Manitoba Hydro

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April 18, 2019

Mr. D. Christle
Secretary and Executive Director
Public Utilities Board
400-330 Portage Avenue
Winnipeg, Manitoba R3C 0C4

Dear Mr. Christle:

RE: MANITOBA HYDRO – 2019/20 ELECTRIC RATE APPLICATION – REBUTTAL EVIDENCE

Please find attached Manitoba Hydro's Rebuttal Evidence with respect to the written evidence of:

- Mr. Darren Rainkie, Ms. Kelly Derksen and Mr. William Harper on behalf of the Consumers' Association of Canada and Winnipeg Harvest ("Coalition"); and
- Patrick Bowman of InterGroup Consultants Inc. on behalf of MIPUG;

If you have any questions or comments with respect to this submission, please contact the writer at 204-360-3633 or Marla Boyd at 204-360-3468.

Yours truly,

MANITOBA HYDRO LEGAL SERVICES DIVISION

Per:

ODETTE FERNANDES
Barrister and Solicitor

cc : Marla Boyd, Manitoba Hydro
Bob Peters, Board Counsel
Dayna Steinfeld, Board Counsel
Intervenors of Record

MANITOBA HYDRO PUBLIC UTILITIES BOARD

IN THE MATTER OF *The Crown Corporation Public Review and Accountability Act*

AND IN THE MATTER OF Manitoba Hydro's 2019/20 Electric Rate Application

REBUTTAL EVIDENCE OF MANITOBA HYDRO

WITH RESPECT TO THE WRITTEN EVIDENCE OF:

Patrick Bowman, Intergroup Consultants Ltd. on behalf of the Manitoba Industrial Power Users Group ("MIPUG"); and,

Darren Rainkie, Kelly Derksen and William Harper on behalf of Consumers' Association of Canada - Manitoba Branch and Winnipeg Harvest ("COALITION").

April 18, 2019

Table of Contents

1. ANALYSIS OF FINANCIAL RATIOS AND COMPARISONS TO EXHIBIT MH-93

At page 9 of the COALITION's evidence, Mr. Rainkie states that, "*The proposed 3.5% rate increase for 2019/20 has not been justified by any quantifiable financial objective (net income), financial metric (financial ratios) or downside risk sensitivity*;"

The figure below compares Manitoba Hydro's long-standing financial metrics for 2019/20 with and without the proposed 3.5% rate increase.

Figure 1 – Financial Ratios With and Without the Proposed 3.5% Rate Increase

	Equity Ratio		EBITDA Interest Coverage Ratio		Capital Coverage Ratio	
	3.5%	**0.0%**	**3.5%**	**0.0%**	**3.5%**	**0.0%**
2019/20	13%	13%	1.61	1.56	1.34	1.24

Source: PUB/MH I-8a-c (Update) and COALITION/MH I-6j

Both the debt ratio and the EBITDA interest coverage ratio are below the targets of 25% and 1.8 respectively. While the additional $50 million of revenue generated by the proposed 3.5% rate increase does not make a noticeable impact to the debt ratio and results in a minor improvement to the EBITDA Interest Coverage Ratio and the Capital Coverage Ratio in 2019/20, Mr. Rainkie fails to acknowledge that the additional revenue on an annualized basis in perpetuity has a **profound impact** on the financial reserves, debt levels and financial metrics.

For illustrative purposes, using MH Exhibit 93, the following figure illustrates the 10 year impacts of a 0% rate increase in 2019/20. Foregoing one 3.57% rate increase in 2019/20 reduces projected earnings by approximately $900 million, increasing the utility's debt by a similar amount and further increasing the debt ratio in 2028/29 by an additional 3%. It would also put more pressure on the utility's financial stability in the years Keeyask is commissioned when the anticipated additional net costs (most notably finance expense and depreciation expense) increase the revenue requirement. If Keeyask is successfully commissioned 10 months ahead of schedule, the period in which to smooth in customer rates will be condensed and without the proposed 3.5% increase, the likelihood of a financial loss following an earlier in-service date for Keeyask is exacerbated.

