SUPPLEMENTAL FILING TO
MANITOBA HYDRO'S 2015/16 & 2016/17 GENERAL RATE APPLICATION

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SUPPLEMENTAL FILING TO MANITOBA HYDRO'S 2015/16 & 2016/17 GENERAL RATE APPLICATION

1.0 OVERVIEW

On January 16, 2015, Manitoba Hydro applied to the Public Utilities Board of Manitoba ("PUB") for an Order pursuant to Section 26(1) of *The Crown Corporations Public Review and Accountability Act* and pursuant to Section 47(2) of *The Public Utilities Board Act* for approval of a 3.95% general rate increase effective April 1, 2016.

Manitoba Hydro filed a comprehensive 2015/16 & 2016/17 General Rate Application ("GRA") on January 23, 2015 which outlined in detail the capital investment drivers and borrowing requirements as well as the compelling need for steady and regular rate increase over the next decade. The information filed was extensively reviewed and tested by the parties to the GRA over the course of five months. In Order 73/15, the PUB indicated it would consider options regarding a process to review rates for April 1, 2016.

In this Supplemental Filing to the 2015/16 & 2016/17 GRA, Manitoba Hydro is requesting that the 2016/17 rate increase of 3.95% contained in the GRA be approved on an interim basis effective April 1, 2016. This increase, applied on an across-the-board basis for all customer classes, is projected to generate additional revenues of $61 million and result in a modest contribution to financial reserves (net income) of $29 million in 2016/17. Absent the proposed rate increase for 2016/17, Manitoba Hydro is projecting a net loss of $33 million from Electric operations and financial ratios are projected to deteriorate further.

Manitoba Hydro believes that the interim rate increase being requested continues to carefully balance the need for investment to maintain safe and reliable service with the need to provide steady and predictable rates for customers. As the supplemental information provided herein will show, Manitoba Hydro has continued to maintain stable rates through the careful management and spending on its assets, as well as managing its operating and administrative costs.

The reasons for the requested 3.95% interim rate increase remain consistent with those outlined by Manitoba Hydro in the 2015/16 & 2016/17 GRA, and include the following:

- Manitoba Hydro is in a period of extensive capital investment to meet the growing energy requirements of Manitoba, to replace aging utility assets, and address increased capacity needs on the system.

- The required investment in new and existing infrastructure is expected to nearly double the asset base and associated carrying costs (revenue requirements) of Electric operations in the next 10 years.
- Rate stability for customers is dependent upon Manitoba Hydro maintaining its financial strength. The required investment in assets will place pressure on Manitoba Hydro's financial strength by deteriorating the financial results and key financial ratios.
- Manitoba Hydro continues to experience downward pressure on electricity prices in the export market and it is necessary to gradually increase rates over time to compensate for the resulting reduction in net extraprovincial revenues.
- Manitoba Hydro's 2016/17 rate proposal maintains net income and financial ratios at acceptable levels and is necessary to promote rate stability for customers and manage the deterioration of the Corporation's financial strength during this period of extensive capital investment.

In Order 73/15, the PUB made a clear policy decision to mitigate rate shock to consumers by phasing rate increases in over time. Manitoba Hydro believes that its interim rate increase request is fully consistent with the PUB's policy decision to gradually increase rates during this period of extensive capital investments. Manitoba Hydro's rates will continue to be competitive compared to other jurisdictions, even with the proposed rate increase.

Manitoba Hydro's Supplemental Filing is organized as follows:

- Section 2.0 provides an overview of the reasons for the requested 3.95% rate increase, as summarized above.
- Section 3.0 and Section 4.0 provide a summary of Manitoba Hydro's current financial position and financial outlook, and a comparison of Manitoba Hydro's current and previous financial forecast. In previous Orders, the PUB expressed concerns about the deterioration of Manitoba Hydro's financial results. In its current forecast, including the impacts of the 3.95% rate increases, Manitoba Hydro is projecting that financial reserves will be stable relative to current levels, reducing the risk of the requirement for higher electric rate increases in the future.
- Section 5.0 provides an overview of the 2015 financial target review and Manitoba Hydro's projected financial ratios. Manitoba Hydro's financial target review, which included an external assessment by KPMG, concluded that Manitoba Hydro's financial targets remain appropriate. Manitoba Hydro will maintain its debt/equity and capital coverage ratios and will adopt an EBITDA interest coverage ratio to replace the current EBIT interest coverage ratio.

Manitoba Hydro is exposed to significant financial volatility, particularly with respect to changes in water flows, interest rates and export prices. Even with 3.95% indicative rate increases, over the next ten years there is a significant likelihood that Manitoba Hydro could incur losses, and retained earnings and the equity ratio could drop below the minimum acceptable levels. Given this volatility, Manitoba Hydro is of the view that the 3.95% proposed and indicative rate increases continue to be the minimum necessary to promote rate stability for customers and manage the deterioration of Manitoba Hydro's financial strength.

- Section 6.0 provides an overview of Manitoba Hydro's Operating and Administrative ("O&A") expense. Manitoba Hydro is effectively controlling its costs to maintain the projected 3.95% rate increases and continues to limit increases in O&A to 1%, excluding the impacts of accounting changes.
- Section 7.0 provides an overview of the current capital expenditure forecast which reflects higher demand side management expenditures and cost flow timing changes due to lower than forecast spending in 2014/15. Manitoba Hydro has started construction of two major generation and transmission projects, investing approximately $1.24 billion in the Bipole III Reliability Project and $1.97 billion in the Keeyask Generating Station as of September 30, 2015.
- Section 8.0 provides updated rate schedules and customer impacts for the proposed rate increase. If approved by the PUB, a residential customer, without electric space heat, using an average of 1,000 kWh per month would experience an increase in their monthly bill of $3.33 for 2016/17. A residential customer with electric space heat, using an average of 2,000 kWh a month, would experience increases of $6.36 per month for April 1, 2016.
- Finally, Section 9.0 provides updated generation, water conditions and extra-provincial energy exchange tables pursuant to Directive 5 of Order 43/13.

2.0 SUMMARY OF THE REASONS FOR THE REQUESTED 3.95% RATE INCREASE

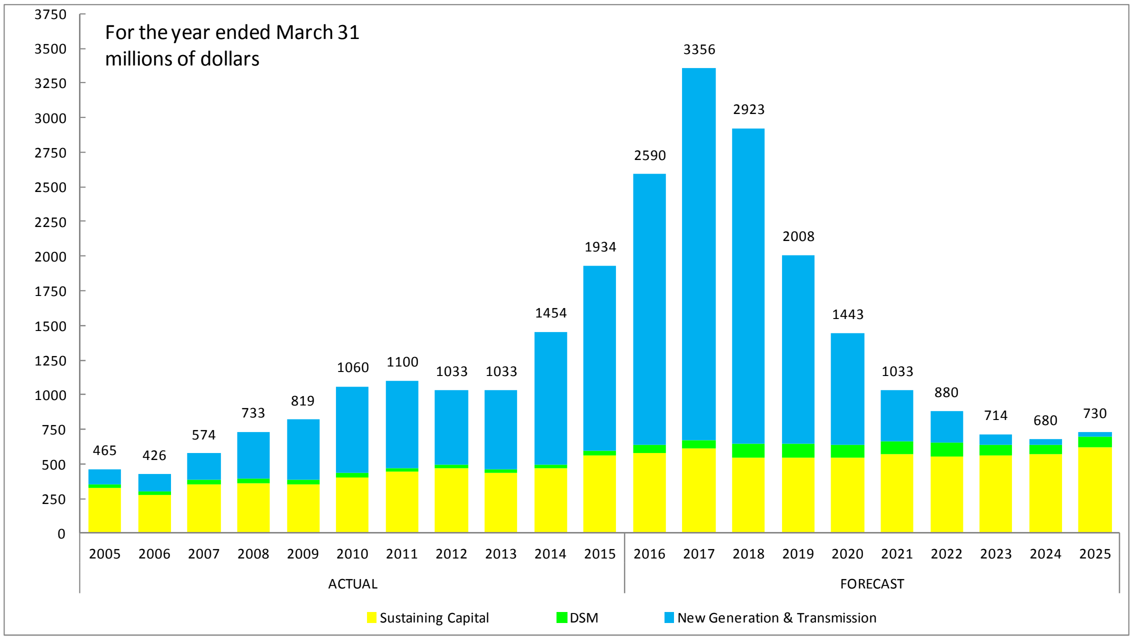
Manitoba Hydro is providing an updated financial forecast (MH15) to provide further context and support for its request for a 3.95% rate increase effective April 1, 2016. MH15 forecasts electricity rate increases of 3.95% to 2028/29 (and 2.0% thereafter to 2034/35) as being the minimum necessary to strike the appropriate balance between the needed investment to maintain safe and reliable service and providing stable and predictable rates for customers, and to manage the deterioration in the Corporation's financial strength. The 3.95% rate increase effective April 1, 2016 is further required to maintain 2016/17 net income and financial ratios at acceptable levels.

2.1 Extensive Electric Capital Investments are Expected to Nearly Double Carrying Costs in the Next 10 Years

As discussed extensively during the public review of the 2015/16 & 2016/17 GRA, Manitoba Hydro is in the midst of a period of extensive capital investment to meet growing energy requirements of Manitoba, replace aging utility assets and address increased capacity constraints on its system.

The level of Manitoba Hydro's capital investments are projected to be significantly higher than in the past ten years, and are unprecedented in Manitoba Hydro's history. The following Figure demonstrates that Manitoba Hydro's capital investments for Electric operations were in excess of $1 billion between 2009/10 and 2012/13, and approximately $1.5 billion in 2013/14 and $1.9 billion in 2014/15. Electric capital investments are projected to be approximately $2.6 billion in 2015/16 and $3.4 billion in 2016/17. Thereafter, capital investments are not expected to return to previous levels until 2022/23.

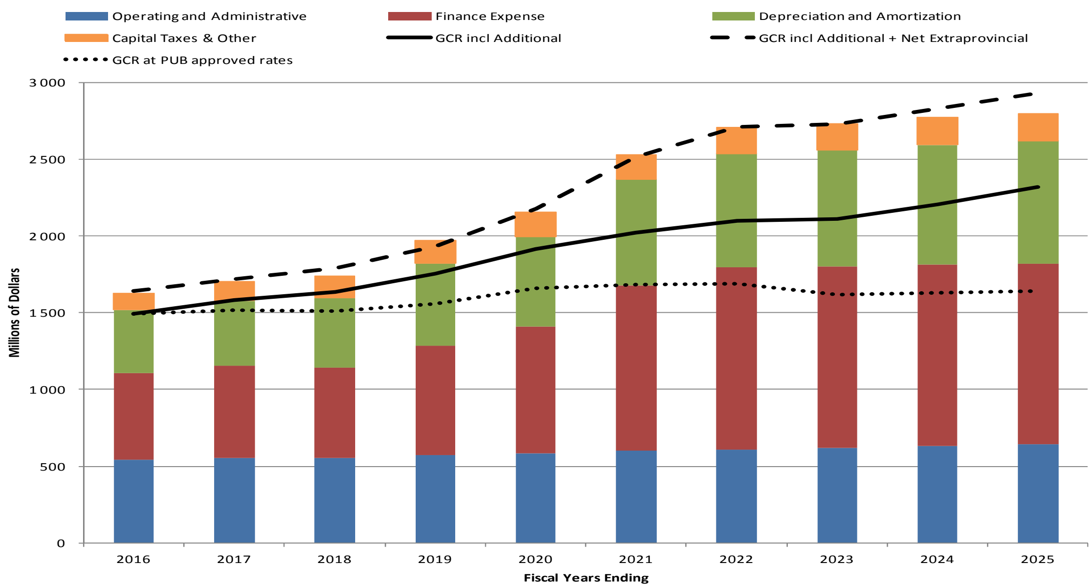
Figure 1. Capital Investments in Electric Operations 2004/05 to 2024/25



As a result of the capital intensive nature of Manitoba Hydro's business, approximately two-thirds of the overall costs or revenue requirement of the Corporation is made up of carrying costs (finance expense, depreciation & capital taxes) of the assets that are used to provide service to customers, along with the operating and administrative (O&A) costs of these assets. Once these assets are placed into service, the associated carrying costs form part of the Corporation's revenue requirements.

The following Figure compares Manitoba Hydro's Electric operations projected non-flow related expenses (O&A, finance expense, depreciation expense, and taxes and other expenses), which are more fixed in nature, to the Corporation's projected domestic and net export revenues (extraprovincial revenues less fuel & power purchases and water rentals & assessments) in MH15.

Figure 2. Electric Expenses Compared to Revenues (MH15)



Manitoba Hydro’s costs rise sharply to approximately $2.7 billion over the 10 year period to 2024/25, almost doubling from their current level of $1.6 billion. This increase in costs is primarily driven by Manitoba Hydro’s required capital investments.

General Consumers Revenue is insufficient to fully cover the approximately $1.1 billion total cost increase. Over the 10 year period, General Consumers Revenue, including the proposed and indicative 3.95% annual rate increases, rises by slightly less than half (42%) of the cost increase.

Including net extraprovincial revenues, Manitoba Hydro is projecting losses on Electric operations in three out of the ten years in the period 2018/19 to 2024/25 and is forecasting a marginal increase in projected retained earnings from approximately $2.6 billion in 2015/16 to $2.8 billion by 2024/25, while Manitoba Hydro's asset base doubles from approximately $12 billion to $25 billion.

Manitoba Hydro is incurring significant fixed costs associated with major generation and transmission projects and sustaining capital expenditures, and these investments are resulting in increased revenue requirements. Manitoba Hydro’s request for an interim electricity rate increase effective April 1, 2016 is consistent with its approach to gradually increase rates during this period of extensive capital investments.

The current environment of significant capital investments necessitates a proactive and longer term approach to rate-setting, which is consistent with the PUB’s policy decisions in Order 73/15 to mitigate rate shock to consumers by phasing the required rate increases in over time.

2.2 Investments in Capital Assets Will Place Pressure on Manitoba Hydro's Financial Strength and Increase the Risk of Rate Volatility

The majority of Manitoba Hydro's capital investments will be funded through unprecedented levels of debt financing, and will place pressure on the Corporation's financial strength by deteriorating financial results and key financial ratios.

Due to the increased levels of debt financing and weaker near-term financial results, Manitoba Hydro projects deterioration in the Electric operations equity ratio to 12% by 2021/22 before it gradually begins to recover to reach the 25% equity target by 2031/32. The Electric operations capital coverage ratio is projected to be below target for several years before achieving the 1.20 target by 2021/22, and the revised EBITDA interest coverage ratio target of 1.80 (as discussed in Section 5.1) is expected to be achieved by 2025/26.

The following figures show Manitoba Hydro's projected net income, retained earnings, and financial ratios over the 10-year period to 2024/25 in MH15, including the proposed and indicative 3.95% rate increases.

