



2021/22

# INTERIM RATE APPLICATION

November 15, 2021

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- 2 5. Minimum Filing Requirements

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1    **1.0    APPLICATION SUMMARY**

2

3    **1.1    Approvals**

4            In this Application, Manitoba Hydro is requesting an Order of the Public Utilities Board  
5            of Manitoba (“PUB”) pursuant to section 25 of *The Crown Corporations Governance &*  
6            *Accountability Act* and section 47(2) of *The Public Utilities Board Act*, for the following:

7

8            1) Approval, on an interim basis, of rate schedules incorporating an overall increase  
9            in General Consumers Revenue of 5.0% effective January 1, 2022; and,

10

11            2) Approval to begin recognizing the revenues from the Major Capital Deferral  
12            established by the PUB in Order 69/19 commencing January 1, 2022, with the  
13            balance to be amortized over 24 months.

14

15    **1.2    Background**

16            On August 17, 2021, the PUB issued Order 89/21, directing a Status Update process  
17            for Manitoba Hydro to provide evidence to assist the PUB in its determination of  
18            whether Manitoba Hydro’s rates are just and reasonable and costs are fairly allocated  
19            among the various customer classes. On September 9, 2021, the PUB proposed  
20            certain Minimum Filing Requirements for the Status Update Process for comment by  
21            Manitoba Hydro.

22

23            On September 22, 2021, the Minister of Crown Services issued a ministerial directive  
24            to the Manitoba Hydro-Electric Board (“MHEB”) providing specific instruction for  
25            Manitoba Hydro to take all necessary steps to proceed with an Interim Rate  
26            Application to the PUB for 2021/22, as well as directing Manitoba Hydro to engage  
27            with the PUB on the timing and parameters of its next multi-year General Rate  
28            Application.

29

30            As an initial and immediate procedural step to fulfill and comply with this directive,  
31            on September 29, 2021, Manitoba Hydro advised the PUB that it intended to file an  
32            interim rate application to address the significant financial impacts due to the current  
33            drought conditions to ensure the financial health of the corporation. Manitoba Hydro

1 advised that as part of its application it would provide responses to the PUB's MFRs that  
2 were issued as part of the Status Update review process to the greatest extent possible  
3 with necessary modification, and requested the PUB discontinue the Status Update  
4 process and replace it with an expedited public process to review Manitoba Hydro's  
5 interim rate application.

6

7 **An Award of Interim Rate Relief Is Appropriate and Justified Given the Current**  
8 **Circumstances of Manitoba Hydro**

9

10 This Application for interim rates has been filed pursuant to section 26 of *The Crown*  
11 *Corporations Governance and Accountability Act*, CCSM c. C336 and section 47(2) of  
12 *The Public Utilities Board Act*, CCSM c. P280.

13

14 In an interim rate application, the applicant must establish a *prima facie* case for the  
15 requested interim rates. While the overarching principle of awarding rates in the  
16 general public interest applies, that is balancing the interests of the customers and  
17 the financial health of the utility, interim rate applications are not subject to the same  
18 rigor and standards of a final rate application. As the PUB has previously articulated,  
19 interim rates are set without the benefit of a full evidentiary record and on a less  
20 onerous legal standard<sup>1</sup> entirely consistent with the Supreme Court of Canada's  
21 fundamental principle that interim applications are "made in an expeditious manner  
22 on the basis of evidence which would often be insufficient for the purposes of the  
23 final decision."<sup>2</sup>

24

25 Furthermore, the PUB has ruled that an interim rate application is not the appropriate  
26 forum to consider and rule upon contentious issues such as the financial performance  
27 targets to be utilized by the PUB in rate-setting, debt management strategy,  
28 forecasting and rate design.<sup>3</sup> Revenues and expenses are also not fully tested in an  
29 interim rate application.<sup>4</sup>

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<sup>1</sup> PUB Order 59/18 at page 18-19; Order 90/18 at page 41.

<sup>2</sup> *Bell Canada v Canada (Canadian Radio-Television and Telecommunications Commission)*, [1989] 1 SCR 1722.

<sup>3</sup> Order 80/17 at pages 21-23; Order 40/11 at page 30.

<sup>4</sup> Order 40/11 at page 41.

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Manitoba Hydro’s 2021/22 Forecast, which was approved by the Manitoba Hydro-Electric Board on November 10, 2021, clearly establishes that the current drought conditions have severely impacted Manitoba Hydro’s financial health with very limited opportunity for additional water inflows to contribute to a recovery in the remainder of fiscal 2021/22. These undisputable and uncontrollable deleterious impacts to Manitoba Hydro’s financial health warrant the modest general revenue increase requested in this Application given the current circumstances as detailed herein.

To be responsive to the MFRs approved by the PUB on October 19, 2021 seeking information relating to the 2022/23 fiscal year, Manitoba Hydro is also providing a 2022/23 Preliminary Plan to help inform the PUB’s review of this Application. This Preliminary Plan has not yet been approved by the MHEB or provided to the Treasury Board in accordance with the annual summary budgeting process. Manitoba Hydro is not requesting approval of an increase for 2022/23 as part of this Application and as a simplifying assumption has not assumed a rate increase in the 2022/23 Preliminary Plan filed with this Application.

**1.3 Reasons for the Application**

Due to the effective merging of the process and the information requested as part of the Status Update Proceeding with this Application, a significant amount of additional evidence is being provided by Manitoba Hydro that exceeds what would normally be required to support the need for immediate interim relief from the impacts of the drought.

Drought risk is the risk of low water inflows and storage, as well as energy market prices that can significantly impact Manitoba Hydro's financial position and operations. Manitoba Hydro is committed to provide reliable energy service our customers, and the corporation is engaged in planning, development and operation of systems to mitigate the impact of the drought. As discussed in Section 2.1 of the Application, Manitoba Hydro reduced outflows from Lake Winnipeg and Grand Rapids to near minimum starting in July 2021 to ensure that firm demands could be met assuming: drought conditions persisted for the remainder of the year, above normal

1 winter loads in 2021/22, followed by severe drought and above normal winter loads  
2 in 2022/23.

3  
4 The drought conditions have resulted in a significant reduction in projected net  
5 extraprovincial revenues of \$398 million in fiscal 2021/22 compared to the 2021/22  
6 Budget. This reduction is the primary driver behind a negative swing of \$366 million  
7 in projected results, from net income of \$177 million in the 2021/22 Budget, to a net  
8 loss of \$190 million the in 2021/22 Forecast (which includes water conditions to  
9 October 20, 2021). With the rain season ending, it is very unlikely that water  
10 conditions will materially change during the remainder of the 2021/22 fiscal year.  
11 ***Manitoba Hydro's 2021/22 Forecast projects the requirement for higher energy***  
12 ***imports/purchases in order to serve demand, at a time when energy market prices***  
13 ***are rising. As discussed in Section 2.2, Manitoba Hydro has taken steps to mitigate***  
14 ***this price risk, but uncertainty related to energy market prices still remains.***

15  
16 In addition to the anticipated net loss of \$190 million for the electric operations,  
17 Manitoba Hydro is anticipating a cash shortfall in 2021/22 that will further weigh on  
18 the financial health and self-sustainability of Manitoba Hydro. As shown in Figure 11  
19 below and in response to PUB MFR 6, it is anticipated that Manitoba Hydro will have  
20 to borrow \$348 million to fund core operations in 2021/22. Core operations are  
21 defined as all costs, both capital and operating, excluding major capital projects. The  
22 interest costs on the borrowings to fund core operations in 2021/22, if not repaid in  
23 future years, will amount to an estimated annual cost of \$13 million per year<sup>5</sup> or  
24 nearly equivalent to 0.8% of an electric rate increase. ***Manitoba Hydro's balance***  
25 ***sheet is already highly leveraged and the corporation expects to spend 42% of all***  
26 ***revenues on interest costs in fiscal 2021/22.*** According to Moody's, Manitoba Hydro's  
27 financial metrics are among the worst, if not the worst in the country when compared  
28 to other peer crown utilities:

29 ***"Moody's adjusted EBITDA to interest expense ratio was 1.4x, EBIT to interest***  
30 ***expense was 0.8x and debt to book capitalization was 89%. These financial***

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<sup>5</sup> Estimated annual interest cost on \$348 million borrowed at the corporations projected cost of borrowing

1                    ***metrics are among the weakest, if not the weakest, of any of Manitoba***  
2                    ***Hydro's peers, including vertically integrated provincially owned crown***  
3                    ***corporations in Canada."***

4                    Manitoba Hydro has also compared the health of its balance sheet to that of  
5                    provincially owned crown corporations in Canada, as discussed in Section 3.1 of the  
6                    Application. Across Canada, utilities are trying to reduce debt and strengthen their  
7                    balance sheets in order to provide flexibility to respond to the changing energy  
8                    landscape, avoid stranding assets, and provide future investment necessary to  
9                    address aging infrastructure. ***Manitoba Hydro's current debt to equity ratio is 86%.***  
10                   ***All other peer Crowns have achieved targets below that or have plans to achieve***  
11                   ***lower levels of debt within 10 years.***

12  
13                   The drought is also occurring at a time when Manitoba Hydro is transitioning from  
14                   construction of the Major Capital Projects including Bipole III, the Keeyask Generating  
15                   Station (with five of seven units having been placed in-service), the Manitoba  
16                   Minnesota Transmission line ("MMTP"), the Great Northern Transmission Line  
17                   ("GNTL") and the Birtle transmission line, to operating and maintenance of total  
18                   assets of \$30.5 billion. Due to the capital intensive nature of its business, Manitoba  
19                   Hydro's cost structure is largely fixed in nature and ***there is a significant impact to***  
20                   ***Manitoba Hydro's revenue requirement of \$619 million in 2021/22 related to the***  
21                   ***finance expense, depreciation, and capital taxes on the above named Major Capital***  
22                   ***Projects, as discussed in Section 4.2 of the Application.***

23  
24                   It is not possible to recover from a cash flow deficiency of \$348 million in one fiscal  
25                   year or with one proposed increase that will take effect January 1, 2022. Should the  
26                   proposed interim rate increase be approved it is anticipated to generate \$27 million  
27                   of incremental revenue in 2021/22 and \$88 million in 2022/23. In light of this reality,  
28                   when considering the level of increase to request in this Application, Manitoba Hydro  
29                   considered the following:

- 30                   • The need to limit further deterioration in Manitoba Hydro's financial health.  
31                   Even with the proposed 5.0% revenue increase Manitoba Hydro is projecting  
32                   a net loss of \$190 million in 2021/22, along with a deterioration in its debt  
33                   ratio to 87% in 2021/22 and 88% in 2022/23;



- 1                   • The need to preserve intergenerational equity, by recovering the carrying  
2                   costs on the additional borrowings required to fund core operating activities  
3                   in 2021/22, as these costs should not be deferred to be recovered from future  
4                   customers; and  
5                   • The need for rate stability and predictability for customers. Manitoba Hydro  
6                   has been projecting the need for annual rate increases of at least 3.5% since  
7                   2009.

8                   With these considerations in mind, Manitoba Hydro submits that the proposed 5.0%  
9                   general revenue increase reasonably balances the financial needs of Manitoba Hydro  
10                  by addressing the very severe and immediate financial impacts of the drought, and  
11                  the impact on customers during the current pandemic and period of higher inflation.

12

## 13   **2.0 THE PROPOSED REVENUE INCREASE IS REQUIRED TO HELP MITIGATE THE** 14   **FINANCIAL IMPACT OF DROUGHT**

15

16                  Drought has both an operational and financial impact on Manitoba Hydro. Manitoba  
17                  Hydro plans and operates its system knowing that droughts will occur at some time in  
18                  the future. The primary drought operating objective is to ensure energy supply will be  
19                  available to meet dependable load requirements, including domestic and dependable  
20                  export load. A secondary objective is to minimize price risk and cost for customers  
21                  during drought.

22

23                  Manitoba Hydro plans its reservoir releases with the first priority being to ensure  
24                  energy reliability can be maintained, should drought conditions persist if it is already  
25                  dry, or if water supply conditions transition to drought in the future. The operations  
26                  planning process involves planning reservoir releases to optimize net extraprovincial  
27                  revenues considering current reservoir storage conditions and a range of possible  
28                  future inflows. This plan is tested to ensure that, if the economic reservoir release  
29                  plan is executed, and it turns dry or drought conditions worsen, that Manitoba Hydro  
30                  will still be able to meet its firm load commitments even under future severe drought  
31                  conditions and above average Manitoba load.

32

1 From a financial risk perspective, drought risk is ***the risk of low water inflows and***  
2 ***storage as well as elevated energy market prices that impact Manitoba Hydro's net***  
3 ***extraprovincial revenues***. Drought risk is therefore affected by both water conditions  
4 and future energy market prices, both of which involve significant uncertainty and are  
5 outside the corporation's control.

6

## 7 **2.1 Water Conditions and Energy Supply & Demand**

8 ***Water conditions are an "imposed risk", that is a risk originating from***  
9 ***uncontrollable and unavoidable external factors. It is not possible to accurately***  
10 ***predict when drought will occur or how long droughts will continue.***

11

### 12 **Water Conditions in 2021/22**

13 Prior to the 2020/21 Budget, Manitoba Hydro used the historical record of 100+ years  
14 of water flows for determining average extraprovincial revenues for budgeting  
15 purposes. The 2021/22 Budget and 2022/23 Preliminary Plan now assume a shorter  
16 record consisting of 40 years of more recent historic flows. The use of a shorter record  
17 (i.e. 40 years vs. 100+ years) has improved the quality of the projections over prior  
18 years, where budgets were based on the full long-term record of inflows that overall  
19 were less connected with current or more recent basin conditions. While not  
20 materially affecting the average of net extraprovincial revenues, as compared to using  
21 the full long-term flow record, using a shorter, higher resolution data set for budget  
22 purposes better reflects current hydrologic trends and upstream flow regulation  
23 practices. Also, recent historic flow data has greater temporal and spatial resolution  
24 as compared to older records. This enables the transition from current observed flows  
25 to historic flows to be reflected in the budget, while still providing a range of potential  
26 future flow conditions, including drought periods and high flow periods.

27

28 Until mid-summer 2020, the primary focus of Manitoba Hydro's reservoir operations  
29 was on managing high inflows at various locations across the system. By mid-August,  
30 Lake Winnipeg water levels receded below the license flood reduction threshold level  
31 of 715 feet, allowing Manitoba Hydro to reduce outflows and alleviate flooding  
32 conditions on the Lower Nelson River. At the same time, Manitoba Hydro was able to  
33 manage outflows for economics, meaning planning reservoir releases to optimize net

1 extraprovincial revenues assuming a range of possible flow conditions that could  
2 occur in the future.