Figure 2 - 10-Year Impacts of 0% Rate Increase in 2019/20

Fiscal Year Ending	***2018***	***2019***	***2020***	***2021***	***2022***	***2023***	***2024***	***2025***	***2026***	***2027***	***2028***	***2029***
MH Exhibit 93 with 0% Rate Increase in 2019/20												
Percent Increase	3.36%	3.57%	0.00%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%
Cumulative Percent Increase	3.36%	7.05%	7.05%	10.87%	14.82%	18.92%	23.16%	27.56%	32.11%	36.82%	41.70%	46.76%
Net Income	94	143	0	51	108	(106)	(193)	(159)	(227)	(175)	(129)	(45)
Retained Earnings	2,842	2,986	2,986	3,037	3,145	3,039	2,846	2,688	2,461	2,285	2,156	2,111
Net Debt	18,473	20,813	22,686	23,880	24,611	24,931	25,046	25,200	25,418	25,599	25,726	25,780
Debt Ratio	85%	86%	87%	87%	87%	88%	89%	89%	90%	91%	91%	91%
EBITDA Interest Coverage Ratio	1.54	1.64	1.52	1.56	1.63	1.51	1.45	1.48	1.44	1.48	1.53	1.60
Capital Coverage Ratio	1.40	1.35	1.07	1.28	1.50	1.19	1.12	1.09	0.97	1.04	1.11	1.21
MH Exhibit 93												
Percent Increase	3.36%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%	3.57%
Cumulative Percent Increase	3.36%	7.05%	10.87%	14.82%	18.92%	23.16%	27.56%	32.11%	36.82%	41.70%	46.76%	52.00%
Net Income	94	143	61	115	178	(29)	(111)	(69)	(128)	(68)	(13)	81
Retained Earnings	2,842	2,986	3,047	3,162	3,340	3,311	3,200	3,132	3,003	2,935	2,922	3,002
Net Debt	18,473	20,813	22,628	23,759	24,424	24,666	24,702	24,765	24,891	24,963	24,971	24,899
Debt Ratio	85%	86%	86%	87%	86%	87%	87%	88%	88%	88%	88%	88%
EBITDA Interest Coverage Ratio	1.54	1.64	1.58	1.62	1.69	1.58	1.52	1.57	1.53	1.58	1.63	1.72
Capital Coverage Ratio	1.40	1.35	1.18	1.41	1.64	1.33	1.27	1.24	1.12	1.20	1.29	1.39
Differences												
Percent Increase	0.00%	0.00%	-3.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative Percent Increase	0.00%	0.00%	-3.82%	-3.96%	-4.10%	-4.24%	-4.39%	-4.55%	-4.71%	-4.88%	-5.06%	-5.24%
Net Income	0	(0)	(61)	(64)	(70)	(77)	(82)	(90)	(99)	(107)	(116)	(126)
Retained Earnings	0	(0)	(61)	(125)	(195)	(272)	(354)	(444)	(543)	(650)	(766)	(892)
Net Debt	0	0	58	121	188	264	344	434	527	636	755	881
Debt Ratio	0%	0%	0%	0%	1%	1%	1%	2%	2%	2%	3%	3%
EBITDA Interest Coverage Ratio	0.00	(0.00)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)	(0.08)	(0.09)	(0.10)	(0.11)	(0.12)
Capital Coverage Ratio	0.00	(0.00)	(0.11)	(0.12)	(0.13)	(0.15)	(0.15)	(0.15)	(0.14)	(0.16)	(0.18)	(0.18)

2. INCREMENTAL REVENUE RELATED TO THE SALE OF SURPLUS DEPENDABLE CAPACITY

The COALITION incorrectly suggests that Manitoba Hydro has not forecasted sufficient revenues for 1,000 GWh of surplus dependable energy (COALITION Appendix A, p.17).

The COALITION has confused 300 MW of capacity, as shown in Attachment 4, with 1000 GWh of dependable energy. The revenue associated with the unsold dependable energy (i.e. the 1000 GWh) is already included in Manitoba Hydro's revenue as part of the forecasted opportunity sales for 2019/20.

The transmission costs and supply risks associated with a potential short-term capacity sale of 300 MW in 2019/20 exceeded the capacity revenue. As a result, Manitoba Hydro did not sell any capacity in 2019/20 beyond that included in the Application and the Supplement filed on February 14, 2019.

3. NEGATIVE NET INCOME IS A CONCERN TO CREDIT RATING AGENCIES

At page 6 of Mr. Bowman's evidence he states: "*It should be noted that MH-93 shows 6 years of net losses following the implementation of Keeyask, from 2023-2028. Acknowledging that the PUB did not issue any approvals for rates from 2023-2028 as yet, it is consistent with the data from 1992 and 2017 that some period of net losses is not, in and of itself, evidence that rates are unjust or unreasonable.*"