Figure 3. Projected Electric Net Income

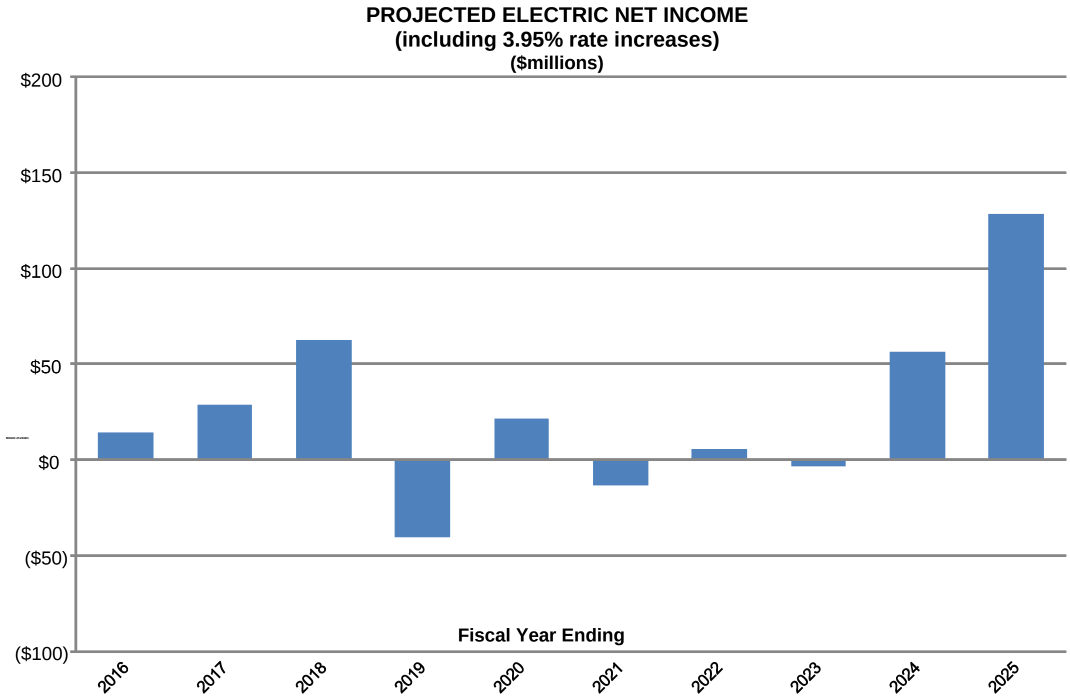


Figure 4. Projected Electric Retained Earnings

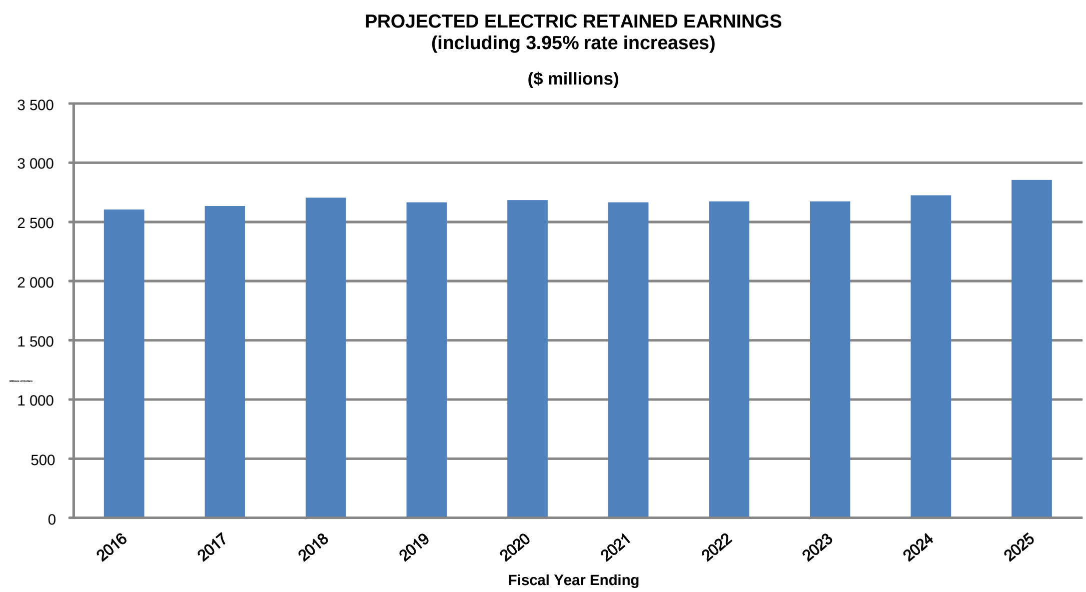


Figure 5. Projected Electric Equity Ratio

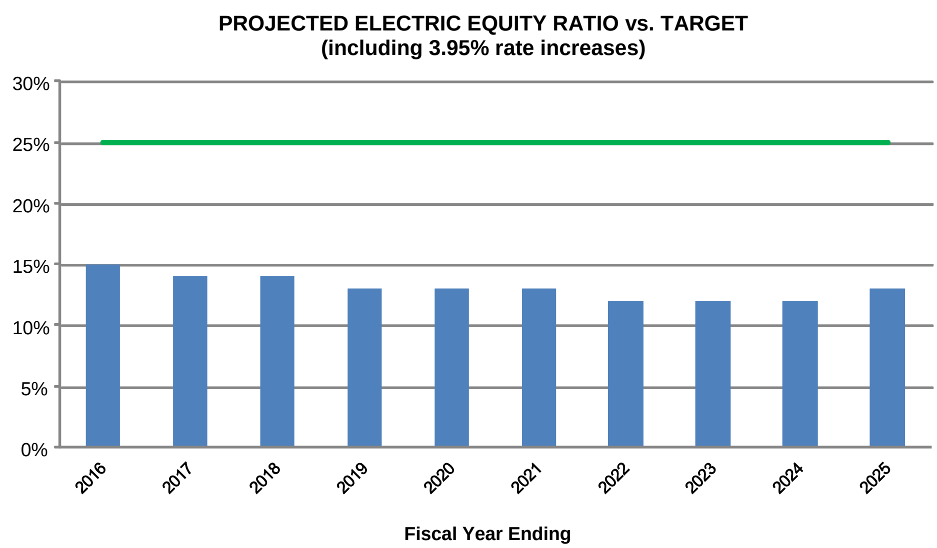


Figure 6. Projected Electric Interest Coverage Ratio

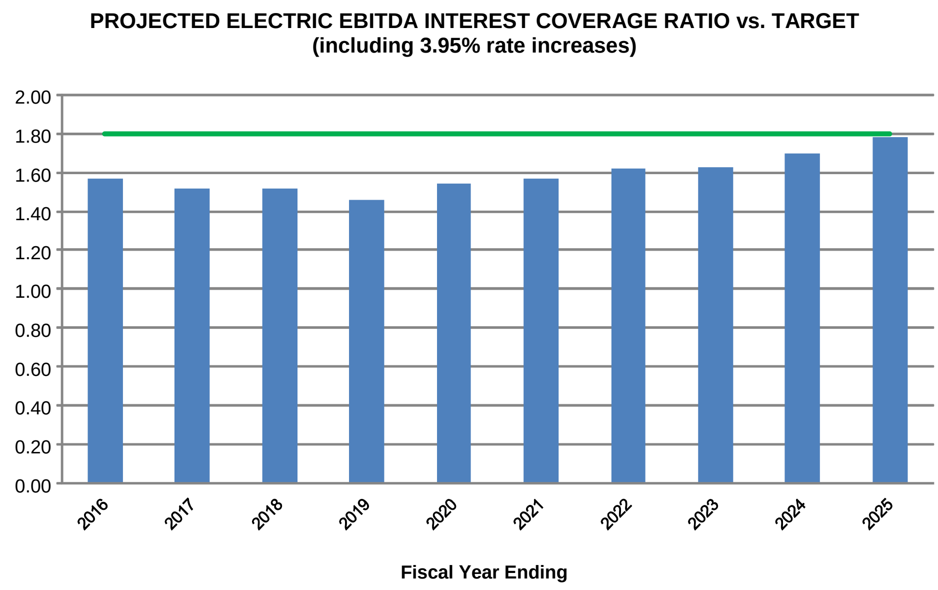
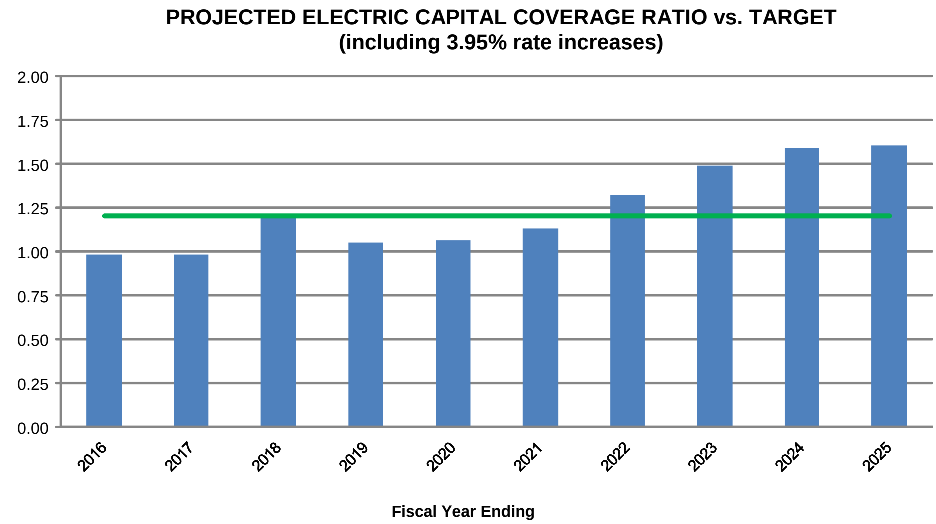


Figure 7. Projected Electric Capital Coverage Ratio



In the next 10 years there is significant financial risk and potential for rate volatility as Manitoba Hydro's financial position deteriorates due to the large capital investment requirements.

Manitoba Hydro is relaxing its adherence to financial targets over this period in order to alleviate rate increases in excess of 3.95% to the extent possible. Due to the deterioration in Manitoba Hydro's financial ratios, any further increases to costs or reductions to revenues increases the risk of higher rate increases to customers.

In order to ensure rate stability and predictability for customers, it is necessary that Manitoba Hydro maintains its financial strength. In a Crown-owned utility such as Manitoba Hydro, financial reserves are needed to maintain rate stability for customers and maintain access to low-cost financing on behalf of customers as the cost of financing is included in the revenue requirement of the corporation and collected from customers through the rates.

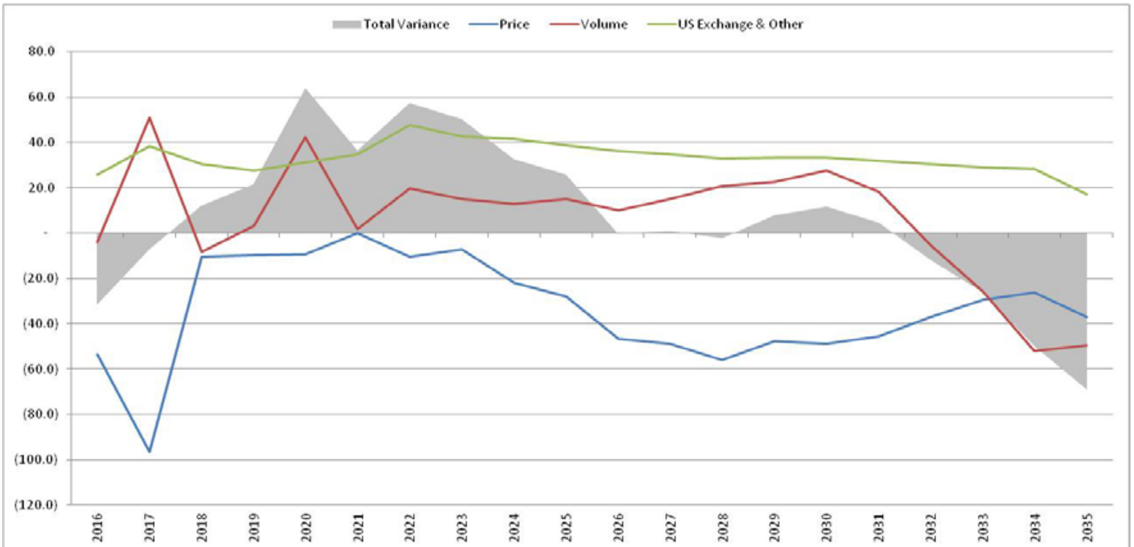
If Manitoba Hydro does not receive the necessary rate increases to maintain its financial strength, then there is significant risk to customers that rate changes will become more volatile and there will be a need for sudden or larger rate increases in the near future. This risk is particularly acute in the period of extensive capital investment.

The proposed and indicative 3.95% rate increases continue to be the minimum necessary to promote rate stability for customers and manage the deterioration of Manitoba Hydro's financial strength during the period of extensive capital investment.

2.3 Rates Have Not Increased to Fully Compensate for Reductions in Net Extraprovincial Revenue

The following Figure provides the total change in net extraprovincial revenues (grey area) between MH 14 and MH15 which consists of the changes related to export electricity prices (blue), export and import deliveries (red), and U.S. exchange (green).

Figure 8. Net Extraprovincial Revenues - Comparison MH15 vs. MH14



In 2015/16, overall average export electricity prices are approximately 20% lower compared to MH14 due mainly to lower opportunity prices resulting from lower natural gas prices. This decrease is also impacted by less higher-priced dependable sales and more lower-priced off-peak opportunity sales.

