>(905)</u>	<u>(913)</u>	<u>(928)</u>	<u>(940)</u>	<u>(1 016)</u>	<u>(1 033)</u>
<b>Net Increase (Decrease) in Cash</b>	284	149	(701)	170	82	(119)	412	(127)	969
<b>Cash at Beginning of Year</b>	541	826	975	274	443	525	407	818	691
<b>Cash at End of Year</b>	<u>826</u>	<u>975</u>	<u>274</u>	<u>443</u>	<u>525</u>	<u>407</u>	<u>818</u>	<u>691</u>	<u>1 661</u>

**ELECTRIC OPERATIONS**  
**PROJECTED OPERATING STATEMENT**  
Alternate 2: MH16 Update with Interim with 0% Rate Increase from 2028 On  
(In Millions of Dollars)

For the year ended March 31

	ACTUAL 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>REVENUES</b>											
Domestic Revenue at approved rates	1 515	1 578	1 565	1 551	1 537	1 544	1 542	1 542	1 553	1 567	1 583
additional*	-	37	179	315	458	619	789	973	1 094	1 158	1 224
BPIII Reserve Account	(96)	(151)	1	80	80	80	80	27	-	-	-
Extraprovincial	460	514	469	420	567	693	779	788	805	667	671
Other	28	30	31	31	33	33	34	34	35	35	36
	<u>1 907</u>	<u>2 008</u>	<u>2 246</u>	<u>2 398</u>	<u>2 674</u>	<u>2 970</u>	<u>3 223</u>	<u>3 364</u>	<u>3 487</u>	<u>3 426</u>	<u>3 513</u>
<b>EXPENSES</b>											
Operating and Administrative	536	518	501	511	513	524	536	548	559	571	583
Finance Expense	608	587	677	744	817	882	1 115	1 140	1 123	1 092	1 056
Finance Income	(17)	(17)	(21)	(28)	(35)	(34)	(39)	(18)	(24)	(27)	(21)
Depreciation and Amortization	375	396	471	515	555	597	689	714	726	739	752
Water Rentals and Assessments	131	130	120	110	113	117	127	128	131	131	131
Fuel and Power Purchased	132	124	140	158	165	156	140	135	138	127	129
Capital and Other Taxes	119	132	145	154	161	165	174	175	175	175	176
Other Expenses	60	116	109	481	94	92	71	64	67	71	76
Corporate Allocation	8	8	8	8	8	8	8	8	8	8	8
	<u>1 952</u>	<u>1 995</u>	<u>2 150</u>	<u>2 655</u>	<u>2 392</u>	<u>2 507</u>	<u>2 822</u>	<u>2 893</u>	<u>2 904</u>	<u>2 887</u>	<u>2 889</u>
Net Income before Net Movement in Reg. Deferral	(46)	13	96	(257)	283	463	401	470	582	540	625
Net Movement in Regulatory Deferral	66	72	114	464	71	64	43	(48)	(50)	(49)	(45)
Non-recurring Gain	20	-	-	-	-	-	-	-	-	-	-
<b>Net Income</b>	<u>41</u>	<u>85</u>	<u>209</u>	<u>208</u>	<u>354</u>	<u>526</u>	<u>443</u>	<u>423</u>	<u>533</u>	<u>491</u>	<u>580</u>
<b>Net Income Attributable to:</b>											
Manitoba Hydro before Non-recurring Item	33	93	211	205	349	518	434	411	530	489	577
Non-recurring Gain	20	-	-	-	-	-	-	-	-	-	-
<b>Manitoba Hydro</b>	<u>53</u>	<u>93</u>	<u>211</u>	<u>205</u>	<u>349</u>	<u>518</u>	<u>434</u>	<u>411</u>	<u>530</u>	<u>489</u>	<u>577</u>
Non-controlling Interest	(12)	(8)	(1)	2	5	9	10	11	3	2	3
	<u>41</u>	<u>85</u>	<u>209</u>	<u>208</u>	<u>354</u>	<u>526</u>	<u>443</u>	<u>423</u>	<u>533</u>	<u>491</u>	<u>580</u>
* Additional Domestic Revenue											
Percent Increase		3.36%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	4.54%	2.00%	2.00%
Cumulative Percent Increase		3.36%	11.53%	20.34%	29.84%	40.10%	51.17%	63.11%	70.52%	73.93%	77.40%
<b>Financial Ratios</b>											
Equity	16%	15%	14%	14%	15%	17%	17%	19%	21%	23%	25%
EBITDA Interest Coverage	1.51	1.54	1.71	1.72	1.84	2.01	2.03	2.08	2.22	2.24	2.36
Capital Coverage	1.53	1.40	1.48	1.47	1.88	2.34	2.25	2.37	2.34	2.20	2.29

