

**MANITOBA HYDRO**  
**2017/18 & 2018/19 GENERAL RATE APPLICATION**

**INTEGRATED FINANCIAL FORECAST**

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**3.0 OVERVIEW**

Tab 3 provides an overview of Manitoba Hydro's Integrated Financial Forecast, and Debt Management Strategy. Section 3.1 and Section 3.2 discuss Manitoba Hydro's 2016 Integrated Financial Forecast (IFF16) and Electric Operations Forecast (MH16). Section 3.3 discusses Manitoba Hydro's Debt Management Strategy.

**3.1 INTEGRATED FINANCIAL FORECAST**

The Integrated Financial Forecast (IFF) is Manitoba Hydro's primary planning document for projecting the future financial direction of the Corporation. IFF16 sets forth the projected financial results and financial position of Manitoba Hydro for the 10-year period to 2026/27. Its purpose is to provide an indication of the Corporation's long-term financial direction. The IFF serves as the primary forecast to determine the need for rate increases and the detailed forecasts in years two and three of the IFF form the basis of the revenue requirement portion of the Corporation's electric rate application.

The IFF is based on various component forecasts from across the Corporation including:

- Economic Outlook,
- Energy Price Outlook,
- Electricity Export Price Forecast,
- Power Smart Plan,
- Electric Load Forecast,
- Domestic Revenue Forecast,
- Resource Plan Assumptions and Analysis,
- Generation Cost & Interchange Revenue Forecast,
- Capital Expenditure Forecast, and
- Operating & Administrative Expense Forecast.

The events of the past year are noteworthy in the Corporation's preparation of IFF16. In May of 2016, a new Manitoba Hydro-Electric Board (MHEB) was appointed. The Province of Manitoba issued a mandate to the Minister of Crown Services to work with the MHEB to review the circumstances around the Bipole III Reliability Project, which also resulted in a review of the Keeyask Generating Station Project. It has been necessary for the MHEB to examine and consider an enormous amount of information on a broad array of topics and make its independent determination of how Manitoba Hydro should move forward. Therefore the preparation of the Corporation's financial forecast occurred later in the planning cycle that has normally occurred in the past.

IFF16 was approved on April 28, 2017 and can be found in Appendix 3.1. IFF16 includes segmented forecasts for electric operations (MH16), natural gas operations (CGM16), and corporate subsidiaries (CS16). In addition, in this Tab, the 2016 Economic Outlook and additional information with respect to the determination of Manitoba Hydro's interest rate forecast are provided in Appendix 3.2.

As outlined in Section 2.3 of Tab 2, past financial forecasts have reflected a deterioration in the equity ratio to below 15% during the current phase of debt funded capital investment as well as a 15 year time frame for restoring a 25% equity capitalization. Due to the changes in conditions, outlook and Corporate governance, Manitoba Hydro believes that the risk faced by the Corporation requires the mitigating actions necessary to improve the Corporation to 25% equity capitalization within 10 years.

Manitoba Hydro has prepared IFF16 to 2026/27 to focus on the financial forecast over the next 10 year period. However, recognizing that a 20-year outlook has been provided in past proceedings, the MH16 20-Year Outlook is provided for informational purposes in Appendix 3.3.

### **3.2 ELECTRIC OPERATIONS FORECAST (MH16)**

The MH16 forecast contains the projected financial results for electric operations to 2026/27. Manitoba Hydro's financial targets have been set for consolidated operations; however as requested in past proceedings, Manitoba Hydro has also provided financial

ratio calculations for electric operations in Appendix 3.3. Given the dominant size of electric operations in relation to consolidated operations, these calculations usually differ only slightly from consolidated ratio calculations.

MHEB has approved a five-year rate strategy in IFF16, projecting 7.9% annual electric rate increases from 2017/18 to 2021/22 followed by inflationary 2.0% indicative rate increases thereafter.

This rate strategy essentially compresses the previously projected 3.95% annual rate increases which were planned until 2028/29, into the next five year period in order to achieve the following objectives:

- Offset the reductions to domestic load and electricity export price forecasts;
- Mitigate the upward pressure of borrowing requirements and costs on future revenue requirements;
- Mitigate the deterioration of Manitoba Hydro's financial position thereby reducing the likelihood of being an encumbrance on the Province of Manitoba's financial position;
- Provide financial insurance that minimizes the impact to customer rates under a significant risk event; and
- Enables a return to inflationary level rate increases much earlier than contemplated under previous forecasts.

While MH16 is underpinned with a series of proposed 7.9% annual rate increases from 2017/18 to 2021/22, Manitoba Hydro is seeking approval of the 2017/18 and 2018/19 rate increase at this time, in addition to confirmation of existing rates currently approved on an interim basis. Actual rate requests made in future applications will reflect the circumstances and outlook at that time and will be subject to the review and approval of the MHEB.

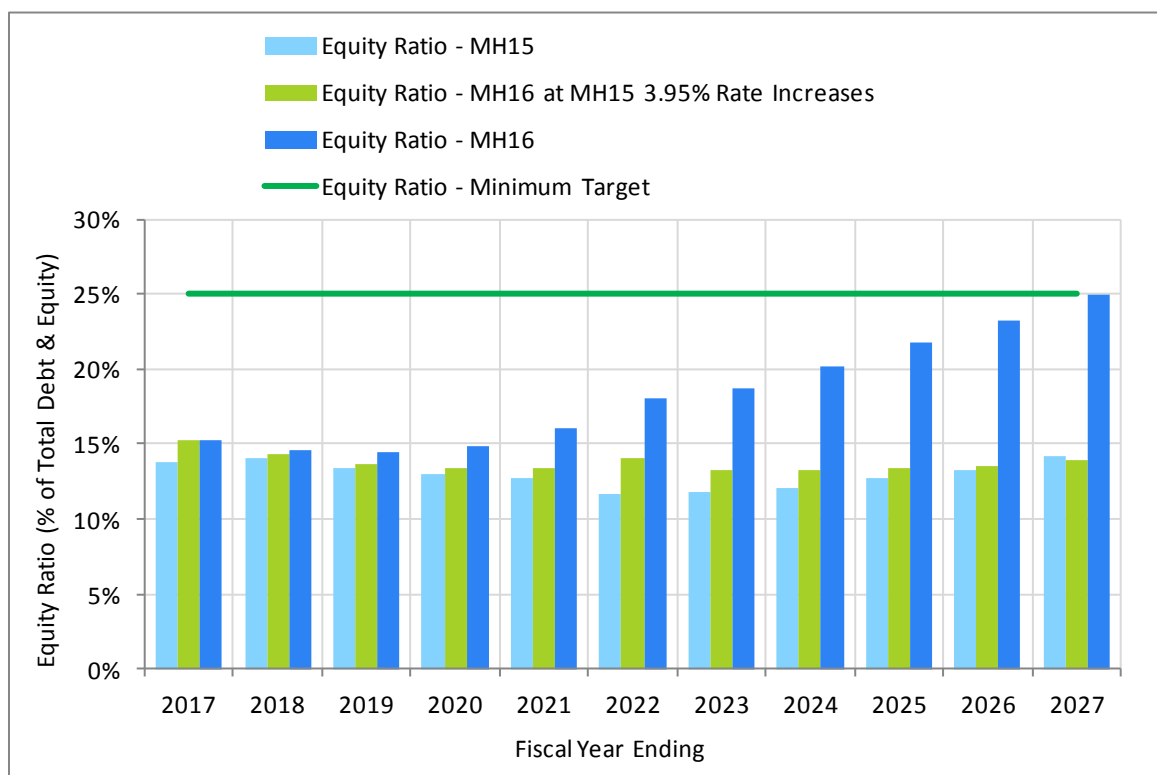
### **3.2.1 10-Year Electric Operations Financial Outlook**