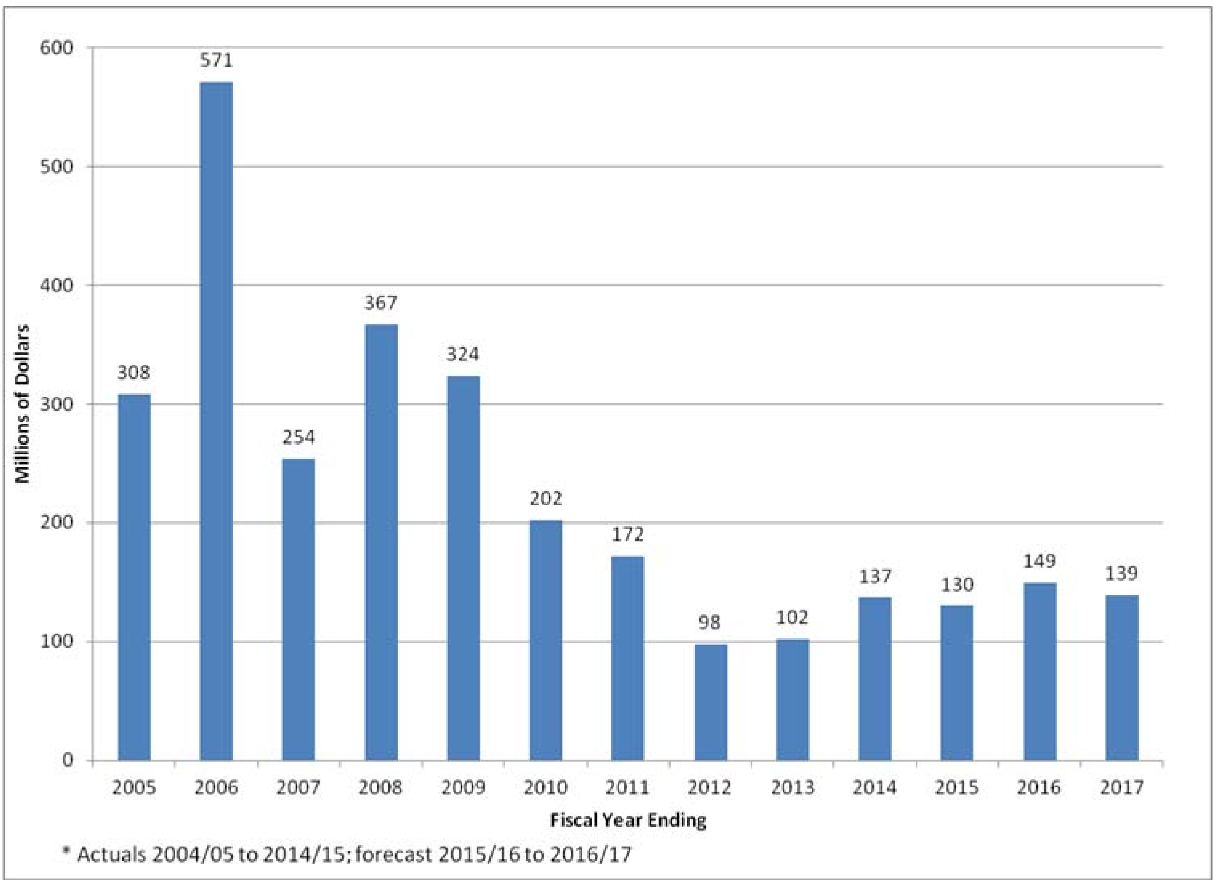
In 2016/17, overall average export electricity prices in MH15 are forecast to be approximately 34% lower than in MH14 due mainly to significantly lower opportunity prices resulting from lower natural gas prices. This decrease is partially offset by higher projected net generation and dependable sales compared to MH14 due to higher forecast inflows under median flows assumed in MH15 compared to the average of 102 historical flow years assumed in MH14.

In the period 2017/18 to 2024/25, overall average export electricity prices are forecast in MH15 to be approximately 3% lower compared to MH14 mainly due to lower opportunity prices, partially offset by more dependable sales relative to opportunity sales resulting from increased DSM savings compared to MH14. From 2025/26 to end of the forecast in 2034/35, overall average export electricity prices are approximately 6% lower due mainly to lower opportunity export prices. There are minimal impacts associated with the level of dependable sales as increased DSM savings are more than offset by growth in Manitoba demand.

It should be noted that on an overall basis, the projected impact of strengthening of the U.S. dollar on the conversion of extraprovincial revenues to Canadian dollars is mainly offset by the Corporation's foreign currency exposure management program with an offsetting increase to finance expense associated with U.S. debt balances.

The requirement for the proposed rate increase in 2016/17 is being driven not only by the need to invest in the electricity system, but also by the continued downward pressure on export prices.

Figure 9. Net Extraprovincial Revenue 2004-2017



As discussed during the 2015/16 & 2016/17 GRA, net extraprovincial revenues have enabled Manitoba Hydro to maintain low electricity rates for Manitobans. However, as shown in the Figure above, the contribution to the Corporation's overall revenues made by exports has experienced a significant decline from the peak of $571 million in 2005/06 to approximately $100 million experienced in 2011/12 and 2012/13. Manitoba Hydro's net extraprovincial revenues are projected to be $149 million in 2015/16 and $139 million in 2016/17, which is significantly lower than the $365 million average net extraprovincial revenues generated from 2004/05 to 2008/09.

It is necessary to gradually increase rates over time to compensate for the reduction in net extraprovincial revenues.

2.4 Manitoba Hydro's 2016/17 Interim Rate Proposal Maintains Net Income and Financial Ratios at Acceptable Levels

As shown in the Figure below, absent the proposed rate increase for 2016/17, Manitoba Hydro is projecting a net loss of $33 million from Electric operations; the equity ratio is projected to be 13%; and the revised EBITDA interest coverage (as discussed in Section 5.1) and capital coverage ratios are projected to deteriorate to 1.45 and 0.88, respectively.

The proposed interim rate increase of 3.95% effective April 1, 2016 is expected to generate additional revenue of $61 million in 2016/17. With this increase, the forecast net income from Electric operations for 2016/17 is projected to be $29 million; the equity ratio is projected to be 14%; and the EBITDA interest coverage and capital coverage ratios are projected at 1.52 and 0.98 respectively.

Figure 10. Net Income, Retained Earnings and Financial Ratios With and Without Rate Increase

Retained Earnings and Financial Ratios (without proposed rate increase)	Forecast 2016	Forecast 2017
Net Income (electric operations)	$ 15	$ (33)
Retained Earnings (electric operations)	$ 2 612	$ 2 579
Debt to Equity Ratio (electric operations)	85:15	87:13
EBITDA Interest Coverage Ratio (electric operations)	1.57	1.45
Capital Coverage Ratio (electric operations)	0.98	0.88

Retained Earnings and Financial Ratios (including proposed rate increase)		
Net Income (electric operations)	$ 15	$ 29
Retained Earnings (electric operations)	$ 2 612	$ 2 641
Debt to Equity Ratio (electric operations)	85:15	86:14
EBITDA Interest Coverage Ratio (electric operations)	1.57	1.52
Capital Coverage Ratio (electric operations)	0.98	0.98

Approval of the proposed 3.95% rate increase is required to maintain net income and financial ratios for 2016/17 at acceptable levels, and is necessary to promote rate stability for customers and manage the deterioration of the Corporation's financial strength during this period of extensive capital investment. Approval of the proposed rate increase is projected to result in a modest contribution to financial reserves (net income) of $29 million in 2016/17.

3.0 CURRENT FINANCIAL POSITION & OUTLOOK (MH15)

3.1 2014/15 Actual Results - Electric Operations

Manitoba Hydro's net income from Electric operations for the 2014/15 fiscal year was $95 million compared to the forecasted net income of $102 million, as shown in the following Figure.

Figure 11. 2014/15 Actual Financial Results from Electric Operations

MANITOBA HYDRO
STATEMENT OF INCOME
For the Year Ended March 31, 2015
(In Millions of Dollars)

	ACTUAL	FORECAST	FAVOURABLE/ (UNFAVOURABLE) VARIANCE
Revenues			
General consumers	$1,424	$1,407	$18
Extraprovincial	400	409	(9)
Other	18	15	3
	1,843	1,831	12
Expenses			
Operating and administrative	480	486	5
Finance expense	495	495	-
Depreciation and amortization	403	405	1
Water rentals and assessments	125	124	-
Fuel and power purchased	146	134	(12)
Capital and other taxes	100	99	(1)
Other Expenses	2	2	-
Corporate allocations	9	9	-
	1,760	1,754	(5)
Net income before non-controlling interest	83	77	7
Net loss attributable to non-controlling interest	11	25	(14)
Net Income	$95	$102	($7)

* Please note, Manitoba Hydro's financial results for the 2014/15 year are presented under Canadian Generally Accepted Accounting Principles.

The unfavourable variance in net income of $7 million was primarily due to a lower than forecast net loss attributable to non-controlling interest, higher than forecast fuel and power purchased, and lower than forecast extra-provincial revenues, partially offset by higher than forecast domestic electricity sales.

The unfavourable variance in net loss due to non-controlling interest is the result of the implementation of the Wuskwatim PDA Supplement #2 revised power purchase agreement between Manitoba Hydro and WPLP.

The unfavourable variance in fuel and power purchased reflects higher opportunity rates and volumes for on-peak purchases as well as higher volumes of dependable wind purchases.

The unfavourable variance in extra-provincial revenues are primarily due to an outage of the 500kV line which limited exports to the United States.

The favourable variance in general consumers revenues are primarily due to higher usage for residential customers.

Manitoba Hydro has provided hard copies of its 64th Annual Report of the MHEB for the year ending March 31, 2015 to the PUB. A copy of the 2014/15 Annual Report is also available on Manitoba Hydro's website at the following link:

http://www.hydro.mb.ca/corporate/ar/pdf/annual_report_2014_15.pdf

3.2 2015/16 Actual Results to September 30, 2015 - Electric Operations

Manitoba Hydro's net loss from Electric operations for the first six months of the 2015/16 fiscal year was $24 million compared to a forecasted net loss of $2 million (per MH14), as shown in the following Figure.

Figure 12. 2015/16 Actual Results to September 30, 2015 from Electric Operations

MANITOBA HYDRO
STATEMENT OF INCOME
For the Six Month Period Ended September 30, 2015
(In Millions of Dollars)

	ACTUAL	FORECAST	FAVOURABLE/ (UNFAVOURABLE) VARIANCE
Revenues			
General Consumers	$620	$632	($12)
Extraprovincial	244	247	(3)
Other	15	12	3
	880	891	(12)
Expenses			
Operating and administrative	261	267	6
Finance expense	280	275	(5)
Depreciation and amortization	183	182	(2)
Water rentals and assessments	62	61	(1)
Fuel and power purchased	57	44	(13)
Capital and other taxes	53	54	-
Other Expenses	28	34	6
Corporate allocations	4	4	-
Finance income	(13)	(10)	3
	915	909	(6)
Net income (loss) before net movement in regulatory deferral account balances	(35)	(18)	(18)
Net movement in regulatory deferral account balances	5	10	(5)
Net Income (Loss)	($31)	($8)	($23)
Net income (loss) attributable to:			
Manitoba Hydro	**(24)**	**(2)**	**(22)**
Non-controlling interests	(6)	(6)	(1)
	($31)	($8)	($23)

* Manitoba Hydro's financial results for the six months ending September 30, 2015 are presented under International Financial Reporting Standards.

The unfavourable variance of $22 million for the first 6 months of the 2015/16 fiscal year is primarily attributable to lower general consumers revenues and higher fuel and power purchases.

The unfavourable variance in general consumers revenues is primarily due to the delay in the approval of the 2015/16 rate increase of 3.95% to August of 2015, and 2.15% of the rate increase accruing to the Bipole III deferral account instead of general consumers revenues.

The unfavorable variance in fuel and power purchased is a result of higher transmission charges on U.S. power purchases reflecting a rate increase by the regional transmission operator (MISO).

Attachments 2 and 3 provide the MHEB Quarterly Reports for the three months ended June 30, 2015 and the six months ended September 30, 2015 respectively.

3.3 2015/16 and 2016/17 Forecast Results - Electric Operations

Figure 13 below summarizes the actual Electric operations projected net income for 2015/16 and 2016/17 in MH15.

Figure 13. Table of Electric Operations With and Without Rate Increase

Net Income - Electricity Operations

(in millions of $)	Forecast 2016	Forecast 2017
Revenue		
General Consumers Revenue		
- at approved rates	$ 1 517	$ 1 556
- Bipole III Reserve	(54)	(67)
Extraprovincial Revenue (net of Fuel & Power Purchased and Water Rentals)	149	139
Other Revenue	29	28
	1 641	1 657
Expenses		
Operating, Maintenance and Administrative	542	552
Finance Expense	566	588
Depreciation and Amortization	410	426
Capital and Other Taxes	107	122
Corporate Allocation	8	8
Other expenses	2	2
	1 636	1 698
Non-controlling Interest	10	9
Net Income (loss) before proposed rate increase	$ 15	$ (33)
Proposed rate increase (3.95% April 1, 2016)	-	61
Net Income including proposed rate increase	$ 15	$ 29

Retained Earnings and Financial Ratios (without proposed rate increase)

	2016	2017
Retained Earnings (electric operations)	$ 2 612	$ 2 579
Debt to Equity Ratio (electric operations)	85:15	87:13
EBITDA Interest Coverage Ratio (electric operations)	1.57	1.45
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Retained Earnings and Financial Ratios (including proposed rate increase)

	2016	2017
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The proposed interim rate increase of 3.95% effective April 1, 2016 is expected to generate additional revenue of $61 million in 2016/17. With this increase, the forecast net income from Electric operations for 2016/17 is projected to be $29 million; the equity ratio is projected to be 14%; and the EBITDA interest coverage and capital coverage ratios are projected at 1.52 and 0.98 respectively.

Absent the proposed rate increase for 2016/17, Manitoba Hydro is projecting a net loss of $33 million from Electric operations; the equity ratio is projected to be 13%; and the EBITDA interest coverage and capital coverage ratios are projected to deteriorate to 1.45 and 0.88, respectively.

4.0 COMPARISON TO PREVIOUS FORECAST (MH15 VS. MH14)

In recognition of the financial need to implement a rate increase in 2016/17 on a timely basis, the MHEB authorized the Audit Committee of the MHEB to approve the Integrated Financial Forecast (IFF15) to facilitate the filing of an interim rate submission with the PUB, subject to subsequent ratification by the MHEB. On November 12, 2015, the Audit Committee approved IFF15 and related documents for this purpose. IFF15 will be advanced to the MHEB on December 2, 2015 for finalization.

The Proposed IFF15 is provided as Attachment 1, and includes segment forecasts for Electric Operations (MH15), Natural Gas operations (CGM15) and Corporate Subsidiaries (CS15).

MH15 sets forth the projected financial results and financial position of Electric operations for the 20-year period to 2034/35. MH15 reflects the following key changes in assumptions, compared to MH14:

- Forecast electricity export prices are on average approximately 20% lower in 2015/16 and 34% lower in 2016/17 compared to MH14;
- Forecast long term electricity export prices for 2017/18 to 2034/35 are 3% to 7% lower on average due to continued lower natural gas and coal prices;
- Forecast short term interest rates are 80 to 185 basis points lower and long term rates are over 100 basis lower during the remaining period of construction (2015/16 to 2020/21) of Bipole III and Keeyask; and,
- The 2015 Power Smart Plan which targets higher levels of capacity and energy savings of 1,288 MW and 4,619 GW.h respectively, natural gas savings of 118 million cubic meters and combined global greenhouse gas emission reductions of 3.3 million tonnes by 2029/30 – at an additional cost of approximately $650 million.

Manitoba Hydro filed MH14 with its 2015/16 & 2016/17 GRA and was the basis on which the PUB's decisions in Order 73/15 were made. The Figure below summarizes the changes in net income for Electric operations between MH15 and MH14.

Figure 14. Comparison of Electric Operations MH15 vs. MH14

Comparison of Electrical Operations MH15 to MH14
Increase/(Decrease)
(millions of $)

	2016			**2017**			**2016-2025**		
	MH15	MH14	Variance	MH15	MH14	Variance	MH15	MH14	Variance
General Consumers at projected rates	1 463	1 479	(16)	1 551	1 544	6	18 560	18 634	(73)
Extraprovincial	395	434	(39)	406	450	(44)	7 010	7 036	(26)
Other	29	14	15	28	14	14	565	151	415
Total Revenues	1 887	1 928	(40)	1 985	2 008	(23)	26 136	25 820	316
Operating and Administrative	542	542	-	552	552	-	5 909	5 909	-
Finance Expense	566	510	56	588	548	41	9 075	9 832	(757)
Depreciation and Amortization	410	401	10	426	422	3	6 184	5 849	335
Water Rentals and Assessments	126	123	3	116	112	3	1 230	1 222	8
Fuel and Power Purchased	120	130	(10)	151	191	(40)	1 940	2 235	(295)
Capital and Other Taxes	107	107	-	122	121	2	1 446	1 417	29
Corporate Allocation	8	8	-	8	8	-	82	82	-
Other Expenses	2	2	-	2	2	-	24	26	(2)
	1 882	1 824	58	1 965	1 956	9	25 891	26 571	(680)
Non-controlling Interest	10	12	(3)	9	8	1	15	37	(22)
Net Income	15	115	(101)	29	59	(31)	260	(714)	975

In comparison to MH14, Electric operations net income is projected to be approximately $100 million lower in 2015/16.