Manitoba Hydro's financial metrics are weakening as a result of minimal net income and cash flow and escalating debt levels. Manitoba Hydro's net debt represents over 40% of the total Province of Manitoba net debt at March 31, 2019, and Manitoba Hydro's weakening financial metrics have garnered additional scrutiny from the credit rating agencies. As a result, S&P no longer considers Manitoba Hydro to be self-supporting as they deem self-supporting to be investment grade quality (Province of Manitoba report dated July 14, 2016[1]) and Moody's has indicated they may reassess Manitoba Hydro's status in their most recent report on the Manitoba Hydro-Electric Board dated December 24, 2018[2]. The report states in part that:

a) "...in recent years rate increases have not been keeping up with costs as evidenced by ongoing weak financial metrics";
b) "Given the company's ongoing weak financial profile and limited rate increases we may reassess our view of Manitoba Hydro's self-sufficiency"; and,
c) "…on a last twelve month basis Moody's adjusted EBITDA to interest expense was 1.2x, EBIT to interest expense was 0.7x 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 ability for Manitoba Hydro's cash from operations to fund its operations, interest payments and Business Operations Capital ("BOC") is key to maintaining Manitoba Hydro's

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[1] Manitoba Hydro 2016/17 & 2017/18 General Rate Application – PUB MFR 60 (Filed in Confidence)
[2] Filed in confidence with the PUB on April 18, 2019

self-supporting status. This is particularly important given Manitoba Hydro's debt is a contingent liability that is growing to the degree that it would have a material impact on the Province's financial metrics should Manitoba Hydro lose its self-supporting status.

The Bipole III deferral account which deferred revenues generated from rate increases until in-service of the asset while providing cash support for borrowing requirements and interest payments in the interim, has been viewed favourably by the rating agencies.

The cash shortfall related to the interest which is currently being capitalized for Keeyask and not currently part of the revenue requirement is causing rating agency interest coverage ratios below 1x. The rating agencies have expressed concern that Manitoba Hydro does not have sufficient cash to make all of its interest payments, regardless of whether such interest is being capitalized or not.

The following figure outlines Moody's calculation of earnings (EBIT) and interest (excluding PGF), calculates the cash shortfall and the resulting interest coverage ratio, using the Approved Budget for 2019/20.

Figure 3 – Moody's Calculation of Earnings and Interest

In Millions of Dollars	**2020**
Rate Increase	3.50%
Consolidated Net Income	$121
Consolidated EBIT	**$612**
Gross Interest	**$886**
Surplus/(Deficiency)	($274)
EBIT / Gross Interest	**0.7**

According to Moody's metric, Manitoba Hydro will have a cash shortfall of nearly $300 million dollars in 2019/20 and will be unable to service approximately 30% of its outstanding debt servicing costs from cash from operations.

4. OPERATING & ADMINISTRATIVE EXPENSES

Page 85 of COALITION's evidence recommends a further reduction to the Operating & Administrative ("O&A") targets: "*The resulting O&A forecasts for 2018/19 and 2019/20 for* *rate-setting purposes would be approximately $479 million for 2018/19 and $489 million for 2019/20, for overall reductions of approximately $22 million, respectively.*" The reduction is based upon a 1% escalation factor and is not grounded in any specific examples of available cost savings[3].

Mr. Rainkie's recommendation for a 1% inflationary increase between 2018/19 and 2019/20 does not consider the current deployment of staff between construction (capital) and operations/maintenance activities (O&A). In establishing the O&A target for 2018/19, the Corporation made an assumption that following the Voluntary Departure Program, a greater percentage of the remaining workforce would be allocated to construction activities. This assumption has not materialized. As indicated in Manitoba Hydro's O&A report to December 31, 2018 (response to PUB/MH I-15), capitalized activities (including overhead) were below budget. The O&A target of $511 million for 2019/20 reflects current deployment levels between construction and operations/maintenance activities, which has not been considered in Mr. Rainkie's calculation of a 1% increase over 2018/19.

As highlighted in the analysis below and assuming the current staff deployment ratio between operations/maintenance and construction activities, a further reduction of 100 employees would equate to annual O&A savings of approximately $7 million in the year following departure. A reduction of slightly over 300 employees would be required to achieve a $22 million reduction in O&A as suggested by COALITION. Combined with the reductions already in place, further staff reductions will increase the risks associated with public and employee safety, system reliability and the Corporation's ability to provide reasonable levels of customer service.