**ELECTRIC OPERATIONS  
PROJECTED OPERATING STATEMENT**  
Alternate 2: MH16 Update with Interim with 0% Rate Increase from 2028 On  
(In Millions of Dollars)

For the year ended March 31

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>REVENUES</b>									
Domestic Revenue at approved rates	1 599	1 614	1 630	1 647	1 673	1 701	1 729	1 757	1 786
additional*	1 237	1 249	1 261	1 274	1 295	1 316	1 337	1 359	1 381
BPIII Reserve Account	-	-	-	-	-	-	-	-	-
Extraprovincial	662	677	697	709	705	701	696	694	602
Other	36	37	38	38	39	40	40	40	41
	<u>3 535</u>	<u>3 577</u>	<u>3 626</u>	<u>3 669</u>	<u>3 712</u>	<u>3 757</u>	<u>3 802</u>	<u>3 850</u>	<u>3 810</u>
<b>EXPENSES</b>									
Operating and Administrative	595	607	620	633	646	660	674	688	702
Finance Expense	1 037	1 020	994	929	888	859	824	778	731
Finance Income	(28)	(43)	(49)	(16)	(19)	(18)	(24)	(24)	(27)
Depreciation and Amortization	765	776	790	805	822	840	857	872	888
Water Rentals and Assessments	132	132	132	133	133	133	134	134	134
Fuel and Power Purchased	131	134	138	147	129	128	134	143	133
Capital and Other Taxes	177	177	178	179	180	181	182	183	189
Other Expenses	79	84	87	87	89	91	92	95	96
Corporate Allocation	8	8	5	3	3	3	3	3	3
	<u>2 894</u>	<u>2 895</u>	<u>2 896</u>	<u>2 900</u>	<u>2 872</u>	<u>2 877</u>	<u>2 876</u>	<u>2 871</u>	<u>2 850</u>
Net Income before Net Movement in Reg. Deferral	640	682	730	769	841	880	926	979	960
Net Movement in Regulatory Deferral	(44)	(40)	(35)	(33)	(31)	(28)	(28)	(28)	(30)
Non-recurring Gain	-	-	-	-	-	-	-	-	-
<b>Net Income</b>	<u>597</u>	<u>642</u>	<u>696</u>	<u>736</u>	<u>810</u>	<u>853</u>	<u>898</u>	<u>950</u>	<u>930</u>
<b>Net Income Attributable to:</b>									
Manitoba Hydro before Non-recurring Item	593	637	688	727	799	840	884	935	914
Non-recurring Gain	-	-	-	-	-	-	-	-	-
<b>Manitoba Hydro</b>	<u>593</u>	<u>637</u>	<u>688</u>	<u>727</u>	<u>799</u>	<u>840</u>	<u>884</u>	<u>935</u>	<u>914</u>
Non-controlling Interest	4	5	8	10	11	13	14	15	16
	<u>597</u>	<u>642</u>	<u>696</u>	<u>736</u>	<u>810</u>	<u>853</u>	<u>898</u>	<u>950</u>	<u>930</u>
* Additional Domestic Revenue									
Percent Increase	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative Percent Increase	77.40%	77.40%	77.40%	77.40%	77.40%	77.40%	77.40%	77.40%	77.40%
<b>Financial Ratios</b>									
Equity	27%	29%	32%	35%	38%	41%	44%	48%	51%
EBITDA Interest Coverage	2.43	2.52	2.65	2.76	2.95	3.09	3.27	3.48	3.64
Capital Coverage	2.31	2.30	2.41	2.36	2.46	2.49	2.54	2.39	2.35

**ELECTRIC OPERATIONS**  
**PROJECTED BALANCE SHEET**  
Alternate 2: MH16 Update with Interim with 0% Rate Increase from 2028 On  
(In Millions of Dollars)