Electric operations net income including the proposed and indicative rate increases is projected to be approximately $31 million lower in 2016/17 and approximately $1 billion higher over the 10-year period to 2024/25, respectively. The significant changes in the revenues and costs are explained below.

<u>General Consumers Revenue</u>

General Consumers Revenue decreases in 2015/16 by $16 million compared to MH14 due to the $16 million impact of delaying the implementation of the 2015/16 rate increase to August 1, 2015, and as well as $22 million of the revenues associated with this rate increase accruing to the Bipole III deferral account, which is partially offset by an increase of $22 million due to the impact of higher load forecast for residential and mass market customers in 2015/16.

In 2016/17, General Consumers Revenue increases by $6 million due to the $39 million impact of higher load forecast for residential and mass market customers and the delay of an industrial load reduction. This is partially offset by an additional $33 million accruing to the Bipole III deferral account.

The decrease in General Consumers Revenue of $73 million in the first ten years of MH15 is primarily due to increased energy and capacity savings as a result of more aggressive DSM programs, largely offset by higher forecast load.

Extraprovincial Revenues

The $39 million decrease in Extraprovincial Revenue in 2015/16 is primarily due to 20% lower forecast electricity export prices on average in 2015/16 resulting in a $52 million reduction. Although total sales volumes increased in 2015/16, a greater portion was sold as opportunity and a lower portion as dependable resulting in a reduction to extraprovincial revenues of $12 million compared to MH14. Transmission credits are approximately $26 million lower due to the removal of intra-business unit transactions for financial reporting purposes. The impacts of foreign exchange increases Extraprovincial Revenue by $51 million in 2015/16.

The $44 million decrease in Extraprovincial revenue in 2016/17 compared to MH14 is primarily due to the decrease in forecast electricity export prices that are approximately 34% lower on average, including more energy being sold as off-peak opportunity prices, resulting in an approximate $122 million decrease. Transmission credits are approximately $15 million lower. These decreases are partially offset by an increase in generation and sales volumes of $43 million due to the change to median water flows assumed in MH15 compared to the average of 102 water flow years assumed in MH14, and the increase of foreign exchange of $51 million.

The decrease in Extraprovincial Revenue of $26 million in the first ten years of MH15 is primarily due to lower forecast electricity export prices ($327 million) and lower transmission credits ($223 million) over the ten year period to 2024/25 compared to MH14. This decrease is largely offset by a projected weakening of the Canadian dollar ($444 million), as well as a net reduction to Manitoba load ($81 million) resulting from increased DSM energy and capacity savings, which increase export sales.

Other Revenue

Other Revenue increases by $29 million in 2015/16 and 2016/17 in MH15 due mainly to the amortization of customer contributions formerly recognized as a reduction to Depreciation and Amortization ($20 million) and billing surcharge recoveries formerly recognized as capital ($9 million).

The increase in Other Revenue in the first ten years of MH15 is primarily attributable to the assumed recognition into net income of the Bipole III deferral account over three years starting in 2019/20, as well as the items noted above for Other Revenue in 2015/16 and 2016/17.

Finance Expense

The increase in Finance Expense in 2015/16 and 2016/17 of $97 million in MH15 is primarily due to impacts of foreign exchange ($84 million) and lower capitalized interest credits ($20 million) resulting from later than planned capital expenditures on Bipole III and Keeyask. These increases are partially offset by lower interest payments resulting from lower interest rates ($10 million).

The decrease in Finance Expense of $757 million in the first ten years of MH15 is primarily due to lower forecasted interest rates and correspondingly lower borrowing requirements.

Depreciation and Amortization Expense

The increase in Depreciation and Amortization Expense of $13 million in 2015/16 and 2016/17 in MH15 is primarily due to the recognition of the amortization of customer contributions in Other Revenue that was formerly recognized in Depreciation and Amortization.

The increase in Depreciation and Amortization Expense of $335 million in the first ten years of MH15 is primarily due the amortization of customer contributions ($127 million), and the recognition of Bipole III deferral account revenues into Other Revenue ($162 million) which were both formerly recognized as a reduction to Depreciation and Amortization, as well as the higher amortization ($16 million) associated with increased DSM expenditures.

Fuel and Power Purchased

The decrease in Fuel and Power Purchased of $50 million in 2015/16 and 2016/17 in MH15 is primarily due to a reduction in transmission charges ($26 million), lower forecast MISO market prices ($24 million), and lower requirements for thermal energy due to increased DSM energy and capacity savings ($20 million). These decreases are partially offset by a $20 million impact related to foreign exchange.

Fuel & Power Purchased decreases by $295 million in the first ten years of MH15 primarily due to lower transmission charges of $229 million compared to MH14 resulting from the removal of intra-business unit charges ($132 million) and the expiration of a firm transmission reservation ($140 million), partially offset by an increase in MISO charges related to the NSP and MP firm transmission ($63 million). Lower forecast electricity export prices ($80 million) and a reduction in the requirement for thermal generation ($75 million) result in further reduction to Fuel & Power Purchased. These decreases are partially offset by the impacts of foreign exchange ($47 million).

5.0 FINANCIAL RATIOS AND TARGETS

Manitoba Hydro's financial and operational risks are significant and the Corporation manages these risks through the maintenance of an adequate level of financial reserves (retained earnings) in order to provide customers with long-term rate stability and maintain access to low-cost financing.

Manitoba Hydro currently has three primary financial targets for consolidated operations which were set in 1995 after an internal and external review and are used to assess the financial strength of the Corporation:

1. Debt/Equity: Maintain a minimum debt/equity ratio of 75:25.
2. Interest Coverage: Maintain a minimum annual gross interest coverage ratio of greater than 1.20.
3. Capital Coverage: Maintain a capital coverage ratio of greater than 1.20 (excepting new major generation and transmission).

In setting financial targets, it was recognized that the targets may not be attained during years of major investments in the generation and transmission system but that it would be necessary to demonstrate to credit rating agencies and other stakeholders that progress towards attaining the targets would occur over the long-term.

The required investments in new generation and transmission and existing infrastructure will place considerable pressure on Manitoba Hydro's key financial ratios. Recognizing this situation, it was important that Manitoba Hydro's financial targets be externally reviewed to determine their continuing applicability during this period of extensive capital investment.

5.1 The 2015 Financial Target Review

As discussed during the 2015/16 & 2016/17 GRA proceeding, Manitoba Hydro engaged KPMG to undertake a review of its current financial targets and provide recommendations that align with the mandate of Manitoba Hydro and the interests of its stakeholders considering its operating and business outlook and associated risks. KPMG's review considered the objectives of maintaining rate stability for customers while at the same time maintaining safe and reliable service, the period of significant capital investment and infrastructure renewal that Manitoba Hydro is entering into, and the maintenance of Manitoba Hydro's self-supporting status for credit rating purposes.

As part of the financial target review, Manitoba Hydro also expanded the uncertainty analysis undertaken for the NFAT proceeding. This analysis generated 15,300 discrete financial projections based on varying water flows, export prices and interest rates and examined the impacts on the annual equity ratio, net income and cumulative retained earnings assuming the indicative 3.95% rate increases that are projected in IFF15.

Manitoba Hydro's Report on the 2015 Financial Target Review and the KPMG Report can be found as Attachments 6 and 7 respectively.

The additional uncertainty analysis undertaken by Manitoba Hydro along with the scenario analysis contained in the KPMG report is intended to satisfy Directive 10 from Order 43/13, which directs Manitoba Hydro to file a detailed quantitative and probabilistic risk assessment and review of its operating and financial risks in order to allow it to assess the adequacy of the Corporation's reserves.

The following sections provide an overview of KPMG's recommendations and summary of Manitoba Hydro's financial target conclusions.

KPMG Recommendations

KPMG's overall finding was that the current financial targets used by Manitoba Hydro are appropriate.

The following is a summary of KPMG's key findings and recommendations to Manitoba Hydro:

- **Debt/Equity:** The current debt to equity ratio of 75:25 is a reasonable long-term target but 70:30 would provide additional financial strength and address unique financial challenges and risks of Manitoba Hydro. KPMG recommended that the debt to equity ratio should fall within the range of 75:25 to 70:30. KPMG also suggested that it would be desirable to maintain a minimum equity ratio near 15% during major capital expansions.

- **Interest Coverage:** If Manitoba Hydro continues with the current EBIT (earnings before interest and taxes) interest coverage ratio, a minimum target of 1.20 is reasonable. KPMG recommended Manitoba Hydro adopt an EBITDA (earnings before interest, taxes, depreciation and amortization) interest coverage ratio with a minimum target of 1.80.

- **Capital Coverage:** The capital coverage ratio is a unique and important financial target to Manitoba Hydro. KPMG found that the current minimum target of 1.20 is reasonable.

Two key observations that influenced KPMG's recommendations are that, relative to other Crown utilities with a significant base of hydro-electric generation, Manitoba Hydro faces a number of heightened risks and that the Corporation's target equity ratio is at the low end of those planned by other power utilities, including BC Hydro, Hydro-Quebec, Ontario Power Generation, Nalcor Energy, and NB Power.

Manitoba Hydro's Financial Target Review Conclusions

Manitoba Hydro made a number of recommendations, which were approved by the Audit Committee of the MHEB on November 12, 2015 and will be advanced to the MHEB for finalization on December 2, 2015.

Manitoba Hydro will retain the current minimum debt/equity target of 75:25 as its long-term financial target. Once this period of extensive capital investment is largely completed, Manitoba Hydro will reassess the merits of further strengthening its debt/equity ratio target, considering industry trends and capital market expectations.

Manitoba Hydro is of the view that it would be impractical to adopt a debt/equity target of 70:30 at this time, as it is likely that sustained rate increases higher than the current projected 3.95% would be required to ensure achievement of the revised target. Additionally, based on the analysis conducted which includes the proposed and indicative 3.95% rate increases, Manitoba Hydro does not believe that maintenance of the 75:25 debt/equity ratio target places customers at undue risk of rate instability.

Manitoba Hydro did not recommend the adoption of a minimum debt/equity ratio of 85:15. In order to maintain a debt/equity ratio of 85:15, significantly higher than 3.95% rate increases would be needed in the near term and it is Manitoba Hydro's view that such increases would be financially challenging for customers. However, it is Manitoba Hydro's position that the Corporation should take all necessary measures to maintain its debt/equity ratio in excess of 90:10, including implementing regular, reasonable rate increases.

Manitoba Hydro will adopt an EBITDA interest coverage ratio with a minimum target of 1.80 to replace the current 1.20 EBIT interest coverage target. As suggested by KPMG, Manitoba Hydro accepts that the EBITDA interest coverage ratio is a superior measure of how much cushion the Corporation has on a cash flow basis before it is necessary to borrow to make interest payments, as well as allowing for better peer and credit rating comparisons.

Manitoba Hydro will retain the current capital coverage ratio with a minimum target of 1.20 (excepting major new generation and transmission) as it is an effective measure of the ability of the Corporation to generate sufficient cash to sustain its operations.

5.2 Projected Financial Ratios MH15

Net Income and Retained Earnings

Figure 15 and Figure 16 below provide a comparison of projected net income and retained earnings for Electric operations in MH15 compared to MH14.

Figure 15. Projected Electric Net Income MH15 vs. MH14

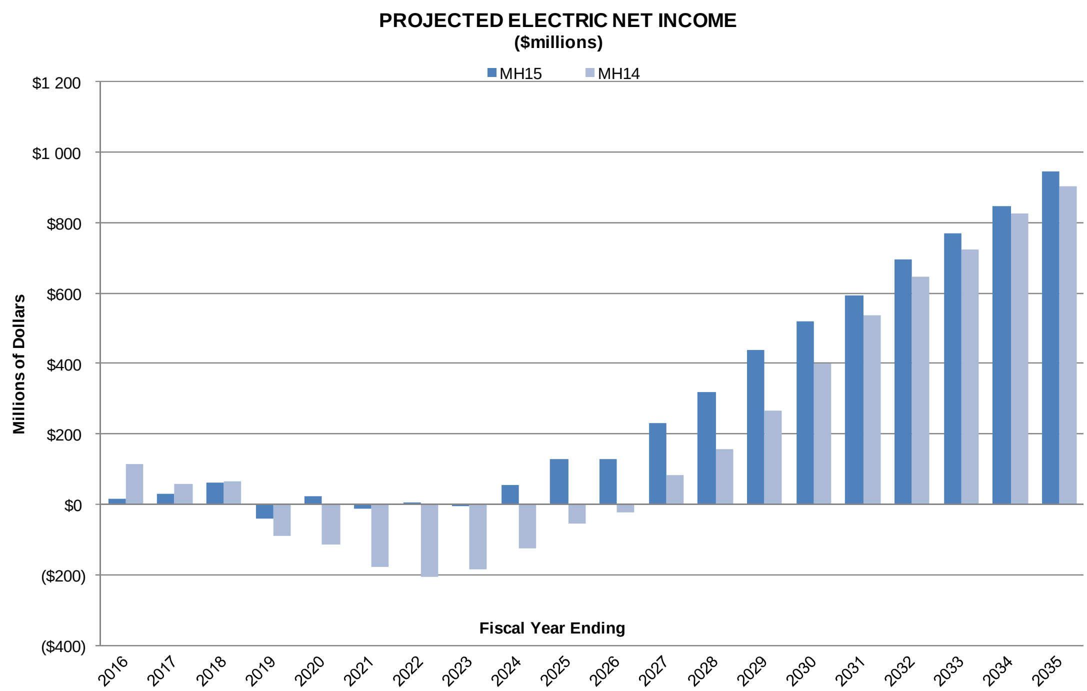
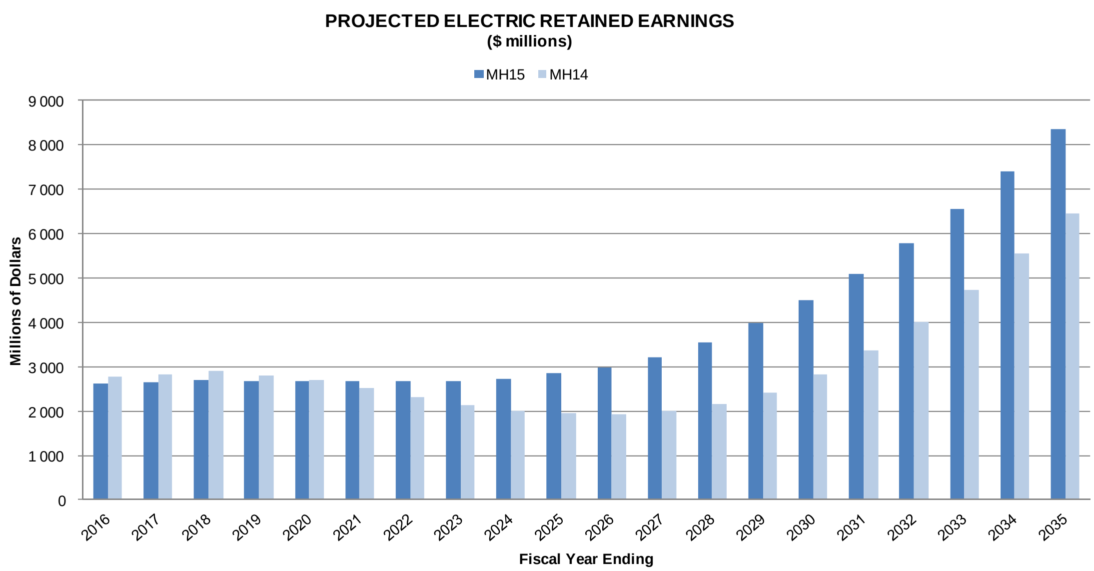


Figure 16. Projected Electric Retained Earnings MH15 vs. MH14



Manitoba Hydro manages its financial risks and provides customers with long-term rate stability and predictability through the maintenance of an adequate level of financial reserves (retained earnings). An adequate level of financial reserves is also required to maintain access to low-cost financing to keep rates low for customers.

