

MANITOBA HYDRO
2019/20 ELECTRIC RATE APPLICATION

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MANITOBA HYDRO

2019/20 ELECTRIC RATE APPLICATION

1.0 OVERVIEW AND REASONS FOR THE REQUESTED RATE INCREASE

On May 5, 2017, Manitoba Hydro filed a comprehensive 2017/18 & 2018/19 General Rate Application (“GRA”) with the Public Utilities Board of Manitoba (“PUB”) and a lengthy and extensive review of Manitoba Hydro’s operations, forecasts, financial plans, capital expenditures, and operating expenses was conducted over the course of nine months. Following its review, the PUB issued Order 59/18, dated May 1, 2018, which approved a 3.6% average electric rate increase effective June 1, 2018. Order 59/18 also contained a number of directives and recommendations requiring work to be undertaken and completed by Manitoba Hydro prior to filing its next GRA.

With the appointment of a new Manitoba Hydro-Electric Board (“MHEB”), a comprehensive review of Manitoba Hydro’s operations, forecasts and financial plans is currently being undertaken to allow the MHEB to establish a long-term financial plan for the Corporation. As a result of the foregoing, and further to Manitoba Hydro’s correspondence of November 12, 2018 and the PUB’s correspondence of November 21, 2018, Manitoba Hydro is submitting to the PUB a one-year rate increase application for the 2019/20 fiscal year which is based on financial information currently approved by the MHEB for the 2018/19 and 2019/20 fiscal years as set forth in its letter of November 12, 2018. Upon the MHEB’s development and approval of a long-term financial plan, Manitoba Hydro will submit a full GRA to the PUB, anticipated to be filed in late 2019. A fulsome review of Manitoba Hydro’s responses to those directives contained in Order 59/18 which the PUB indicated in its November 21, 2018 correspondence would be deferred, will also be addressed as part of the next GRA.

In this Application, Manitoba Hydro is requesting an Order pursuant to section 25(1) of *The Crown Corporations Governance and Accountability Act* for final approval of a 3.5% rate increase for all customer classes to be effective April 1, 2019. As shown in Appendix 1, page 1, this increase is projected to generate additional revenues of \$59

1 million and would result in a modest contribution to financial reserves (net income)
2 of \$31 million in 2019/20. Absent the proposed rate increase for 2019/20, Manitoba
3 Hydro is projecting a net loss of \$28 million from Electric operations based on
4 current assumptions.

5

6 As noted by the PUB in Order 59/18 (page 173):

7

8 *The Integrated Financial Forecast filed in the proceeding as Manitoba*
9 *Hydro Exhibit 93 supports the Board's decision on the level of the*
10 *overall rate increase. This financial scenario included: continued*
11 *deferral of \$20 million in ineligible overheads, amortized at a 30-year*
12 *rate; Average Service Life depreciation methodology, without*
13 *amortization of the difference with the Equal Life Group methodology;*
14 *achievement of a 25% equity level over a longer period of time,*
15 *specifically by 2035/36; and debt management based on a weighted*
16 *average term to maturity of 12 years. In many respects, and as a*
17 *departure from Manitoba Hydro's plan and Integrated Financial*
18 *Forecast assumptions, Manitoba Hydro Exhibit 93 is therefore*
19 *reflective of many of the Board's decisions in this Order.*

20

21 Considering the MHEB is undertaking a comprehensive review of Manitoba Hydro's
22 operations, forecasts and financial plans to allow for the establishment of a long-
23 term financial plan for the Corporation, for purposes of its rate request for the
24 2019/20 fiscal year, Manitoba Hydro has noted the PUB's comment regarding
25 Manitoba Hydro Exhibit 93 from the 2017/18 & 2018/19 GRA ("Exhibit 93") and
26 prepared the current Application utilizing a comparison to Exhibit 93.

27

28 Since Order 59/18 was issued, Manitoba Hydro's cumulative earnings (actual and
29 projected) over the three year period 2017/18 to 2019/20 have deteriorated by
30 nearly \$200 million compared to Exhibit 93 as shown in the following Figure 1.1.

1 **Figure 1.1: Comparison of Actual and Projected Net Income to Exhibit 93**

2 *(In Millions of Dollars)*

| | 2017/18 | 2018/19 | 2019/20 | Total |
|------------------------------------|-----------------|-----------------|-----------------|-------|
| Actual & Projected Net Income | 18 ¹ | 51 ² | 31 ³ | 100 |
| Exhibit 93 Net Income ⁴ | 94 | 143 | 61 | 298 |
| Increase/(Decrease) | (75) | (93) | (30) | (198) |

3 ¹ 2017/18 Actual net income (Section 2.1)

4 ² 2018/19 Financial Outlook (Section 2.3)

5 ³ 2019/20 Interim Budget including 3.5% proposed rate increase (Section 2.4)

6 ⁴ Includes a projected 3.57% rate increase

7

8 Actual net income results for 2017/18 were lower than anticipated in Exhibit 93
9 mainly due to lower export prices, the impact of U.S. transmission outages which led
10 to lower volumes and a higher proportion of off peak sales at lower prices, as well as
11 higher net finance costs.

12

13 The outlook for 2018/19 net income is also much lower compared to Exhibit 93
14 which is primarily attributable to lower net export revenues as a result of below
15 average water conditions impacting generation, as well as increases in depreciation
16 and financing costs arising from the earlier than planned in-service of Bipole III,
17 which went into service July 4, 2018 compared to a budgeted in-service date of July
18 31, 2018.

19

20 Exhibit 93 projected net income of \$61 million for electric operations for the
21 2019/20 fiscal year. In comparison, the 2019/20 Interim Budget, which includes the
22 proposed 3.5% rate increase requested in this application, projects net income of
23 \$31 million. The deterioration in projected net income for electric operations is
24 mainly attributable to higher net financing costs. Exhibit 93 had assumed that
25 Manitoba Hydro could take advantage of lower interest costs on debt issues with
26 shorter terms to maturity. Since the 2017/18 & 2018/19 GRA, the interest rate yield
27 curve has continued to flatten and the savings expected from shorter term
28 borrowings are no longer available.

1 In the absence of the proposed 3.5% rate increase, a net loss of \$28 million would be
2 projected in 2019/20 under the same forecast assumptions, increasing the
3 cumulative deterioration in earnings to approximately \$260 million over the three
4 year period from 2017/18 to 2019/20.