3

4 ***Manitoba Hydro prepared its 2021/22 Budget based on storage conditions in***  
5 ***November 2020 assuming inflows would transition to a range of possible inflow***  
6 ***scenarios in 2021/22 made up of the recent 40 years of historic hydrology.***

7

8 Winnipeg River basin precipitation has been well below normal since the fall of 2019.  
9 Despite this overall system inflows were above average and storage levels were near  
10 normal heading into winter 2020/21. Consistent with typical winter operations,  
11 Manitoba Hydro increased Lake Winnipeg outflows to maximize Nelson River  
12 generation in order to meet winter electrical demands.

13

14 Following a below average snowmelt runoff in the south and in anticipation of above  
15 average snowmelt runoff in northern tributaries, in April 2021 Manitoba Hydro  
16 reduced Lake Winnipeg outflows from near median to below lower quartile flows, for  
17 that time of year. These Lake Winnipeg outflow reductions set the stage for reduced  
18 summer opportunity exports and increased imports relative to 2021/22 Budget.

19

20 In May 2021, Manitoba Hydro projected that total hydraulic generation would be  
21 below the 2021/22 Budget, assuming normal precipitation for the remainder of the  
22 year. Still being early in the rain season and with basin storage and system inflows  
23 above lower quartile, Manitoba Hydro continued to closely monitor the water  
24 situation focusing its operations and energy planning on the assumption that inflows  
25 could transition to any one of 40 potential future inflow scenarios for the remainder  
26 of the fiscal year.

27

28 ***As dry conditions persisted and expanded across southern portions of the Nelson***  
29 ***River Basin through early summer 2021, Manitoba Hydro operations transitioned***  
30 ***from economic conservation, with reduced opportunity exports, to being governed***  
31 ***by energy reliability.***

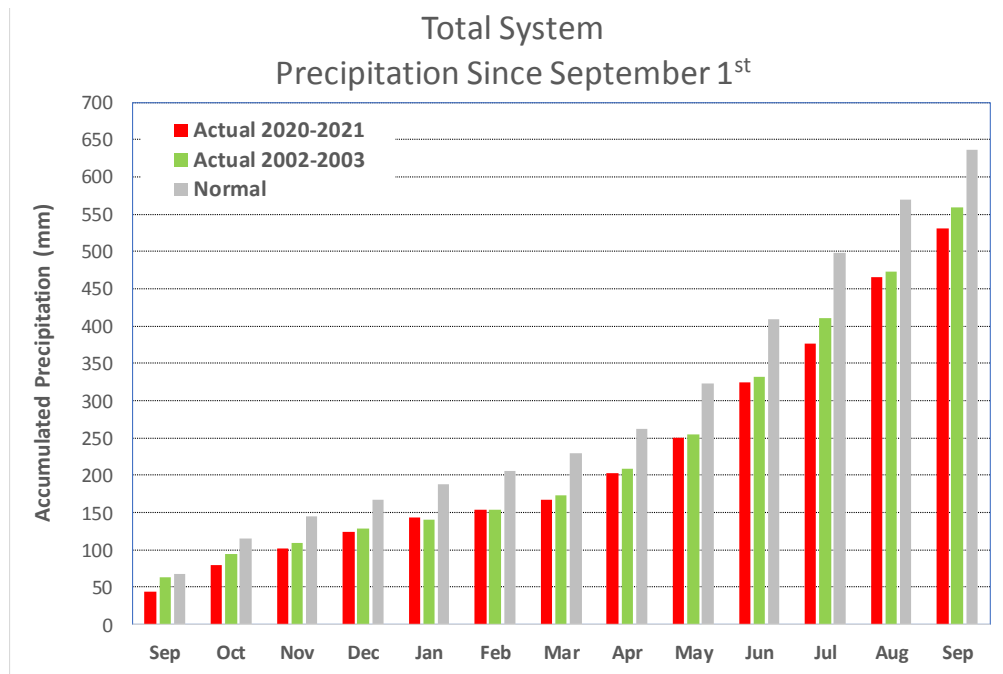
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33 Manitoba Hydro implemented further Lake Winnipeg outflow reductions, to near  
34 minimum by mid-July. Grand Rapids outflows were reduced to near minimum possible

1 by the end of July 2021. These operations were necessary to ensure firm demands  
 2 could be met assuming drought conditions persisted for the remainder of the year,  
 3 above normal winter loads in winter 2021/22, followed by severe drought and above  
 4 normal winter loads in 2022/23. With these flow reductions, higher than budgeted  
 5 imports were required starting in July.

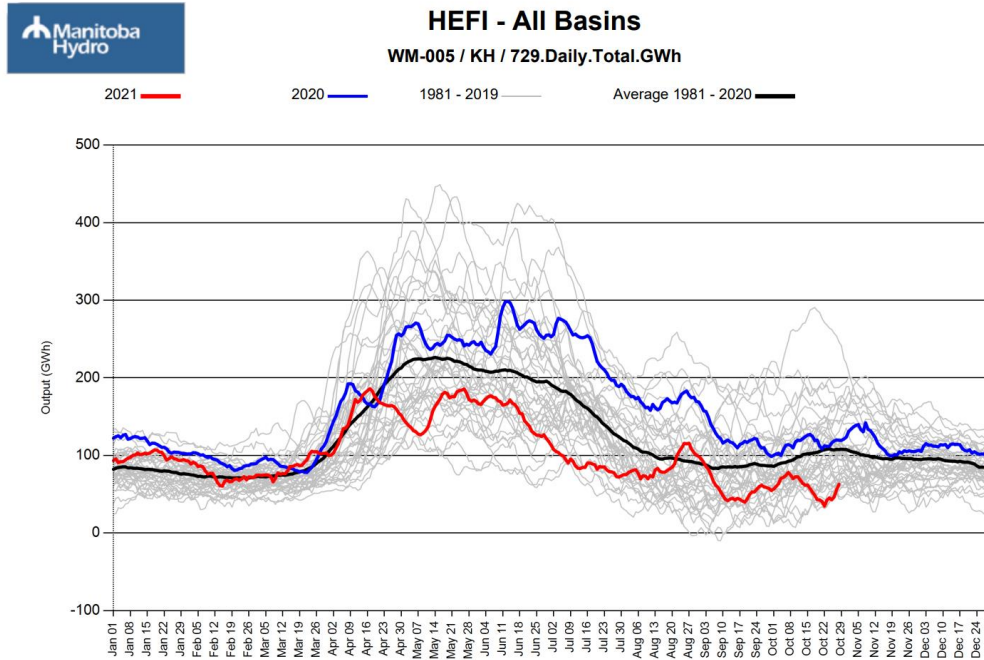
6  
 7 Figure 1 provides the total system accumulated precipitation from September 2020  
 8 to September 2021, with a comparison to actual precipitation for the period of  
 9 September 2002 to September 2003 during which the last drought occurred, as well  
 10 as normal accumulated precipitation. Figure 1 demonstrates that precipitation for  
 11 2020-2021 period has been well below normal, as well as being below levels  
 12 experienced during from the 2002-2003 drought.

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 14 Figure 1: Total System Inflows since September 1, 2020

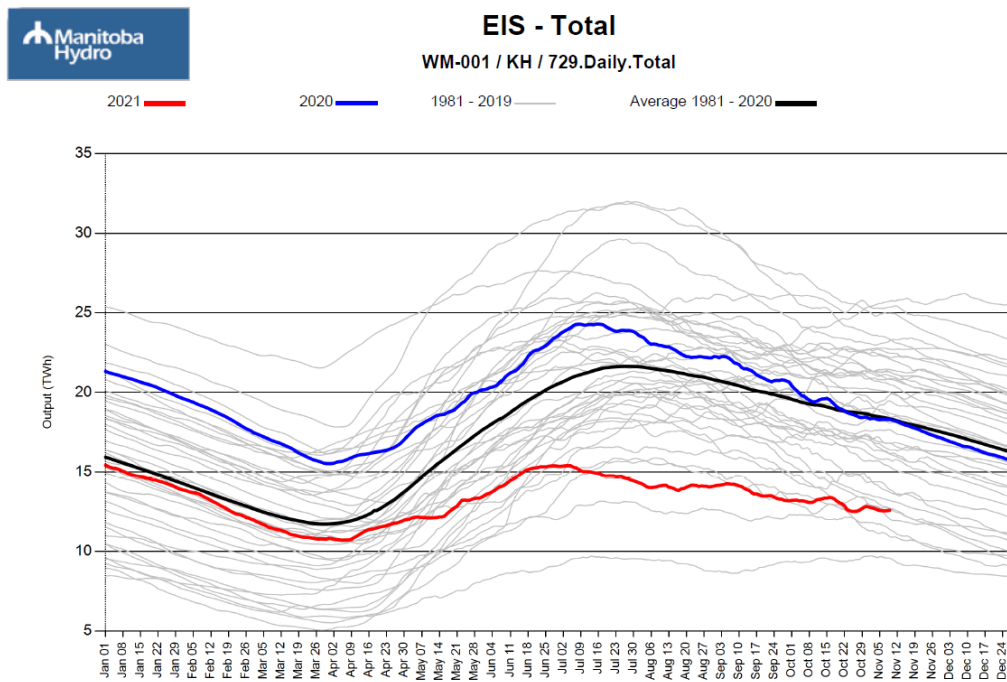


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 16 Figure 2 provides the 2020 and 2021 hydraulic energy from inflows compared to  
 17 average, and Figure 3 provides energy in storage for the same period compared to  
 18 average. These figures demonstrate that hydraulic generation inflows and energy in  
 19 storage are well below average in 2021.

1 Figure 2: Potential Hydraulic Energy from Inflows – All Basins



2  
3 Figure 3: Total Potential Energy in Storage



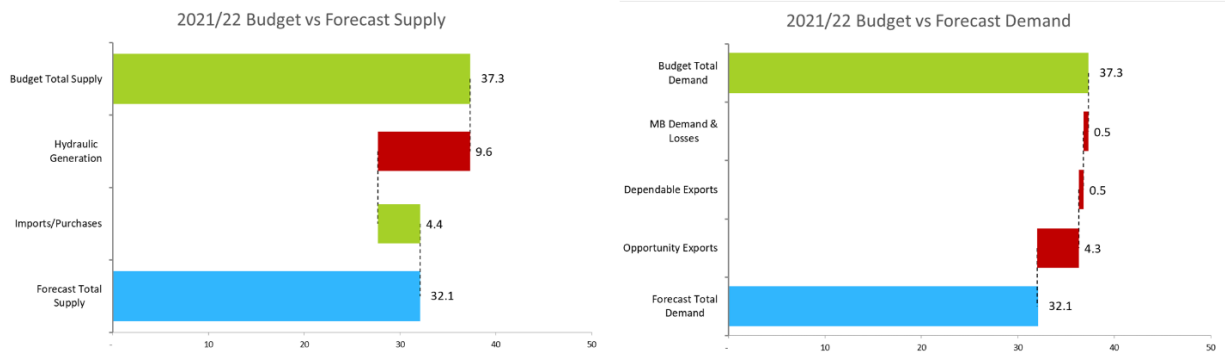
5  
6 Hydraulic generation in the 2021/22 Forecast is projected to be approximately 27%  
7 below hydraulic generation assumed in the 2021/22 Budget, and total supply is

1 projected to be approximately 14% below forecasted total supply in the 2021/22  
 2 Budget.

3  
 4 As a result of the decrease in hydraulic generation, estimated net imports have  
 5 increased by 4.4 TWh in the 2021/22 Forecast to 5.6 TWh (from 1.2 TWh in the  
 6 2021/22 Budget), shown in Figure 4 below.

7  
 8 Total demand is projected to be approximately 14% below forecast assumed in the  
 9 2021/22 Budget. This is primarily driven by lower than expected opportunity  
 10 extraprovincial revenue volumes of 4.3 TWh, as shown in Figure 4 below.

11  
 12 Figure 4: 2021/22 Budget compared to 2021/22 Forecast Total - Supply & Demand  
 13 (TWh)



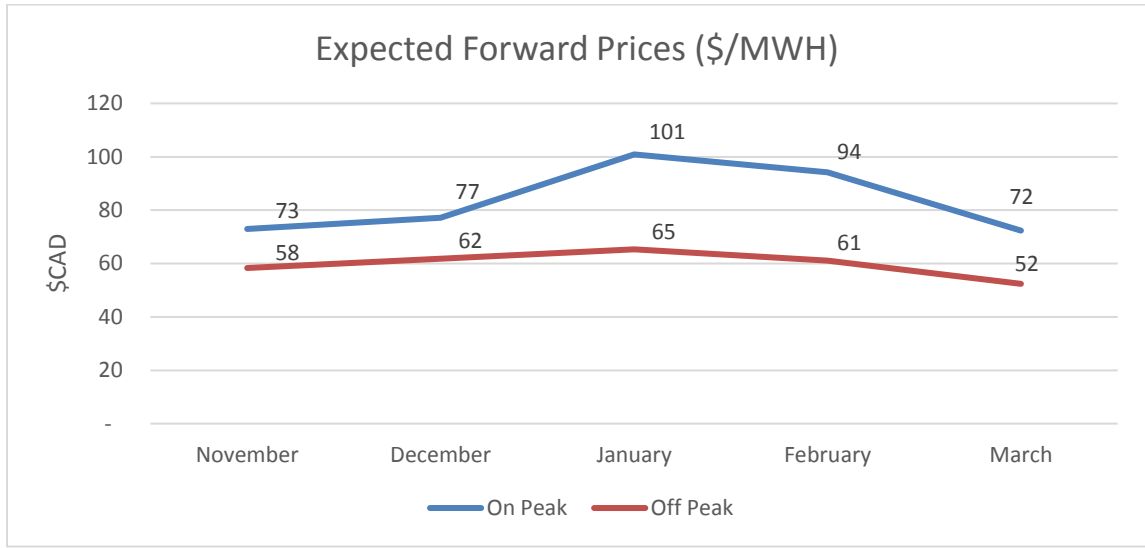
14  
 15  
 16 In accordance with Directive 5 of Order 43/13, Manitoba Hydro is providing additional  
 17 information in Appendix 1 on hydraulic generation, water conditions and extra-  
 18 provincial energy exchange data, which will be updated on a monthly basis until the  
 19 PUB issues an Order with respect to this Application.

21 **2.2 Energy Market Prices**

22 Energy market prices are the other primary factor that influences the impact of  
 23 drought risk. The assessment of the financial impact of the drought is based on a  
 24 forecast of future energy market prices. Future energy market prices are based on a  
 25 **forward price curve**, which is a forecast of the expected price that energy will sell for  
 26 in the market at a point in time in the future which can be based on many variables,  
 27 including the value of current market trades/transactions and historical price trends.

1 Forward price curve information used by Manitoba Hydro is sourced from multiple  
 2 external, subscription-based providers that provide daily forward strips of expected  
 3 monthly prices for both on and off peak. The expected forward energy prices  
 4 considering these forecasts is provided in Figure 5 below.