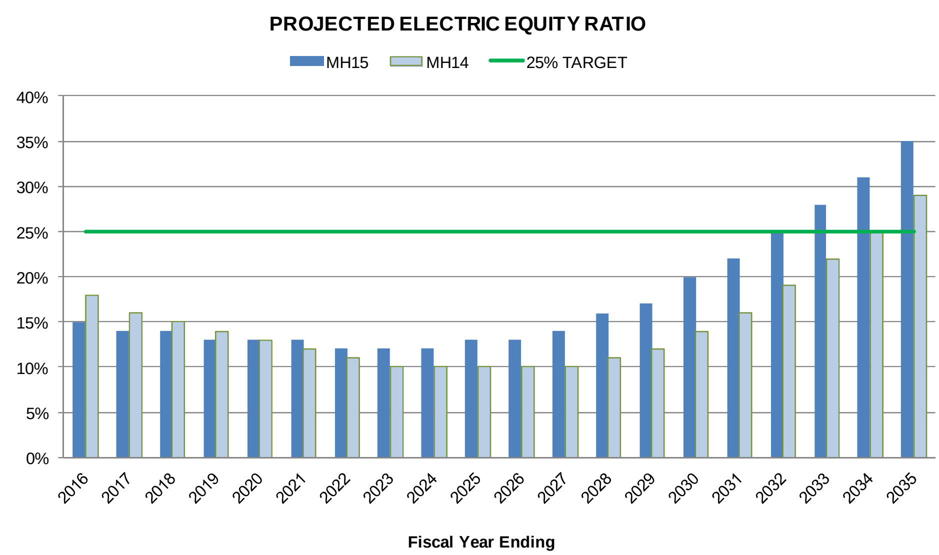
Projected net income in the first two years of MH15 has deteriorated relative to MH14 as a result of lower extraprovincial revenues resulting from lower forecast electricity export prices and an increase in finance expense. Over the longer term, net income in MH15 improves relative to MH14 due mainly to lower finance expense resulting from lower forecast interest rates.

In MH15, Manitoba Hydro is projecting that retained earnings will be stable relative to current levels and increase marginally in the first 10 years of the forecast, and thereafter, retained earnings show improvement as a result of the 3.95% even annual rate increases and additional export revenues following the in-service of Keeyask. This compares to MH14 where retained earnings eroded significantly over the first ten years of the forecast before showing improvement in the latter years of the forecast.

Debt/Equity Ratio

Figure 17 below provides a comparison of projected debt/equity ratio for Electric operations in MH15 compared to MH14.

Figure 17. Projected Electric Equity Ratio MH15 vs. MH14



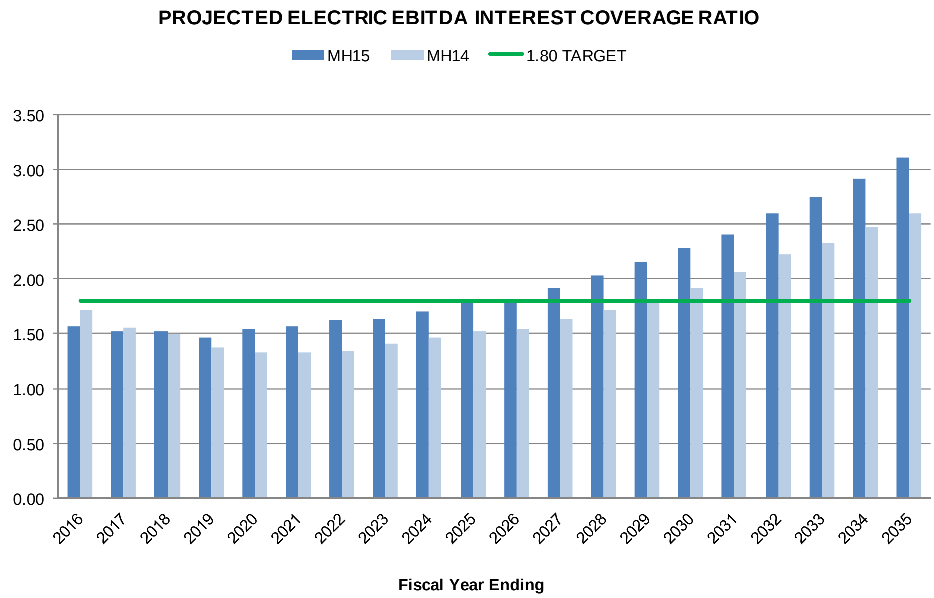
The debt/equity ratio indicates the portion of Manitoba Hydro's assets that have been financed by internally generated funds rather than through debt. In the first five years to 2019/20, the equity ratio is lower compared to MH14 due mainly to unrealized foreign exchange losses on debt in cash flow hedges and actuarial pension losses accumulated in other comprehensive income that form part of equity. Following 2019/20, the equity ratio is higher compared to MH14 due to lower net debt and higher retained earnings resulting from lower finance expense as a result of lower projected interest rates.

High levels of capital investment over the first ten years combined with lower projected net extraprovincial revenues result in deterioration of the equity ratio to a low of 12% by 2021/22. The equity ratio shows improvement as a result of the 3.95% even annual rate increases and additional export revenues following the in-service of Keeyask. The equity ratio is projected to return to the target 25% by 2031/32 (2 years earlier compared to MH14).

Interest Coverage Ratio

Figure 18 below provides a comparison of projected EBITDA interest coverage ratio for Electric operations in MH15 compared to MH14.

Figure 18. Projected Electric EBITDA Interest Coverage Ratio MH15 vs. MH14



As noted in Section 5.1, Manitoba Hydro is adopting an EBITDA interest coverage ratio with a minimum target of 1.80. Generally, the revised EBITDA interest coverage ratio and target results in a similar pattern as the current EBIT ratio and target.

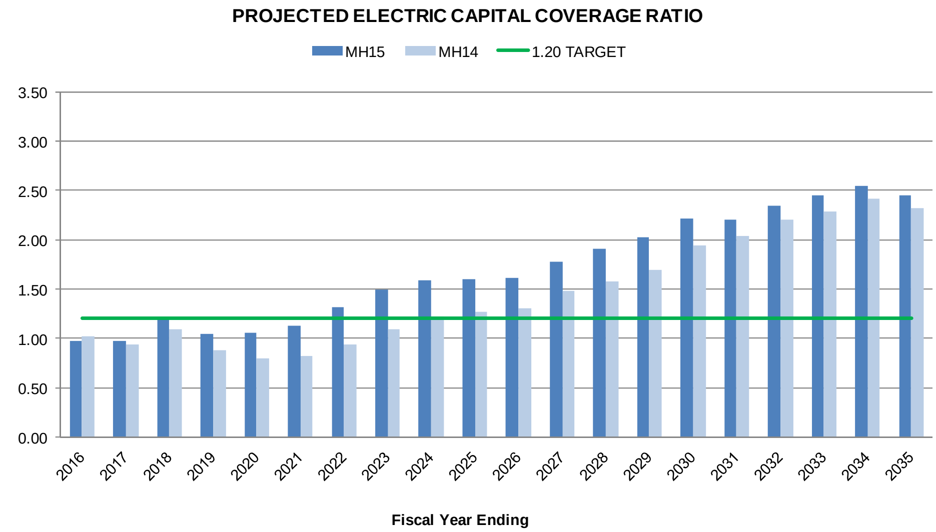
The EBITDA interest coverage ratio provides an indication of the ability of the Corporation to meet interest payment obligations with the cash flow from operations. Compared to MH14, the interest coverage ratio is higher due to slightly higher net earnings and lower finance expense mainly as a result of lower projected interest rates.

Capital investments in Major New Generation and Transmission result in projected interest coverage ratios below target for a period of eleven years before cash flow from operations becomes sufficient to cover finance expenses above the target level.

Capital Coverage Ratio

Figure 19 below provides a comparison of projected capital coverage ratio for Electric operations in MH15 compared to MH14.

Figure 19. Projected Electric Capital Coverage Ratio MH15 vs. MH14



The capital coverage ratio measures the ability of current period internally generated funds to finance sustaining capital expenditures (excluding major new generation and related transmission). Compared to MH14, the projected consolidated capital coverage ratio is higher due to higher internally generated funds attributable mainly to lower interest paid.

Capital coverage is below target for five of the first six years of the MH15 forecast due to the capital requirements to replace aging infrastructure and address capacity constraints. Thereafter, projected cash flows are sufficient to enable this target to be met in the remaining years of the forecast as a result of the 3.95% even annual rate increases and additional export revenues following the in-service of Keeyask. However, Manitoba Hydro is extensively reviewing the level of future sustaining capital expenditures which may result in higher expenditures that could further challenge the capital coverage ratio, particularly in the early part of the forecast period.

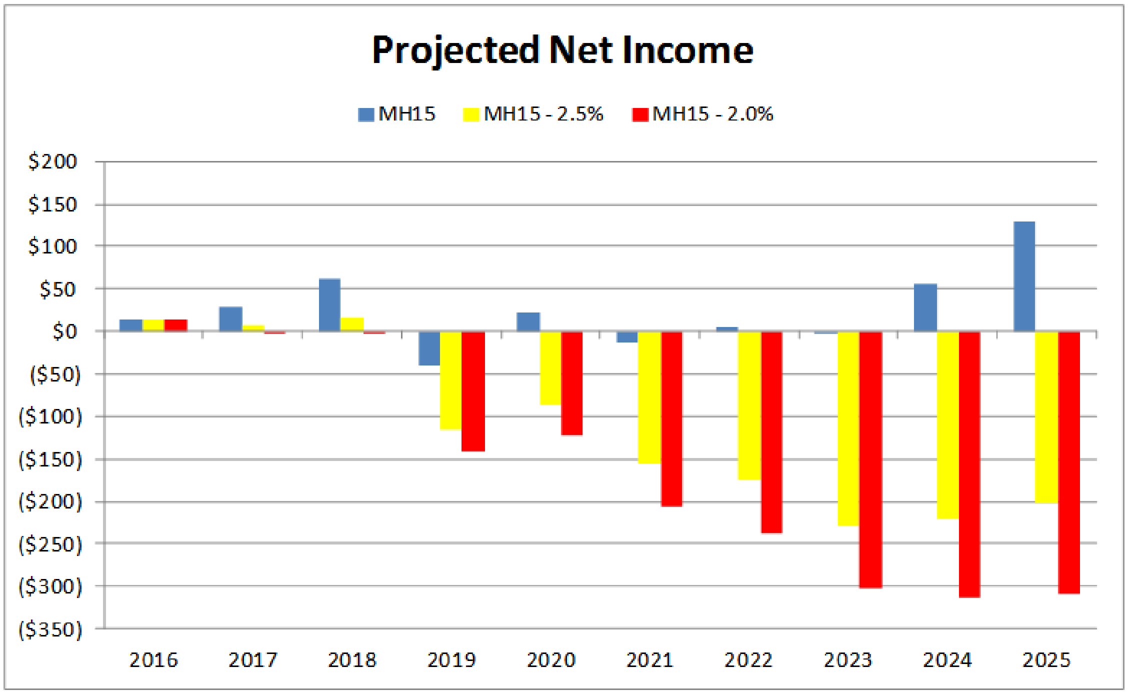
5.3 Rate Increase Sensitivity Analysis (MH15)

At the 2015/16 & 2016/17 GRA, a number of interveners recommended that the PUB approve rate increases in the range of 2% to 2.5% be granted by the PUB. In this section, Manitoba Hydro is providing information to demonstrate the financial impact on MH15 of rate increases between 2% and 2.5%.

The following figures provide a comparison of the net income, retained earnings, equity ratio, interest coverage ratio and capital coverage ratio under the following scenarios:

- MH15 3.95% rate increases;
- 2.5% rate increases; and,
- 2% rate increases.

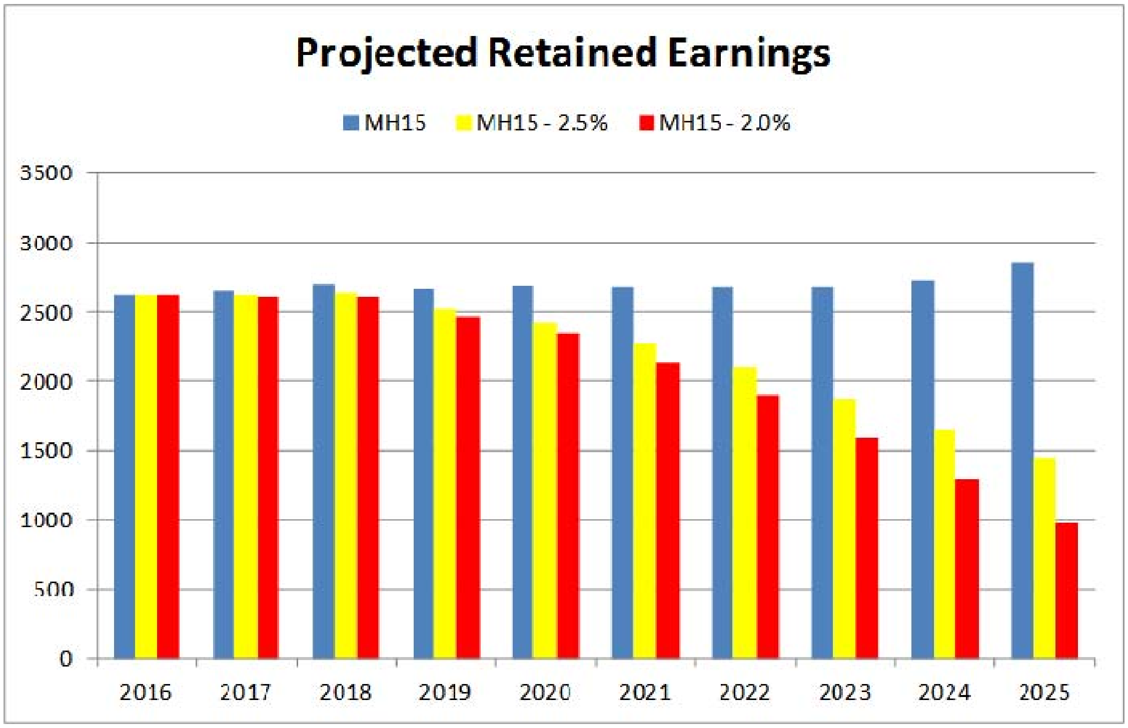
Figure 20. Projected Net Income under Varying Rate Increase Assumptions



As shown in the Figure above, over the 2017 to 2025 period, the 2.0% rate scenario results in net losses of $1.6 billion, and the 2.5% rate scenario results in net losses that total $1.2 billion.