5
6 Exhibit 93, which assumed more favourable financial results and annual 3.57% rate
7 increases, projected over \$400 million in cumulative net financial losses over the six
8 year period from 2022/23 to 2027/28 following the planned Keeyask in-service.
9 Although Manitoba Hydro has not yet updated its longer term forecast, the lower
10 than expected financial results in 2017/18 to 2019/20 compared to Exhibit 93 will
11 exacerbate the losses projected in Exhibit 93. It follows that without the proposed
12 3.5% rate increase, the cumulative losses projected in Exhibit 93 following the
13 Keeyask in-service will be even more significant.

14
15 Manitoba Hydro's net income has historically been extremely variable. Key drivers
16 of net income such as water flow conditions, weather, interest rates and export
17 prices are unpredictable and outside of Manitoba Hydro's control. Section 2.4.4 of
18 this Application presents an analysis of the sensitivity of projected net income or
19 losses for 2019/20 to key assumptions in the Interim Budget. Water flow conditions
20 can vary projected net income for 2019/20 by as much as \$360 million between the
21 10th and 90th percentile of net revenues under the 102 years of historic flow
22 conditions. Colder or warmer winter weather can vary projected net income for
23 2019/20 by more than \$60 million. With interest rates 1% above or below that
24 forecasted, net income for the 2019/20 Interim Budget could vary by approximately
25 \$30 million. Export prices higher or lower than the reference forecast used in the
26 2019/20 Interim Budget can produce a variation of up to \$50 million.

27
28 Without the proposed 3.5% rate increase, the likelihood of financial losses is greater
29 given the variability of factors such as water, weather, interest rates and export
30 prices. This potential annual variation in financial results and the deterioration in
31 the Corporation's financial position relative to Exhibit 93 in the period leading up to
32 the Keeyask in-service date also underscores the need for a reasonable rate increase
33 in the 2019/20 fiscal year.

1 The requested 3.5% rate increase effective April 1, 2019 generates a modest level of
2 net income under average water flow conditions that will assist in gradually building
3 the revenue base and reduce the risk of the Corporation incurring a loss in 2019/20.
4 The 3.5% requested rate increase is aligned with PUB-approved rate increases since
5 2015 and keeps Manitoba's customer rates and estimated bill impacts among the
6 lowest in North America.

7

8 Section 2.0 of Manitoba Hydro's 2019/20 Electric Rate Application provides a
9 summary of Manitoba Hydro's actual financial results for the 2017/18 fiscal year, its
10 current financial position and financial outlook for 2018/19, as well as its Interim
11 Budget and Planning Assumptions for the 2019/20 Test Year. Included in this
12 discussion is an overview of Manitoba Hydro's current capital expenditure forecast
13 and an update on the status of its Major New Generation and Transmission projects.

14

15 Section 3.0 provides updated rate schedules and customer bill impacts for the
16 proposed rate increase, as well as a comparison of Manitoba Hydro's electricity
17 rates to neighbouring jurisdictions. If approved, the April 1, 2019 rate increase
18 would result in a \$3.30 increase in the monthly bill of a residential customer without
19 electric space heat using 1,000 kilowatt-hours ("kWh") per month, and a \$6.30
20 increase in the monthly bill for a residential customer with electric space heat using
21 2,000 kWh per month.

22

23 Throughout this Application, Manitoba Hydro has also provided a brief update on
24 certain directives and recommendations of the PUB as outlined in its Order 59/18.
25 As noted above, further review of PUB directives will be addressed at the next full
26 GRA filed by Manitoba Hydro.

27

28 **2.0 MANITOBA HYDRO'S FINANCIAL POSITION AND OUTLOOK**

29

30 Section 2.0 provides analyses of the actual and forecast revenues and expenses
31 related to Manitoba Hydro's electric operations for 2017/18 to 2019/20.

32

33 Manitoba Hydro's Financial Outlook for 2018/19 and the 2019/20 Interim Budget
34 form the basis of the current one-year rate application for a 3.5% average revenue

1 increase effective April 1, 2019. Manitoba Hydro’s financial results are prepared in
2 accordance with International Financial Reporting Standards (IFRS).

3

4 **2.1 2017/18 Actual Financial Results from Electric Operations**

5 Section 2.1 compares 2017/18 actual financial results with Manitoba Hydro’s
6 2017/18 Approved Budget. The 2017/18 Approved Budget, filed with the 2017/18 &
7 2018/19 GRA, was approved by the MHEB in March 2017 with MH16 for the
8 purposes of financial reporting comparisons throughout the fiscal year and reflected
9 a budgeted net income of \$111 million.

10

11 Figure 2.1 below compares Manitoba Hydro’s actual net income from Electric
12 operations for the 2017/18 fiscal year of \$18 million to the approved MH16 budget.

1 **Figure 2.1: 2017/18 Actual Financial Results from Electric Operations Compared to**
 2 **the Approved Budget (MH16)**

MANITOBA HYDRO
STATEMENT OF INCOME
For the Year Ended March 31, 2018
(In Millions of Dollars)

| | ACTUAL | BUDGET | INCREASE (DECREASE) |
|--|--------------------|---------------------|------------------------|
| Revenues | | | |
| Domestic revenue | \$1 616 | \$1 657 | (\$41) |
| BPIII Reserve Account | (152) | (119) | (33) |
| Extraprovincial | 437 | 454 | (17) |
| Other | 30 | 30 | - |
| | <u>1 931</u> | <u>2 022</u> | <u>(91)</u> |
| Expenses | | | |
| Operating and administrative | 517 | 518 | 1 |
| Net finance expense | 578 | 558 | (20) |
| Depreciation and amortization | 402 | 396 | (6) |
| Water rentals and assessments | 126 | 124 | (2) |
| Fuel and power purchased | 130 | 135 | 5 |
| Capital and other taxes | 130 | 132 | 2 |
| Other expenses | 501 | 115 | (386) |
| Corporate allocations | 8 | 8 | - |
| | <u>2 393</u> | <u>1 987</u> | <u>(405)</u> |
| Net income (loss) before net movement in regulatory balances | (462) | 35 | (496) |
| Net movement in regulatory balances | 472 | 68 | 404 |
| Net Income | <u>\$10</u> | <u>\$102</u> | <u>(\$92)</u> |
| Net income (loss) attributable to: | | | |
| Manitoba Hydro | \$18 | \$111 | (\$93) |
| Non-controlling interests | (8) | (9) | 1 |
| | <u><u>\$10</u></u> | <u><u>\$102</u></u> | <u><u>(\$92)</u></u> |

3
 4 Actual net income in 2017/18 was \$93 million lower than budget primarily due to a
 5 3.36% interim electric rate increase effective August 1, 2017 being granted as
 6 opposed to the 7.9% requested by Manitoba Hydro in its 2017/18 & 2018/19 GRA.
 7 The PUB directed that all revenues flowing from the 3.36% rate increase be added to
 8 the previously established Bipole III deferral account, to be recognized when Bipole
 9 III comes into service. Additionally, a continuation of weaker than forecast
 10 opportunity prices in the export market and higher financing costs also contributed
 11 to the lower than budgeted net income for 2017/18.