[3] PUB/COALITION - 5

Figure 4 – O&A Savings on a Reduction of 100 Employees

O&A Savings for 100 employees *(in millions)*	One Time Departure Expense	Gross Salary & Benefit Savings	Net Savings before O&A/Capital Deployment	Estimated Impact to O&A*
Year 1 (Net Savings)				
One time Severance	($4.8)			
Salary & Benefit Savings		$11.2		
Net Savings Year 1			$6.4	$4.1
Year 2 (Full Year Savings)				
Salary & Benefit Savings	$0.0	$11.2		
Net Savings Year 2			$11.2	$7.2

*Current Deployment Ratio ***(****64% Operating*/36% Capital)

Per the information provided in PUB/MH I-19 b), the Corporation's total budgeted equivalent full time employee ("EFT") levels of 5,878 in 2018/19 are comparable to those in 2004/05 of 5,870, 15 years ago. In 2004/05 Straight Time ("ST") EFTs were 5,590 compared to a 2018/19 budget of 5,440, a reduction of 150 ST EFTs. Overtime (OT) EFTs in 2004/05 were 280 as compared to 438 in the 2018/19 budget. The higher level of OT EFTs in 2018/19 is driven by major construction projects, primarily Bipole III and Keeyask. It is also noted that the Corporation is currently tracking below the 2018/19 budgeted EFT levels for both ST and OT EFTs.

Manitoba Hydro has achieved comparability to 2004/05 EFT levels despite a 15% growth in the number of electric customers, additional operational requirements for the Wuskwatim GS and the Riel and Keewatinohk Converter Stations, increased environmental, regulatory and other demands, as well as approximately 200 ST EFTs for the construction of the Keeyask GS and associated transmission.

5. DETERMINATION OF SURPLUS CASH AVAILABLE

In the response to MH/MIPUG I-2, Mr. Bowman states that, "*Mr. Bowman was not able to readily identify a definitive answer as to whether the CEF estimates of capital spending are gross or are net of customer contributions. Based on experience with typical utility practice, and the tendency under IFRS to specifically identify and track contributions in a different* *manner than an offset to capital costs, Mr. Bowman expects that the CEF is likely gross spending. For this reason, Mr. Bowman expects that the $478 million at Figure 8 of the Supplement to the 2019/20 Electric Rate Application is gross spending, and is not net of capital contributions from customers*."

Mr. Bowman is incorrect in his understanding of the components included in the Capital Expenditures Forecast ("CEF"). Manitoba Hydro's CEF is reported net of capital contributions from customers. The figure below breaks out the components of the $478 million of BOC spending found in Figure 8 of the Supplement to the 2019/20 Electric Rate Application.

Figure 5 – Business Operations Capital Spending for 2019/20

(In Millions)	**2019/20**
Gross Spending	$476.3
Customer Contributions	(19.7)
Sub-Total	456.6
Capitalized Interest	20.9
CEF	477.5

In the response to PUB/MIPUG I-2, Mr. Bowman states that,

> "*In the event there was a small weight put on cash flow adequacy in determining the appropriate rate levels, Mr. Bowman's suggests a focus on cash flows as presented in the response to MIPUG/MH I-8(c) which shows positive operating cash flows of $571 million in 2019/2020. On a forecast basis, Mr. Bowman suggests that it should be viewed as a positive characteristic for Hydro if this value exceeds the level of spending on sustaining capital, for forecast years. If this occurs, this means that internally generated cash is fully covering the costs of sustaining the system, and (to the extent this value is positive) further contributing to cash financing either debt reduction or investment in new growth assets. If this value did not exceed the level of sustaining capital, it means some debt is being secured to fund sustainment of the system, which is less ideal – this would not be a problem over some period of years, or during transient events like droughts, but further analysis would be required of other rate sufficiency metrics if this value were to remain negative over many forecast years under normal water flows.*"

The figure below compares the cash provided by operating activities for 2019/20 under the Direct Method as per the response to MIPUG/MH I-8c, with and without the capitalized interest on the major projects reclassified as investing activities for presentation purposes. Capitalized interest of $292 million is attributable to Keeyask and the associated transmission, and will be reflected as an Operating Activity once Keeyask and the associated transmission are in-service, leaving $20 million interest on BOC as capitalized interest. If cash flows are held at 2019/20 levels, including the 3.5% requested rate increase, the major projects coming in to service would result in a $197 million deficit. This emphasizes the need for immediate rate action to begin to address the pending cash deficit, especially if Keeyask is commissioned 10 months ahead of schedule.