*For the year ended March 31*

	<b>ACTUAL</b>										
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>ASSETS</b>											
Plant in Service	13 065	13 679	19 062	19 684	20 747	26 168	30 504	31 034	31 670	32 334	32 945
Accumulated Depreciation	(972)	(1 301)	(1 731)	(2 178)	(2 616)	(3 125)	(3 705)	(4 328)	(4 942)	(5 607)	(6 212)
Net Plant in Service	12 093	12 378	17 332	17 506	18 131	23 043	26 799	26 706	26 727	26 727	26 732
Construction in Progress	7 079	9 471	6 745	7 522	8 012	3 836	367	454	418	414	411
Current and Other Assets	1 773	1 915	2 269	2 498	2 569	1 943	1 773	1 989	2 230	2 086	2 199
Goodwill and Intangible Assets	327	541	782	926	1 348	1 302	1 256	1 211	1 167	1 123	1 081
Total Assets before Regulatory Deferral	21 272	24 305	27 127	28 452	30 060	30 123	30 194	30 360	30 542	30 350	30 423
Regulatory Deferral Balance	462	533	647	1 111	1 182	1 246	1 289	1 241	1 192	1 143	1 098
	21 733	24 839	27 774	29 563	31 243	31 369	31 483	31 601	31 734	31 493	31 522
<b>LIABILITIES AND EQUITY</b>											
Long-Term Debt	15 725	18 141	21 376	22 189	22 994	22 850	23 674	23 173	22 485	21 223	21 666
Current and Other Liabilities	3 204	3 643	3 046	3 815	4 356	4 142	3 020	3 174	3 455	3 976	2 976
Provisions	70	50	49	48	46	45	43	42	41	40	39
Deferred Revenue	450	465	491	520	542	551	561	571	582	593	603
BPIII Reserve Account	196	347	346	266	186	106	27	(0)	(0)	(0)	(0)
Retained Earnings	2 749	2 842	3 053	3 258	3 606	4 124	4 557	4 969	5 498	5 987	6 564
Accumulated Other Comprehensive Income	(709)	(699)	(636)	(580)	(537)	(497)	(449)	(377)	(376)	(375)	(375)
Total Liabilities and Equity before Regulatory Deferral	21 684	24 790	27 725	29 515	31 194	31 321	31 434	31 552	31 685	31 444	31 473
Regulatory Deferral Balance	49	49	49	49	49	49	49	49	49	49	49
	21 733	24 839	27 774	29 563	31 243	31 369	31 483	31 601	31 734	31 493	31 522
Net Debt	15 427	18 473	20 743	22 407	23 296	23 609	23 388	22 831	22 201	21 613	20 947
Total Equity	2 856	3 163	3 511	3 770	4 143	4 666	4 783	5 262	5 806	6 309	6 900
Equity Ratio	16%	15%	14%	14%	15%	17%	17%	19%	21%	23%	25%

**ELECTRIC OPERATIONS**  
**PROJECTED BALANCE SHEET**  
**Alternate 2: MH16 Update with Interim with 0% Rate Increase from 2028 On**  
**(In Millions of Dollars)**

*For the year ended March 31*

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>ASSETS</b>									
Plant in Service	33 553	34 299	34 958	35 790	36 566	37 361	38 104	38 907	39 975
Accumulated Depreciation	(6 906)	(7 603)	(8 311)	(9 040)	(9 788)	(10 577)	(11 366)	(12 168)	(12 975)
Net Plant in Service	26 647	26 696	26 647	26 749	26 778	26 785	26 739	26 739	26 999
Construction in Progress	493	454	490	400	374	366	406	461	257
Current and Other Assets	2 767	3 454	2 198	2 021	2 313	2 418	3 283	3 478	4 164
Goodwill and Intangible Assets	1 040	1 001	962	924	885	848	810	773	736
Total Assets before Regulatory Deferral	30 946	31 605	30 298	30 094	30 350	30 416	31 238	31 450	32 156
Regulatory Deferral Balance	1 055	1 014	980	947	916	888	860	832	802
	32 001	32 619	31 277	31 041	31 266	31 304	32 098	32 282	32 958
<b>LIABILITIES AND EQUITY</b>									
Long-Term Debt	21 598	19 221	15 128	16 388	15 751	16 177	15 880	15 859	15 743
Current and Other Liabilities	2 920	5 271	7 325	5 093	5 146	3 910	4 107	3 366	3 234
Provisions	38	37	36	35	34	33	32	31	30
Deferred Revenue	615	624	634	644	654	665	676	687	699
BPIII Reserve Account	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Retained Earnings	7 156	7 793	8 481	9 208	10 006	10 846	11 729	12 664	13 578
Accumulated Other Comprehensive Income	(375)	(375)	(375)	(375)	(375)	(375)	(375)	(375)	(375)
Total Liabilities and Equity before Regulatory Deferral	31 952	32 571	31 229	30 993	31 217	31 255	32 049	32 233	32 909
Regulatory Deferral Balance	49	49	49	49	49	49	49	49	49
	32 001	32 619	31 277	31 041	31 266	31 304	32 098	32 282	32 958
Net Debt	20 254	19 533	18 747	17 946	17 059	16 132	15 146	14 178	13 222
Total Equity	7 507	8 149	8 845	9 579	10 386	11 234	12 126	13 071	13 995
Equity Ratio	27%	29%	32%	35%	38%	41%	44%	48%	51%