1 In addition to the impact of the lower than requested rate increase, actual domestic
2 revenue was lower than budget as a result of the cooler summer weather which
3 reduced air conditioning load, partially offset by higher customer usage (excluding
4 weather impacts).

5

6 Actual extraprovincial revenues were lower than budget as export prices in the
7 opportunity market did not reach forecasted levels. In addition, export volumes
8 were lower than budget as a result of U.S. transmission outages leading to a higher
9 proportion of off peak sales at lower prices.

10

11 The higher net finance expense reflects earlier than planned borrowings to take
12 advantage of favourable market conditions, lower capitalized interest due to
13 delayed capital spending as well as higher foreign exchange losses on U.S. cash
14 balances resulting from the strengthening Canadian dollar. This was partially offset
15 by higher interest income on pre-funded cash balances.

16

17 Actual other expenses were higher than budget primarily due to the transfer of the
18 \$379 million construction in progress balance related to the discontinuance of the
19 Conawapa Generating Station project to a regulatory asset. The increase in other
20 expenses, to a large degree, is offset in the net movement in regulatory balances
21 (removed from the statement of income, deferred and subsequently amortized
22 through net movement in regulatory balances). The regulatory asset will be
23 amortized over 30 years as directed by the PUB in Order 59/18.

24

25 Exhibit 93 was filed as an update to MH16 for information purposes. Compared to
26 the \$111 million approved budget, the projected income for 2017/18 under Exhibit
27 93 was \$94 million or \$17 million lower due to the PUB's interim approval of the
28 3.36% rate increase compared to the 7.9% requested which was largely offset by a
29 forecasted improvement in water flow conditions and weakening of the Canadian
30 dollar resulting in higher forecast export revenues.

31

32 On an actual basis, 2017/18 net income was \$75 million lower than forecast in
33 Exhibit 93 as shown in Figure 2.2 below. The reduction in net income compared to
34 Exhibit 93 was due to lower than forecast water flow conditions, as well as lower

1 export prices and U.S. transmission outages described above, resulting in lower net
2 export revenues.

3

4 **Figure 2.2: 2017/18 Actual Financial Results from Electric Operations Compared to**
5 **Exhibit 93**

MANITOBA HYDRO
STATEMENT OF INCOME
For the Year Ended March 31, 2018
(In Millions of Dollars)

| | <u>ACTUAL</u> | <u>EXHIBIT 93</u> | <u>INCREASE (DECREASE)</u> |
|--|--------------------|-------------------|--------------------------------|
| Revenues | | | |
| Domestic revenue | \$1,616 | \$1,615 | \$1 |
| BPIII Reserve Account | (152) | (151) | (1) |
| Extraprovincial | 437 | 514 | (77) |
| Other | 30 | 30 | (0) |
| | <u>1,931</u> | <u>2,008</u> | <u>(77)</u> |
| Expenses | | | |
| Operating and administrative | 517 | 518 | 1 |
| Net finance expense | 578 | 570 | (8) |
| Depreciation and amortization | 402 | 396 | (6) |
| Water rentals and assessments | 126 | 130 | 4 |
| Fuel and power purchased | 130 | 124 | (6) |
| Capital and other taxes | 130 | 132 | 2 |
| Other expenses | 501 | 116 | (385) |
| Corporate allocations | 8 | 8 | 0 |
| | <u>2,393</u> | <u>1,995</u> | <u>(397)</u> |
| Net income (loss) before net movement in regulatory balances | (462) | 13 | (474) |
| Net movement in regulatory balances | 472 | 72 | 400 |
| Net Income | <u>\$10</u> | <u>85</u> | <u>(\$74)</u> |
| Net income (loss) attributable to: | | | |
| Manitoba Hydro | \$18 | \$94 | (\$75) |
| Non-controlling interests | (8) | (8) | 0 |
| | <u>\$10</u> | <u>\$85</u> | <u>(\$74)</u> |

6

7

8 The 67th Annual Report of the MHEB for the year ending March 31, 2018 can be
9 found in Appendix 3.

10

11 Page 56 of the Annual Report provides Manitoba Hydro's Consolidated Statement of
12 Cash Flows. As explained in Note 3(s) to the Financial Statements for the year ended
13 March 31, 2018, the Corporation elected to present cash flows from operating
14 activities using the indirect method as compared to the direct method used for the

1 year ended March 31, 2017, which is consistent with other utilities in the electric
2 industry and Manitoba Public Insurance. In addition, cash flows related to capitalized
3 interest were reclassified from investing activities to operating activities. Both the
4 indirect and direct cash flow methods and the reclassification of capitalized interest
5 are acceptable under IFRS. In their Audit Findings report for the year ended March
6 31, 2018, Manitoba Hydro's independent external auditors (KPMG) concurred with
7 the changes in presentation as noted above.

8
9 To assist with the comparison of the Consolidated Statement of Cash Flows for the
10 year ended March 31, 2017, included in the 66th Annual Report of the MHEB filed as
11 part of the 2017/18 & 2018/19 GRA, Manitoba Hydro has restated its Consolidated
12 Statement of Cash Flows for the year ended March 31, 2018 under the Direct
13 Method, and included it as Appendix 2 to this Application. As can be seen, regardless
14 of whether the Indirect Method or Direct Method is used, the cash and cash
15 equivalents at year end will remain the same.

16 17 **2.2 2018/19 Actual Results to September 30, 2018 - Electric Operations**

18 Manitoba Hydro's net loss from Electric operations for the first six months of the
19 2018/19 fiscal year was \$32 million compared to a budgeted net loss of \$37 million
20 (which incorporated the 3.6% rate increase and accounting changes approved by the
21 PUB effective June 1, 2018), as shown in the following Figure 2.3.