#### **Comparison of Equity Ratios:**

**Figure 3.1** below compares the resulting equity ratios between MH16, MH16 at 3.95% rate increases (Appendix 3.4) and MH15. If Manitoba Hydro were to include the

previously forecast rate trajectory of 3.95% increases until 2028/29 in its current forecast, the MH16 equity ratio shown does not show signs of financial recovery within the 10 year forecast period. The return to a 25% equity target does not occur until 2035/36 which compares to 2031/32 under MH15. 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.

**Figure 3.1 Comparison of Equity Ratios**

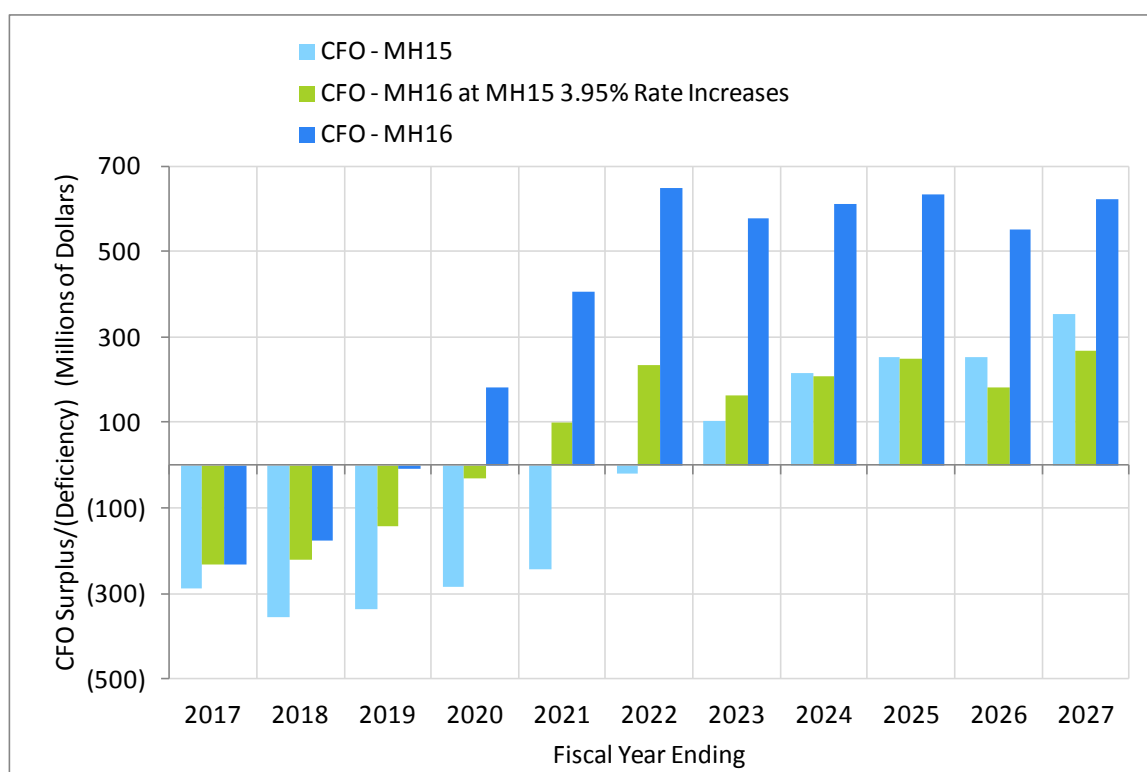


**Comparison of Cash Flows:**

The following **Figure 3.2** shows the annual cash flow surplus or deficiency after business operations capital expenditures under MH16, MH16 (at 3.95% rate increases) and MH15. As explained in Section 2.2 of Tab 2, this methodology better illustrates the cash flow impacts and the need for increased revenue, which in turn minimizes the need for incremental borrowing which carries a further increase in finance expense ultimately to be recovered from customers and adds to the financial risk of the Corporation.

**Figure 3.2** shows the persistent cash flow deficiency in MH15 over the first 5 years of the forecast. Savings from Manitoba Hydro's accelerated cost reduction program, lower forecast interest rates, and favourable near term water flow conditions on their own are not enough to completely reduce the cash flow deficiency shown in MH16 (at 3.95% rate increases). Even with 7.9% rate increases in MH16, the cash flow deficiency is not eliminated until the 4<sup>th</sup> year of the forecast in 2019/20. Thereafter, forecast surplus cash flows are available for debt retirement which would further improve Manitoba Hydro's equity capitalization.

**Figure 3.2 – Comparison of Cash Flow Surplus or Deficiency for MH15 and MH16**



The advancement of rate increases into the first 5 years of the forecast mitigates future additional rate pressure on customers in the event the Corporation experiences adverse water flow conditions, higher interest rates, lower export prices or some other adverse risk event. Tab 4 Financial Targets and Uncertainty Analysis discusses the impact of such risks in greater detail.

**Comparison of Net Income:**

The following **Figure 3.3** compares MH16 net income first to MH16 (at 3.95% rate increases) and to the net income projected in MH15.

The MH15 annual net income level shown in **Figure 3.3** is approximately \$55 million on average over the 10-year forecast period. Assuming the same 3.95% rate increases as MH15, MH16 shows on average approximately \$85 million in net income annually. The improvement in net income in MH16 results from factors other than rate increases mainly due to the change in two non-cash income components:

- The inclusion of regulatory deferral accounts in MH16 for depreciation and overheads not eligible for capitalization established for rate setting purposes to address the PUB's findings in Order 73/15; and
- The additional interest capitalization on Keeyask over the 21 month delay period.