**ELECTRIC OPERATIONS**  
**PROJECTED CASH FLOW STATEMENT**  
Alternate 2: MH16 Update with Interim with 0% Rate Increase from 2028 On  
(In Millions of Dollars)

*For the year ended March 31*

	<b>ACTUAL</b>										
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>OPERATING ACTIVITIES</b>											
Cash Receipts from Customers	1 901	2 152	2 233	2 307	2 582	2 877	3 130	3 325	3 474	3 414	3 500
Cash Paid to Suppliers and Employees	(555)	(892)	(843)	(870)	(885)	(894)	(904)	(935)	(953)	(953)	(966)
Interest Paid	(553)	(531)	(635)	(700)	(762)	(834)	(1 063)	(1 112)	(1 101)	(1 072)	(1 037)
Interest Received	17	5	12	22	26	20	8	10	17	20	14
	<u>810</u>	<u>734</u>	<u>767</u>	<u>759</u>	<u>961</u>	<u>1 169</u>	<u>1 171</u>	<u>1 287</u>	<u>1 437</u>	<u>1 408</u>	<u>1 512</u>
<b>FINANCING ACTIVITIES</b>											
Proceeds from Long-Term Debt	2 166	3 468	3 600	2 160	2 190	990	1 160	(10)	(10)	(50)	590
Sinking Fund Withdrawals	146	0	0	120	318	813	182	46	337	138	232
Sinking Fund Payment	(146)	(182)	(222)	(260)	(296)	(353)	(240)	(249)	(253)	(245)	(242)
Retirement of Long-Term Debt	(320)	(407)	(1 002)	(349)	(1 293)	(1 366)	(1 141)	(290)	(412)	(715)	(1 178)
Other	(5)	(10)	(10)	(11)	(11)	(11)	11	(5)	(5)	(5)	(5)
	<u>1 841</u>	<u>2 869</u>	<u>2 366</u>	<u>1 661</u>	<u>908</u>	<u>73</u>	<u>(28)</u>	<u>(507)</u>	<u>(342)</u>	<u>(877)</u>	<u>(603)</u>
<b>INVESTING ACTIVITIES</b>											
Property, Plant and Equipment, net of contributions	(2 925)	(3 660)	(3 002)	(2 391)	(1 760)	(1 368)	(898)	(700)	(704)	(732)	(756)
Other	(35)	(89)	(57)	(46)	(89)	(109)	(99)	(96)	(96)	(82)	(81)
	<u>(2 960)</u>	<u>(3 749)</u>	<u>(3 059)</u>	<u>(2 438)</u>	<u>(1 850)</u>	<u>(1 477)</u>	<u>(997)</u>	<u>(796)</u>	<u>(800)</u>	<u>(814)</u>	<u>(838)</u>
<b>Net Increase (Decrease) in Cash</b>	(309)	(145)	74	(18)	19	(236)	146	(16)	295	(283)	71
<b>Cash at Beginning of Year</b>	943	634	488	562	544	564	328	474	458	754	471
<b>Cash at End of Year</b>	<u>634</u>	<u>488</u>	<u>562</u>	<u>544</u>	<u>564</u>	<u>328</u>	<u>474</u>	<u>458</u>	<u>754</u>	<u>471</u>	<u>541</u>

**ELECTRIC OPERATIONS**  
**PROJECTED CASH FLOW STATEMENT**  
**Alternate 2: MH16 Update with Interim with 0% Rate Increase from 2028 On**  
**(In Millions of Dollars)**