1 **Figure 2.3: 2018/19 Actual Results to September 30, 2018 from Electric Operations**

MANITOBA HYDRO
STATEMENT OF INCOME
For the Six Month Period Ended September 30, 2018
(In Millions of Dollars)

| | <u>ACTUAL</u> | <u>BUDGET</u> | <u>INCREASE (DECREASE)</u> |
|---|----------------------|----------------------|--------------------------------|
| Revenues | | | |
| Domestic revenue | \$736 | \$707 | \$ 29 |
| BPIII Reserve Account | (25) | (37) | 12 |
| Extraprovincial | 249 | 250 | (1) |
| Other | 12 | 15 | (3) |
| | <u>972</u> | <u>935</u> | <u>37</u> |
| Expenses | | | |
| Operating and administrative | 249 | 249 | - |
| Net finance expense | 340 | 314 | (26) |
| Depreciation and amortization | 221 | 217 | (4) |
| Water rentals and assessments | 54 | 59 | 5 |
| Fuel and power purchased | 59 | 56 | (3) |
| Capital and other taxes | 71 | 71 | - |
| Other expenses | 46 | 36 | (10) |
| Corporate allocations | 4 | 4 | - |
| | <u>1 044</u> | <u>1 006</u> | <u>(38)</u> |
| Net loss before net movement in regulatory balances | (72) | (71) | (1) |
| Net movement in regulatory balances | 38 | 30 | 8 |
| Net Loss | <u>(\$34)</u> | <u>(\$41)</u> | <u>\$7</u> |
| Net loss attributable to: | | | |
| Manitoba Hydro | (32) | (37) | \$5 |
| Non-controlling interests | (2) | (4) | 2 |
| | <u>(\$34)</u> | <u>(\$41)</u> | <u>\$7</u> |

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The net loss in the first six months of the 2018/19 fiscal year was lower than projected primarily due to favourable weather impacts partially offset by increased financing costs and depreciation expense associated with the earlier in-service date for Bipole III.

Actual domestic revenue was higher than budget primarily due to the impacts of weather, specifically warmer summer weather which increased air conditioning load and a cooler April and September which increased heating load. In addition, the earlier in-service date of Bipole III resulted in an increase in domestic revenue

1 associated with the correspondingly earlier draw-down of the Bipole III deferral
2 account into revenues.

3

4 Actual finance expense was higher than budget due to higher net interest on debt
5 primarily as a result of Bipole III going into service earlier than projected as well as
6 lower overall capital spending on the Bipole III project. In addition, there were
7 unfavourable foreign exchange impacts resulting from the weakening Canadian
8 dollar.

9

10 Actual depreciation and amortization expense reflect the impact of the earlier in-
11 service date for Bipole III and therefore are higher than budget.

12

13 Actual fuel and power purchased was higher than budget due to a write off of coal
14 inventory as a result of the Brandon Thermal Generating Station no longer being
15 operational as a coal powered generator. This is partially offset by lower
16 transmission charges due to redirecting transmission to lower cost nodes as well as
17 lower purchased volumes.

18

19 Appendices 4 and 5 provide the MHEB Quarterly Reports for the three months
20 ended June 30, 2018 and the six months ended September 30, 2018 respectively.

21

22 **2.3 2018/19 Financial Outlook**

23 As shown in Figure 2.4 below, Manitoba Hydro is projecting annual net income for
24 Electric Operations of \$51 million in the 2018/19 Financial Outlook compared to net
25 income of \$143 million projected in Exhibit 93. The 2018/19 Outlook incorporates
26 actual financial results and water flow conditions to September 30, 2018 and
27 assumes average water flow conditions and normal winter weather for the
28 remainder of the year. The 2018/19 Outlook was reviewed and approved by the
29 MHEB in late October for inclusion in this Application.

1 **Figure 2.4: 2018/19 Financial Outlook Compared to Exhibit 93 for Electric**
 2 **Operations**

MANITOBA HYDRO
STATEMENT OF INCOME
For the Year Ended March 31, 2019
(In Millions of Dollars)

| | 2018/19 OUTLOOK | EXHIBIT 93 | INCREASE (DECREASE) |
|--|--------------------|---------------------|------------------------|
| Revenues | | | |
| Domestic revenue | \$1 701 | \$1 675 | \$ 26 |
| BPIII Reserve Account | 14 | 3 | 11 |
| Extraprovincial | 392 | 469 | (77) |
| Other | 30 | 31 | (1) |
| | <u>2 137</u> | <u>2 178</u> | <u>(41)</u> |
| Expenses | | | |
| Operating and administrative | 501 | 501 | - |
| Net finance expense | 708 | 656 | (52) |
| Depreciation and amortization | 473 | 471 | (2) |
| Water rentals and assessments | 113 | 120 | 7 |
| Fuel and power purchased | 138 | 140 | 2 |
| Capital and other taxes | 142 | 145 | 3 |
| Other expenses | 78 | 109 | 31 |
| Corporate allocations | 8 | 8 | - |
| | <u>2 161</u> | <u>2 150</u> | <u>(11)</u> |
| Net income (loss) before net movement in regulatory balances | (24) | 27 | (52) |
| Net movement in regulatory balances | 69 | 115 | (46) |
| Net Income | <u>\$45</u> | <u>\$142</u> | <u>(\$98)</u> |
| Net income (loss) attributable to: | | | |
| Manitoba Hydro | \$51 | \$143 | (\$93) |
| Non-controlling interests | (6) | (1) | (5) |
| | <u>\$45</u> | <u>\$142</u> | <u>(\$98)</u> |

3

4

5 The net income in the 2018/19 Outlook is \$93 million lower compared to the net
 6 income from Exhibit 93 primarily due to lower net export revenues as well as an
 7 increase in financing costs partially offset by higher domestic revenue.

8

9 Domestic Revenue is \$26 million higher than Exhibit 93 due to weather impacts
 10 (warmer summer weather which increased air conditioning load and a cooler April
 11 and September which increased heating load) as well as increased revenues
 12 associated with the earlier in-service date of Bipole III.

1 The decrease in Extraprovincial Revenue is primarily a result of below average water
2 conditions impacting generation.

3

4 The increase of \$52 million in Net Finance Expense is primarily attributable to higher
5 forecasted interest rates. Subsequent to the filing of Exhibit 93 and during the
6 course of the 2017/18 & 2018/19 GRA, the Bank of Canada interest rates rose such
7 that the cost advantage to borrowing more shorter term maturities did not
8 materialize. The yield curve continued to flatten such that there is now only a
9 minimal difference between the all-in borrowing cost for a 5 year Province of
10 Manitoba bond and a 30 year Province of Manitoba bond. As such, Manitoba Hydro
11 reverted to a longer term borrowing strategy of targeting a 20 year weighted
12 average term to maturity ("WATM") for new borrowings as opposed to the 12 year
13 assumption in Exhibit 93. In addition, financing costs are higher due to the impacts
14 of Bipole III going into service earlier than planned.