Figure 6 – Cash Provided by Operating Activities Without and With Capitalized Interest on Major Projects Comparison

(In Millions)	2019/20	
	Without Capitalized Interest on Major Projects	With Capitalized Interest on Major Projects
Cash Receipts from Customers	$2,187	$2,187
Cash Paid to Suppliers	(843)	(843)
Interest Paid	(1,029)	(1,029)
Capitalized Interest	**20**	**312**
Interest Received	16	16
Cash Paid to the City	(16)	(16)
Cash Paid to Mitigation	(54)	(54)
Cash Provided by Operating Activities	**281**	**571**
Business Operations Capital	(478)	(478)
Surplus/(Deficit)	(197)	93

As Manitoba Hydro's debt is expected to increase by the time the major projects are complete, Manitoba Hydro will incur higher interest costs and the projected deficit will also increase absent additional revenues.

6. ERRORS IN THE CALCULATION OF INTEREST RATE SAVINGS AND REFINANCING RISK

6.1. Overstated Interest Rate Savings

In the response to PUB/MIPUG 3, Mr. Bowman indicates: "*The potential for interest rate savings during 2019/20 is significant*." However, Mr. Bowman's approximate calculation produces erroneous results. On the basis of that calculation, Mr. Bowman concludes that*:"… for each month that passes with 0.5% lower than forecast interest rates, Hydro secures almost $1 million per year in savings that will reflect on the income statement.*"

Mr. Bowman failed to consider the breakdown of borrowings from Section 6 in the Supplement which has the following information for fiscal 2019/20:

The budget for financing requirements for fiscal 2019/20 is $3,078.5 million made up of:

- $1,953.2 million for new borrowing requirements.
- $246.8 million to refinance maturing long term debt.
- $878.5 million to refinance maturing underlying debt issues associated with ongoing interest rate swaps.

The approved capital forecast indicates that Major New Generation and Transmission is forecast to be $1,521 million and BOC is forecast to be $478 million. The Cash Flow Statement in MIPUG/MH I-8c) indicates that Mr. Bowman's Cash from Operations is $571 million. The Finance Expense Statement in PUB/MH I-35 Updated specifies that capitalized interest is $311 million.

Of the borrowing for this fiscal year, $878.5 million is refinancing maturing underlying debt issues associated with ongoing interest rate swaps, which will not have a material impact on gross interest as the rates are primarily fixed.

Maturing long term debt of $246.8 million to be refinanced will be exposed to interest rate fluctuations which will impact the revenue requirement. Applying Mr. Bowman's simplistic assumption of rates remaining 0.5% lower than forecast, this equates to approximately (0.5% times $246.8 million/12) = $102,833 per year for each month that passes with lower than forecast interest rates. Most of the $1,953.2 million for new borrowing requirements will have interest capitalized (at a blended rate) in the test year and will not materially impact revenue requirement. However a portion of this new borrowing will impact the income statement in the test year. This is estimated to be:

- Cash from Operations of $571 million must be adjusted for capitalized interest of $311 million realizing that capitalized interest is included in the capital figures in the approved capital forecast and we are currently borrowing to service these interest payments ($571 million - $311 million = $260 million).
- This $260 million will fund an equivalent amount of Business Operations Capital, and the cash shortfall of $218 million of BOC will require new borrowing.
- All of the $1,521 million for new Generation and Transmission will require new borrowing.
- For simplicity, we will assume the residual new borrowing will impact revenue requirement. (0.5% times $214 million/12) = $89,250 per year for each month that passes with lower than forecast interest rates.