5  
 6 Figure 5: Expected Forward Energy Prices



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 8

9 **Volatility of Energy Market Prices**

10 Energy market prices have increased substantially over the last several months. Actual  
 11 MISO MHEB prices have increased by approximately 40% since August 2021.  
 12 Increased energy market prices are not a trend localized to the MISO market, as  
 13 increases in worldwide demand has put pressure on available supply.

14

15 Global demand for natural gas has impacted price and liquidity in energy markets. In  
 16 North America, two primary factors are driving natural gas prices higher, which is  
 17 impacting energy market prices:

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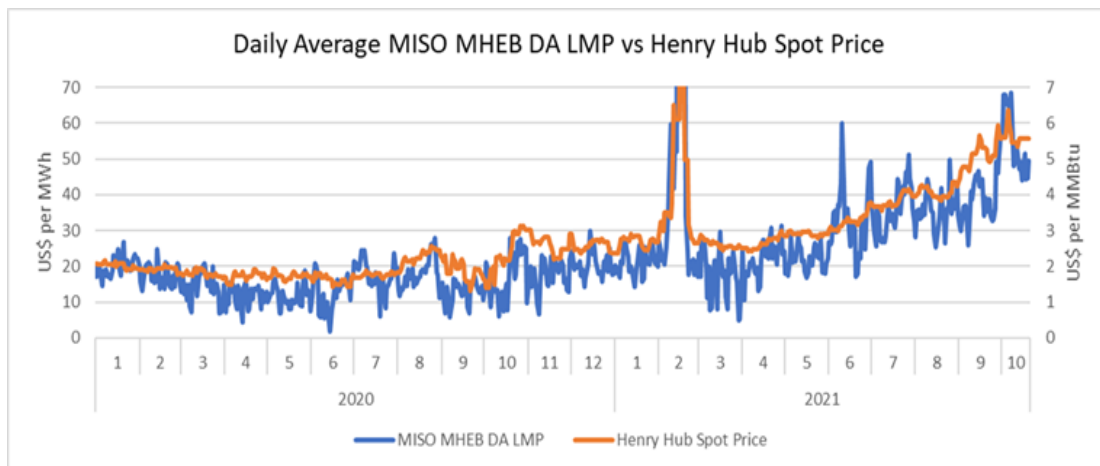
- 19 1) Below average production and storage inventories across North America,
- 20 year-over-year, have put additional pressure on natural gas markets entering
- 21 the 2021/22 winter season; and

22

1           2) Demand for liquified natural gas (“LNG”) in Asia is spurring additional LNG  
 2            exports out of the United States, putting additional supply and price pressures  
 3            on North American gas markets

4  
 5           As shown in Figure 6 below, actual MISO market prices and natural gas prices  
 6           (represented by the Henry Hub spot price) have both been increasing at a similar pace  
 7           in this rising energy price environment.

8  
 9           Figure 6: Daily Average MISO MHEB Energy Prices vs. Henry Hub Spot Gas Prices



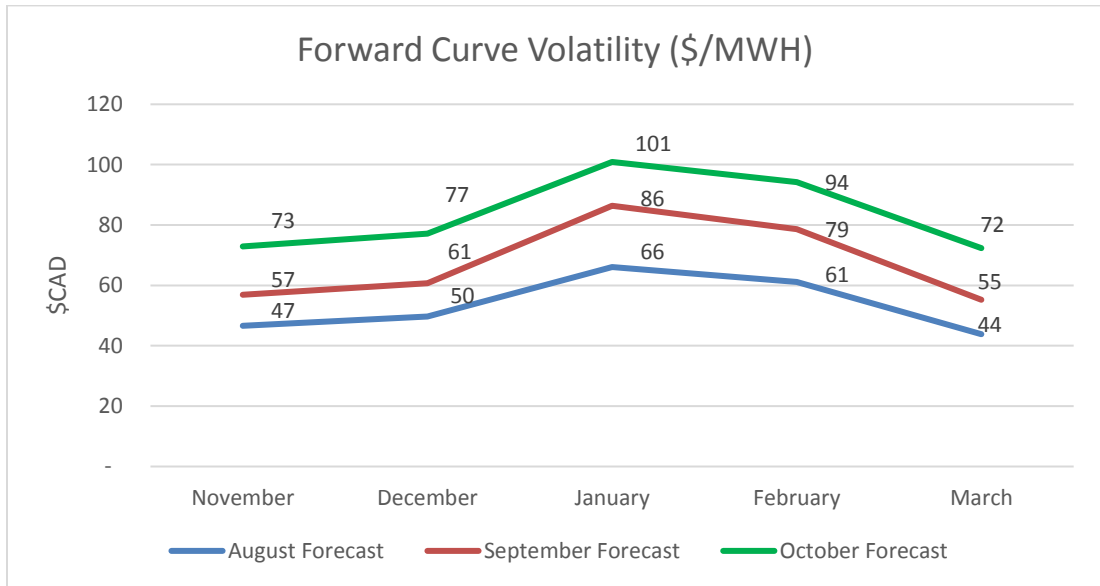
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 12           Additionally, lingering effects of last winter’s February Arctic Event across the  
 13           Midwest and another colder than normal winter expected in 2021/22 in some parts  
 14           of the US, has made markets increasingly unpredictable with more companies looking  
 15           to purchase energy to mitigate potential price risk, thus impacting available supply  
 16           levels.

17  
 18           This uncertainty has translated into recent upward volatility in short term energy  
 19           markets. Forward market prices have increased over 50% since August, as shown in  
 20           Figure 7 below.

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1 Figure 7: Forward Market Prices Since August



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**Hedging Activities (Price Risk Mitigation)**

While water conditions are an imposed risk that Manitoba Hydro cannot mitigate, price risk associated with drought can be mitigated to a certain extent. Based on the amount of energy imports required to address the reduced hydraulic generation and rising energy market prices due to high demand globally for energy and natural gas, Manitoba Hydro implemented a hedging strategy to mitigate its price risk associated with projected energy imports.

Hedging involves Manitoba Hydro entering into fixed price purchase arrangements to reduce the price risk for its future projected import requirements. These fixed price arrangements allow Manitoba Hydro to “hedge” against the risk of increased energy market prices. Manitoba Hydro has substantially hedged its projected imports for the November 2021 to March 2022 timeframe, as well as entered into arrangements for fixed price firm delivered natural gas supply for energy generation purposes. Appendix 2 provides additional information related to these activities/arrangements. This information is commercially sensitive as public release of this information could detrimentally impact Manitoba Hydro’s competitive position in future transactions with commercial counterparties. As such, this information is being filed in confidence with the Public Utilities Board only.

1 **2.3 Significant Financial Impact of the Drought on Net Extraprovincial Revenue**

2 The financial impact to Manitoba Hydro of the drought is a substantive reduction in  
 3 the Corporation’s net extraprovincial revenue for 2021/22 compared to Budget. Net  
 4 extraprovincial revenue is made up of the following:

5

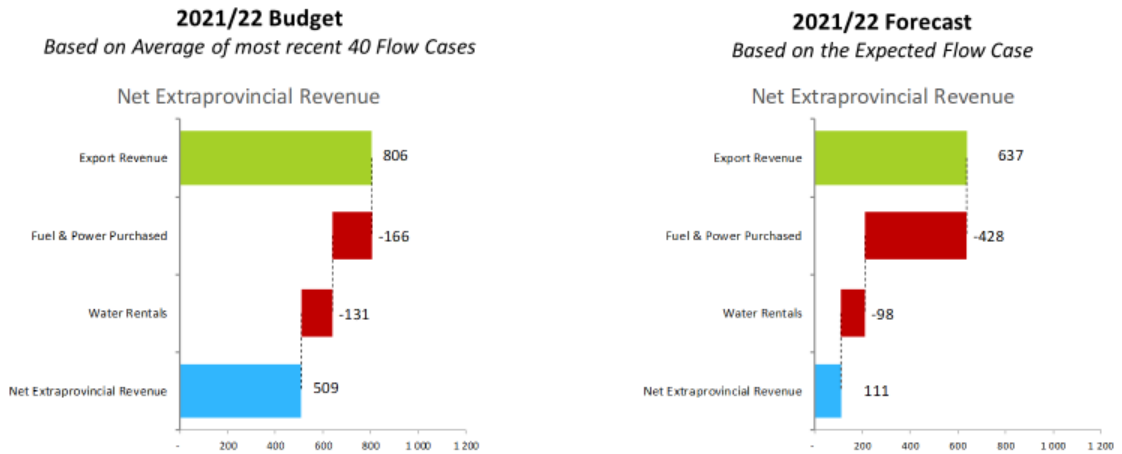
6 
$$\text{Net Extraprovincial Revenue} = \text{Export Revenue} - \text{Fuel and Power Purchased}$$
  
 7 
$$(\text{imports}) - \text{water rentals}$$

8

9 The budgeted vs. forecasted amounts for these components of net extraprovincial  
 10 revenue are summarized in the following figures, which demonstrate **2021/22**  
 11 **forecasted net extraprovincial revenue is projected to be \$398 million lower than**  
 12 **the 2021/22 Budget** amount. This is primarily the result of a reduction in dependable  
 13 export sales (\$46.3 million) and opportunity export sales (\$121.7 million), an increase  
 14 in opportunity import purchases (\$262.5 million), with a small offset in the level of  
 15 water rental fees (\$32.1 million).

16

17 Figure 8: Net Extraprovincial Revenues 2021/22 Budget vs. Forecast (Summary)



18

19

20

1 Figure 9: Net Extraprovincial Revenues 2021/22 Budget vs. 2021/22 Forecast

<b>NET EXTRAPROVINCIAL REVENUES</b>			
(\$ millions)			
	2021/22 Budget	2021/22 Forecast	Difference
<b>EXTRAPROVINCIAL REVENUES</b>			
Dependable Export	590	544	(46)
Opportunity Export	210	88	(122)
Transmission Credits	3	3	(0)
Other Export Revenue	2	2	(0)
<b>Total Extraprovincial Revenue</b>	<b>806</b>	<b>637</b>	<b>(168)</b>
<b>FUEL &amp; POWER PURCHASED</b>			
Dependable Purchases	73	73	1
Opportunity Import Purchases	9	272	262
Thermal Costs	6	6	(0)
GNTL Charges	39	39	(1)
Transmission Charges	37	38	1
Other Import Costs	0	(0)	(0)
<b>Total Fuel &amp; Power Purchased</b>	<b>166</b>	<b>428</b>	<b>262</b>
<b>WATER RENTALS &amp; ASSESSMENTS</b>			
Water Rentals	120	88	(32)
Assessments & Other	11	10	(0)
<b>Total Water Rentals &amp; Assessments</b>	<b>131</b>	<b>98</b>	<b>(32)</b>
<b>Net Extraprovincial Revenues</b>	<b>509</b>	<b>111</b>	<b>(398)</b>

 2  
 3  
 4 **2.4 Uncertainty Analysis**

 5 In mid-October, water conditions came into clearer focus. Any winter precipitation  
 6 received has more of an impact on the next fiscal year as it will impact inflows from  
 7 snowmelt runoff. However, uncertainty around energy market prices remains.

 8  
 9 **2021/22 Hydraulic Uncertainty**

 10 As discussed above, water condition uncertainty is an inherent risk and variable that  
 11 Manitoba Hydro has to continuously monitor, assess and manage. As there remained  
 12 potential for late summer and fall precipitation and inflows to recover, financial  
 13 forecasting considered that flows could transition to any one of 40 potential inflow  
 14 scenarios by the end of the fiscal year based on historic transition statistics.

1 By mid-September, it was apparent that a recovery to average or above average flows  
2 was increasingly unlikely. Accordingly, the range of potential future flow scenarios  
3 were narrowed to a subset of 10 of the 40 historic flow years.  
4

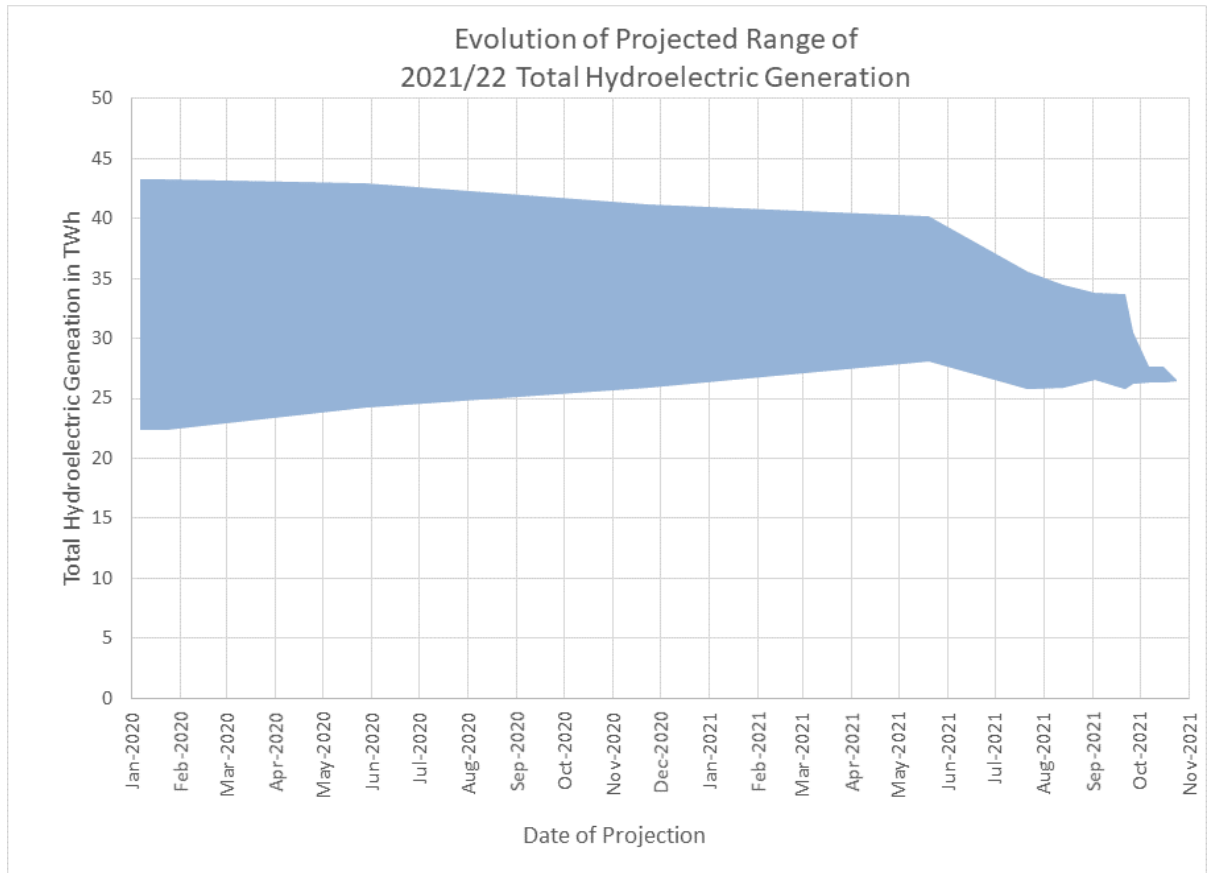
5 By early October, due to continued dry conditions and unfavourable forward  
6 precipitation forecasts, Manitoba Hydro further reduced the subset of plausible  
7 future flow scenarios to four.  
8