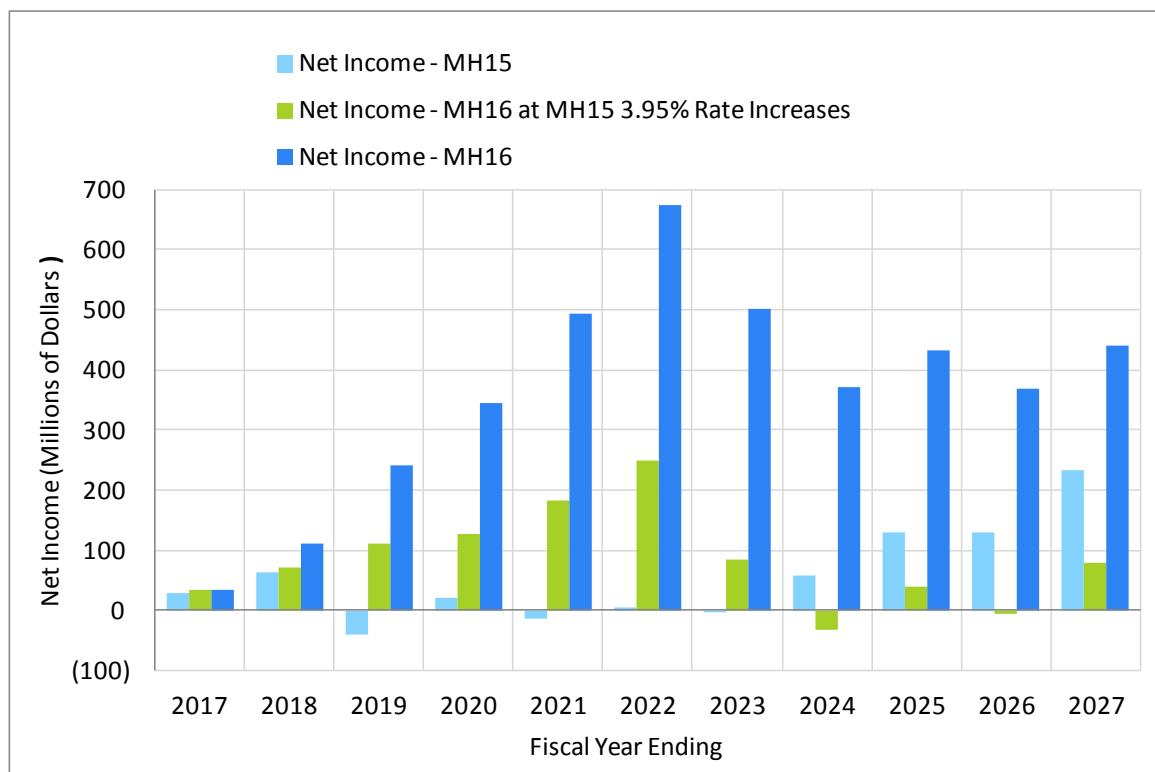
If not for these factors, MH16 net income (at 3.95% rate increases) over the 10 year forecast would be approximately the same as MH15 notwithstanding a significant forecast reduction in operating and administrative costs and interest rates.

MH16 is inclusive of significant workforce reduction, procurement and financing cost savings over the 10 year forecast period. These reductions, along with lower forecast interest rates compared to MH15, are necessary to mitigate the revenue impacts resulting from the reduction in the load forecast and export prices dominating this forecast.

It must be recognized that Manitoba Hydro's net plant in service increases over the 10-year period from approximately \$12 billion to almost \$27 billion in 2026/27. Even with cost reductions and the proposed rate increases, debt will peak at \$23 billion in 2021/22. The appropriate amount of net income and positive cash flow Manitoba Hydro should generate should reflect the growing size of its balance sheet and the risks associated with the significant levels of debt required to fund this investment.

The levels of net income and cash flow proposed in MH16 are a significant change from MH15. The previous forecast projected only a modest \$600 million growth in equity by 2026/27. Levels of earnings for a Corporation with \$12 billion of assets in service must be scaled up significantly to reasonably address the risks associated with operating \$27 billion worth of assets. Increased levels of net income will consequently result in improvements to the levels of retained earnings and steady progress towards the minimum equity target of 25% in the 10 years of the forecast.

**Figure 3.3 Comparison of Electric Operations Net Income**



**Comparison of Revenues and Expenses:**

**Figure 3.4** below summarizes the changes in the revenue and expense components of net income between MH16 and MH15.

In comparing MH16 and MH15, MH16 rate increases are first held constant with the 3.95% rate increases projected in MH15 in order to isolate the financial impacts of other key factors changed from MH15. The financial impacts of the incremental rate increases



from 3.95% to 7.9% are then summarized at the bottom of **Figure 3.4** to show the projected net income including 7.9% annual rate increases from 2017/18 to 2021/22.

**Figure 3.4 Comparison of Electric Operations Revenues and Expenses**

	Increase/(Decrease) (millions of \$)					
	2017-2019			2017-2027		
	MH16	MH15	Variance	MH16	MH15	Variance
Domestic Revenues (at MH15 Rate Increases)*	4,615	4,881	(266)	21,115	22,265	(1,150)
Extraprovincial	1,354	1,329	25	6,961	8,402	(1,441)
Other*	88	86	2	358	344	14
Total Revenues	6,056	6,296	(240)	28,435	31,011	(2,577)
Operating and Administrative	1,555	1,680	(125)	5,899	6,693	(795)
Finance Expense	1,850	1,946	(96)	9,903	11,070	(1,167)
Finance Income	(53)	(63)	9	(232)	(233)	1
Depreciation and Amortization	1,251	1,253	(2)	6,536	6,590	(55)
Water Rentals and Assessments	368	341	26	1,361	1,369	(8)
Fuel and Power Purchased	431	513	(82)	1,564	2,292	(728)
Capital and Other Taxes	394	402	(8)	1,741	1,671	69
Other Expenses	284	268	16	1,301	942	358
Corporate Allocation	25	25	(0)	89	90	(1)
Total Expenses	6,105	6,366	(261)	28,161	30,486	(2,325)
<b>Net Income before Net Movement in Reg. Deferral</b>	<b>(49)</b>	<b>(70)</b>	<b>21</b>	<b>274</b>	<b>525</b>	<b>(252)</b>
Net Movement in Regulatory Deferral	243	105	138	684	79	605
<b>Net Income (at MH15 Rate Increases)</b>	<b>194</b>	<b>35</b>	<b>159</b>	<b>957</b>	<b>604</b>	<b>353</b>
Additional Domestic Revenue (over MH15 Rate Increases)	168	-	168	2,530	-	2,530
Financing and Capital Tax Savings	2	-	2	544	-	544
Net Income (at MH16 Rate Increases)	365	35	330	4,032	604	3,428
<b>Net Income Attributable to:</b>						
<b>Manitoba Hydro</b>	<b>387</b>	<b>51</b>	<b>336</b>	<b>4,011</b>	<b>607</b>	<b>3,404</b>
Non-controlling Interest	(22)	(16)	(6)	21	(2)	23
<b>Equity Ratio (MH16 at 7.9% Rate Increases)</b>	<b>14%</b>	<b>13%</b>		<b>25%</b>	<b>14%</b>	

\*MH15 has been restated to reflect Bipole III Reserve Account amortization in Domestic Revenues rather than Other Revenue.

**Lower Finance Expense**

Finance expense in MH16 is \$1.7 billion lower in the 10-year period to 2026/27 in comparison to MH15 due to the extended period of deferred financing charges associated with the 21-month Keeyask delay through interest capitalization (\$0.6 billion); lower forecasted interest rates (\$0.5 billion); a plan to shorten the average term to maturity for new debt issuance from 20 to 12 years (\$0.5 billion); as well as lower finance expense on lower debt volumes associated with projected higher rate increases and savings from Manitoba Hydro's cost reduction program and the beneficial reduction in the compounding of lower debt service costs (\$0.8 billion). These reductions to finance expense are partially offset by the increase in projected borrowing and interest payments associated with the increase in major capital project costs (\$0.7 billion).