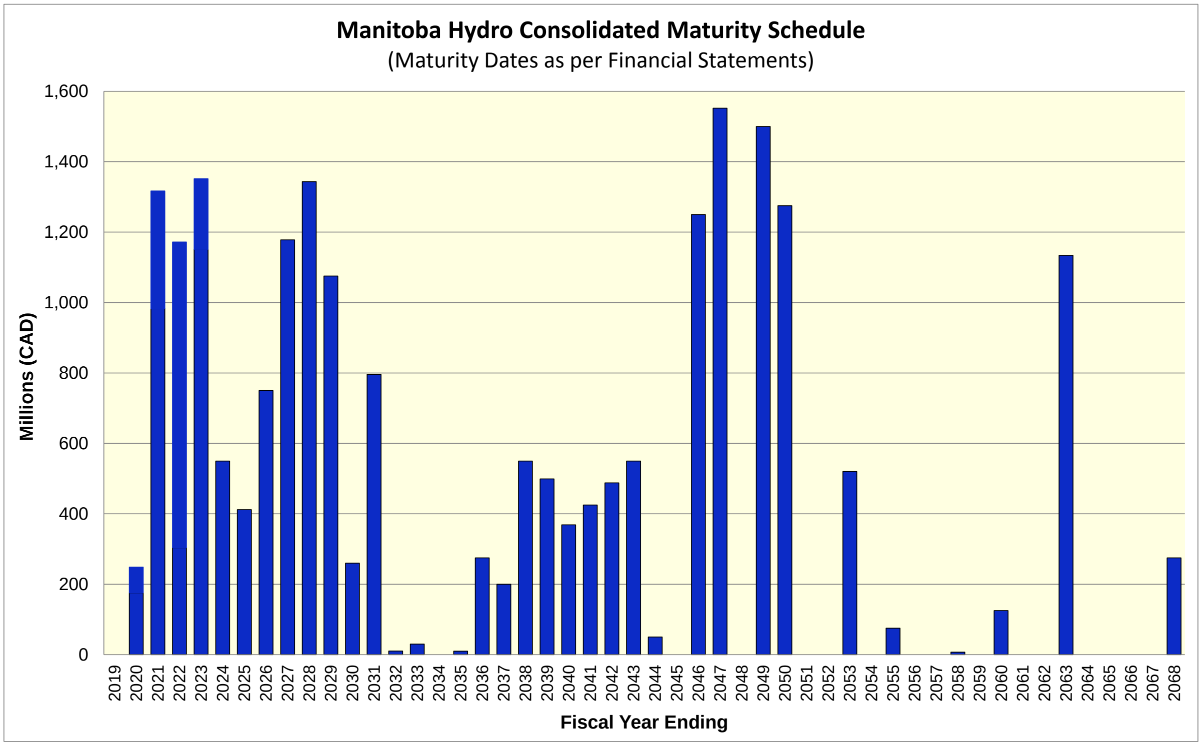
In total, the potential impact to the revenue requirement as a result of lower assumed interest rates is ($102,833 +$89,250) = $192,083 per year for each month that passes with lower than forecast interest rates. This is significantly lower than Mr. Bowman's approximation of $1 million per year for each month that passes with lower than forecast interest rates**.**

6.2. Overlooked Refinancing Risk

Mr. Bowman on page 17 of his evidence states: "*Not only has Hydro locked in long-term debt at rates below that assumed in MH-93, Hydro has also reduced a significant component of the long-term interest rate risk underlying that forecast as more and more debt is locked in*."

Mr. Bowman, in making this assertion, neglects to consider the significant borrowing which Manitoba Hydro must undertake to refinance maturing debt in the next few years. To provide an understanding of the level of refinancing risk which Manitoba Hydro faces the following figure illustrates Manitoba Hydro's debt maturity, showing the timing of exposure to interest rate risk (including impacts of swaps) is provided.

Figure 7



For the next five years following the test year, the total amount of debt exposed to refinancing risk totals $4.8 billion.

7. RATE COMPARISONS – OTHER JURISDICTIONS

At page 24 of MIPUG's evidence, Mr. Bowman asserts that

In the current economic context, competitiveness is further undermined as other Canadian jurisdictions are increasing rates to a much lower degree while at the same time offering programming for industrial customers to manage electricity bills. For example:

• Hydro Quebec's rate increase for April 1, 2019, for the fourth year in a row, is seeking industrial rate increases at 0.3% or less for its Rate L, while at the same time initiating significant economic development incentives (including up to 20% off of power bills for new or expanding companies).
• Comparatively, BC Hydro is proposing a rate increase of 1.76% for April 1, 2019 and 0.72% for April 1, 2020. Industrial rate options in BC include the recurring

Freshet rate pilot project (a surplus energy purchasing program for industrial customers during the spring runoff period May – July available at market prices) and is currently in discussions to expand the program to full year. BC Hydro also offers an optional Time Of Use rate for industrial customers."

As demonstrated in the 2018 Hydro Quebec Survey, industrial rates in Manitoba continue to be lower than any other jurisdiction in Canada[4].

While some jurisdictions may be requesting rate increases lower than Manitoba Hydro in the current year, many jurisdictions have already received higher increases in previous years, as shown in the table below. Additionally, the actual proposed rate increase for BC Hydro for April 1, 2019 is 6.85%, compared to the 1.76% referred to in Mr. Bowman's evidence, which is the net result of a 6.85% rate increase and the reduction of a deferred regulatory rate rider from 5% to 0%.