9 By late October, with very low potential for additional precipitation remaining, the  
10 expected range of flows narrowed further for the remainder of the fiscal year  
11 effectively leaving a single flow scenario to be utilized. With the precipitation season  
12 ending and freeze up near, there is very limited variability remaining in future  
13 hydraulic conditions for the remainder of this fiscal year.  
14

15 The change from 40, to 10, to 4, to essentially one future flow scenario for the bulk of  
16 the inflows to the Manitoba Hydro system resulted in a significantly narrowed range  
17 of projected hydraulic generation for the remainder of 2021/22. ***With a narrow range  
18 of possible inflows for the remainder of 2021/22, there is relatively less uncertainty  
19 in total hydroelectric generation for fiscal 2021/22. As such, it follows that there is  
20 less uncertainty in export and purchase volumes for the remainder of the year and  
21 therefore it is very unlikely that water conditions will improve materially during the  
22 2021/22 fiscal year.***  
23

24 Figure 10 shows the range of projected hydraulic generation as drought conditions  
25 have worsened through summer and fall of 2021, demonstrating that as time  
26 progressed, and drought conditions persisted that the range of potential water flow  
27 scenarios continued to narrow.  
28  
29

1 Figure 10: Evolution of Range of Projected Hydraulic Generation



2

3

4 **Likelihood of Continued Drought**

5 Precipitation forecasts beyond a few days into the future are not reliable; due to this  
 6 and other factors, it is not possible to accurately predict inflows with very long lead  
 7 times, particularly during the rainfall season. It is also not possible to identify when  
 8 drought will occur.

9

10 There exists some correlation of system inflows from one year to the next. In general,  
 11 the likelihood that a year with well above average inflows will be followed by year  
 12 with above average inflows is greater than the chance it would be followed by a year  
 13 of below average inflows. Conversely, there is a greater likelihood that a year with  
 14 well below average inflow will be followed by a year with below average inflow.

15

16 ***Given current drought conditions, there is an elevated likelihood of below average***  
 17 ***inflows occurring in 2022/23. However, annual hydraulic generation is very***

1        ***dependent on spring and summer rainfall. Given the long lead time through to the***  
2        ***end of 2022/23, Manitoba Hydro is not able to quantify the increase in likelihood of***  
3        ***drought occurring next year.***

4  
5        Manitoba Hydro therefore assumes that the historical water flow record is indicative  
6        of the possible flows in 2022/23, for financial forecasting purposes.

7  
8        The 2022/23 Preliminary Plan is prepared based on the opening storage conditions  
9        projected for April 1, 2022, which are determined based on a narrow range of flow  
10       conditions for the remainder of 2021/22, and assumes there is an equal probability of  
11       transitioning to any one of 40 historic inflow years in 2022/23. Net extraprovincial  
12       revenues are simulated for each inflow case, and the average of these net  
13       extraprovincial revenue results is used in the 2022/23 Preliminary Plan.

14  
15       Although Manitoba Hydro assumes there is an equal probability of transitioning to  
16       any one of 40 historic flow years in 2022/23 for financial forecasting purposes, for  
17       energy reliability planning purposes, Manitoba Hydro will continue to manage energy  
18       resources to protect for possibility of severe drought occurring next year.

19  
20       **Market Price Uncertainty**

21       While uncertainty related to water conditions narrowed significantly by late October,  
22       there continues to be significant uncertainty associated with energy market prices.  
23       Future energy market prices could be higher or lower than current forward price  
24       curves suggest. Manitoba Hydro's hedging activity has mitigated some of the risk  
25       associated with this price uncertainty, but some exposure remains. Manitoba Hydro  
26       could experience additional costs or further impact to 2021/22 net extraprovincial  
27       revenue under both increasing or decreasing market price scenarios.

28  
29       To assess this potential impact associated with price uncertainty, Manitoba Hydro has  
30       analyzed net extraprovincial revenue based on several energy market price scenarios.  
31       These price scenarios are built from the existing forward price curve (as shown in  
32       Figure 5 above), which acts as the "base case" scenario. Low, high and extreme price  
33       scenarios have been considered and represent alternative views of the actual energy  
34       market prices that could be experienced when imports are required.

1 The development of these price scenarios and the potential impact of these scenarios  
2 on net extraprovincial revenue are commercially sensitive, as public release of this  
3 information could detrimentally impact Manitoba Hydro's competitive position in  
4 future hedging transactions with commercial counterparties. As such, this information  
5 is being filed in confidence with the Public Utilities Board only.

6  
7 There is the potential for Manitoba Hydro to further mitigate the price risk associated  
8 with the high price and extreme price scenarios through entering into further fixed  
9 price hedge arrangements, if market opportunities present themselves. However, as  
10 further hedges are executed it reduces the opportunity to benefit (improved net  
11 extraprovincial revenue) from any reduction in actual market prices (i.e. movement in  
12 prices from the base case towards the Low-Price scenario). While these  
13 considerations need to be balanced, energy market prices continue to trend upwards  
14 and as such Manitoba Hydro intends to pursue further hedging opportunities, where  
15 appropriate, to mitigate the risk of higher prices.

16

### 17 **3.0 MANITOBA HYDRO'S FINANCIAL METRICS AND NEED FOR RATE INCREASES TO** 18 **REMAIN SELF-SUPPORTING**

19

#### 20 **3.1 Financial Metrics**

21 Although no longer on the legislative agenda, Manitoba Hydro supports the debt ratio  
22 targets that were outlined in the previously proposed legislation, which are  
23 summarized below.

- 24 • 87% by March 31, 2025
- 25 • 84% by March 31, 2030
- 26 • 78% by March 31, 2035
- 27 • 70% by March 31, 2040

28

29 The combination of debt ratio targets and achievement dates establishes a general  
30 and reasonable roadmap to gradually reduce the utility's leverage over a 20-year  
31 period. Manitoba Hydro's net debt is expected to exceed \$24 billion following the  
32 completion of the major capital projects. The focus for the next decade will be on

1 minimizing further debt growth and increasing earnings to reduce the debt ratio by  
2 3% and achieve the 84% target by March 31, 2030.

3  
4 As part of the enterprise planning process, Manitoba Hydro will be further reviewing  
5 its key performance indicators including its financial metrics. While establishing  
6 appropriate debt ratio targets and achievement dates are important for the continued  
7 financial health of any utility such as Manitoba Hydro, the granting of the interim rate  
8 relief requested in this Interim Application need not consider or debate these  
9 important and contentious issues at this time as part of this process. Rather, the  
10 financial metrics, debt ratio targets and achievement dates provided in this Interim  
11 Application are intended to provide a full financial “status update” to the PUB while  
12 clearly demonstrating that the proposed interim general revenue increase and  
13 resulting rates are just and reasonable and required immediately to address the very  
14 significant financial impact of the current drought conditions.

15  
16 The following is a list of financial metrics Manitoba Hydro is tracking and considering  
17 as part of its key performance indicator review. Detailed calculations of each metric  
18 can be found in the response to PUB MFR 6.

- 19 i. **Debt Ratio:** the portion of assets that are financed by debt rather than equity.
- 20 ii. **EBITDA Interest Coverage Ratio:** the number of times earnings before  
21 interest, taxes, depreciation and interest can cover interest payments on the  
22 outstanding debt.
- 23 iii. **Cash Surplus/(Deficiency) for Core Business Activities:** a deficiency indicates  
24 borrowings are required to fund business activities other than the major  
25 capital projects.
- 26 iv. **Interest Paid as a Percentage of Total Revenue:** the portion of every dollar of  
27 revenue that is needed to service the interest payments on the outstanding  
28 debt.

29  
30 Figure 11 below compares these metrics for the 2021/22 Forecast and the 2021/22  
31 Budget. Manitoba Hydro does not presently have targets for these metrics. The  
32 current metrics are provided to demonstrate the significant impact the current  
33 drought conditions have had on Manitoba Hydro’s projected results in 2021/22, and



1 to provide a picture of Manitoba Hydro’s financial health compared to other  
 2 provincially owned electric utilities.

3

4 Figure 11: Financial Metrics 2021/22 Forecast Compared to the 2021/22 Budget

Electric Segment	2021/22 Forecast	2021/22 Budget	Change
Proposed Rate Increase	5.0%	3.5%	1.5%
Net Income/(Loss)	(\$190)	\$177	(\$366)
Net Export Revenue	\$111	\$509	(\$398)
Cash Surplus/(Deficiency) to Fund Core Business Operations	(\$348)	\$62	(\$410)
EBITDA Interest Coverage Ratio	1.36	1.68	(0.32)
Interest Paid as a % of Total Revenue	42%	40%	2%
Debt Ratio	87%	86%	1%

5

6 The 2021/22 Budget which assumed a range of possible water flow conditions for the year  
 7 and a 3.5% rate increase effective October 1, 2021, projected net extraprovincial revenue  
 8 of \$509 million. The 2021/22 Budget projected sufficient earnings and cash flow to avoid  
 9 borrowing to fund core business activities, an EBITDA interest coverage ratio just under  
 10 1.7, maintained the debt ratio at 86% and prevented interest paid as a percentage of total  
 11 revenue from exceeding 40%.

12

13 The 2021/22 Forecast, which incorporates actual water conditions to October 20, 2021  
 14 and assumes a 5.0% rate increase effective January 1, 2022, projects net extraprovincial  
 15 revenue of \$111 million, a (\$190) million net loss, and \$348 million of additional  
 16 borrowings to fund core business activities. This is resulting in a 1% deterioration of the  
 17 debt ratio to 87%, an EBITDA interest coverage ratio of 1.36 (from 1.68) and interest paid  
 18 as a percentage of total revenue increases to 42% (from 40%).

19

20 Even with a 5% rate increase, Manitoba Hydro must borrow approximately 90% of the  
 21 projected \$398 million in lost extraprovincial revenue/increased fuel and power  
 22 purchases resulting from the current drought.

23

24 As shown in PUB MFR 6, Manitoba Hydro is projecting a small surplus of cash flow to fund  
 25 core business operations in the 2022/23 Preliminary Plan of \$51 million, assuming the  
 26 return to average water flows as discussed in Section 2.4 of the Application. Without the

1 proposed general revenue increase of 5% in 2021/22, which is expected to generate \$88  
 2 million in revenues in 2022/23, Manitoba Hydro would again expect to borrow to fund  
 3 core business operations next fiscal year. Manitoba Hydro notes that \$51 million in  
 4 surplus cash flow is small considering the size of Manitoba Hydro's operations and the  
 5 uncertainties facing the corporation, including the risk of low water.

6

7 Manitoba Hydro continues to possess the highest debt ratio amongst other Crown-owned  
 8 Canadian electricity utilities as illustrated in Figure 12 below.

9

10 Figure 12: Debt Ratio Amongst Crown-owned Canadian Utilities

	Manitoba Hydro	BC Hydro	SaskPower	Quebec Hydro	Nalcor
Fiscal year ending	Mar 31/21	Mar 31/21	Mar 31/21	Dec 31/20	Dec 31/20
Debt Ratio	86%	80%	71%	69%	63%
Percentage points lower/better than Manitoba Hydro	N/A	-6%	-15%	-17%	-23%

11

12 A higher debt ratio means a larger proportion of the utility's assets are funded with debt  
 13 versus equity and typically a higher proportion of revenues are used to service the cost of  
 14 carrying the debt. Figure 13 below compares each utility's interest paid as a percentage  
 15 of its total revenues.

16

17 Figure 13: Interest Paid as a Percentage of Total Revenues Amongst Crown-owned

	Manitoba Hydro	BC Hydro	SaskPower	Quebec Hydro	Nalcor
Fiscal year ending	Mar 31/21	Mar 31/21	Mar 31/21	Dec 31/20	Dec 31/20
Interest Paid as a % of Total Revenue	41%*	14%	16%	28%	42%**
* Manitoba Hydro's total revenues are adjusted for the cost of gas that is a pure pass through and is not available for debt service. ** Nalcor has received equity injections from the Province of Newfoundland. Despite the high equity component in their capital structure, Nalcor has very weak financial metrics and poses a great risk to the Province of Newfoundland which is recognized by credit rating agencies.					

18

19 **Over 40% of Manitoba Hydro's revenues are used to pay interest on borrowings**  
 20 compared to only 14%, 16% and 28% for BC Hydro, SaskPower and Quebec Hydro  
 21 respectively. **Having such a high ratio of gross interest to total revenues limits**  
 22 **Manitoba Hydro's financial flexibility through its ability to absorb higher operating**

1 *costs or deal with operational risks, for example, lower than normal water flow*  
2 *conditions and major weather events.*

### 3 **3.2 Consistent Annual Rate Increases are Required to Remain Self-Supporting**

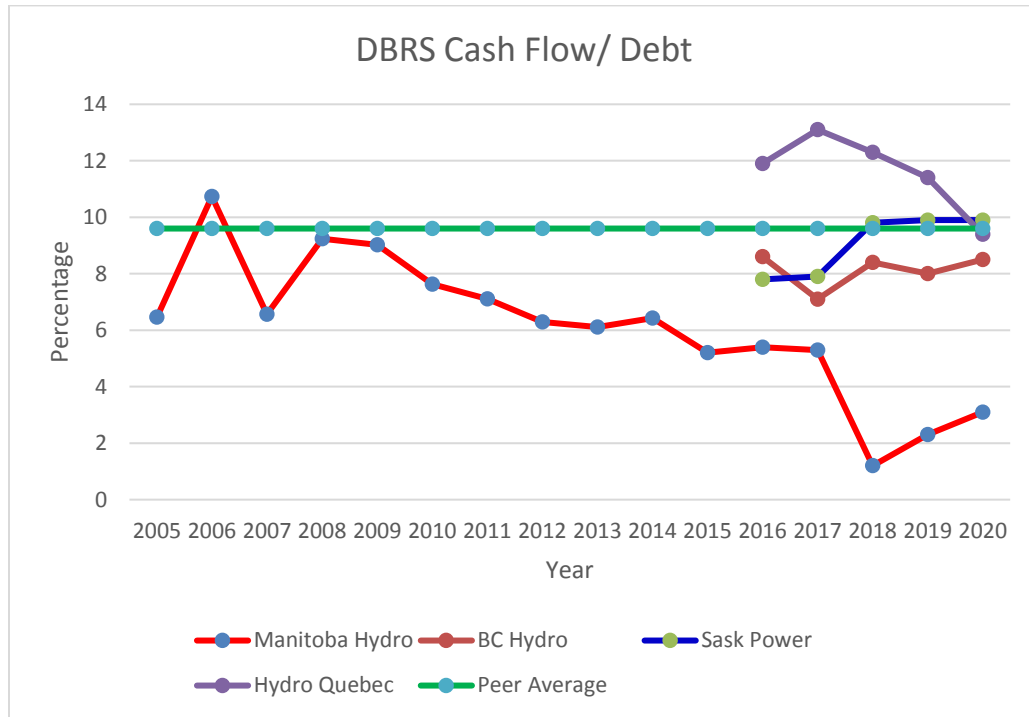
4 Manitoba Hydro requires rate increases to remain self-supporting. Absent rate  
5 increases, Manitoba Hydro may not generate sufficient funds to cover operations. To  
6 clarify, the attributes of a self-supporting government-owned entity (as identified by  
7 credit rating agencies) are:

- 8 • it has the ability to generate sufficient funds to support its own operations  
9 including servicing its debt; and
- 10 • it does not require support from government to avoid financial distress.