The 21-month delay in the Keeyask in-service date results in an additional \$0.6 billion in interest capitalized to the Keeyask project and an equivalent reduction in finance expense. Although the conventional accounting practice of capitalizing interest costs to the in-service date defers the impacts of financing costs to net income and revenue requirement, Manitoba Hydro is still required to meet the related interest payment obligations. When combined with the lost net extraprovincial revenues over the delay period and the \$2.2 billion increase in capital cost, further deferral of Keeyask interest charges ultimately translates into higher borrowing and financing costs that must be paid by customers. This can be demonstrated by holding the MH15 3.95% rate increases constant in MH16 and observing the delay in achieving the target 25% equity ratio by seven years to 2033/34 (Appendix 3.4).

As part of Manitoba Hydro's cost reduction plan, Manitoba Hydro plans to shorten the average term to maturity of new debt issuances, thereby further reducing Manitoba Hydro's debt portfolio weighted average interest rate and debt servicing costs. In past forecasts, Manitoba Hydro used a planning assumption whereby all new Canadian debt issuances carried a 20-year term to maturity and corresponding forecasted 20-year average interest rates (the average of the forecasted Manitoba 10 and 30-year interest rates). For MH16, a 12-year weighted average term to maturity and forecast 12-year weighted average interest rates were used, effectively lowering the forecast yield rate on new Canadian borrowings by an average of 50 basis points annually. The financial benefit associated with this forecasting assumption change has the potential to provide

1 approximately a \$0.5 billion savings in debt servicing costs over the 10-year forecast  
2 period to 2026/27. Manitoba Hydro's execution of this strategy is dependent on  
3 achieving the revenues (i.e. rate increases) and cost savings embedded in MH16.

4  
5 **Manitoba Hydro's Workforce Reduction Plan**

6 Manitoba Hydro's commitment to deliver significant cost reductions has also  
7 significantly contributed to the improvement in projected net income. Execution of the  
8 cost reduction plan began in February 2017 when Manitoba Hydro announced a plan to  
9 reduce its total workforce by 15% or 900 positions and began by reducing the executive  
10 leadership team by 30%, as well as a reducing the number of direct reports to the Vice-  
11 Presidents by 40%. At the same time, the Voluntary Departure Program launched,  
12 targeting to achieve the remaining position reductions. The target 900 positions are  
13 projected to be eliminated primarily in 2017/18 and 2018/19 for cumulative additional  
14 savings of approximately \$900 million by the end of the 10-year forecast period to  
15 2026/27. MH16 assumes that approximately \$700 million are operational savings and  
16 the remaining \$200 million are related to capital.

17  
18 In addition to position reductions, MH has committed to achieve procurement savings  
19 obtained through supply chain management initiatives. As part of its cost containment  
20 strategy, Manitoba Hydro is working to accelerate supply chain management initiatives  
21 which have been underway since 2014/15 (as discussed in Section 6.2.5 of Tab 6). From  
22 2017/18 to 2020/21, potential cost savings of \$150 million have been identified through  
23 a variety of strategic sourcing opportunities using industry specific indices  
24 (approximately 70% related to capital reductions and the remaining 30% to operational  
25 reductions). Categories include construction and infrastructural services, building and  
26 facility construction, contractor and professional services, general hardware, fleet assets  
27 and repair, and building material and structures. Strategies for sourcing savings within  
28 these categories include amalgamation of contracts to capitalize on volume discounts;  
29 optimizing total cost of ownership; rationalizing services through identification of  
30 discretionary and critical services; specification refinement/rationalization; and  
31 reduction of single source contracts through competitive tenders. By the end of the 10-  
32 year forecast period to 2026/27, these savings are expected to accumulate to nearly  
33 \$450 million.

34

**Lower Electric Load Forecast and Domestic Revenues**

With the timing of the preparation of MH16, the gross firm energy and total peak included in the 2016 Load Forecast were reviewed and adjusted to reflect lower actual usage and weather data available for the 10 months included in 2016/17, as well as anticipated changes for the 2017 forecast related to lower preliminary population forecasts and reduced expectations for new large industrial loads. However, this adjustment does not factor in other potential changes that will be captured in the 2017 Load Forecast. Such changes include the effect of price elasticity regarding the 7.9% proposed and indicative rate increases included in MH16, other updated economic inputs, or other changes in projected consumption that would result in year-to-year variations from the 2016 Load Forecast.

The reduction to gross firm energy from the 2016 Load Forecast is anticipated to be approximately 1,000 GWh by 2035/36 which is equivalent to the 24<sup>th</sup> percentile probability point of the 2016 Electric Load Forecast based upon the load variability analysis presented at page 44 of the 2016 Electric Load Forecast report (Appendix 7.1 of Tab 7). The 24<sup>th</sup> percentile point was selected as a proxy for Manitoba's anticipated future load requirements in the 20th year of the 2017 forecast. The following comparisons are made between the 2015 Load Forecast and the 2016 Load Forecast, including the adjustment discussed above.

- Gross firm energy (before program-based DSM initiatives) in Manitoba is forecast to grow on average by approximately 300 GWh or 1.2% per year over the 11-year forecast period to 2026/27.
- Gross total peak is forecast to grow at the same pace as gross firm energy, by approximately 55 MW or 1.2% a year over the 11-year forecast period to 2026/27.
- Compared to the 2015 forecast, gross firm energy is projected to be about 700 GWh (2.6%) lower in 2016/17 primarily due to the lower residential and commercial market sector load experienced in 2014/15 and 2015/16, along with changes in the large industrials short-term plans.
- By 2026/27, gross firm energy is expected to be approximately 2,100 GWh (6.8%) lower in comparison to the 2015 forecast (including the adjustment from the 2016 Load Forecast), primarily due to the reduced expectations for new large

1 industrial loads and a decrease in the population forecast lowering the  
2 residential and commercial market sectors, representing a reduction of  
3 approximately five years of load (where 1 year equals approximately 442 GWh).

- 4 • Consistent with gross firm energy, gross total peak is forecast to be about 400  
5 MW (6.9%) lower in 2026/27 than the 2015 forecast or a reduction of  
6 approximately five years of load growth (where 1 year equals approximately 80  
7 MW).

8  
9 Savings due to DSM programs to date are embedded in the historical data that is the  
10 basis for the Electric Load Forecast. The current level of past achieved DSM savings is  
11 assumed to remain in place throughout the future. The Electric Load Forecast reflects  
12 future DSM savings associated with existing Provincial building codes and improved  
13 equipment efficiency standards and regulations (codes and standards). This is the only  
14 effect of DSM initiatives that is specifically accounted for in Electric Load Forecast.  
15 Future DSM savings arising from future Power Smart offerings and market engagement  
16 above the current level and incremental to the codes and standards are accounted for  
17 separately in Manitoba Hydro's Power Smart Plan and Resource Planning Assumptions  
18 and Analysis included in Tab 7 of this Application.