By comparison, the MH15 3.95% rate increase results in net income of $0.2 billion between 2017 to 2025.

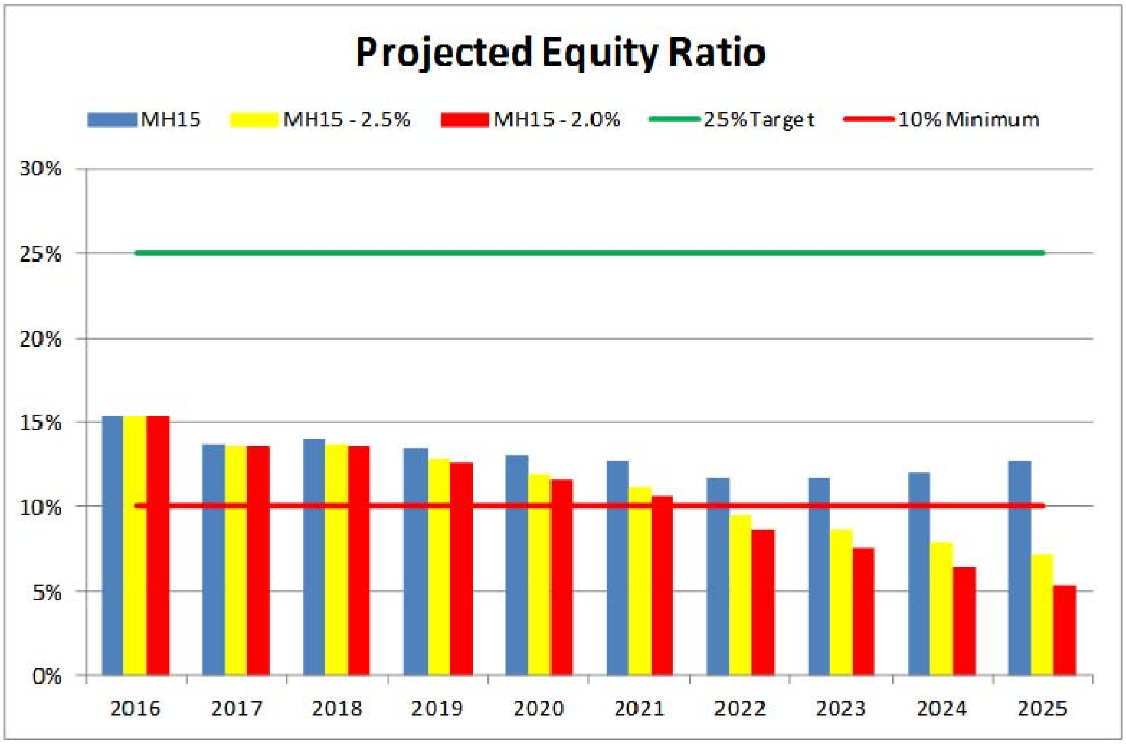
Figure 21. Projected Retained Earnings under Varying Rate Increase Assumptions



As shown in the Figure above, the 2.0% rate scenario results in projected retained earnings of $1.0 billion in 2025, and the 2.5% rate scenario results in projected retained earnings of $1.4 billion in 2025. Both the 2.0% and the 2.5% rate scenarios result in retained earnings which are significantly lower than Manitoba Hydro's $1.9 billion estimate of the cost of 5-year drought and do not provide sufficient reserves to mitigate the potential financial impacts of the considerable array of risks the Corporation faces in fulfilling its mandate.

By comparison, the MH15 3.95% rate increase results in retained earnings of $2.9 billion in 2025.

Figure 22. Projected Equity Ratio under Varying Rate Increase Assumptions



As shown in the Figure above, the 2.0% rate scenario results in a projected equity ratio of 5% in 2025, and the 2.5% rate scenario results in projected equity ratio of 7% in 2025. Both the 2.0% and the 2.5% rate scenarios result in equity ratios which are significantly lower than the 10% minimum acceptable level.

In MH15 the equity ratio is projected to reach a low of 12% by 2022, and increase to 13% in 2025.

Figure 23. Projected EBITDA Interest Coverage Ratio under Varying Rate Increase Assumptions

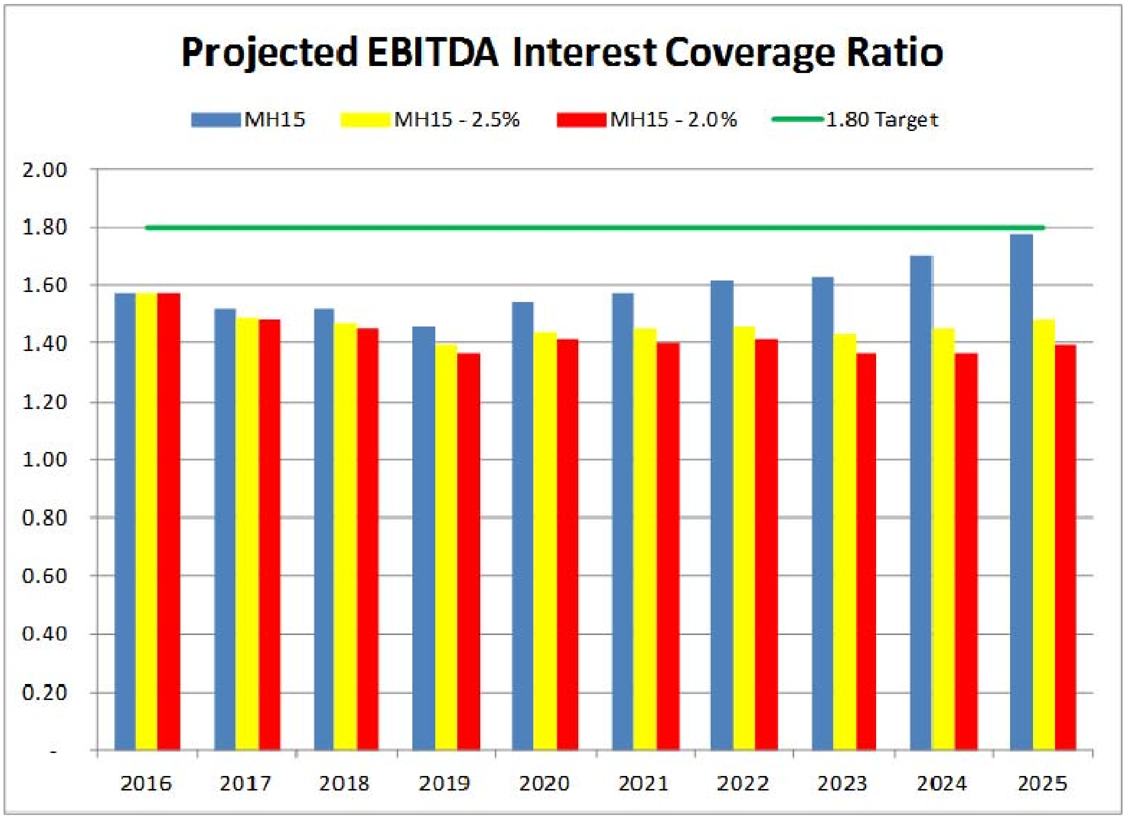
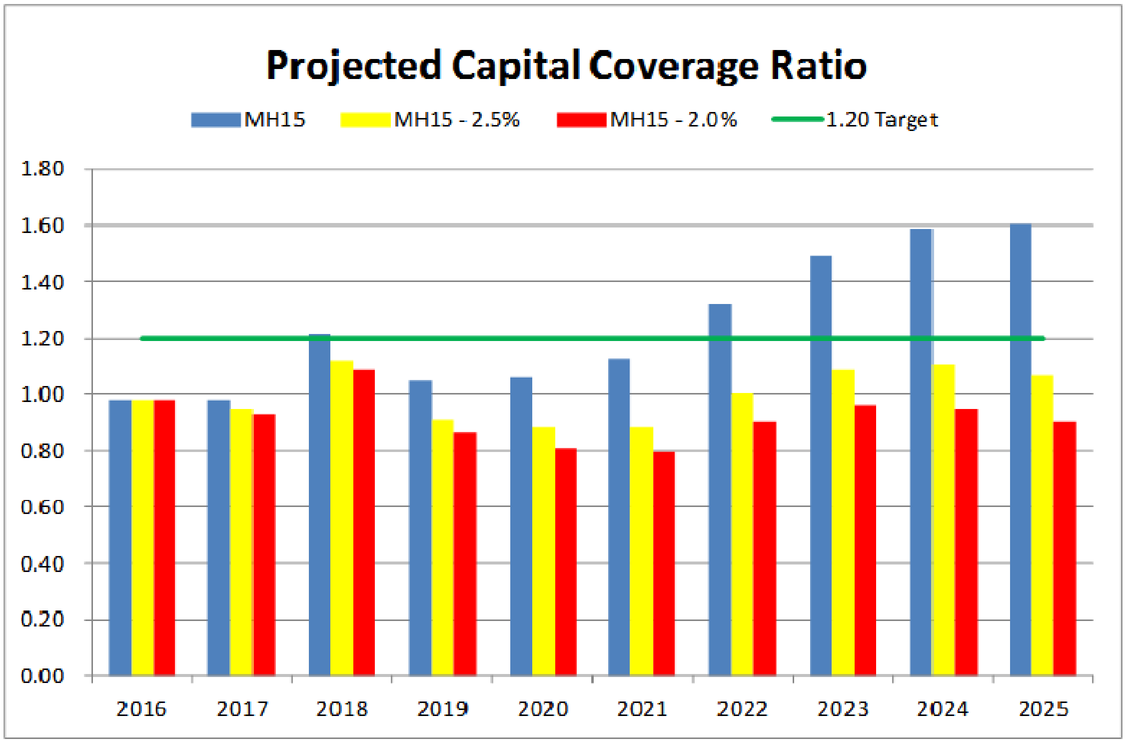


Figure 24. Projected Capital Coverage Ratio under Varying Rate Increase Assumptions



As can be seen in Figure 23 and Figure 24 above, the 2.0% and 2.5% rate increase scenarios result in projected interest and capital coverage ratios that are well below those projected in MH15 and well below minimum acceptable levels.

In Order 73/15, the PUB provided the following findings with respect to Manitoba Hydro's financial reserves and financial targets:

> *The Board notes that Manitoba Hydro's financial targets are not going to be fully achieved over the next 10 years of the 20-year forecast. The Board reiterates its concern expressed in Order 43/13 of the forecast deterioration in the utility's financial measures and notes that the current outlook contemplates a further deterioration from what was presented to the Board at the last GRA.*

> *The Board recognizes that Manitoba Hydro's near-term drought risks are adequately reflected in the 5-year and 7-year drought net revenue reductions. However, it is questionable whether a retained earnings level of $2.5 billion is sufficient to also cover the loss of major infrastructure or loss of export market access.*

…

The Board reiterates its concern raised in Order 43/13 that the move towards a 90:10 debt-to-equity ratio by the end of the decade may not provide sufficient retained earnings reserves to deal with droughts and other risks faced by the utility. The Board's ruling in this Order should not be taken as a tacit acceptance of a 90:10 scenario (pages 56-57).

These concerns expressed by the PUB were based upon the projected deterioration in the financial results and ratios in MH14, which included 3.95% rate increases over the ten year period. MH14 was projecting significant losses in the order of $900 million between 2018/19 and 2025/26. If the losses projected in MH14 were to materialize, they would significantly reduce Manitoba Hydro's financial reserves and place customers at increased risk of higher than 3.95% rate increases, particularly if adverse circumstances such as a drought occurred.

In MH15, Manitoba Hydro is projecting that financial reserves will be stable relative to current levels and increase marginally in the first 10 years of the forecast, including the impacts of the 3.95% rate increases. The projected financial reserves in MH15 are now more consistent with the levels projected in MH12 and MH13. The projected financial reserves in MH15, combined with continued cost containment initiatives, should assist Manitoba Hydro in maintaining the 3.95% rate increases in the near to medium term and reduce the risk of the requirement for higher than 3.95% electric rate increases in the future.

As the above scenarios demonstrate, rate increases in the order of 2.0% and 2.5% result in financial results and ratios that deteriorate well beyond the levels in MH14, placing customers at risk of higher rate increases in the future.

The 3.95% proposed and indicative rate increases in MH15 continue to be the minimum necessary to promote rate stability for customers and manage the deterioration of Manitoba Hydro's financial strength during the period of extensive capital investment.

5.4 2015 Financial Target Review Uncertainty Analysis

Manitoba Hydro's IFF is based on the reference case for a number of key financial variables. The extraprovincial revenues assumed in IFF reflect the average of all revenues based on the average of all historic stream flows. The electricity export price forecast and the interest rate forecast are based on the reference case from a number of external forecasters. The actual outcome of these variables can vary significantly from the reference forecast. When taken together, these variances can result in significant volatility in Manitoba Hydro's financial results.

As part of the 2015 Financial Target Review, Manitoba Hydro expanded the uncertainty analysis undertaken and extensively reviewed and tested by the PUB and its consultants during the NFAT proceeding. Manitoba Hydro's uncertainty analysis prepared 15,300 discrete financial projections which were based on varying assumptions with respect to water flows, interest rates, and export prices. The analysis estimated the impacts on the annual equity ratio, net income and cumulative retained earnings, assuming the indicative 3.95% rate increases in MH15. This analysis is included in the 2015 Financial Target Review Report provided as Attachment 6 to this submission.

Figure 25, Figure 26 and Figure 27 show the potential range of net income, retained earnings and equity ratio when 102 water flow records, three levels of export prices, and 50 interest rate scenarios are considered in combination in the forecast (102 x 3 x 50 = 15,300 financial projections).

As illustrated in page 11 of the 2015 Financial Target Review Report, each of the boxes represents 60% of the forecast outcomes for each of the financial metrics in each year (i.e. 20% of the outcomes are higher and 20% are lower than the box). The whiskers represent 90% of the forecast outcomes (i.e. 5% of the outcomes are higher and 5% are lower than the whiskers). The diamond represents the median of forecast outcomes, and it can be assumed that MH15 projected values fall very closely to the median.