11  
12 ***Manitoba Hydro's financial metrics are among the worst of its peer utilities in***  
13 ***Canada.*** DBRS rating agency publishes rating reports for Manitoba Hydro and most of  
14 its peer crown utilities. DBRS highlights three key ratios for each utility: Debt in Capital  
15 Structure, EBIT (Earnings Before Interest and Tax) Interest Coverage, and Cash Flow  
16 to Debt. Each metric references a different financial statement (balance sheet, income  
17 statement and cash flow statement respectively) which provides for a good overall  
18 picture of the utility's financial health. Credit rating agencies do monitor both the EBIT  
19 and EBITDA Interest Coverage ratios; however, DBRS in these referenced utility  
20 reports has chosen to highlight the EBIT interest coverage ratio.

21  
22 The cash flow to debt ratio evaluates how much available cash from operations a  
23 business has relative to its outstanding debt. DBRS, other credit agencies and  
24 investors use this ratio to understand how much cash a business has available to make  
25 interest and principal payments on debt. The higher the ratio is, the better position  
26 the company is in to meet its financial obligations. If the ratio begins to decrease, that  
27 means cash flows are slowing down, the company has taken on more debt, or both. A  
28 declining or very low ratio means the business may not have enough available cash to  
29 make its principal and interest payments on outstanding debt. Manitoba Hydro has  
30 relatively high levels of debt compared to its peer utilities and has limited cash flow  
31 with which to service this growing debt load, as shown in Figure 14 below.

1 Figure 14: Utility Comparison of DBRS Cash Flow to Debt Ratio



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Based on DBRS’ calculations, Manitoba Hydro’s low cash flow/debt ratio means that the utility is at a greater risk of not making its interest payments and principal debt repayments and is on a comparably weaker financial footing than its peers.

The credit rating agencies have noted that Manitoba Hydro’s financial situation has deteriorated in recent years as evidenced by Figure 14 above. Moody’s noted: “...rate increases have not been keeping up with costs as evidenced by ongoing weak financial metrics.” in its latest report on the MHEB from May 4, 2021. In 2008, Manitoba Hydro had a cash flow/ debt ratio similar to its peers; however and predictably, years of borrowing for its capital program have greatly pressured the utility’s financial health to the point that Manitoba Hydro has little financial flexibility to sustain operations in the wake of unanticipated events and must borrow for any requirement arising out of such events. This is evidenced in Figure 11: Financial Metrics 2021/22 Forecast Compared to the 2021/22 Budget which shows Manitoba Hydro does not have sufficient cash flow to support its own operations, and must borrow approximately 90% of the projected \$400 million reduction in net extraprovincial revenue resulting from the current drought.

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Moody's has warned of this risk in its latest report on Manitoba Hydro:

*As part of its debt management strategy, Manitoba Hydro targets certain financial metrics such as an interest coverage ratio greater than 1.8x and equity-to-capitalization greater than 25%. However, both targets are not expected to be met for an extended period of time due to its large capital program and limited rate increases. For example, during the last twelve month ending 31 December 2020, Moody's adjusted EBITDA to interest expense ratio was 1.4x, EBIT to interest expense was 0.8x and debt to book capitalization was 89%. These financial metrics are among the weakest, if not the weakest, of any of Manitoba Hydro's peers, including vertically integrated provincially owned crown corporations in Canada.*

*The willingness to operate outside of set targets is a material credit negative because it restricts financial flexibility and adds risk in case of unexpected events. – May 4, 2021 Moody's Report on the MHEB (PUB MFR 14 – Attachment 1)*

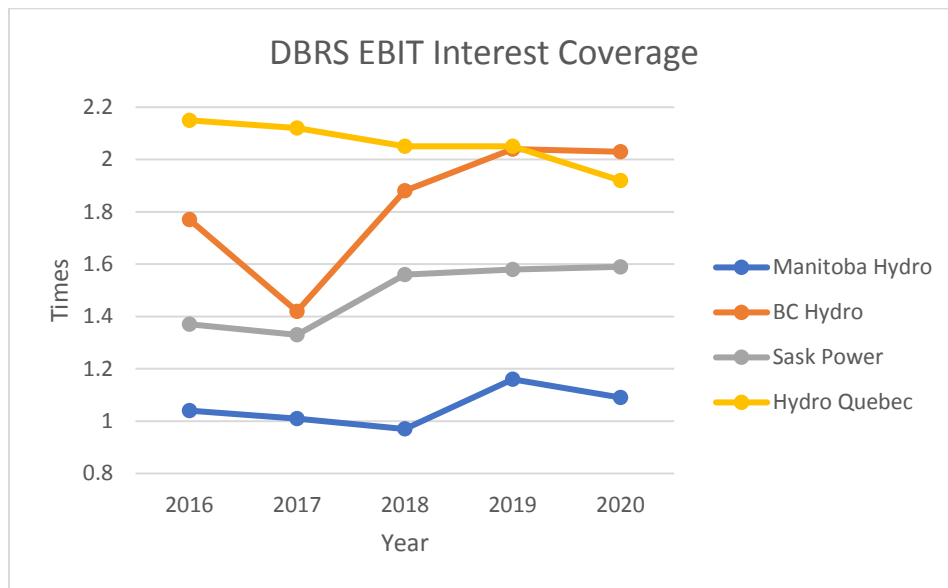
As a Crown Corporation, Manitoba Hydro's credit ratings are a flow-through of the Province's credit ratings. Manitoba Hydro's financial strength is an important factor for credit rating agencies and investors in assessing the Province's credit standing. The weak financial metrics have rating agencies concerned that Manitoba Hydro will need to borrow and increase its debt further to fund operations. If this proves to be the case, credit rating agencies may no longer view the utility as being self-supporting which could cause problems for both the Province of Manitoba and Manitoba Hydro.

While credit-rating agencies still deem Manitoba Hydro to be self-supporting, this determination is not based on a 'snap shot in time' picture, particularly in the case of a crown corporation which is guaranteed by a government entity. The rating agencies will look at the historical performance and expected future trends of financial metrics as well as business risks of the enterprise in order to assess the status of the debt. Currently, Moody's has noted that despite the fact the EBIT to interest expense ratio is below 1x, (currently 0.8x according to Moody's methodology), which indicates that

1 Manitoba Hydro is borrowing to make interest payments, it still considers Manitoba  
 2 Hydro to be self-supporting. However, should this negative trend continue without  
 3 being alleviated by the implementation of regular annual rate increases by Manitoba  
 4 Hydro, as well as by additional export revenues following the in-service of Keeyask,  
 5 Moody’s may reassess the self-supporting status.

6  
 7 As shown in the Figure 15 below, using DBRS’ methodology for calculating EBIT  
 8 interest coverage, Manitoba Hydro lags its peers in terms of financial health with DBRS  
 9 indicating: “Financial performance has also been weak, with earnings and cash flows  
 10 negatively affected by growing interest expense.” – DBRS Report on Manitoba Hydro,  
 11 December 9, 2020 (PUB MFR 14 – Attachment 4)

12  
 13 Figure 15: Utility Comparison of DBRS EBIT Interest Coverage



14  
 15  
 16 Historically, Manitoba Hydro has experienced an increase in its debt ratio during the  
 17 construction of new generation and transmission projects. Upon in-service, the assets  
 18 become revenue generating and the debt ratio eventually recovers and reaches the  
 19 financial target. For example, the debt ratio decreased to the 75% target in 2007/08  
 20 following the construction of Limestone and would have achieved the target in  
 21 2002/03 were it not for a significant drought beginning in that year. This recovery  
 22 period for the debt ratio was approximately 10-15 years following the in-service of  
 23 Limestone. As noted in the PUB’s Needs For and Alternatives To (“NFAT”) Report, it

1 was anticipated that a similar recovery period would be required after the  
2 construction of Keeyask with regular annual rate increases in the range of  
3 approximately 4% per year.

4  
5 Credit rating agencies understand that the financial metrics will weaken during  
6 construction of new generation and transmission. However, there is an expectation  
7 that Manitoba Hydro's financial metrics will recover and steadily improve with the in-  
8 service of the Keeyask "DBRS Morningstar does not expect financial performance to  
9 meaningfully improve until the Keeyask Project is fully in service and generating  
10 export revenues." – DBRS Report on Manitoba Hydro, December 9, 2020

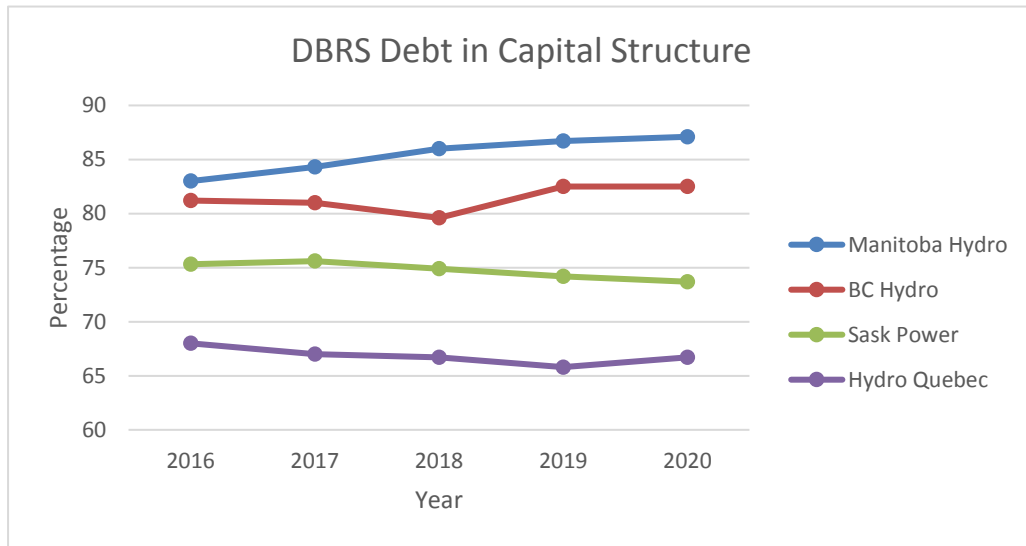
11  
12 Credit rating agencies also fully expect that the regular rate increases discussed at the  
13 NFAT will materialize to support the recovery of Manitoba Hydro's financial health.  
14 Moody's identified in their report on the Province of Manitoba from June 22, 2021  
15 that "A rise in the indebtedness of Manitoba Hydro *materially above forecasted*  
16 *levels*" was a factor that could lead to a downgrade. The forecast to which Moody's  
17 was referring was a scenario that Manitoba Hydro shared with all the rating agencies  
18 which assumed and projected regular rate increases of 3.5% annually to 2030. In this  
19 particular scenario, debt repayment did not begin until several years after the in-  
20 service of Keeyask even with regular rate increases of 3.5%. In other words, absent  
21 regular rate increases, debt will continue to grow, and Manitoba Hydro continues to  
22 risk losing its self-supporting status and triggering a downgrade to the Province's  
23 credit rating.

24  
25 *DBRS Morningstar continues to view Manitoba Hydro as self-supporting, as its*  
26 *earnings and cash flows remain sufficient to cover its operating expenses and*  
27 *service its outstanding debt. However, DBRS Morningstar could consider*  
28 *reclassifying a portion of the Utility's debt to be tax-supported should the*  
29 *financial health of the Utility deteriorate to the point where its expenses*  
30 *cannot be recovered through rates or export revenues. This could potentially*  
31 *arise if rate increases are insufficient to recover Manitoba Hydro's costs or if*  
32 *export revenues are weaker than forecast. If this were to occur, it could*  
33 *potentially put downward pressure on the Province's credit rating. Similarly,*  
34 *a large equity injection by the Province that materially increases tax-supported*

1 *debt could also put downward pressure on the Province’s credit profile.* – DBRS  
 2 Report on Manitoba Hydro, December 9, 2020 (PUB MFR 14 – Attachment 4)

3  
 4 The trend for Manitoba Hydro’s debt in capital structure, as compared to its peers (as  
 5 calculated by DBRS<sup>6</sup>) is shown in Figure 16 below.