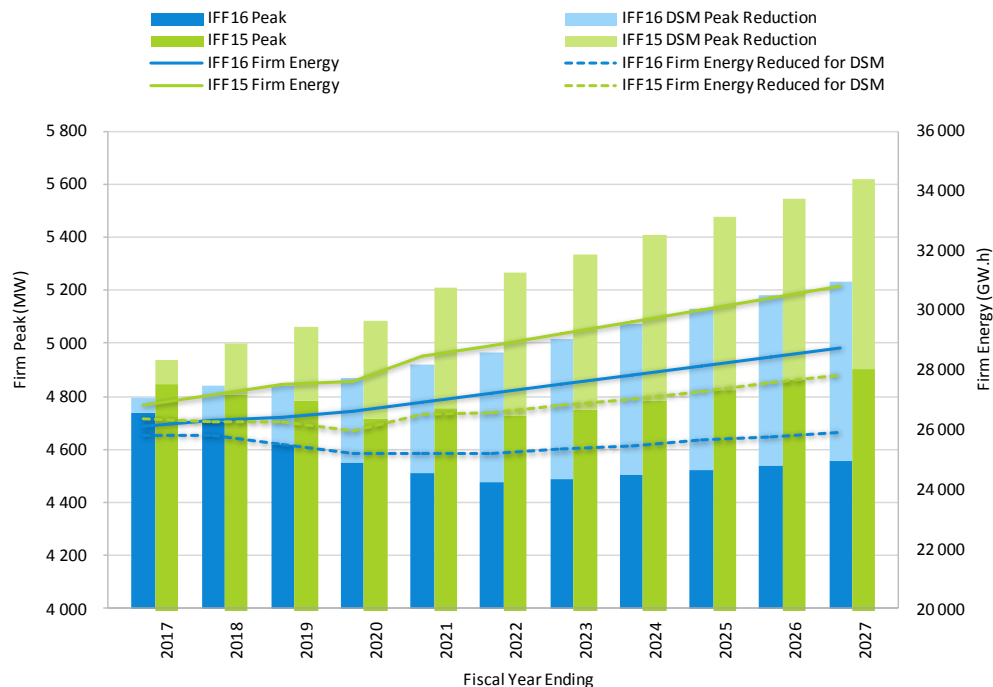
19  
20 On March 9, 2017, the Provincial Government tabled legislation to create a new Crown  
21 Corporation – Efficiency Manitoba – which will assume responsibility for efficiency  
22 initiatives with an initial focus on reducing electricity and natural gas consumption in  
23 Manitoba. Efficiency Manitoba will be mandated to achieve specified energy efficiency  
24 targets, which are in excess of those embedded in Manitoba Hydro's existing DSM plan.  
25 Under the proposed legislation, Manitoba Hydro will also continue to be responsible for  
26 the costs of meeting the legislated targets. While it is uncertain at this time what the  
27 impacts of Efficiency Manitoba and legislated DSM targets will be, they have the  
28 potential to further reduce domestic load growth in that the proposed legislated targets  
29 exceed what Manitoba Hydro anticipates achieving under its current DSM plan. Until the  
30 new efficiency entity is in place and the first plan is developed, MH16 continues to  
31 incorporate the costs and savings reflected in Manitoba Hydro's current Power Smart  
32 Plan in the same manner as previous forecasts.

33

The 2016 Power Smart Plan targets savings similar to that in the 2015 Plan. The 2016 Plan proposes to realize electricity savings of 1,232 MW and 4,506 GWh, natural gas savings of 130 million cubic meters, and combined global greenhouse gas emission reductions of 3.3 million tonnes by 2030/31 (compared to 1,288 MW and 4,619 GW in electricity savings, 118 million cubic meters of natural gas savings, and combined global greenhouse gas emission reductions of 3.3 million tonnes by 2029/30 in the 2015 Plan).

The following **Figure 3.5** combines the forecast gross energy and peak requirements projected in the Load Forecast with the planned additional DSM energy and capacity savings from the Power Smart Plan. Manitoba Hydro's gross firm energy (lines) and peak (bars) are compared to firm energy and peak net of DSM savings (solid lines and bars, respectively), as well as a comparison between the 2015 (green) and 2016 (blue) forecasts. Energy, net of DSM savings, in MH16 shows no growth over current levels by 2027 compared to 0.5% average annual growth in MH15. MH16 capacity, net of DSM savings, is projected to decline by 0.3% over the 11-year forecast period compared to 0.1% average annual growth in MH15.

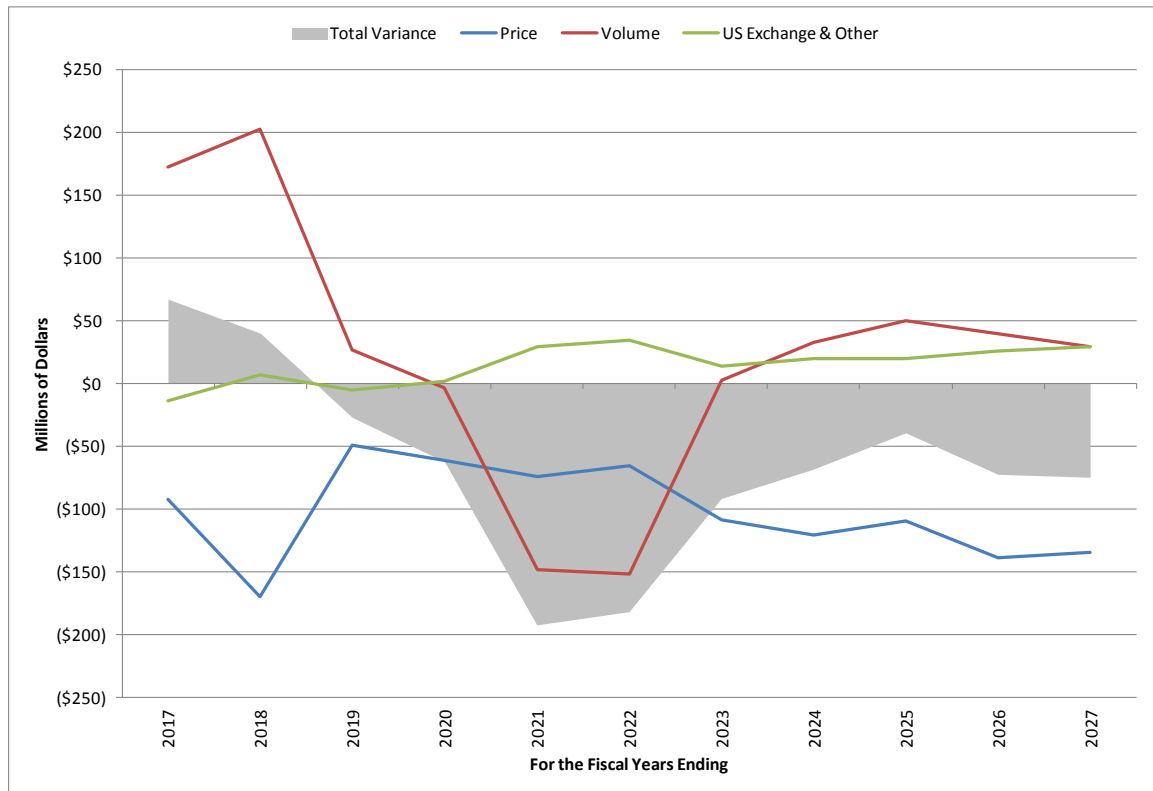
**Figure 3.5 Comparison of MH16 and MH15 Firm Energy and Peak**



### Lower Extraprovincial Revenues

The following **Figure 3.6** shows that MH16 net extraprovincial revenues are \$0.7 billion lower compared to MH15 over the 10-year forecast period from 2016/17 to 2026/27 reflected in the grey shaded area (\$0.8 billion from 2017/18 to 2026/27).