15

16 The Outlook for Other Expenses is \$31 million lower compared to Exhibit 93, which
17 is offset in net movement (the majority of other expenses are removed from the
18 statement of income, deferred and subsequently amortized through net movement
19 in regulatory balances). The remaining variance in net movement is primarily due to
20 the annual amortization of the Conawapa deferral account which was not reflected
21 in Exhibit 93 but was endorsed by the PUB in Order 59/18.

22

23 **2.3.1 Water Conditions as of September 30, 2018**

24 The total volume of water in reservoir storage was approximately 10% below
25 average at the end of September. The water level on Lake Winnipeg, Manitoba
26 Hydro's largest reservoir, was about one foot below historic average for the end of
27 September period; this is approximately a 1 in 10 year low. This is in contrast to
28 September 2017 when the water level on Lake Winnipeg was close to the historic
29 average.

30

31 Following nine consecutive months of below average precipitation, water conditions
32 began to improve in September particularly over the Winnipeg River and Lake
33 Winnipeg local basins which were especially dry.

1 Manitoba Hydro expects water flows to be below average through the winter and
2 overall hydraulic generation to be below average. In addition to inflow uncertainty,
3 factors such as weather, export market prices and ice restrictions are drivers of
4 revenue uncertainty for the remainder of the year.

5
6 Additional information on hydraulic generation, water conditions and extra-
7 provincial energy exchange data is provided in Appendix 9.

8 9 **2.3.2 Business Operations Capital – Recommendations of the PUB**

10 At pages 110 and 111 of Order 59/18, the PUB concluded:

11
12 *The Board finds that Business Operations Capital spending can be*
13 *safely decreased by \$160 million, based on Manitoba Hydro's*
14 *evidence that it can defer \$160 million of spending in the Test Year.*

15 ...

16 *The Board recognizes that Order in Council 92/2017 does not give the*
17 *Board authority to direct Manitoba Hydro to amend its planned*
18 *Business Operations Capital spending. Rather the Board has factored*
19 *into its rate decision the reduction in Business Operations Capital of*
20 *\$160 million. Manitoba Hydro can decide whether to accept the*
21 *Board's findings and reduce its Test Year Business Operations Capital*
22 *spending, or to incur additional debt in order to maintain spending at*
23 *the proposed levels in CEF16.*

24
25 *The reduction in spending on Business Operations Capital in no way*
26 *diminishes Manitoba Hydro's responsibility and obligation to provide*
27 *for an ongoing safe and reliable supply of energy to its customers in*
28 *the most efficient and environmentally sensitive manner. The Board*
29 *expects that Manitoba Hydro will appropriately assess, plan and*
30 *prioritize Business Operations Capital spending in order to meet its*
31 *obligations in this regard.*

32
33 The 2018/19 Financial Outlook includes the investment of \$515 million for Business
34 Operations Capital and represents the Corporation's best estimate of the expenses

1 necessary to support the safe, sustainable and reliable operations in this period. To
2 ensure sustainable, safe and reliable operation of the Manitoba Hydro system to the
3 benefit of its customers, the projects identified in the 2018/19 Financial Outlook are
4 projects which are active and cannot be cancelled without a cost to the safe and
5 reliable services being provided. Manitoba Hydro will continue to assess active
6 projects on an on-going basis which may impact timing, investments may be
7 reduced accordingly.

8 9 **2.3.3 Demand Side Management Deferral (“DSM”) Account**

10 In accordance with the PUB’s direction in Orders 43/13 and 73/15, Manitoba Hydro
11 established DSM deferral accounts for the years 2012/13 through to 2016/17 to
12 capture the differences between planned and actual electric DSM spending. In
13 Directive 23 of Order 59/18, the PUB directed Manitoba Hydro to discontinue the
14 accounting practice of recognizing a DSM Deferral Account. As Order 59/18 was
15 issued in advance of Manitoba Hydro finalizing its financial statements for the year
16 ended March 31, 2018, for consistency with the PUB’s direction in Order 59/18,
17 Manitoba Hydro did not record the difference between its planned and actual DSM
18 spending for the 2017/18 fiscal year to the deferral account.

19
20 As of March 31, 2018, \$48.8 million had accrued to the DSM deferral account.
21 Manitoba Hydro’s 2018/19 Outlook assumes that the DSM deferred regulatory asset
22 and corresponding credit will be written-off as of March 31, 2019. There will be no
23 impact to net income as a result of the write-off as the deferred debit and credit
24 accounts will completely offset each other. Manitoba Hydro has made a similar
25 assumption with respect to its natural gas DSM Deferral Account, which will be
26 reviewed by the PUB at Centra Gas Manitoba Inc.’s 2019/20 General Rate
27 Application.

28 29 **2.3.4 Regulatory Deferrals and Amortizations**

30 Order 59/18 set out a number of directives for the following regulatory deferral
31 accounts and related amortization periods: :

- 32 • Directive 17 - Manitoba Hydro continue to use its existing Average Service
33 Life methodology for calculating depreciation rates for rate-setting purposes,
34 without reversion to Equal Life Group in the financial forecast and not

1 amortize the difference between Average Service Life and Equal Life Group
2 for rate setting.

- 3 • Directive 19 - Manitoba Hydro to recognize the costs pertaining to the
4 construction of the Conawapa Generating Station as a regulatory asset and
5 amortize over a 30 year period.
- 6 • Directive 21 - Manitoba Hydro continue the annual deferral of \$20 million in
7 ineligible overhead. The regulatory account balance is to be amortized over
8 34 years.
- 9 • Directive 22 - Manitoba Hydro to begin recognizing the Bipole III Deferral
10 Account in domestic revenues following the in-service date of Bipole III,
11 amortized over a five-year period.

12
13 Manitoba Hydro has reflected the above-noted directives in the 2018/19 Financial
14 Outlook and in the planning assumptions underlying the 2019/20 Interim Budget.

15 16 **2.3.5 Demand Side Management Spending**

17 Order 59/18 recommended that Manitoba Hydro reduce its demand side
18 management programming and review it for cost effectiveness and cease or modify
19 spending on programs that are no longer cost effective, except for programming
20 targeted at lower-income and First Nations on-reserve customers.