6  
 7 Figure 16: Utility Comparison DBRS Debt in Capital Structure Ratio



8  
 9 The credit rating agencies viewed the financial targets within Bill 35 as being  
 10 favourable for Manitoba Hydro’s financial health with DBRS indicating:

11 *the PUB would have to take into consideration debt-to-capitalization targets*  
 12 *in Bill 35 as part of its rate-setting process. DBRS Morningstar believes this*  
 13 *change is ultimately positive for Manitoba Hydro's financial health as its key*  
 14 *financial ratios have been weak during this period of elevated capex for the*  
 15 *Keeyask Infrastructure and Generating Station Project (the Keeyask Project;*  
 16 *total capex of \$8.7 billion). Leverage for the Utility has increased to more than*

---

<sup>6</sup> All financial data for peer utilities taken from DBRS reports on peers:

- *British Columbia Hydro and Power Authority May 27, 2020 p. 2 please note, information for 2020 includes actual results for the 12 months to December 31, 2019. Fiscal year is March 31.*
- *Hydro Quebec December 9, 2020 p. 2 please note, information for 2020 includes actual results for the 12 months to September 30, 2020. Fiscal year is December 31.*
- *Sask Power December 30, 2019 p. 1 please note, information for 2020 includes actual results for the 12 months to June 30, 2019. Fiscal year is March 31.*



1                    *87% for F2020, significantly above Manitoba Hydro's target leverage of 75%*  
2                    *debt. If passed, Bill 35 would provide a plan for restoring the Utility's financial*  
3                    *health by limiting its debt load to 87% for 2025, while decreasing it to 84%,*  
4                    *78%, and 70% by 2030, 2035, and 2040, respectively. – DBRS Report on*  
5                    *Manitoba Hydro, December 9, 2020 (PUB MFR 14 – Attachment 4)*  
6

7                    If Manitoba Hydro were to lose the self-supporting status, credit rating agencies may  
8                    consider all or a portion of Manitoba Hydro's debt to be tax-supported debt.  
9                    Manitoba Hydro's debt is 45% of the Provincial debt and the utility has a large share  
10                   of debt as a percent of GDP as compared to its peers (DBRS 2019 Canadian Provincial  
11                   Government Outlook, page 101). The addition of all of Manitoba Hydro debt to the  
12                   tax-supported debt would significantly worsen the Province's credit metrics. In  
13                   comparison to its peers, the Province would have one of the weakest Debt to GDP  
14                   ratios. If this were the case, it may trigger one or more credit downgrades for the  
15                   Province of Manitoba. The Province's (and Manitoba Hydro's) cost of borrowing  
16                   would likely increase as investors demand a greater return for the riskier bonds. Some  
17                   investors may no longer be able to buy or hold Manitoba bonds due to the lower credit  
18                   quality and there would likely be an impact on Manitoba's reputation both politically  
19                   and from an investor standpoint.  
20

21                   Since 2013, Manitoba Hydro's net debt as a percentage of the Province's net debt has  
22                   grown from 33% to 45% as shown in Appendix 3 of the Application. While Manitoba  
23                   Hydro's ratio has been in this range for the past 30 years, it is significant that the  
24                   utility's debt ratio is extremely weak at a time when Manitoba Hydro's net debt as a  
25                   percentage of the Province's net debt is extremely high as this increases the risk of  
26                   Manitoba Hydro's debt as a contingent liability.  
27

28                   The Province's high credit quality has afforded Manitoba Hydro and its customers the  
29                   benefit of being able to secure attractive financing opportunities. This credit  
30                   advantage has allowed Manitoba Hydro to achieve its fundamental debt management  
31                   objective: to provide stable, low cost funding to meet the financial obligations and  
32                   liquidity needs of the Corporation, while maintaining risks at prudent levels and  
33                   reserving sufficient flexibility to adapt to changing circumstances. Manitoba Hydro  
34                   has a duty to its customers to ensure that its financial health does not deteriorate to

1 the point of causing a credit crisis for the Province of Manitoba. It is imperative that  
 2 Manitoba Hydro maintain its self-supporting status.

3

4 **4.0 OVERVIEW OF THE 2021/22 FORECAST**

5

6 **4.1 2021/22 Forecast Compared to 2021/22 Budget**

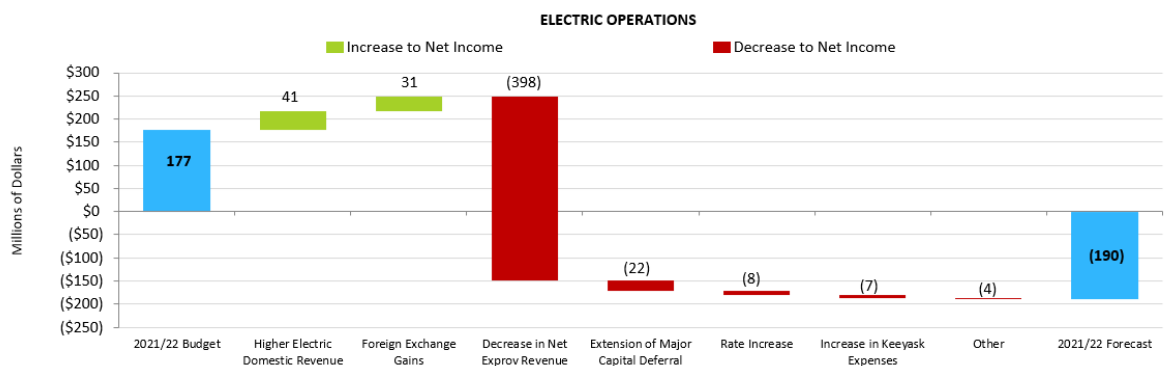
7 In its 2021/22 Budget, Manitoba Hydro was projecting net income of \$177 million for  
 8 Electric Operations, assuming average water conditions and a projected general  
 9 revenue increase of 3.5% effective October 1, 2021. Manitoba Hydro’s updated  
 10 2021/22 Forecast, which reflects actual results to the end of September 2021, water  
 11 conditions to October 20, 2021 and updated forecast assumptions, projects a (\$190)  
 12 million net loss in 2021/22, assuming a 5.0% overall general revenue increase effective  
 13 January 1, 2022. Links to Manitoba Hydro’s financial results for the quarters ended  
 14 June 30, 2021 and September 30, 2021, can be found in the response to PUB MFR 4,  
 15 and Manitoba Hydro’s 2021/22 Forecast and 2021/22 Budget can be found in the  
 16 response to PUB MFR 3.

17

18 Figure 17 below illustrates the primary factors driving the significant change (\$366  
 19 million decrease in net income) in Manitoba Hydro’s 2021/22 Forecast compared to  
 20 the 2021/22 Budget.

21

22 Figure 17: Comparison of 2021/22 Budget to 2021/22 Forecast Main Drivers of Change



23

24

25 As discussed in Section 2.3 above, the most significant factor driving the change in the  
 26 2021/22 Forecast is the \$398 million reduction in net extraprovincial revenues, which  
 27 is the result of a decrease in dependable and opportunity export sales, as well as an

1 increase in opportunity import purchases, both resulting from lower hydraulic  
2 generation due to drought conditions.

3

4 An overview of the other factors driving of the change in 2021/22 Forecast compared  
5 to the 2021/22 Budget are as follows:

6

7 Increases to Net Income

- 8 • Electric domestic revenue is higher by \$41 million primarily due to lower projected  
9 impacts of COVID-19 on Top Consumers in the 2020 electric load forecast  
10 information, and favourable weather and higher actual usage to September 2021  
11 than budgeted.
- 12 • There are \$31 million in foreign exchange gains on finance expense as a result of  
13 the strengthening Canadian dollar from a CAD-USD exchange rate of 1.32 in the  
14 2021/22 Budget to 1.22 in the 2021/22 Forecast, which offsets \$17 million of  
15 foreign exchange losses in the export market.

16

17 Decreases to Net Income

- 18 • The 2021/22 Budget assumed that amortization of the Major Capital Projects  
19 Deferral would commence October 1, 2021 and was subject to Manitoba Hydro  
20 seeking the necessary approvals of the PUB. Consistent with the approvals and the  
21 associated timing requested in this Application, the 2021/22 Forecast assumes  
22 amortization of this account will commence January 1, 2022. This results in \$12  
23 million of additional revenues being allocated to the deferral account by extending  
24 the funding of this account by three months to December 31, 2021 and \$10 million  
25 in less revenue recognized in 2021/22 due to the delay in commencing the  
26 amortization of the balance to January 1, 2022 (\$22 million total decrease to net  
27 income). Please see Section 4.3 below for further information related to the  
28 proposed disposition of the Major Capital Projects Deferral.
- 29 • The 2021/22 Budget assumed a 3.5% general revenue increase effective October  
30 1, 2021, while the 2021/22 Forecast assumes a 5.0% general revenue increase  
31 effective January 1, 2022. This results in \$16 million less revenue from the change  
32 in the proposed implementation date of the assumed electric general revenue  
33 increase from October 1, 2021 to January 1, 2022, partially offset by an additional

1 1.5% or \$8 million in general revenue to address a portion of the expected drought  
2 cost (\$8 million net decrease to net income).  
3 • The \$7 million increase in Keeyask expenses (and decrease in Net Income) is  
4 primarily due to earlier recognition of interest on Keeyask Cree Nation loans, and  
5 a timing difference associated with in-service dates of generating station units (the  
6 2021/22 Budget assumed the first unit would be placed in-service March 31, 2021,  
7 and was actually placed in-service in February 2021). These increases are partially  
8 offset by lower depreciation from refining the componentization of Keeyask assets  
9 resulting in a lower composite depreciation rate and later than expected project  
10 spending.

#### 11 **4.2 Placing Major Capital Projects In-Service results in a Substantial Increase in** 12 **2021/22 Revenue Requirement**

13 As a result of the capital intensive nature of Manitoba Hydro's business, a significant  
14 portion of its overall revenue requirement is made up of carrying costs (finance  
15 expense, depreciation, and capital taxes) and the operating and maintenance costs of  
16 the assets that are utilized to provide service to customers. While assets are under  
17 construction, the capital expenditures and associated financing costs are held in  
18 construction work in progress. Once these assets are placed into service, the  
19 associated carrying costs form part of the corporation's revenue requirements.  
20

21 Since Manitoba Hydro's 2019/20 Rate Application, MMTP, the Birtle Transmission  
22 Line, GNTL, and five of seven units of the Keeyask Generating Station have been  
23 placed in-service. ***In 2021/22, there is a significant increase to Manitoba Hydro's***  
24 ***revenue requirement associated with additional net carrying costs of \$619 million***  
25 ***as a result of bringing these projects in-service***, as shown in Figure 18 below. This  
26 increase in revenue requirement is net of revenues recognized from the amortization  
27 of the Major Capital Projects Deferral (as proposed in this Application) and the Bipole  
28 III Deferral (as approved in Order 59/18). These costs are largely fixed in nature once  
29 the projects are completed and placed in-service.  
30

1 Figure 18: Revenue Requirement Impact of Major Capital Projects

	<u>2021/22</u>	<u>2022/23</u>	<u>2023/24</u>
<b>(\$ millions)</b>			
Keeyask	282	499	526
Bipole III	327	316	316
MMTP	30	29	29
GNTL	66	64	64
Birtle	3	3	3
<b>Gross Impact</b>	<b>708</b>	<b>912</b>	<b>938</b>
Amort of Major Capital Projects Deferral*	(12)	(50)	(37)
Amort of Bipole III Reserve*	(77)	(77)	(20)
<b>Net Impact</b>	<b>619</b>	<b>785</b>	<b>881</b>

 2  
 3 *\*Amortization of Capital Reserves projected to cease in 2023/24*

 4  
 5 Manitoba Hydro has been projecting rate increases of at least 3.5% per year since  
 6 2009, primarily as a result of the increasing costs associated with the major capital  
 7 projects that are now coming in-service. ***In addition to the very significant financial***  
 8 ***impact of the current drought, the proposed general revenue increase is required as***  
 9 ***a result of the substantial increases in Manitoba Hydro's revenue requirement due***  
 10 ***to the major capital projects.***

 11  
 12 **4.3 Major Capital Projects Deferral**

 13 As part of this Application, Manitoba Hydro is requesting approval to begin  
 14 recognizing the revenues from the Major Capital Projects Deferral established by the  
 15 PUB in Order 69/19 commencing January 1, 2022, with the balance to be amortized  
 16 over 24 months to help offset a small portion of the additional revenue requirement  
 17 associated with the major capital projects (\$12 million in 2021/22).

 18  
 19 In Order 69/19, the PUB approved a 2.5% rate increase effective June 1, 2019 and  
 20 directed all revenues from this increase to be placed in a Major Capital Projects  
 21 Deferral account to help mitigate rate increases when the new major projects are  
 22 placed in-service. As several major capital projects have entered service since this  
 23 deferral account was established (i.e. MMTP, Birtle, GNTL & 5 units of Keeyask),  
 24 Manitoba Hydro is proposing to amortize the balance in the Major Capital Projects  
 25 Deferral, expected to be approximately \$100 million as of December 31, 2021, over a  
 26 24-month period commencing on January 1, 2022. The proposed 24-month

1 amortization period is a similar timeframe over which the revenues in this account  
2 were collected from customers.

3  
4 Figure 19 provides the balance and revenue recognized in 2021/22 through 2023/24  
5 based on the proposed 24-month amortization period.

6  
7 Figure 19: Major Capital Projects Deferral Balance and Revenue Recognition

(\$ millions)	2021/22	2022/23	2023/24
<b>Opening Balance</b>	<b>71</b>	<b>87</b>	<b>37</b>
Revenue Deferral of June 2019 2.5% Rate Increase	29	0	0
Revenue Recognition of June 2019 2.5% Rate Increase	(12)	(50)	(37)
<b>Closing Balance</b>	<b>\$87</b>	<b>\$37</b>	<b>\$0</b>

8  
9 The proposed amortization period will allow Manitoba Hydro to recognize \$12 million  
10 in revenue in 2021/22, a further \$50 million in 2022/23, and \$37 million in 2023/24.  
11 For additional information on the deferrals and proposed amortization of the Major  
12 Capital Projects Deferral, please see the response to PUB MFR 10. Manitoba Hydro  
13 notes that while the Major Capital Projects Deferral helps offset a portion of the  
14 substantial increase in revenue requirement from the major projects being placed in-  
15 service, these revenues were collected starting in 2019 and were utilized to help offset  
16 borrowings at that time and as such do not improve Manitoba Hydro’s current cash  
17 flow. The combination of the amortization of the Major Capital Projects Deferral and  
18 the Bipole III Deferral reduces overall revenue requirement by \$89 million in 2021/22,  
19 \$127 million 2022/23, and \$57 million in 2023/24, as shown in Figure 18. After  
20 2023/24, both deferrals accounts will be fully amortized and will no longer provide an  
21 offset to revenue requirement in future years.

22  
23 Consistent with the treatment of the Bipole III Deferral Account, Manitoba Hydro  
24 would cease funding the Major Capital Project Deferral effective December 31, 2021,  
25 and the revenues previously deferred will flow to Manitoba Hydro’s general revenues.