Figure 25. Potential Range of Equity Ratio Under Varying Assumptions

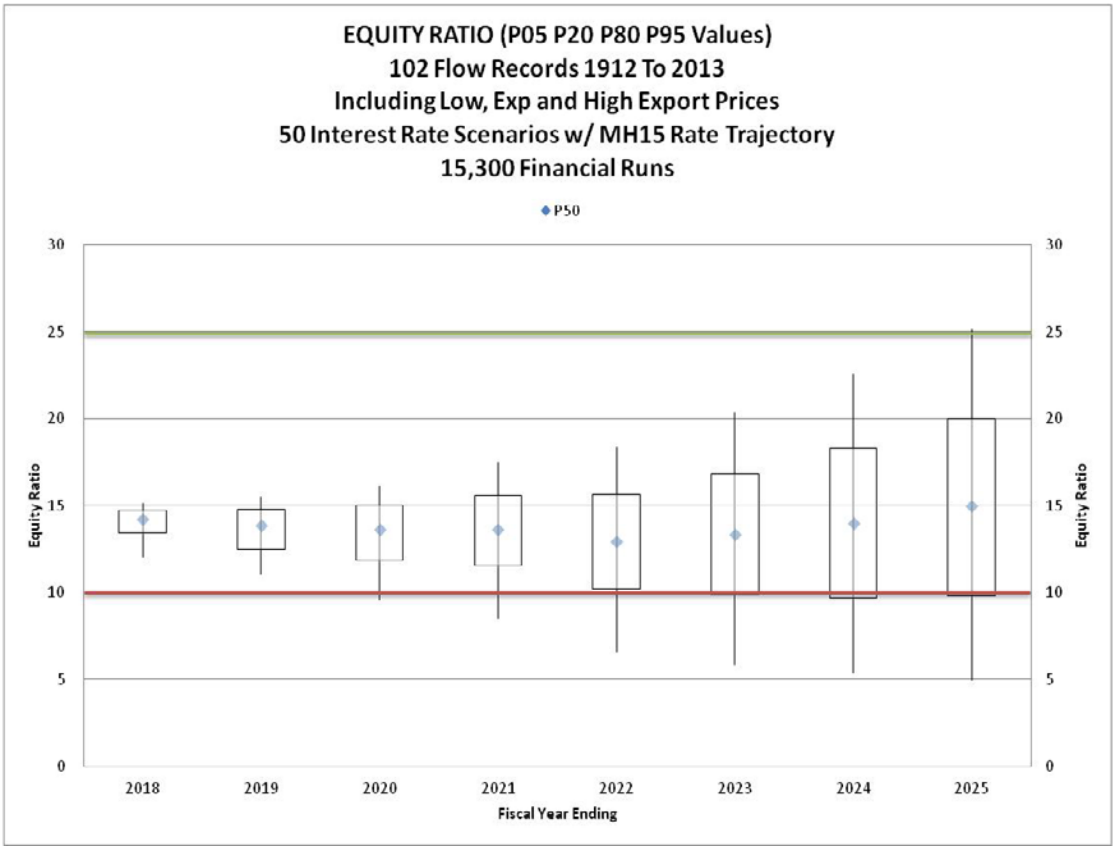


Figure 25 demonstrates that even with the 3.95% indicative rate increases:

- Beginning in 2018, about 90% of the projections are below a 15% equity ratio;
- By 2025, almost 50% of the projections are below the 15% equity ratio and virtually none of the projections meet the 25% equity ratio target.
- Over the period 2022-2025, about 20% of the projections are below the minimum acceptable equity ratio level of 10%.

Figure 26. Potential Range of Net Income Under Varying Assumptions

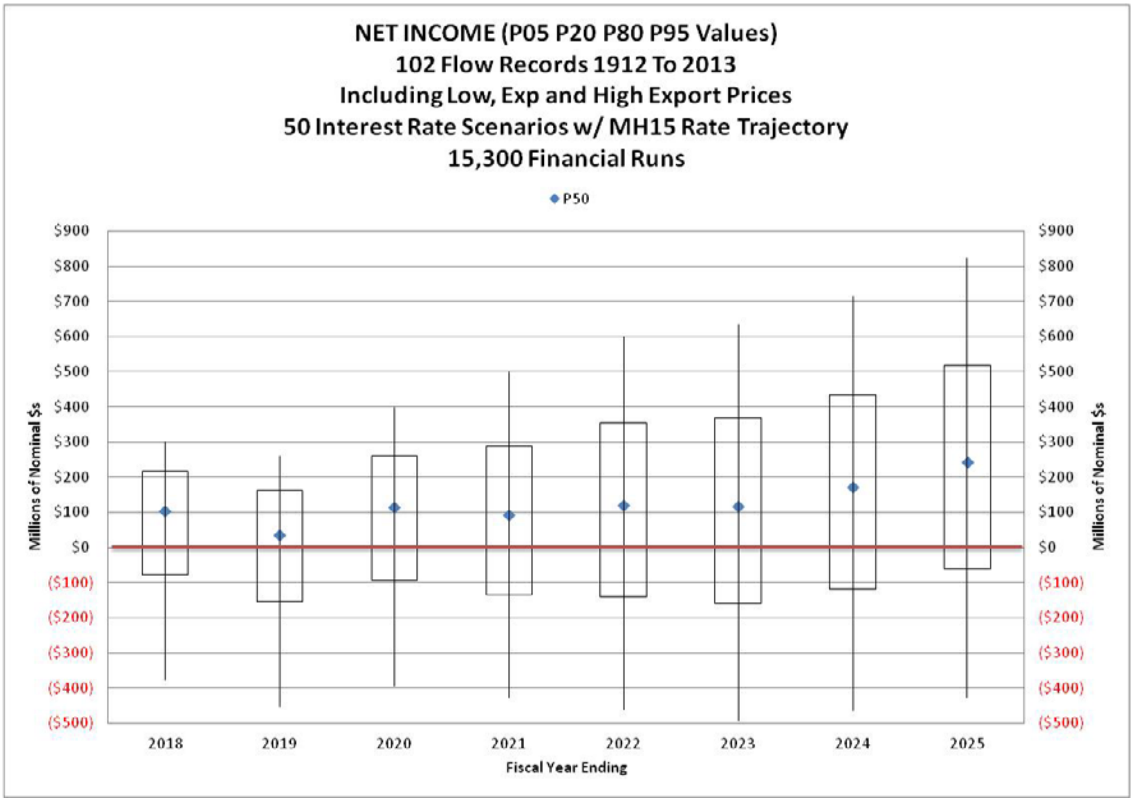


Figure 26 demonstrates that even with the 3.95% indicative rate increases:

- In 2018, about 30% of the projections show a net loss and more than 40% of the projections show a net loss for 2019.
- Over the period 2018 to 2025, about 30% of the projections show a net loss for any given year.
- From 2018 to 2022, there is an approximate 10% likelihood in any one year that the projections result in a net loss greater than $300 million and from 2023 to 2025 an approximate 10% likelihood that the projections result in a net loss greater than $400 million.

Figure 27 Potential Range of Retained Earnings Under Varying Assumptions

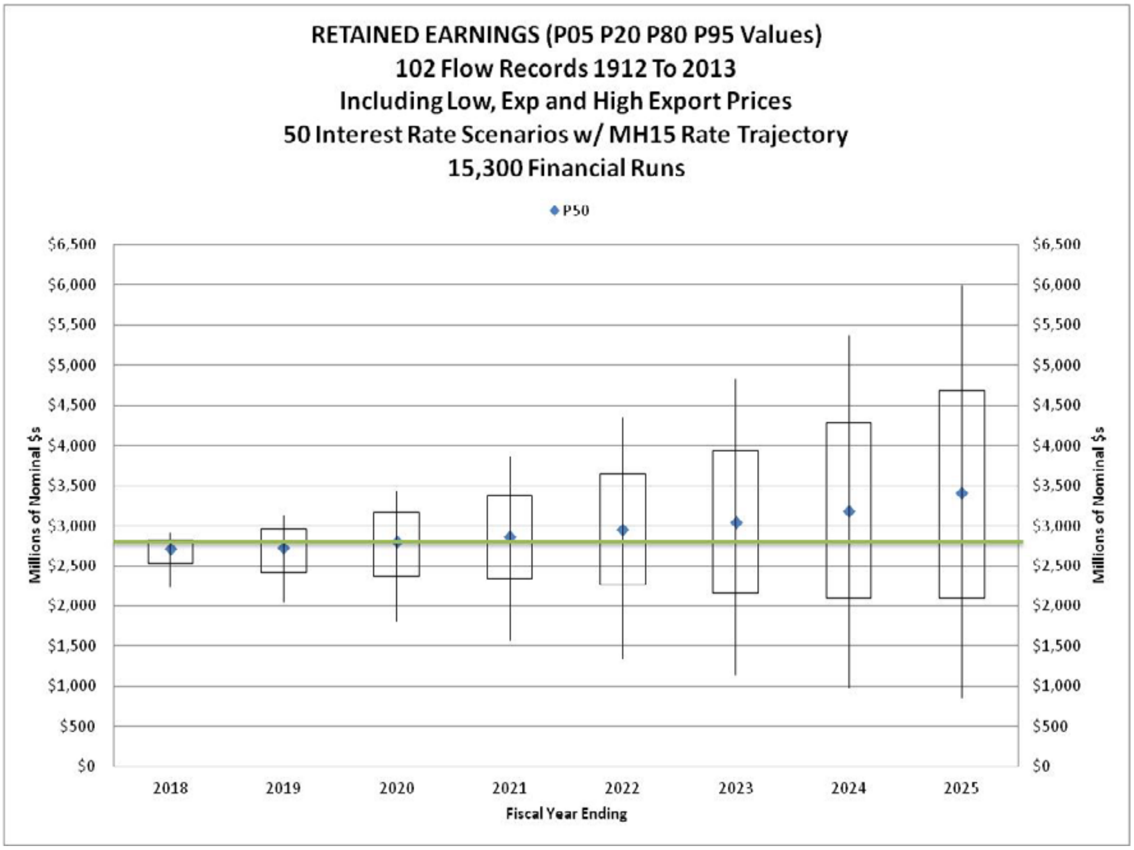


Figure 27 demonstrates that even with the 3.95% indicative rate increases:

- By 2025, retained earnings are projected to deteriorate from current levels of $2.8 billion in about 30% of the projections.
- From 2022 to 2025, approximately 20% of the projections show that retained earnings are below $2 billion, which is the approximate estimate of the cost of a 5-year drought.

The uncertainty analysis demonstrates the significant volatility that Manitoba Hydro is exposed to with respect to changes in water flows, interest rates and export prices. Even with 3.95% indicative rate increases, over the next ten years there is a significant likelihood that Manitoba Hydro could incur losses, retained earnings could be reduced below the projected costs of a 5-year drought of $1.9 billion, and the equity ratio could drop below the minimum acceptable level of 10%.

Given this volatility it is important that Manitoba Hydro maintains its financial strength in order to reduce the risk of rate instability and higher future rate increases for customers. As such, Manitoba Hydro is of the view that the 3.95% proposed and indicative rate increases continue to be the minimum necessary to promote rate stability for customers and manage the deterioration of Manitoba Hydro's financial strength during the period of extensive capital investment.

6.0 OPERATING & ADMINISTRATIVE EXPENSE

Consistent with MH14, Manitoba Hydro continues to limit increases in O&A in MH15 for 2015/16 to 2021/22 to below inflationary levels at 1%, excluding the impacts of accounting changes. Inflationary increases of 2% are assumed for 2022/23 and thereafter.

To limit increases in O&A costs at 1% (net of accounting changes), Manitoba Hydro has committed to reducing approximately 330 operational positions over the 3 year period from 2014/15 to 2016/17. As of September 30, 2015, Manitoba Hydro has achieved a cumulative reduction of 315 operational positions, as presented in the Figure below. These reductions have been achieved through attrition, the application of technology and the consolidation and elimination of work processes where appropriate.

Figure 28. Operational Position Reductions to September 30, 2015

Operational Position Reductions
Cumulative as at September 30, 2015

	Total
President & CEO	2.0
Corporate Communication & Public Affairs	1.0
General Counsel & Corporate Secretary	2.0
Human Resources & Corporate Services	65.0
Corporate Relations	9.0
Finance & Regulatory	10.0
Generation Operations	61.0
Major Capital Projects	1.0
Transmission	81.0
Customer Service & Distribution	62.0
Customer Care & Energy Conservation	21.0
Total	**315.0**

To the end of September 2015, O&A costs are $5.5 million below forecast for Electric operations. In response to Directive 14 of Order 73/15, Manitoba Hydro is providing a summary of its actual and forecast O&A expenditures by cost element to September 30, 2015 (Attachment 8), demonstrating that Manitoba Hydro is expected to meet its Electric O&A target for 2015/16.

7.0 CAPITAL EXPENDITURE FORECAST

A copy of Manitoba Hydro’s proposed CEF15 is included as Attachment 4. Manitoba Hydro is also including, as Attachment 5, details of the individual capital projects with a value greater than $1 million, in response to Directive 15 of Order 73/15.

The following Figure provides a summary of CEF15, related to Electric operations, which shows an increase of $320 million for the 10 year period to 2024/25 as compared to CEF14.

Figure 29. Change in Electric Operations Cost Flow from CEF14 to CEF15 ($ millions)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	10 Year Total
CEF14	2,491	3,073	3,125	2,078	1,432	999	751	679	681	729	16,038
Incr (Decr)	99	283	(202)	(70)	11	35	129	35	(1)	1	320
CEF15	2,590	3,356	2,923	2,008	1,443	1,033	880	714	680	730	16,358

Figure 30. Summary of Electric Operations Project Cost Increases (Decreases) in CEF15

Summary of Electric CEF15 Project Increases/(Decreases)

	Total Projected Cost	10 Year Increase (Decrease)
	($ Millions)	
*Electric Demand Side Management	NA	132
Steinbach Area 230-66kV Capacity Enhance	85	85
Bipole III - Transmission Line	1 655	78
Keeyask - Generation	6 496	76
Manitoba-Saskatchewan Transmission Project	57	57
Gillam Redevelopment and Expansion Program (GREP)	266	33
Bipole III - Collector Lines	260	24
Bipole III - Converter Stations	2 675	23
Pointe du Bois Spillway Replacement	595	15
Conawapa - Generation	405	15
Wuskwatim - Generation	1 449	10
Single Cycle Gas Turbines & Thermal Transmission	NA	-
Pointe du Bois Powerhouse Rebuild	NA	-
Pine Falls Units 1-4 Major Overhauls	90	(52)
Target Adjustment (Cost Flow)	NA	(154)
Other System Upgrades	NA	(21)
		320

*Assumes that Demand Side Management expenditures continue to be capitalized upon adoption of IFRS under an interim standard that continues to permit rate regulated accounting.

Major New Generation and Transmission capital expenditures over the 10-year period are forecast to be $10.6 billion. Compared to CEF14, this is an increase of $320 million which is due to higher Demand Side Management expenditures ($132 million), the new 230 kV Manitoba-Saskatchewan Transmission Project ($57 million), and cost flow timing changes due to lower than forecast spending in 2014/15 related to Keeyask, Bipole III and the Gillam Redevelopment and Expansion Project which carries forward into future forecast years ($234 million). The increase is partially offset by an increased cost flow reduction in CEF15 (-$154 million) compared to CEF14.