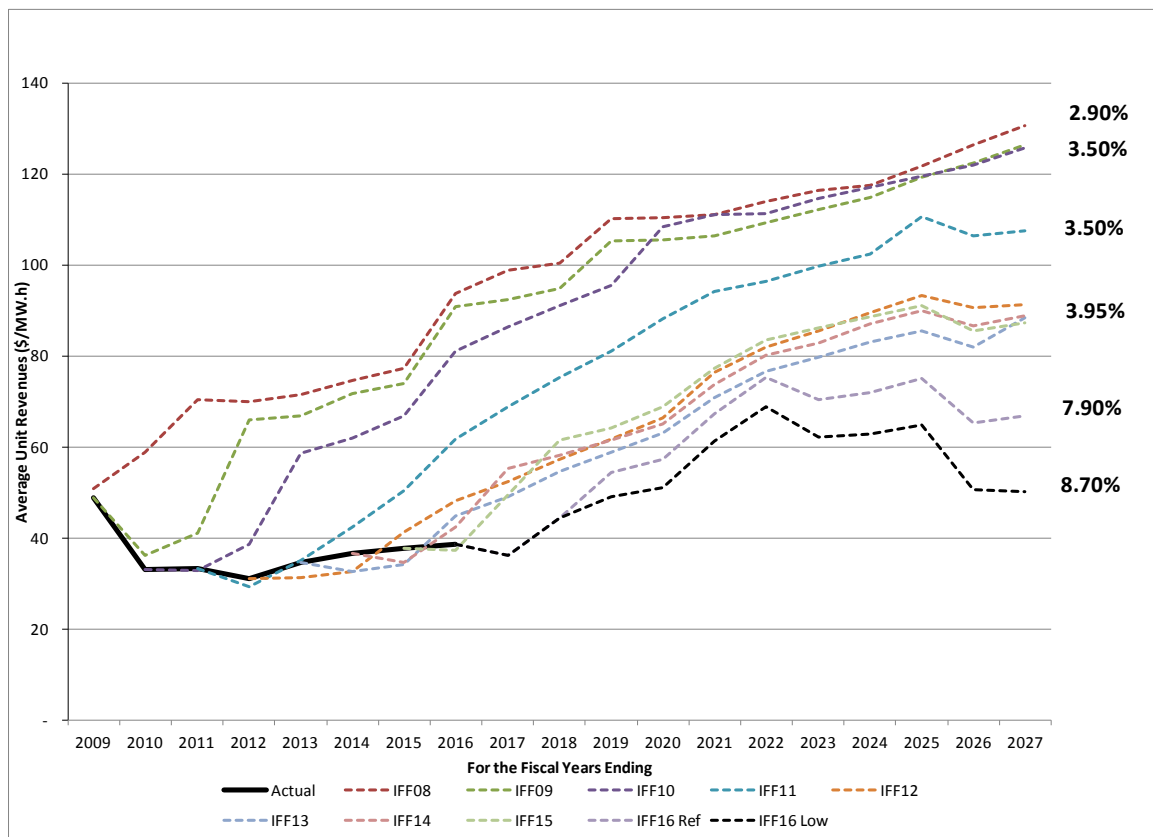
**Figure 3.6 – Change in Net Export Revenues in MH16 compared to MH15**



The reduction in export prices accounts for about \$1.1 billion of the cumulative reduction of net extraprovincial revenues over the 10-year forecast period to 2026/27. MH16 reflects electricity export prices that are lower by approximately 20% relative to the comparable 2015 forecast. The decline to long-term power prices is due primarily to a reduction to long-term natural gas prices and increased renewable development (primarily wind generation) in the MISO market, aided by substantial subsidies. In addition, the premium that has historically been applied to the long-term dependable forecast prices has been removed as the achievability of this premium has reduced significantly in the MISO market. Reflecting the continuing trend of low capacity value, a January 2017 update removed capacity value from the pricing of potential future uncommitted export sales from surplus dependable energy.

The following **Figure 3.7** shows the actual average export prices since 2009 (solid black line) compared to the progression of forecasted average unit revenues since IFF08 (coloured dashed lines) with the projected annual rate increases associated with the respective forecasts.

**Figure 3.7 Progression of Forecast Average Unit Revenues Compared to Actual Average Prices**



Near term forecasts, particularly IFF12 through IFF15, are relatively accurate as demonstrated by the cluster of dotted lines around the solid black line. Longer term of forecasts prior to IFF12 assumed much higher real price growth.

Compared to IFF08, forecast average unit revenues have decreased by 35% to 60%. Over time as actual prices have remained relatively flat, consultants' forecasts have corrected for the change in natural gas prices, and as a result, the forecast real



1 electricity price growth has decreased. As expectations for export prices have  
2 weakened from forecast to forecast, pressure on domestic customer rates has  
3 significantly increased to compensate for lost domestic revenues indicated by the  
4 respective rate increase assumptions associated with the forecasts on the right of **Figure**  
5 **3.7**.

6  
7 The current reference price forecast assumes moderate real price growth but natural  
8 gas futures indicate that the low electricity price trend may continue. However, there is  
9 no certainty in the level or duration of low electricity export prices. The IFF16 low price  
10 case shown in **Figure 3.7** reflects a scenario in which the current low opportunity prices  
11 are sustained and results in 8.7% annual rate increases for five years to maintain  
12 comparable forecast equity as the 7.9% base case. By 2026/27, cumulative rates are  
13 about 6 percentage points higher.

14  
15 In addition to lower export prices, **Figure 3.7** shows additional lost net extraprovincial  
16 revenues of approximately \$0.5 billion compared to MH15 due to the Keeyask 21-month  
17 delay. These reductions to net extraprovincial revenues are partially offset by more  
18 favourable water flows in 2016/17 and 2017/18 than planned in MH15, as well as more  
19 surplus energy available for exports as a result of the reduction in Manitoba Hydro's  
20 forecast of Manitoba demand. These changes in volume account for about a \$0.8 billion  
21 increase in net extraprovincial revenues over the 10-year forecast compared to MH15.

22  
23 With the reduction in forecasted domestic load and export prices, a higher level of rate  
24 increases are necessary compared to previous plans in order to obtain a better financial  
25 position. Relying on substantial improvements in export prices or growth in domestic  
26 revenues at current approved rates places customers at risk of rate shock if these export  
27 prices do not rebound or other risks materialize.