*For the year ended March 31*

	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>OPERATING ACTIVITIES</b>									
Cash Receipts from Customers	3 521	3 564	3 612	3 655	3 698	3 743	3 787	3 836	3 796
Cash Paid to Suppliers and Employees	(980)	(996)	(1 012)	(1 035)	(1 030)	(1 043)	(1 063)	(1 087)	(1 096)
Interest Paid	(1 019)	(1 014)	(997)	(925)	(873)	(856)	(817)	(792)	(741)
Interest Received	25	48	55	18	14	22	26	35	39
	<u>1 547</u>	<u>1 601</u>	<u>1 659</u>	<u>1 713</u>	<u>1 809</u>	<u>1 865</u>	<u>1 934</u>	<u>1 993</u>	<u>1 998</u>
<b>FINANCING ACTIVITIES</b>									
Proceeds from Long-Term Debt	(10)	(10)	370	3 390	1 550	1 340	760	300	(30)
Sinking Fund Withdrawals	150	60	310	523	0	230	0	10	210
Sinking Fund Payment	(237)	(239)	(243)	(220)	(201)	(202)	(193)	(199)	(199)
Retirement of Long-Term Debt	(150)	(60)	(2 440)	(4 396)	(2 173)	(2 190)	(908)	(1 100)	(265)
Other	(5)	(5)	(5)	(5)	(5)	(7)	(4)	(4)	(5)
	<u>(252)</u>	<u>(254)</u>	<u>(2 008)</u>	<u>(709)</u>	<u>(829)</u>	<u>(829)</u>	<u>(345)</u>	<u>(994)</u>	<u>(288)</u>
<b>INVESTING ACTIVITIES</b>									
Property, Plant and Equipment, net of contributions	(767)	(798)	(793)	(832)	(840)	(857)	(870)	(948)	(966)
Other	(80)	(74)	(72)	(73)	(72)	(71)	(70)	(68)	(67)
	<u>(847)</u>	<u>(873)</u>	<u>(864)</u>	<u>(905)</u>	<u>(913)</u>	<u>(928)</u>	<u>(940)</u>	<u>(1 016)</u>	<u>(1 033)</u>
<b>Net Increase (Decrease) in Cash</b>	448	475	(1 214)	100	67	108	649	(17)	676
<b>Cash at Beginning of Year</b>	541	989	1 464	250	350	417	525	1 174	1 158
<b>Cash at End of Year</b>	<u>989</u>	<u>1 464</u>	<u>250</u>	<u>350</u>	<u>417</u>	<u>525</u>	<u>1 174</u>	<u>1 158</u>	<u>1 834</u>



**REFERENCE:**

Appendix 10.5, 5.7, Page 27-28 of 242

**PREAMBLE TO IR (IF ANY):**

The first table on page 27 indicates the costs to MH and to the Governments (for uncollected taxes) of three rate design options, based on either a 6% or 10% energy poverty threshold.

The second table indicates the average monthly bill increases required to recover these costs from other customers.

On page 28, the report states:

Throughout the collaborative process, Manitoba Hydro noted its position that, without a sound and defensible business case to substantiate cost savings, it was not in a position to commit any funding for the purpose of subsidizing customer bills. Manitoba Hydro also cannot anticipate that non-subsidized customers in the residential class or other customer classes would agree to fund those amounts by recovering the cost of low-income customer subsidies in their future electricity rates.

**QUESTION:**

- a) Please explain what Manitoba Hydro means by “a sound and defensible business case to substantiate cost savings”.
- b) Is it correct to infer that Manitoba Hydro is unwilling to consider the application of any of these measures, if they would result in bill increases for other residential customers on the other of these described in the second table?

**RATIONALE FOR QUESTION:**

**RESPONSE:**

Response to parts a) and b):

Manitoba Hydro notes that bill affordability is in many respects a matter of the sufficiency of household income. Policy and social program responsibility related to income sufficiency and the general welfare of the public reside with respective levels of government and are not within the mandate of Manitoba Hydro.

Manitoba Hydro may consider implementing bill affordability measures provided those measures are revenue-neutral to Manitoba Hydro and its ratepayers. Revenue-neutrality requires that a potential program would be required to generate sufficient operation cost savings to offset the cost of developing, implementing and sustaining that program.

The potential costs and savings of any such program must be examined in a business case analysis before committing to any such program. An example of this may be an arrearage management program that may potentially reduce collections costs. In the event that the business case for such a proposed program may demonstrate cost reductions that are greater than the cost of developing, implementing and operating that program, Manitoba Hydro would consider adopting it.

However, the measures shown in the tables on page 27 of the Summary Report and Recommendations (found at Appendix 10.5) are explicit financial subsidies to low income customers. The estimate of lost revenues associated with providing low income customer subsidies range from \$3.5 million to \$36.7 million annually based on the analysis provided by the consultant to the Working Group. No estimate was developed with regard to the potential cost of developing and administering those subsidy programs. Given the estimated amount of those subsidies on a recurring annual basis and the potential costs required to administer a subsidy program, Manitoba Hydro expects that those amounts would far exceed any cost reductions to be obtained by the Corporation by providing those subsidies. In that regard, those measures fail to be revenue neutral.

If the measure is not revenue-neutral, it must be funded as part of the Corporation's revenue requirement and therefore the costs of those subsidies would be borne by other

customers, either in the Residential class, or in other customer classes. The non-participating customers funding the subsidy costs of participating customers to the extent shown in the tables on page 27 of Appendix 10.5, does not meet Manitoba Hydro's objective of revenue-neutrality