Electric Major and Base Capital expenditures did not change compared to CEF14. Business Unit capital plans were extensively reviewed resulting in reprioritization of projects and reallocation of funding for 2015/16, 2016/17 and 2017/18.

7.1 Summary of Manitoba Hydro's Major New Generation & Transmission Capital Projects

A summary of the forecast costs for each Major New Generation & Transmission projects can be found on pages 9-16 of CEF15. The following table summarizes the change in total project costs for the Major Generation & Transmission Projects:

Figure 31. Change in Total Project Costs for Major Generation & Transmission in CEF15

	Total Project Costs CEF15	Change in total project cost relative to CEF14	Revisions:
Wuskwatim - Generation	1 448.6	-	
Keeyask - Generation	6 496.1	-	
Grand Rapids Hatchery Upgrade & Expansion	23.5	-	
Conawapa - Generation	404.7	7.7	Estimate reflects an increase in capitalized interest to align with the revised timing of the review of the project business case and anticipated additional First Nation costs.
Kelsey Improvements & Upgrades	338.8	(1.5)	Project decrease reflects a revised schedule, refined construction contracts and updated interest, escalation, activity and overhead rates.
Kettle Improvements & Upgrades	190.9	(0.6)	Project decrease reflects a revised schedule, finalization of construction contracts and updated interest, escalation, activity and overhead rates.
Pointe du Bois Spillway Replacement	594.8	20.0	Project increase is the result of schedule delays in execution of work in late 2014, projected contractor performance in 2015 and resolution of claims, potential increase to the future re-vegetation work and site restoration in 2016. The budget also includes higher interest costs as a result of the schedule delay and cost increases.
Pointe du Bois - Transmission	118.1	3.8	Project increase reflects higher contractor pricing on transformer deluge system and fence replacement as well as higher labor costs on the Stafford Station rebuild.
Gillam Redevelopment and Expansion Program (GREP)	266.5	-	
Bipole III - Transmission Line	1 655.4	-	
Bipole III - Converter Stations	2 675.1	-	
Bipole III - Collector Lines	260.2	-	
Bipole III - Community Development Initiative	62.0	-	
Riel 230/500kV Station	319.9	(10.0)	Project decrease reflects a reduction for unused contingency, removal of escalation and lower capitalized interest.
Manitoba-Minnesota Transmission Project	353.6	3.3	Project increase reflects a refinement of estimates for licensing and environmental approvals.
Manitoba-Saskatchewan Transmission Project	57.0	57.0	New project

Directive 13 of Order 73/15 requires Manitoba Hydro to provide quarterly reports for the major new generation and transmission capital projects, including any changes in the proposed budgets and reasons for such changes. Manitoba Hydro intends to provide the first quarterly reports pursuant to this directive in February 2016, to cover the period September to December 2015.

7.2 Update on the Bipole III Reliability Project

The Bipole III Project Environment Act Licence was issued August 14, 2013. Manitoba Hydro continues to actively seek land permits, work permits, and meeting pre-construction conditions. Permits have been received for Keewatinohk and Riel Converter Stations, Keewatinohk Construction Power & AC Collectors Lines, and the north and central segments of the HVDC 500 kV Transmission Line. To date, budget and schedule are tracking on target.

The Keewatinohk Lodge that will accommodate the 600 workers working on the construction of the Keewatinohk converter station was completed in September of 2015, the recreation centre that will be a part of the lodge is expected to open in December of 2015.

Construction at Keewatinohk Converter Stations (KCS) is ramping up with major HVDC and switchyard contractors mobilizing to site for fall 2015 for construction. Work was completed on the batch plant that will supply concrete for the KCS site. Construction of the auxiliary buildings is underway, and pile installation at the converter station site is set to commence at the end of November. Construction at Riel Converter Stations is ramping up with Synchronous Condenser and HVDC contractors mobilizing to site. Installation of piles has commenced at the Riel site. Design and procurement of the HVDC equipment for both sites is in its final stages.

Clearing of the transmission line is expected to be completed the winter of 2015/16, as work begins on the construction of the line itself in the fall of 2015. The procurement process for the construction of the 500 KV HVDC transmission was initiated June 2015; contractors have been pre-qualified to submit proposals for construction of one or more portions of the transmission line, and the work has been broken into four work packages. To date, two of the four contracts have been awarded. All other major contracts for the construction of the line have been awarded.

As of September 30, 2015, Manitoba Hydro has invested approximately $1.24 billion in the Bipole III Reliability project.

7.3 Update on Keeyask Generating Station

Construction commenced on July 16, 2014 for the Generation Station phase of the Keeyask project and continues. Budget and schedule remain generally on track to date and progress included the planned year one/two activities including construction of the river management structures. As part of these river management structures, the Powerhouse and Spillway Cofferdams were completed allowing for overburden and rock excavation to occur in the dry for the permanent structures. An opportunity was pursued to place a small volume of concrete early for the Service Bay. The baseline schedule start for concrete was May 2016, however, about 1% of the total concrete volume has been placed this fall.

Project infrastructure has continued over the summer including construction of the South Access Road which will link Gillam to the project site on the south side of the Nelson River. The road is expected to be completed within the next year. The final modular unit for the 2,000 person construction camp was placed in June 2015 and the finishing work on the complex is near completion. It is expected that the camp will be fully completed in early 2016. In addition, the construction power line and station became operational in July.

As of September 30, 2015, Manitoba Hydro has invested approximately $1.97 billion in the Keeyask project.

8.0 PROPOSED RATES FOR APRIL 1, 2016 & CUSTOMER IMPACTS

Manitoba Hydro is requesting approval of an interim 3.95% rate increase, on an across-the-board basis, effective April 1, 2016.

The rate schedules included as Attachment 9 reflect the application of the proposed 3.95% increase to all rate components, including basic charges, demand and energy charges. These schedules also reflect the current two part demand/energy rate design for the General Service Large customers. The rate schedules provided in the 2015/16 & 2016/17 GRA reflected Manitoba Hydro's proposed Time-of-Use rate design for those customer classes. The public review of Time-of-Use rates has yet to be scheduled, and therefore the rate schedules to be effective April 1, 2016 have been revised to reflect Manitoba Hydro's current rate design.

Bill Comparisons between current August 1, 2015 rates and proposed April 1, 2016 rates are provided as Attachment 10, and a Proof of Revenue for 2016/17 showing the total revenue increase by customer class is provided in Attachment 11.

On a class basis, the increase in revenues is shown in the following Figure:

Figure 32. Recovery of Additional Revenues by Customer Sub-Class

Customer Class	2016/17 Additional $(millions)
Residential	$25.7
GS Small*	$12.3
GS Medium	$8.5
GS Large	$14.5
A&R Lighting	$1.0
Misc. & DSM	($0.6)
Total GCR	$61.4

*includes revenues from General Service customers in Diesel Communities

Manitoba Hydro has applied the proposed 3.95% interim rate increase across all components of the rates for the Residential, General Service Small, Medium and Large rate sub-classes including Diesel, Area & Roadway Lighting class and the seasonal and Flat Rate Water heating Residential and General Service rate sub-classes. The proposed

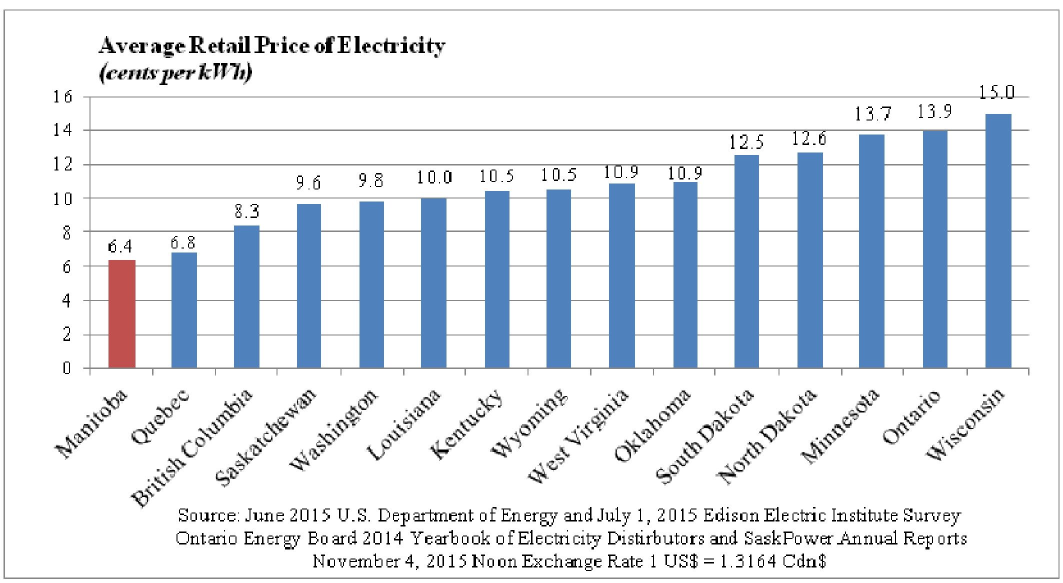
3.95% interim rate increase applied on an across-the-board basis generates additional revenues of $61.4 million for fiscal 2016/17.

The rates proposed for Limited Use of Billing Demand customers are derived from the rates proposed for General Service Small, Medium and Large customer classes. The monthly Basic Charge will increase to the same level as regular GS Small/Medium customers. The Demand Charge is set at approximately 25% of the Demand Charge of the corresponding regular General Service class, with the energy charge calculated to provide revenue neutrality at a load factor of approximately 18%.

A residential customer, without electric space heat, with an average usage of 1,000 kWh per month would experience an increase in their monthly bill of $3.33 for 2016/17. A residential customer with electric space heat, using an average of 2,000 kWh a month, would experience increases of $6.36 per month for April 1, 2016.

Manitoba Hydro's domestic electric rates are affordable for Manitoba families and support the competitiveness of Manitoba businesses. Manitoba Hydro's weighted-average retail electricity price for all customer classes, as shown in Figure 33, demonstrates that Manitoba Hydro has among the lowest average retail electricity rates in North America.

Figure 33. Average Retail Price of Electricity

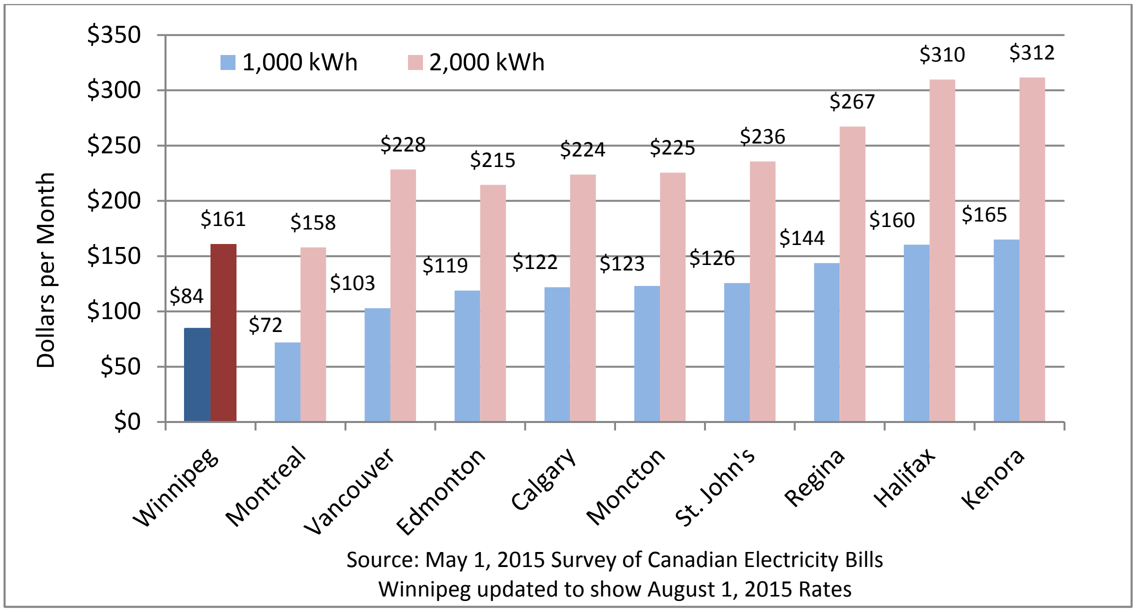


Other Canadian utilities are also encountering the need to replace and refurbish aging utility assets, which will place upward pressure on electricity rates across most jurisdictions in the coming years. A summary of the rate increases implemented and/or proposed in 2015/16 for British Columbia, Saskatchewan, Quebec and Ontario is provided below:

- BC Hydro's electricity rates increased by 6% effective April 1, 2015, with the main drivers of the rate increase continuing to be the need to fund investments in aging and new infrastructure, and to accommodate growing demand.
- SaskPower implemented a 3% rate increase effective January 1, 2015 and a further 2% rate increase effective September 1, 2015. The rate increases continue to be driven by the need to invest in renewing and maintaining aging infrastructure and accommodating load growth.
- On April 1, 2015, Hydro-Quebec implemented a 2.9% electricity rate increase, and has applied for a further rate increase of 1.9% effective April 1, 2016, primarily driven by increased supply costs and the impacts of the extremely cold temperatures of the last two winters.
- The Ontario Energy Board set new electricity charges effective May 1, 2015 that result in an increase of 4.6% in the monthly bill of Ontario residential customers under the time-of-use price plan and new electricity charges effective November 1, 2015 that result in a further 3.4% increase in the monthly bill of residential customers. The new electricity charges reflect increases in the cost of electricity generation only, and do not reflect changes to costs for transmission or distribution. For example, the Ontario Energy Board previously approved a rate increase for Hydro One effective January 1, 2015 that result in increases ranging from 0.1% to 3.4% in the bill of residential customers related to changes for transmission and distribution. Hydro One's rate increases are driven by infrastructure investments needed to replace and refurbish aging assets, expand the system as a result of load growth and accommodate a modified generation mix.

Figure 34 below provides residential average monthly bills for various jurisdictions that reflect the May 1, 2015 Manitoba Hydro Survey of Canadian Electricity Bills (Attachment 12) and Manitoba Hydro's rate increase effective August 1, 2015.

Figure 34. Residential Average Monthly Bill Comparison



As is demonstrated in the Figure above, Manitoba continues to enjoy a distinct advantage over most of the Canadian jurisdictions with respect to the average monthly bills of residential customers. Even with the proposed rate increase of 3.95%, Manitoba Hydro rates will continue to be competitive compared to other jurisdictions.

9.0 MONTHLY HYDRAULIC GENERATION, WATER CONDITIONS AND EXTRA-PROVINCIAL ENERGY EXCHANGE DATA

In accordance with the filing requirements in Directive 5 of Order 43/13, Manitoba Hydro is providing as Attachment 13 information on monthly hydraulic generation, water conditions and extra-provincial energy exchange data for the months of April 2015 to October 2015, being the most current available data.

As Attachment 3, Manitoba Hydro is including the MHEB Quarterly Report for the Period Ended September 30, 2015.