26  
27 **4.4 Keeyask In-Service Deferral**

28 The Keeyask In-Service Deferral was established by Manitoba Hydro in 2020/21 to  
29 ensure that for rate setting purposes, the Corporation’s accounting treatment is

1 consistent with its past accounting practice of recognizing expenses (i.e. depreciation  
2 and finance expense) associated with the generating station on a per-unit basis, as  
3 each unit is placed in service.  
4

5 Under the previous Canadian Generally Accepted Accounting Principles (“CGAAP”)  
6 method used by Manitoba Hydro, depreciation and finance expense costs were  
7 recognized in revenue requirement on a per unit of output basis (i.e. costs recognized  
8 equally based on the number of generating unit’s in-service). When applied to the  
9 Keeyask generating station which has 7 turbine units, Manitoba Hydro’s past practice  
10 would recognize into service 1/7 of the total asset value for all generating station  
11 assets completed and available for use (i.e. power house, dams, spillway and water  
12 control structures). As 1/7 of the asset costs are placed into service, Manitoba Hydro  
13 would recognize 1/7 of the depreciation and finance costs. The per generating unit  
14 method was used by Manitoba Hydro for the in-service of its past generating stations,  
15 most recently for Wuskwatim (2012) and allows for the matching of the timing of the  
16 recognition of depreciation and finance expense on the plant assets with the timing  
17 of the recognition of the revenue brought on with each turbine going into service.  
18

19 Under International Financial Reporting Standards (IFRS) assets are to be placed in-  
20 service when they are recognized as being used and useful. This accounting standard  
21 results in a significant increase in the assets placed in-service with the first turbine  
22 unit (i.e. powerhouse, dams, spillway and water control) and a decrease in the assets  
23 placed in-service with the subsequent 6 turbine units (i.e. unit specific assets)  
24 compared to Manitoba Hydro’s past accounting practice. At each in-service,  
25 depreciation and finance expense on the related assets are recognized into net  
26 income.  
27

28 In order to provide a consistent approach in the timing of the recognition of  
29 depreciation and finance expense costs that are included in revenue requirement,  
30 Manitoba Hydro established the Keeyask In-Service Regulatory Deferral to capture the  
31 annual differences in depreciation and finance expense between the two methods.  
32 When the 7th and final turbine unit is in-service, there will no longer be a difference  
33 in the depreciation and finance expense between Manitoba Hydro’s previous

1 accounting practice and IFRS, and the balance in the Keeyask In-Service Deferral will  
2 commence amortization over the average service life (95 years) of the installed assets.

3  
4 In 2021/22, the forecast additions to the Keeyask In-Service Deferral are \$73.6 million  
5 in deferred finance and depreciation expense, that would otherwise have been  
6 included in revenue requirement during this year. For additional information on the  
7 additions to the Keeyask In-Service Deferral, please see the response to PUB MFR 7.

8

## 9 **5.0 COST ALLOCATION AND CUSTOMER BILL IMPACTS**

10

11 A cost of service (“COS”) study is used to determine each customer class’s share of  
12 the Corporation’s revenue requirement and is considered the primary vehicle for  
13 evaluating the appropriateness of overall cost responsibility and price level by  
14 customer class.

15

16 The results of the study indicate the degree to which each rate class’s allocated costs  
17 are being recovered through revenues collected from the class. The ratio of class  
18 revenues and costs is referred to as Revenue Cost Coverage (“RCC”). In Manitoba, to  
19 the extent that a customer class’s RCC falls within a range of 95% to 105%, known as  
20 the Zone of Reasonableness (“ZOR”), it is accepted that its revenues are recovering  
21 the allocated cost.

22

23 Manitoba Hydro’s most recently completed study, PCOSS21, is being used to guide  
24 the rate increases being proposed by customer class.

25

### 26 **5.1 Summary of PCOSS21**

27 PCOSS21, PUB MFR 20 – Attachment 1 was completed using largely the same  
28 methodology as PCOSS18 with the updates noted below:

29 *Per Direction in 59/18*

30

- Net Export Revenue has been treated as a reduction of class cost rather than  
31 an addition to class revenue in the calculation of class RCCs.

32

- Non-tariffable transmission is excluded from the allocation of Net Export  
33 Revenue.



- 1 • Revised allocation of certain customer service costs to distribution level
- 2 customers only.
- 3 • Updated service drop weighting factor.

4  
5 *Other*

- 6 • Direct assignment of a portion of the LED Conversion project costs to the Area
- 7 & Roadway Lighting class as opposed to including the entirety of the costs in
- 8 the Generation function as per the PUB directed treatment of DSM costs from
- 9 Order 164/16.

10  
11 PCOSS21 reflects Manitoba Hydro’s approved budget for the 2020/21 fiscal year and

12 incorporates significant new capital additions such as Bipole III, MMTP, GNTL) and

13 partial in-service for the Keeyask Generating Station.

14  
15 The results of the study show that there are only two classes outside the ZOR in

16 PCOSS21 compared to four classes in PCOSS18, as shown in Figure 20 below.

17  
18 Figure 20: PCOSS21 compared to PCOSS18 Results

Customer Class	PCOSS18 RCC	PCOSS21 RCC	PCOSS18 ZOR	PCOSS21 ZOR
Residential	94.8%	96.2%	Below	In
General Service Small - Non Demand	112.5%	113.8%	Above	Above
General Service Small – Demand	101.0%	104.0%	In	In
General Service Medium	98.3%	99.3%	In	In
General Service Large 0-30kV	99.1%	95.6%	In	In
General Service Large 30-100kV	109.3%	103.7%	Above	In
General Service Large >100kV	108.6%	101.2%	Above	In
Area & Roadway Lighting	100.3%	123.3%	In	Above

19  
20 **5.2 Manitoba Hydro Rate Change Proposal**

21 Fundamental to Manitoba Hydro’s rate proposal is the objective that rates must

22 provide the Corporation the opportunity to fully recover its allowed revenue

23 requirement. Future rate-setting objectives will be informed by customer

24 engagement and feedback and guided by Strategy 2040 and the evolving energy

1 landscape. While Manitoba Hydro is working on the foundations that will inform this  
2 work, rate change proposals in this application have been guided by previous PUB  
3 direction and stakeholder feedback such that cost causality, with an emphasis on  
4 gradualism and rate stability, is the cornerstone of individual class rate proposals.

5  
6 Manitoba Hydro's rate proposal reflects the following:

- 7  
8 1. Rates have been designed sufficient to generate 5% revenue increase (\$88.2  
9 million on an annualized basis).
- 10  
11 2. As directed in Order 59/18, Manitoba Hydro is proposing to continue the  
12 migration of customer class RCCs into the ZOR of 95-105%.
- 13  
14 3. Manitoba Hydro is not proposing to apply the increase to the Diesel -  
15 Government and First Nation Education energy charge or the tail block energy  
16 charge for Diesel – General Service.

#### 17 18 **Customer Class Rate Impacts**

19 Reflective of PUB direction in Orders 59/18 and 69/19, Manitoba Hydro is proposing  
20 to use differentiated rate adjustments to continue the migration of customer class  
21 RCCs into the ZOR, as shown in Figure 21 below. The required class differentiation has  
22 been calculated assuming a seven-year remaining timeframe, consistent with the  
23 long-term view that was contemplated in Order 59/18:

24  
25 ***“This approach to the implementation of differentiated rates is consistent with the***  
26 ***principle of gradualism and limits the revenue recovery responsibility of the other***  
27 ***customer classes, while maintaining overall revenue neutrality<sup>7</sup>.”***

---

28  
<sup>7</sup> Order 59/18, pg 199

1 Figure 21 below demonstrates the one-time adjustment necessary to immediately  
 2 bring all customer class RCCs into the ZOR, as well as the adjustments required to  
 3 bring all RCCs into the ZOR assuming the rates are adjusted evenly in each of the next  
 4 seven years<sup>8</sup>. The impact of the PCOSS adjustment, compared to on an across-the-  
 5 board basis, results in an additional \$0.18 and \$0.34 for residential customers using  
 6 1,000 and 2,000 kWh per month respectively.

7  
 8 Figure 21: Annual Customer Class Differentiation

	PCOSS21	Differentiation Required	Annual Differentiation over Seven Years	Final RCC
Residential	96.2%	1.07%	0.15%	97.3%
GSS ND	113.8%	-7.73%	-1.14%	105.0%
GSS D	104.0%	1.07%	0.15%	105.1%
GSM	99.3%	1.07%	0.15%	100.4%
GSL 0-30	95.6%	1.07%	0.15%	96.6%
GSL 30-100	103.7%	1.07%	0.15%	104.8%
GSL >100	101.2%	1.07%	0.15%	102.3%
Area & Roadway Lighting	123.3%	-14.84%	-2.27%	105.0%

9

10 **Customer Class Rate Impacts**

11 The proposed rate increases and resulting additional revenue by class is shown in  
 12 Figure 22. A full annualized Proof of Revenue based on 2021/22 forecast billing  
 13 determinants is provided in PUB MFR 21 – Attachment 1.

14

15

---

<sup>8</sup> Order 59/18 directed Manitoba Hydro to assume a ten-year time frame to move all classes into the ZOR using the 2018/19 test year as the first year of adjustment.

1 Figure 22: Proposed Increase and Annualized Revenues by Class

Customer Class	Proposed Increase	Annualized Additional Revenue (millions)
Residential	5.2%	\$40.4
General Service Small - Non Demand	3.9%	\$6.4
General Service Small – Demand	5.0%	\$9.2
General Service Medium	5.2%	\$11.2
General Service Large 0-30kV	5.2%	\$6.0
General Service Large 30-100kV	5.2%	\$5.0
General Service Large >100kV	5.2%	\$8.9
Area & Roadway Lighting	2.6%	\$0.7

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With the exceptions noted below, Manitoba Hydro is proposing that the class specific rate increases above be applied equally across all rate components.

General Service Small and Medium Classes

The harmonized rate structure of the General Service Small Non-Demand (“GSSND”), General Service Small Demand (“GSSD”) and General Service Medium (“GSM”) classes necessitates that the proposed rate increase be applied differently to the basic monthly charge, energy block rates and demand rate in order to achieve a less than average increase for GSSND who is currently above the ZOR, while implementing an average increase for GSSD and GSM, who are within the ZOR.

Under the constraints of the existing harmonized rate structure the precise increases targeted for each class (3.8% for GSSND, and 5.2% for GSSD and GSM who are within the ZOR) were not achievable. However, the proposed rates balance a meaningful progression toward the ZOR for the GSSND class without requiring fundamental changes to the rate structure or producing bill impacts that are significantly different from the class average. The proposed increases were guided by the unit costs in PCOSS21 and are directionally consistent with the rate adjustments that would be required if Manitoba Hydro proposes to move away from a declining block rate in the future. Figure 23 provides the proposed rates for the GSS and GSM classes.

1 Figure 23: GSS/GSM Proposed Rates

	Current Rates	Proposed Rate Increase	Proposed Rates
Basic Monthly Charge:			
Single Phase	\$ 20.64	1.5%	\$ 20.95
Three Phase	\$ 32.46	4.5%	\$ 33.92
First 11,000 kWh	9.263 ¢	3.8%	9.615 ¢
Next 8,500 kWh	6.849 ¢	7.6%	7.370 ¢
Balance of kWh	4.328 ¢	5.0%	4.546 ¢
Demand Charge >50 kVA	\$ 11.08	5.6%	\$ 11.70

2

3 Diesel

4 Manitoba Hydro is proposing not to apply the rate increases to the Diesel -  
 5 Government and First Nation Education energy charge or the tail block energy charge  
 6 for Diesel – General Service as part of this application. However, Manitoba Hydro is  
 7 seeking PUB approval to apply the same increases awarded to grid connected  
 8 Residential and General Service customers to the equivalent Diesel rate components.  
 9 Manitoba Hydro’s proposal reflects the following considerations:

10

- 11 1. Maintaining the long-standing practice of charging grid-equivalent rates on  
 12 the basic monthly charge, and energy charge for the first 2,000 kWh per  
 13 month for General Service Customers; and,
- 14 2. Current rates for Diesel Residential customers are 9.6% lower than rates of all  
 15 other residential customers. In Order 100/20, the PUB found that *“the Diesel  
 16 Zone Residential rate should be maintained at the approved August 1, 2017  
 17 Residential rate pending the Board’s review of a Diesel Zone-specific rate  
 18 application and Diesel Zone Cost of Service Study filed by Manitoba Hydro.”*  
 19 While a Diesel Zone Cost of Service Study has not yet been filed, Manitoba  
 20 Hydro is proposing to limit further divergence between the Diesel Residential  
 21 and grid Residential rates given the much higher cost to serve customers  
 22 within the diesel zone.

23 The Rate Schedule for proposed rates effective January 1, 2022 is provided in  
 24 Appendix 4. The proposed rates will result in an increase of \$5.13 in the monthly bill  
 25 of a residential customer using 1,000kWh per month, and an increase of \$9.80 for a  
 26 residential customer using 2,000kWh per month. PUB MFR 21 – Attachment 1

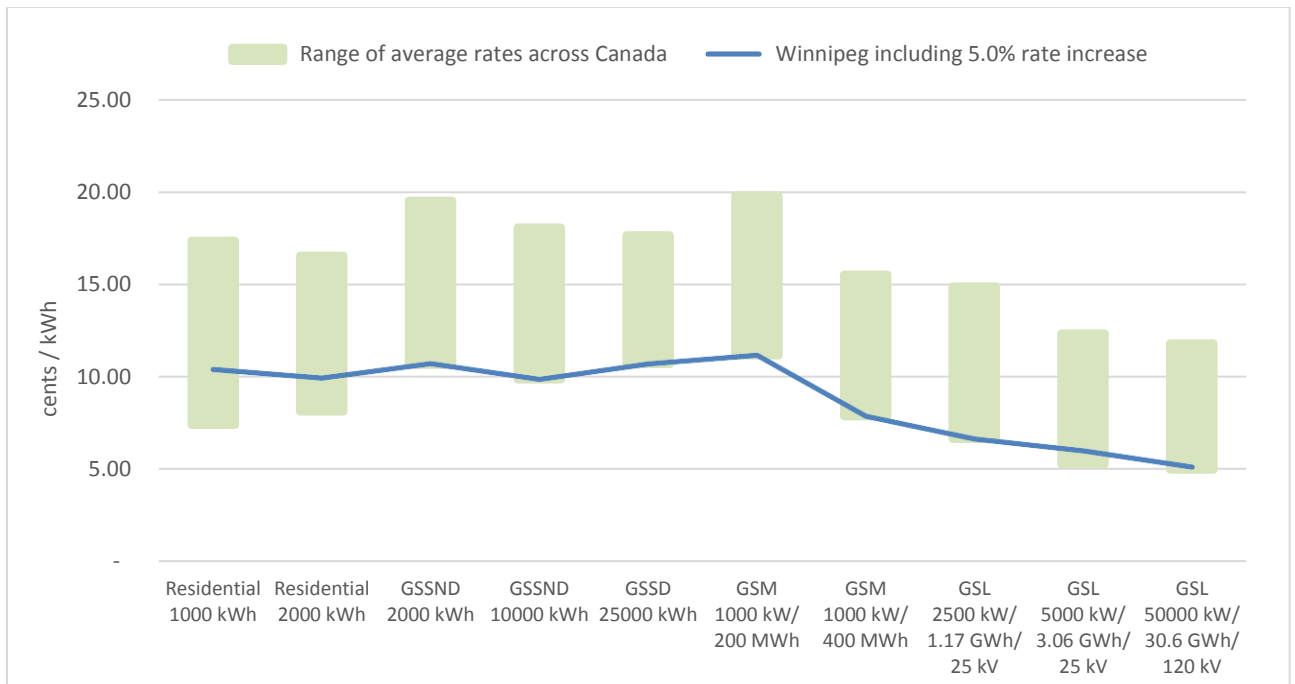
1 provides the bill impacts of the proposed rate changes for the various customer  
 2 classes. Manitoba Hydro is not seeking a rate change for the 2022/23 Fiscal Year,  
 3 however, in response to PUB MFR 21 Manitoba Hydro has included a Proof of Revenue  
 4 schedule in PUB MFR 21 – Attachment 2.