### 28 **3.2.2 Capital In-Service**

29 While assets are under construction, the capital expenditures and associated financing  
30 costs are held in construction work in progress. Once these assets are placed into  
31 service, the associated carrying costs (depreciation and finance expense) form part of  
32 the Corporation's revenue requirements.

33

**Figure 3.8** provides a summary of the amount of capital that is forecast to go in service, as well as deferred assets that will commence amortization for the first three forecast years as well as the 10-year forecast period. **Figure 3.8** indicates that \$0.9 billion, \$0.7 billion and \$5.5 billion of assets are projected to be placed in-service in 2016/17, 2017/18 and 2018/19, respectively. The most significant asset being placed in-service during this period includes the Bipole III Reliability Project in 2018/19. In this three year period, there is also approximately \$1.7 billion of sustaining capital expenditures and \$0.3 billion of DSM expenditures that will be placed into service; \$0.2 billion of these DSM expenditures will commence amortization.

**Figure 3.8 Electric Capital In-Service Amounts**

	2017	2018	2019	Cumulative 3 Year Total	Cumulative 10 Year Total
Keeyask - Generation	-	-	-	-	8 726
Bipole III Reliability	19	32	4 801	4 852	4 872
Wuskwatim - Generation	1	11	-	12	12
Pointe du Bois Spillway Replacement	17	-	-	17	17
Manitoba-Minnesota Transmission Project	0	7	-	8	453
Kelsey Improvements & Upgrades	13	7	1	20	20
Riel 230/500kV Station	1	-	-	1	1
Gillam Redevelopment and Expansion Program (GREP)	16	13	74	103	244
Kettle Improvements & Upgrades	21	21	1	42	42
Pointe du Bois - Transmission	9	0	-	9	9
Manitoba-Saskatchewan Transmission Project	-	-	-	-	56
Grand Rapids Fish Hatchery Upgrade & Expansion	-	-	-	-	23
<b>New Generation &amp; Transmission Sub Total</b>	<b>96</b>	<b>91</b>	<b>4 877</b>	<b>5 064</b>	<b>14 476</b>
Demand Side Management	50	56	99	205	731
Conawapa - Generation	-	-	-	-	380
Other	47	27	27	101	958
<b>DSM &amp; Other Assets Sub Total</b>	<b>97</b>	<b>83</b>	<b>126</b>	<b>306</b>	<b>2 068</b>
Generation & Wholesale	123	99	105	327	1 151
Transmission	97	166	91	354	1 384
Marketing & Customer Service	339	230	239	807	2 438
Human Resources & Corporate Services	103	60	55	218	618
Finance & Strategy	0	0	0	1	2
<b>Electric Business Operations Capital Sub Total</b>	<b>662</b>	<b>554</b>	<b>490</b>	<b>1 706</b>	<b>5 593</b>
<b>TOTAL</b>	<b>856</b>	<b>728</b>	<b>5 493</b>	<b>7 077</b>	<b>22 138</b>

### 3.2.3 Accounting Assumptions in IFF16

Manitoba Hydro is seeking PUB endorsement of proposed deferral and amortization of costs incurred with respect to Conawapa as well as endorsement of the proposed amortization period for disposition of regulatory deferral accounts, which are included in MH16's DSM & Other Assets capital in-service amounts outlined in **Figure 3.8** above. The annual adjustments to regulatory deferral balances arising in net movement consist of additions to regulatory deferral balances and the amortization of such balances. A positive net movement balance adds to net income, while a negative balance will subtract from net income.

The regulatory deferral account for Electric Operations include Power Smart program expenditures, site restoration expenditures for the remediation of contaminated corporate facilities and diesel generating sites, the Affordable Energy Fund, net asset retirement losses, regulatory costs, and differences in depreciation and overhead capitalized used for financial reporting versus rate-setting purposes.

#### Treatment of Costs Incurred for Conawapa Generating Station

Manitoba Hydro is seeking PUB endorsement of the proposed inclusion of costs incurred with respect to the Conawapa Generating Station project into Manitoba Hydro's regulatory deferral balances and subsequent amortization.

Manitoba Hydro wrap-up activities with respect to design, consultations and environmental studies following the Province's 2014 direction to suspend development of the Conawapa Generating Station were completed as at December 31, 2016. Manitoba Hydro has ceased capitalization of interest as of the completion date and total costs (including interest) are \$380 million, which are currently reflected in Manitoba Hydro's construction in progress balance.

Any short-term decisions as to whether to restart or continue to suspend Conawapa depends on whether or not federal and/or provincial carbon reduction initiatives materialize to the point where a future export sales arrangement can be secured to support the economics of constructing this plant. Since there is significant uncertainty as to the timing of such initiatives and their impact on potential export sales arrangements, no further activities are planned for Conawapa. As a result, it has

1 become increasingly difficult to demonstrate future benefits to Manitoba Hydro's  
2 auditors, and Manitoba Hydro will be required to recognize the \$380 million in costs to  
3 net income for financial reporting purposes under IFRS. To minimize the impact on  
4 customers, Manitoba Hydro is proposing to defer these costs in a regulatory deferral  
5 balance and commence amortization over 30 years, subject to the PUB's endorsement  
6 following its review of Manitoba Hydro's 2017/18 and 2018/19 GRA. MH16 assumes  
7 Conawapa costs are recognized in the regulatory deferral balance and amortization  
8 commences effective April 1, 2019.

9  
10 **Regulatory Deferral Account - Depreciation**

11 MH16 includes a regulatory deferral account reflecting the difference between  
12 depreciation calculated using the ELG depreciation method for financial reporting  
13 purposes and the ASL method used for rate-setting purposes.

14  
15 In Order 73/15, the PUB directed Manitoba Hydro to continue to use the CGAAP ASL  
16 method of depreciation for rate setting purposes until the PUB is satisfied that a change  
17 in depreciation methodology is warranted. As Manitoba Hydro uses the ELG  
18 depreciation method for financial reporting purposes, MH16 assumes that the  
19 differences between these depreciation methodologies will accrue to a regulatory  
20 deferral account until March 31, 2023, the fiscal year end of the last Keeyask unit in-  
21 service. Thereafter, net income is sufficient to absorb the difference in methodologies  
22 without adverse impact to the projected inflationary rate increases.

23  
24 The regulatory deferral balance for ELG depreciation expenses grows to \$300 million by  
25 the final Keeyask unit in-service in 2022/23. As a result, Manitoba Hydro is seeking  
26 endorsement from the PUB to commence amortization of the ELG regulatory deferral  
27 balance over 20 years in 2017/18. Section 10.4.4 in Tab 10 provides additional  
28 discussion with respect to Manitoba Hydro's response to the PUB's directive in Order  
29 73/15 related to depreciation.