21
22 In 2017, the Province of Manitoba tabled legislation, *The Efficiency Manitoba Act*
23 (*"The Efficiency Act"*) to create a new Crown Corporation to be known as Efficiency
24 Manitoba which has a mandate to provide Demand Side Management
25 programming. On January 24, 2018, excepting a few sections, *The Efficiency Act* was
26 proclaimed and is now in effect. While Efficiency Manitoba is still in its formative
27 stage, Manitoba Hydro continues to deliver Demand Side Management programs to
28 meet the needs of Manitoba customers until the full transition occurs to Efficiency
29 Manitoba. Until such time as the transition occurs and *The Energy Savings Act* has
30 been repealed, the obligations of Manitoba Hydro to consult with the Minister to
31 prepare a yearly energy efficiency plan remain in effect.

32
33 Manitoba Hydro's 2017/18 DSM plan filed with the PUB in response to PUB MFR 61
34 during the 2017/18 & 2018/19 GRA was the plan that Manitoba Hydro prepared in
35

1 consultation with the Minister appointed to administer *The Energy Savings Act*. As
2 the targets, programming and spending on energy efficiency and demand side
3 management detailed in the reports filed with the PUB are set in consultation with
4 the Government, these targets and spending cannot be unilaterally adjusted by
5 Manitoba Hydro. As the 2018/19 Financial Outlook incorporates targets and
6 spending assumptions set in consultation with Government, the PUB's
7 recommendation to reduce DSM spending from its revenue requirement as a result
8 of the new, lower marginal value has not been incorporated into the 2018/19
9 Financial Outlook.

10 11 **2.4 2019/20 Interim Budget and Planning Assumptions**

12 Manitoba Hydro's projected financial results and key financial and economic inputs
13 underlying the 2019/20 Interim Budget are discussed in the following Sections.

14 15 **2.4.1 2019/20 Interim Budget**

16 Manitoba Hydro is projecting an annual net income for Electric Operations of
17 \$31 million for the 2019/20 fiscal year, inclusive of the 3.5% proposed rate increase,
18 compared to net income of \$61 million in Exhibit 93, as shown in the following
19 Figure. The 2019/20 Interim Budget shown below in Figure 2.5 assumes average
20 revenues and costs based on Manitoba Hydro's long term record of water and
21 normal weather for the year.

1

2

Figure 2.5: Comparison of 2019/20 Interim Budget to Exhibit 93

| ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT (In Millions of Dollars) | | | |
|---|---------------------------|-------------------|---------------------------------|
| | Interim Budget | Exhibit 93 | Increase/ (Decrease) |
| For the year ended March 31 | | | |
| 2020 | | | |
| REVENUES | | | |
| Domestic Revenue | 1 737 | 1 720 | 17 |
| BPIII Reserve Account | 78 | 79 | (1) |
| Extraprovincial | 411 | 420 | (9) |
| Other | 29 | 31 | (3) |
| | <u>2 255</u> | <u>2 251</u> | <u>4</u> |
| EXPENSES | | | |
| Operating and Administrative | 511 | 511 | (0) |
| Net Finance Expense | 765 | 721 | 44 |
| Depreciation and Amortization | 508 | 515 | (7) |
| Water Rentals and Assessments | 111 | 110 | 1 |
| Fuel and Power Purchased | 160 | 158 | 2 |
| Capital and Other Taxes | 150 | 154 | (4) |
| Other Expenses | 111 | 481 | (371) |
| Corporate Allocation | 8 | 8 | (0) |
| | <u>2 325</u> | <u>2 660</u> | <u>(335)</u> |
| Net Income before Net Movement in Reg. Deferral | (70) | (409) | 339 |
| Net Movement in Regulatory Deferral | 103 | 473 | (370) |
| Net Income | <u>33</u> | <u>64</u> | <u>(30)</u> |
| Net Income Attributable to: | | | |
| Manitoba Hydro | 31 | 61 | (30) |
| Non-controlling Interest | 2 | 2 | (1) |
| | <u>33</u> | <u>64</u> | <u>(30)</u> |
| Percent Increase | 3.50% | 3.57% | |

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The decrease in net income of \$30 million is primarily attributable to higher finance expense partially offset by an increase in domestic revenue.

1 The increase in domestic revenue of \$17 million reflects higher than anticipated load
2 requirements in response to the PUB-approved 3.36% electricity rate increase in
3 2017/18 and lower forecast savings arising from program based DSM initiatives.

4 The increase of \$44 million in net finance expense is primarily attributable to higher
5 than forecasted interest rates. Exhibit 93 filed in the 2017/18 & 2018/19 GRA
6 included savings of approximately \$500 million due to lowering the WATM of new
7 debt issuance from 20 years to 12 years in order to take advantage of borrowing
8 rates in the short end of the yield curve. As discussed in Section 2.3, since Exhibit 93
9 was filed, the Bank of Canada has continued to raise interest rates. While yields
10 have risen across all terms since the last forecasts were filed, the yield curve
11 continued to flatten throughout 2018 and remains exceptionally flat. While the
12 shape of the yield curve and interest rates themselves are subject to further change,
13 the savings opportunity associated with shorter term borrowings continues to be
14 substantially compromised.

15
16 The significant reduction in other expenses is offset in net movement and reflects
17 the March 31, 2018 transfer of the \$379 million construction in progress balance for
18 the Conawapa Generating Station project compared to the planning assumption of
19 April 1, 2019 in Exhibit 93.

20 21 **2.4.2 2019/20 Planning Assumptions**

22 The following provides a summary of the key financial and economic inputs
23 underlying the 2019/20 Interim Budget including the Electric load forecast, forecast
24 interest and foreign exchange rates, export prices and water flow conditions as well
25 as assumptions with respect to Regulatory Deferrals.

26 27 2019/20 General Consumer Sales (GW.h)

28 General Consumer Sales includes the energy supplied to all of Manitoba Hydro's
29 domestic customers. General Consumer Sales in the 2019/20 Interim Budget reflects
30 the 2017 Electric Load Forecast adjusted for actual consumption experienced in
31 2017/18 and is compared to the 2017 Electric Load Forecast assumed in Exhibit 93.
32 Manitoba Hydro is presently preparing the 2018 Electric Load Forecast which will be
33 used in the preparation of MH19 and will be filed at the next General Rate

1 Application in late 2019. Planned additional savings are incorporated in the forecast
2 of domestic revenue separately from the Load Forecast.

3

4 The future program based DSM savings incorporated in the 2019/20 Interim Budget
5 are based on the 15-Year DSM Plan Supplement Report filed in Appendix 7.2 of the
6 2017/18 & 2018/19 GRA adjusted for actual DSM savings achieved in 2017/18 and
7 the carry-forward effects of the changes made to the 2018/19 one-year DSM plan
8 prepared in consultation with the Manitoba government. Manitoba Hydro is
9 presently working in consultation with the Manitoba government to prepare the
10 2019/20 one-year DSM plan which will be incorporated into MH19 and filed as part
11 of the next General Rate Application in late 2019. The 2019/20 DSM plan will
12 incorporate the direction provided by Government.