Figure 8 - Summary of Industrial Rate Increases in Canadian Jurisdictions

Fiscal Year	2014	2015	2016	2017	2018	2019	Proposed 2020
Hydro Quebec	2.41	3.5	2.5	0.0	0.2	-	0.3
Nova Scotia Power	3.0	1.5	-	1.4	1.5	1.5	unavailable
SaskPower	7.0	3.6	2.3	8.68	3.5	-	-
Newfoundland & Labrador Power	-	-	2.7	-	10.5	1.2	unavailable
BC Hydro	1.44	9.0	6.0	4.0	3.5	3.0	6.85
Manitoba Hydro	3.5	2.75	3.96	3.37	3.37	3.60	3.5

[4] As shown in Figures 2 through 7 on pages 2 through 17 of http://www.hydroquebec.com/data/documents-donnees/pdf/comparison-electricity-prices.pdf

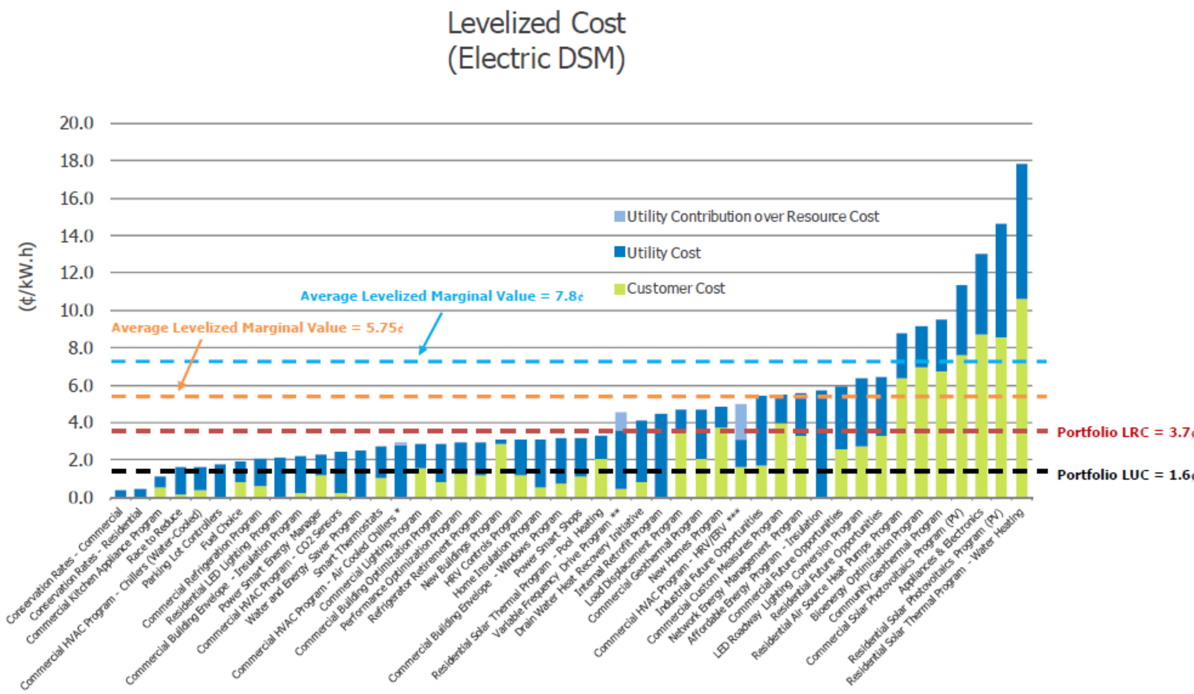
8. <u>COST EFFECTIVENESS OF MANITOBA HYDRO'S CURRENT AVAILABLE PROGRAMS</u>

At page 19 of MIPUG's evidence, Mr. Bowman states that, "*Absent a properly prepared DSM program reflecting up-to-date and fully tested marginal costs, it should be assumed that the DSM programs underlying both the 2019/20 forecast and the Exhibit MH-93 forecasts include higher spending levels than should be accepted into customer rates*."

Although Manitoba Hydro has not updated the long range DSM plan and economic analysis, it is expected that the majority of the DSM programs currently available to customers will continue to be economic from a resource perspective. This is evidenced by comparing the 2017/18 levelized Marginal Value of 5.75 cents/kWh presented in the response to PUB/MH II-57 (Revised) of the 2017/18 & 2018/19 General Rate Application to the levelized resource costs ("LRC") of the programs presented in the 2016/17 Demand Side Management Plan – 15 Year Supplemental Report included as Appendix 7.2 of the 2017/18 & 2018/19 General Rate Application.

The following chart, found at page 6 of Appendix 7.2, presents the levelized cost by program compared to the levelized marginal value of 7.8 cents/kWh. Although this comparison does not specifically reflect the marginal value of each program based on the timing and duration of the planned energy savings, it does provide a general understanding of costs relative to marginal value. To assist in providing a high level perspective of the possible impacts of the new lower marginal value on the economics of Manitoba Hydro's DSM programming, a line has been added to the chart reflecting the lower levelized marginal value of 5.75 cents/kWh.