5 **5.3 Comparison of Rates to Canadian Jurisdictions**

6 Manitoba Hydro has used Hydro Quebec’s annual “*Comparison of Electricity Prices in*  
 7 *Major North American Cities*”<sup>9</sup>, to compare the average rates paid by Manitoba  
 8 customers with those of other major Canadian utilities, as shown in Figure 24. The  
 9 Hydro Quebec survey compares the monthly electricity bills of customers across the  
 10 residential, commercial and industrial segments for 22 major North American cities.  
 11

12 ***Across all customer segments and usage levels included in the survey, Manitoba***  
 13 ***Hydro rates are consistently ranked either the lowest or second lowest behind only***  
 14 ***those of Hydro Quebec.***

15  
 16 Figure 24: Comparison of Average Electricity Prices in Major Canadian Cities  
 17 Rates in effect April 1, 2021 (Price per kWh)



18  
 9 <http://www.hydroquebec.com/data/documents-donnees/pdf/comparison-electricity-prices.pdf>

1 **Figure 25 below demonstrates that the monthly bills of Manitoba Hydro customers**  
 2 **will continue to be the lowest or among the lowest even when comparing bills that**  
 3 **reflect the 5% proposed rate increase for Manitoba Hydro while keeping the average**  
 4 **rates of all other utilities at those in effect as of April 1, 2021.**

5  
 6 Figure 25: Comparison of Monthly Bills in Major Canadian Cities – Rates in effect April  
 7 1, 2021 including a 5% proposed rate increase for Manitoba Hydro

Power Demand Consumption Load Factor	Residential	Residential	Small Power			Medium Power			Large Power	
	1,000 kWh	2,000 kWh	14 kW 2,000 kWh 20%	40 kW 10,000 kWh 35%	100 kW 25,000 kWh 35%	1,000 kW 200,000 kWh 28%	1,000 kW 400,000 kWh 56%	2,500 kW 1,170,000 kWh 65%	5,000 kW 3,060,000 kWh 85%	50,000 kW 30,600,000 kWh 85%
Manitoba Hydro with 5% increase	\$104	\$198	\$214	\$984	\$2 668	\$22 304	\$31 410	\$77 476	\$182 847	\$1 560 462
Calgary	\$173	\$318	\$334	\$1 576	\$3 557	\$34 318	\$49 218	\$129 529	\$313 653	\$3 129 370
Charlottetown	\$174	\$323	\$391	\$1 809	\$4 416	\$37 521	\$61 541	\$174 163	\$298 940	\$2 989 400
Edmonton	\$170	\$312	\$344	\$1 648	\$4 269	\$39 618	\$62 161	\$170 573	\$377 781	\$3 612 956
Halifax	\$171	\$331	\$308	\$1 609	\$4 022	\$35 587	\$54 119	\$147 638	\$338 132	\$3 381 343
Moncton	\$137	\$250	\$298	\$1 413	\$3 526	\$30 374	\$49 794	\$140 986	\$253 366	\$2 416 880
Montreal	\$74	\$162	\$213	\$1 015	\$2 751	\$24 707	\$32 648	\$80 974	\$160 340	\$1 517 815
Ottawa	\$125	\$226	\$257	\$1 221	\$3 386	\$27 659	\$45 235	\$130 192	\$292 718	\$2 790 093
Regina	\$165	\$307	\$305	\$1 398	\$3 650	\$32 680	\$48 028	\$117 239	\$274 788	\$2 312 973
St. John's	\$136	\$256	\$292	\$1 259	\$3 130	\$24 308	\$40 483	\$111 862	\$278 943	\$1 772 740
Toronto	\$134	\$238	\$290	\$1 323	\$3 467	\$29 758	\$46 249	\$125 851	\$289 147	\$2 901 623
Vancouver	\$115	\$257	\$260	\$1 187	\$2 955	\$24 348	\$36 408	\$99 115	\$240 987	\$2 007 868

8  
 9  
 10 DBRS has listed Manitoba Hydro’s low cost hydroelectric-based generation as a  
 11 strength, under its rating considerations, as follows:

12 *“The Utility’s low-cost hydroelectric-based generating capacity results in*  
 13 *one of the lowest variable cost structures in North America, which has*  
 14 *enabled it to provide electricity to its domestic customers at one of the*  
 15 *lowest rates on the continent. This gives the Utility the flexibility to increase*  
 16 *rates in the future, especially in light of the substantially heightened capex*  
 17 *requirements.”*

18  
 19 Manitoba Hydro wants to ensure that customers can continue to benefit from low-  
 20 cost hydroelectric power; however, by relying so heavily on borrowing to fund capital  
 21 expenditure requirements, rather than increasing rates, Manitoba Hydro is falling  
 22 behind its peers in its financial metrics. Manitoba Hydro’s proposed rate increase,  
 23 along with regular annual increases, will allow progress on improving its financial  
 24 health, which will allow Manitoba Hydro to continue to provide safe and reliable  
 25 service to customers and respond to the changing energy landscape.  
 26

1    **6.0    MANITOBA HYDRO IS STRATEGICALLY ADAPTING TO THE EVOLVING ENERGY**  
2    **LANDSCAPE WHICH WILL HELP INFORM FUTURE RATE APPLICATIONS**

3

4           The energy sector world-wide has been seeing unprecedented change in recent years.  
5           This is due to the key trends of decarbonization, digitalization and decentralization  
6           which are increasingly reshaping the energy landscape. Across Canada and elsewhere,  
7           the pace of these trends is being driven by: government policy interventions,  
8           technological advancements, economics, customer preferences, and climate change.  
9           Each of the “three Ds” will have a different impact on the energy landscape.

10

11           **Decarbonization**

12           The focus on reducing greenhouse gas emissions globally is accelerating the pace of  
13           electrification worldwide. This will only increase the demand for renewable,  
14           dependable energy. One aspect of this will be the increase in production and uptake  
15           of electric vehicles, along with public transit authorities embracing new electric  
16           technologies for buses and mass transit. This will change the demand for electricity  
17           and the infrastructure required to support this demand.

18

19           **Digitalization**

20           Technology and connectivity are growing exponentially which is changing customer  
21           preferences and expectations for how they will interact with their energy provider.  
22           Technology advances are also creating a “behind the meter” services market which  
23           will change the value chain for consumers who may move to become “prosumers”  
24           (producer/consumers) in the future. Digitalization is also allowing new suppliers to  
25           enter the market who are not traditional utility companies, but rather technology  
26           companies offering previously unavailable products and services.

27

28           **Decentralization**

29           The cost of self-generation “behind the meter”, such as rooftop solar and localized  
30           energy storage, are falling. As costs continue to decrease, customers will increasingly  
31           be able to generate some of their own electricity at similar costs to buying power from  
32           their energy utility. This will increase demand for infrastructure that allows bi-  
33           directional flow or two-way flow of energy as consumers move to become prosumers  
34           and will require utilities to rethink traditional cost recovery mechanisms.



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1           **Preparing for the Evolving Energy Landscape**

2           These trends will shape and/or disrupt Manitoba Hydro’s business environment in the  
3           coming years; however, the pace and breadth of these changes are unpredictable.  
4           Proactively managed, the risks of these changes can be mitigated in the best interest  
5           of all Manitobans and create opportunities to maximize Manitoba’s renewable  
6           hydropower advantage. Preparing for the evolving energy landscape will ensure that:  
7           the value of existing assets will be maximized; total cost of energy will be minimized;  
8           additional capital investment will be minimized; and the risks of stranded assets will  
9           be minimized.

10

11           As a first step to guide Manitoba Hydro successfully through the anticipated changes  
12           over the next 20 years, the corporation has developed the following, new organization  
13           mission statement.

14

15           ***Help all Manitobans efficiently navigate the evolving energy landscape, leveraging***  
16           ***their clean energy advantage, while ensuring safe, clean, reliable energy at the***  
17           ***lowest possible cost.***

18

19           This mission statement is founded upon Manitoba Hydro’s long-term vision, known  
20           as Strategy 2040, that will identify opportunities and challenges presented by the  
21           “three Ds” and how Manitoba Hydro will need to think, act, and serve customers  
22           differently. Underpinning Strategy 2040 is the understanding that Manitoba Hydro  
23           will remain an integrated utility and that it will not operate behind the meter.

24

25           This mission statement, along with five key pillars shown in Figure 26 below, will  
26           provide the long-term strategic direction for Manitoba Hydro.

27

28

1 Figure 26: Strategy 2040 Pillars

<p><b>1</b></p> <p>Provide safe reliable energy that meets the evolving energy needs of Manitobans</p>	<p><b>2</b></p> <p>Serve customers efficiently, responsively, and digitally</p>	<p><b>3</b></p> <p>Help all Manitobans understand their energy options and make informed choices</p>	<p><b>4</b></p> <p>Ensure Manitobans get maximum value from their clean hydro generation dams and energy infrastructure</p>	<p><b>5</b></p> <p>Keep energy prices as low as possible, while providing the level of service Manitobans expect</p>
<p>Energy powers your life and your business – Manitoba Hydro will ensure your energy is safely and reliably produced and delivered to you</p>	<p>You expect responsive service, and to be able to deal with your energy provider the way you want – Manitoba Hydro will modernize its customer service to deliver digitally, and improve responsiveness</p>	<p>Your home and business energy choices are expanding and becoming a lot more complex – Manitoba Hydro will help you understand your energy options and make informed choices that are right for you</p>	<p>All Manitobans have a tremendous asset (our Hydro Generation dams) that is becoming even more valuable as the world moves to price and reduce the use of carbon – Manitoba Hydro will help protect and maximize the value of these assets for all Manitobans</p>	<p>Whether at home or in your business, your energy costs are important to you – Manitoba Hydro will take all responsible measures to keep costs low, while making necessary investments to serve the needs of Manitobans</p>

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In order to operationalize Strategy 2040 and translate strategy into action, a range of initiatives are being developed. These initiatives will create the foundation for future work as Manitoba Hydro moves forward under Strategy 2040.

One of the key initiatives under Strategy 2040 is the development of an integrated resource plan (“IRP”). An IRP is a long-term roadmap that will guide decisions in response to the evolving energy landscape and its impacts on Manitoba Hydro’s customers, and energy supply and delivery systems. Manitoba Hydro has initiated the process to begin preparing for the development of an IRP with the first step being release of a general customer survey around electricity and natural gas needs. The process will evolve over the following year with a targeted completion by summer of 2023. It is expected that when completed, the IRP will inform Manitoba Hydro’s future rate applications to the PUB and investment decisions on both gas and electric system assets.

A significant outcome from the development of the IRP is that it will help build a more comprehensive and informed long-term financial forecast that will support future GRA’s. The IRP will provide critical input to the long-term financial forecast with respect to underlying assumptions that need to be considered in the context of the evolving energy landscape; anticipated impacts to Manitoba Hydro’s system, and how Manitoba Hydro will need to respond to these. Given this critical input, until such time

1 as the IRP development is complete, any long-term financial forecasts developed will  
2 be less robust and may not include the full ramifications or revenue requirement  
3 impacts of the potential energy sector changes on Manitoba Hydro's future financial  
4 position.

5

### 6 **Manitoba Hydro's next General Rate Application**

7

8 As discussed in Section 1.2 of the Application, the September 22, 2021, directive from  
9 Crown Services contained the following two specific directives:

- 10 1. Manitoba Hydro is directed to take all steps necessary to proceed with submission  
11 of an interim rate application to The Public Utilities Board (or other application as  
12 determined by The Public Utilities Board); and  
13 2. Manitoba Hydro is directed to engage with The Public Utilities Board on submitting  
14 multi-year general rate applications.

15

16 Manitoba Hydro's 2021/22 Interim Rate Application fulfills the first directive and  
17 addresses the significant financial impacts due to the current drought conditions to  
18 ensure the financial health of the corporation. In accordance with second part of the  
19 Crown Services directive, Manitoba Hydro will engage with the PUB following the  
20 2021/22 Interim Rate Application process on the timing and parameters for its next  
21 GRA for fiscal 2022/23.

22

23 As discussed in this Application and MFR responses, work to develop the corporation's  
24 first IRP, and other foundational strategic initiatives including development of  
25 disciplined planning and risk frameworks, will still be underway throughout calendar  
26 2022 when Manitoba Hydro will begin preparing its next GRA. Manitoba Hydro  
27 recognizes the challenges placed on the PUB by not having a longer-term view of  
28 Manitoba Hydro's financials when considering rate applications before it and will  
29 work with the PUB on the filing requirements for the next GRA, that will allow the PUB  
30 to complete its review while this important foundational work is underway.

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1    **7.0    CONCLUSION**

2

3            Manitoba Hydro submits that the financial impacts of the current ongoing drought  
4            and major capital projects coming into service are evident from this Application. The  
5            corporation has thoroughly demonstrated that the proposed general revenue  
6            increase is required to address the unexpected costs due to the drought, including the  
7            annual carrying costs on the borrowings of \$348 million required to fund core  
8            operating activities in 2021/22. These additional borrowings will further weigh on the  
9            financial health and self-sustainability of Manitoba Hydro. In addition, as has long  
10           been projected, Manitoba Hydro now faces increasing costs associated with the major  
11           capital projects that are now being placed in-service. These costs are increasing  
12           Manitoba Hydro's revenue requirement by \$619 million in 2021/22. Manitoba Hydro  
13           submits that the proposed 5.0% general revenue increase, which is aligned with the  
14           increase approved by the PUB following the last drought in 2004, reasonably balances  
15           the financial needs of Manitoba Hydro by addressing the very severe and immediate  
16           financial impacts of the drought, and the impact on customers during the current  
17           pandemic and period of higher inflation.

18

19           A fundamental risk has materialized and deteriorated Manitoba Hydro's financial  
20           position. The PUB has acknowledged that regulatory action in the form of rate  
21           increases may be required when material risks are realized, including drought risk.<sup>10</sup>  
22           Now is the appropriate time for the PUB to approve the relief requested in this  
23           Application.

24

25           Manitoba Hydro will engage with the PUB on a path to achieving annual rate  
26           increases, including options that would allow for an increase in 2022/23, and engage  
27           on ways to ensure the regulatory process is as efficient and effective as possible in the  
28           best interest of Manitoba Hydro's customers.

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<sup>10</sup> See for example: Order 59/18 at pages 62-63; Order 69/19 at page 14; Order 101/04.