13

14 Figure 2.6 below compares the forecast of General Consumer Sales between the
15 Interim Budget and Exhibit 93.

16

17

Figure 2.6: Comparison of General Consumer Sales Volumes (GW.h)

| GW.h | 2019/20 Interim Budget | Exhibit 93 | Increase/ (Decrease) |
|-------------------------|---------------------------------------|-------------------|---------------------------------|
| Residential | 7,875 | 7,835 | 40 |
| General Service | 15,074 | 14,984 | 90 |
| Area & Roadway Lighting | 92 | 92 | 0 |
| Sub-Total | 23,041 | 22,911 | 130 |
| Planned DSM Savings | (834) | (933) | 99 |
| Total | 22,207 | 21,977 | 230 |

18

19 The actual domestic electric rate increase of 3.36% effective August 1, 2017 as
20 opposed to the planned rate increase of 7.9%, which underpins the load forecast
21 assumed in Exhibit 93, impacts the elasticity effect of prices such that load is
22 expected to increase in 2019/20 for electricity in the residential sector by 40 GW.h
23 and in the general service sector by 90 GW.h. The 99 GW.h decrease to the planned
24 DSM savings are due to delays to the implementation of customer sited self-

1 generation systems and the removal of the Fuel Choice initiative and Conservation
2 Rates from the DSM plan.

3 2019/20 Interest Rates & Exchange Rates

4 Figure 2.7 below compares the interest rate and exchange rate assumptions
5 underpinning the 2019/20 Interim Budget and Exhibit 93. The forecasted 20-year
6 average interest rate listed under Exhibit 93 has been included for comparison
7 purposes only as the 12-year average rate was used to derive the finance expense
8 related to the issuances of new Canadian debt and is no longer being used in the
9 2019/20 Interim Budget.
10

11 **Figure 2.7: Comparison of Interest Rates & Exchange Rates**

| | 2019/20 Interim Budget Winter 2017 | Exhibit 93 Spring 2017 |
|------------------------------|---|-----------------------------------|
| MH Short Term Interest Rate* | 2.20% | 1.55% |
| MH Long Term Interest Rate* | | |
| 12 Year WATM | N/A | 3.45% |
| 20 Year WATM | 4.00% | 3.90% |
| | | |
| U.S. – Cdn Exchange Rate | 1.26 | 1.29 |

12
13 * Not including the 1% Provincial Guarantee Fee

14
15 Forecast interest rates are trending at about the same level as shown in Figure 2.7 .
16 Section 2.4.4 provides a sensitivity analysis of the 2019/20 Interim Budget assuming
17 interest rates at 1% higher or lower than the rates reflected in Figure 2.7 .

18
19 Although Figure 2.7 shows a slight strengthening of the Canadian dollar since
20 Manitoba Hydro's 2017/18 & 2018/19 GRA, net income is generally not sensitive to
21 changes in the U.S. exchange rate due to Manitoba Hydro's hedging policies and
22 practices.

1 2019/20 Net Interchange Revenues and Generation Costs

2 The 2019/20 Interim Budget reflects Manitoba Hydro's reference electricity export
3 price forecast and a simulation of the full historic flow record to derive the average
4 net interchange revenues and generation costs. The reference electricity export
5 prices from the 2017 Energy Price Forecast (Fall Update) for 2019/20 were
6 approximately 6% to 7% lower than the prices from the 2017 Energy Price Forecast
7 (Spring) assumed in Exhibit 93 and filed in the 2017/18 & 2018/19 GRA.

8

9 Hydraulic generation in 2019/20 is primarily driven by future precipitation which is
10 impossible to forecast accurately beyond a one week period. As such, Manitoba
11 Hydro uses its full historic flow record to project future net interchange revenues
12 and generation costs beyond the 2018/19 fiscal year. Section 2.4.4 provides an
13 analysis of the sensitivity of the 2019/20 Interim Budget to both electricity export
14 prices and water flow conditions.

15

16 Manitoba Hydro has relatively small levels of unsold dependable energy and
17 capacity in 2019/20. In forecasting the net interchange revenues and generation for
18 both the 2019/20 Interim Budget and Exhibit 93, the Corporation has not projected
19 incremental revenues associated with surplus dependable capacity. This is
20 consistent with the PUB's finding on page 128 of Order 59/18:

21

22 *Manitoba Hydro's change of methodology - to remove capacity values*
23 *and dependability premiums from the substantial surplus dependable*
24 *energy - **is reasonable in the near term**, but is not reasonable in the*
25 *long term as it biases the export forecast to be low and is not*
26 *consistent with third party forecasters nor with the needs in the*
27 *Midcontinent Independent System Operator and Minnesota markets.*
28 *(emphasis added)*

29

30 Regulatory Deferral Accounts and Accounting Assumptions

31 Manitoba Hydro's 2019/20 Interim Budget incorporates the PUB's direction in Order
32 59/18 for the regulatory deferral accounts listed in Figure 2.8, compared to Exhibit
33 93.

1 **Figure 2.8: Accounting Treatment for Regulatory Deferral Accounts**

| | 2019/20 Interim Budget | Exhibit 93 |
|--|-----------------------------------|-------------------|
| Ineligible Overhead | | |
| Annual Provision | \$20 million | \$20 million |
| Amortization Period | 34 years | 30 years |
| Deferral | Indefinite | Indefinite |
| Equal Life Group (ELG)/Average Service Life (ASL) | | |
| Amortization Period | None | None |
| Deferral | Indefinite | Indefinite |
| Costs Related to Conawapa | | |
| Deferral Amount | \$379 million | \$379 million |
| Recorded in the Regulatory Deferral Account | Mar 31/18 | Apr 1/19 |
| Amortization Period | 30 year | 30 year |

2

3

2.4.3 2019/20 Interim Budget with and without 3.5% Revenue Increase

4

Manitoba Hydro is requesting approval of a 3.5% rate increase to be effective April

5

1, 2019. This increase is projected to generate additional revenues of approximately

6

\$59 million and would result in a modest net income of \$31 million in 2019/20.

7

Absent the proposed rate increase for 2019/20, Manitoba Hydro is projecting a net

8

loss of \$28 million from Electric operations. Figure 2.9 compares the 2019/20

9

Interim Budget with and without the 3.5% revenue increase.