30  
31 **Regulatory Deferral Account – Overheads not Eligible for Capitalization**

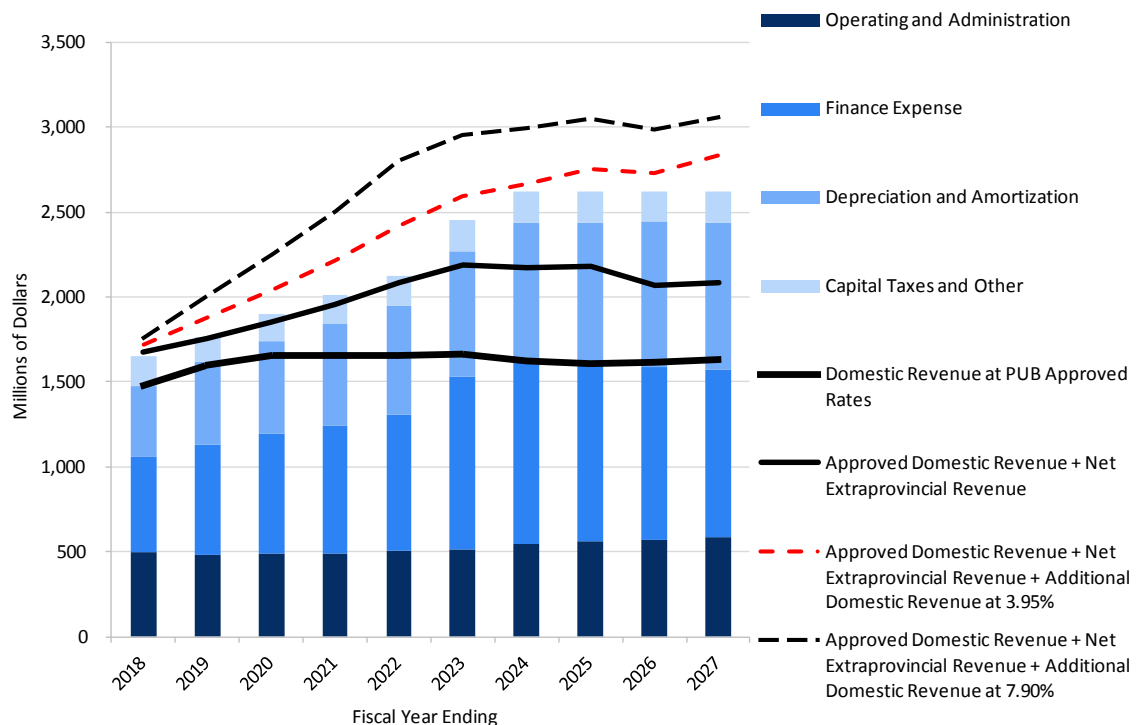
32 MH16 also includes a regulatory deferral balance for \$20 million in annual overhead  
33 costs ineligible for capitalization under IFRS to be deferred for rate-setting purposes in  
34 accordance with the PUB's findings in Order 73/15. Consistent with the treatment of

depreciation expenses, MH16 continues to defer ineligible overhead costs until March 31, 2023. At this time, the ineligible overhead deferral balance grows to approximately \$160 million and Manitoba Hydro is seeking PUB endorsement to commence amortization of this balance over 20 years in 2017/18.

### 3.2.4 10-Year Comparison of Carrying Costs vs. Revenues

The following **Figure 3.9** compares Manitoba Hydro's electric operations projected carrying costs (O&A, finance expense, depreciation expense, and taxes and other expenses) arising from assets placed into service to the Corporation's projected domestic and net export revenues (extraprovincial revenues less fuel and power purchases and water rentals and assessments).

**Figure 3.9 Comparison of MH16 Capital Carrying Costs to Revenues**



Manitoba Hydro's costs rise sharply to \$2.6 billion over the 10-year period to 2026/27, increasing by about 60% from their current level of \$1.5 billion. Despite the significant increase in Bipole III and Keeyask project costs, MH16's carrying costs are lower compared to MH15 (\$2.8 billion by 2026/27).

1 Domestic revenues are insufficient to fully absorb the \$1.0 billion carrying cost increase.  
2 Over the 10-year period, domestic revenues, including the previous forecast's annual  
3 3.95% rate increases, are barely sufficient to cover carrying costs and do not support  
4 equity growth consistent with the growth in assets or net debt, leaving Manitoba  
5 Hydro's customers exposed to the significant risks faced by the Corporation.  
6

7 Manitoba Hydro's previous forecast predicted domestic load growth of 1.6% over the  
8 next 10 years, and export price appreciation that would result in a positive forecast net  
9 income and equity growth in the longer term. These assumptions allowed Manitoba  
10 Hydro to maintain its forecast of even annual rate increases at 3.95% to 2028/29 in  
11 order to defer or avoid seeking higher rate increases than what would otherwise be  
12 required.  
13

14 Manitoba Hydro accepted a significant deviation from its financial targets in past  
15 forecasts in order to alleviate rate increases in excess of 3.95% to the extent possible.  
16 Manitoba Hydro's projected financial results have fortunately benefited from  
17 exceptional water flow conditions and the current low interest rate environment.  
18 Should these fortunate circumstances suddenly or adversely turn around, or the major  
19 projects experience further cost increases, Manitoba Hydro cannot rely on the  
20 optimistic anticipation of increased domestic or export revenues given the flat forecast  
21 of domestic load and the flatter forecast of opportunity export prices (relative to  
22 previous forecasts) to reduce the significant pressure that will be placed on future  
23 customer rate increases. The advancement of rate increases in MH16 reduces the  
24 future debt burden, thereby, reducing the future rate pressure on customers.  
25

26 The proposed rate trajectory reflected in MH16, combined with Manitoba Hydro's  
27 accelerated cost reductions, will place Manitoba Hydro in a better financial position to  
28 deal with significant potential financial risks (drought, rising interest rates and lower  
29 export prices) without having to rely on large, unplanned rate increases to sustain  
30 operations.  
31

**3.3 DEBT MANAGEMENT STRATEGY**

The Debt Management Strategy document (see Appendix 3.5) provides information on the historical growth of the Corporation's investment in fixed assets and the corresponding increase in Manitoba Hydro's long term debt. The document also summarizes the statutes that govern the Corporation's financing programs, and outlines the debt management strategies that will address the Corporation's financing requirements for the 2017/18 and 2018/19 fiscal years.

Manitoba Hydro's fundamental debt management objective is to provide low cost, stable funding to meet the financial obligations and liquidity needs of the Corporation.

In order to reduce the interest rate risk on the existing total debt portfolio, Manitoba Hydro will maintain its percentage of floating rate debt within the portfolio at or below 10%. To mitigate the pressure on Manitoba credit spreads, the Corporation will also undertake a variety of debt management activities such as establishing benchmark sized debt issues and diversifying the investor base by continuing to issue Manitoba bonds into international markets. To mitigate liquidity risk and provide financing flexibility to secure debt during periods of constructive investor tone, Manitoba Hydro also intends to maintain unencumbered positive cash balances by securing funds approximately three months in advance of its cash requirements.

With the potential availability of cash following the in-service of new major generation and transmission, an opportunity exists to use this future cash to retire debt at that time. This debt off-ramping is a key factor in the planned reduction in finance expense and the recovery of Manitoba Hydro's financial ratios.