Figure 9 - Levelized Cost of DSM Programs



When comparing the levelized resource costs of the individual programs, most programs have levelized costs lower or equal to the updated levelized marginal value of 5.75 cents/kWh, indicating that most of the programs continue to be cost effective. The Affordable Energy Program and the Community Geothermal Program are two programs with levelized resource costs higher than the new 5.75 cents/kWh levelized marginal value. These programs focus on delivering winter energy savings and are specifically targeted to lower income and/or Indigenous residential customers. Of the other programs presented with a levelized resource cost above 5.75 cents/kWh, all but two of these programs:

- have not been launched (e.g. Residential Air Source Heat Pumps, Residential Solar Thermal Water Heating),
- have ended and any expenditures planned for 2019/20 are as a result of past commitments to customers (e.g. Appliances & Electronics, Residential and Commercial Solar PV), or
- were placeholders anticipating future program opportunities not yet identified (e.g. Residential, Commercial and Industrial Future Opportunities).

9. DIFFERENTIAL RATE INCREASES

9.1. Manitoba Hydro is evaluating the harmonization of the General Service Small Non-Demand, General Service Small Demand and General Service Medium rates

On page 125 of its evidence, the COALITION asserts that "*Given [the GSS non-demand class] RCC appears to be persistently outside the ZOR despite the range of methodologies and cost changes over this period of time, as well as the addition of Bipole III, it may be appropriate to consider a lower than average rate increase for this class*."

Implementing a differentiated rate increase for the General Service Small class would require a rebalancing of customer, energy and demand charges which will have intra-class impacts, may mute appropriate price signals and may exacerbate rate rebalancing requirements in the future once Manitoba Hydro's evaluation of the current class harmonization is complete. In addition, due to the load characteristics of the classes, a less than average increase for the General Service Small Non-Demand class will result in a less than average increase for the General Service Small Demand class and a higher than average increase for the General Service Medium class. This should not be undertaken in advance of a thorough analysis of class cost characteristics, load profiles and bill frequencies that would allow Manitoba Hydro to evaluate other rate design options.

Manitoba Hydro also notes that although class consolidation between the General Service Small and Medium classes commenced in 2008, the General Service Small Non-Demand and General Service Small Demand classes have had harmonized rates since 1988. Changes to the relationship of rates between these two classes will also need to give consideration to potential billing system programming modifications that may be necessary to effect that change.

9.2. Non-grid diesel rates are not determined based on the results of the PCOSS

Mr. Rainkie, Ms. Derksen and Mr. Harper have recommended in their Evidence that the proposed rate increase apply to all diesel rates.

> "*In the absence of a Diesel Cost of Service/Revenue Study to support MH's proposed exemption for Diesel non-grid rates, and given the only evidence on the record to date*

quantifies the RCC of the Diesel Class overall to be in the order of magnitude of 80%, it is recommended that any rate increase flowing from this Application be applied on an across-the-board basis, including all rate components of the Diesel Classes." (COALITION, page 109)

The non-grid equivalent diesel rates are determined using a separate diesel cost of service study, and not based on the results of the PCOSS. While the PCOSS provides a directionally useful RCC for the Diesel customer class, it lacks a number of key refinements that are included in the Diesel Cost of Service Study.

Under the terms of the Settlement Agreement rates in the Diesel communities are designed to recover operating costs only. Under this framework, the First Nations, supported by AANDC, are responsible for upfront capital contributions for approximately 70% of capital costs, reflecting their share of electricity usage in the Diesel communities. The remaining capital, which is related to the Residential and General Service customers that are neither first Nations members nor government accounts, is considered to be funded by Manitoba Hydro under the agreement. The diesel costs shown in the PCOSS include over $1 million of interest and depreciation costs related to this unfunded capital, which would be excluded from diesel revenue requirement and rates during the preparation of a Diesel COSS.

The PCOSS also does not include the subsidy provided in the Diesel COSS to maintain the Residential Diesel class Revenue Cost Coverage at 82% and General Service Diesel Revenue Cost Coverage at 89%. This subsidy of over $1 million has been provided by Manitoba Hydro for many years to recognize that a similar under recovery of revenue relative to cost exists with respect to grid customers living in rural or remote parts of the province.

Adjusting the Diesel class for these two items would increase the RCC shown in the PCOSS to greater than 100%, and indicates that increasing non-grid equivalent Diesel rates in the absence of a Diesel COSS is not warranted.