1 **Figure 2.9: 2019/20 Interim Budget with and without the 3.5% Revenue Increase**

| ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT (In Millions of Dollars) | | | |
|---|---------------------------------------|---------------------------------------|---------------------------------|
| | Interim Budget (3.50%) | Interim Budget (0.00%) | Increase/ (Decrease) |
| For the year ended March 31 | | | |
| 2020 | | | |
| REVENUES | | | |
| Domestic Revenue | 1 737 | 1 678 | 59 |
| BPIII Reserve Account | 78 | 78 | - |
| Extraprovincial | 411 | 411 | - |
| Other | 29 | 29 | - |
| | <u>2 255</u> | <u>2 196</u> | <u>59</u> |
| EXPENSES | | | |
| Operating and Administrative | 511 | 511 | - |
| Net Finance Expense | 765 | 765 | (1) |
| Depreciation and Amortization | 508 | 508 | - |
| Water Rentals and Assessments | 111 | 111 | - |
| Fuel and Power Purchased | 160 | 160 | - |
| Capital and Other Taxes | 150 | 150 | 0 |
| Other Expenses | 111 | 111 | - |
| Corporate Allocation | 8 | 8 | - |
| | <u>2 325</u> | <u>2 325</u> | <u>(1)</u> |
| Net Income before Net Movement in Reg. Deferral | (70) | (129) | 59 |
| Net Movement in Regulatory Deferral | 103 | 103 | - |
| Net Income | <u>33</u> | <u>(26)</u> | <u>59</u> |
| Net Income Attributable to: | | | |
| Manitoba Hydro | 31 | (28) | 59 |
| Non-controlling Interest | 2 | 2 | 0 |
| | <u>33</u> | <u>(26)</u> | <u>59</u> |
| Percent Increase | 3.50% | 0.00% | |

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2.4.4 2019/20 Sensitivity Analysis

This section provides an indication of the impact of changes in water flow conditions, weather, interest rates and export prices on the 2019/20 Interim Budget net income of \$31 million.

1 The net income or loss resulting under each of the key changes in assumptions is
 2 shown below in Figure 2.10. Figure 2.10 also shows that the likelihood of a financial
 3 loss is greater without the proposed 3.5% rate increase under the range of
 4 sensitivities considered.

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 6
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Figure 2.10: Key Variable Sensitivity Impacts on 2019/20 Interim Budget Net Income/ (Loss) With and Without the 3.5% Proposed Rate Increase

| | Projected Net Income/(Loss) | |
|---|------------------------------------|-------------------------|
| | 3.5% Proposed Rate Increase | No Rate Increase |
| Interim 2019/20 Budget | \$31 M | (\$28) M |
| Low Water Flow (10 th percentile net interchange revenues and generation costs) | (\$169) M | (\$229) M |
| High Water Flow (90 th percentile net interchange revenues and generation costs) | \$194 M | \$134 M |
| Colder than normal winter weather | \$63 M | \$4 M |
| Warmer than normal winter weather | (\$0) M | (\$60) M |
| + 1% Interest Rates | \$16 M | (\$43) M |
| - 1% Interest Rates | \$45 M | (\$14) M |
| Low Export Price Case | (\$2) M | (\$61) M |
| High Export Price Case | \$49 M | (\$10) M |

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The 2019/20 Interim Budget assumes average net interchange revenues and generation costs for the historic water flow record. The historic water flow record has a great deal of variability from the highest to the lowest flow which creates a dramatic range of the possible net interchange revenues and generation costs that could occur in a given year. The impact of low flows are greater than high flows due to the requirements for thermally generated and imported energy in low flow years and spilling of water beyond system constraints in high flow years. Due to this asymmetry, the average revenues and costs of the historic water flow record is the equivalent to approximately the 40th percentile or P40 and not the median or P50. To demonstrate the range of possible net interchange revenues and generation costs, the P10 and P90 sensitivities have been provided. Figure 2.10 shows that the

1 projected income or loss for 2019/20 can vary by more than \$360 million due to
2 water flow conditions.

3
4 The 2019/20 Interim Budget assumes a weather adjusted forecast for General
5 Consumer Sales. A record cold or warm winter will increase or decrease Manitoba's
6 2019/20 energy consumption by approximately 4%. An increase or decrease to
7 domestic revenue due to a colder or warmer than normal winter will be partially
8 offset by an associated decrease or increase to net interchange revenues and
9 generation costs. Figure 2.10 shows that projected net income for 2019/20 can vary
10 by more than \$60 million due to colder or warmer winter weather.

11
12 Manitoba Hydro is planning to raise approximately \$2.4 billion in new debt issuances
13 in 2019/20. The interest rates affixed to new debt issuances have a lasting effect
14 due to the perpetual nature of long-term debt (20-year WATM) which makes this a
15 different risk than drought. The interest rate sensitivity demonstrates the financial
16 impacts of interest rates one percent higher or lower than forecast on short-term,
17 long-term and floating rate debt, as well as sinking funds. Figure 2.10 shows that
18 the 2019/20 Interim Budget net income could vary by approximately \$30 million
19 with interest rates 1% above or below that forecasted.

20
21 The 2019/20 Interim Budget reflects Manitoba Hydro's reference electricity export
22 price forecast derived from several independent price forecasts for the MISO region.
23 There is uncertainty in each of these pricing factors, and particular uncertainty as to
24 how future legislative and regulatory requirements may evolve. As such, Manitoba
25 Hydro has developed high and low electricity export price forecasts as sensitivities
26 around the reference case using information prepared by the U.S. Energy
27 Information Administration (EIA). Figure 2.10 shows that projected net income from
28 2019/20 can vary by \$50 million if export prices vary from the forecast reference
29 export prices assumed in 2019/20 Interim Budget.

30 31 **2.4.5 Information on Other Cash Payments**

32 Directive 10 of Order 59/18 requested Manitoba Hydro to provide information
33 about the Other Cash Payments included in its Cash Flow Statement. Manitoba
34 Hydro has provided additional details on the Cash Flow Statement included in

Appendix 1. In addition to the further line item breakdown provided on the Cash Flow Statement, the “Other” category balance of \$11 million in 2017/18 under Financing Activities represents the advance to Centra which is eliminated upon consolidation. The “Other” category of \$3 million under Investing Activities is primarily investments in assets held for sale as well as payments associated with various obligations.

2.4.6 Operating & Administrative Costs

Consistent with Exhibit 93, Manitoba Hydro’s preliminary O&A target included in the 2019/20 Interim Budget is \$511 million reflecting an inflationary increase of 2% over the \$501 million of O&A expenses included in the 2018/19 Financial Outlook. The 2% increase is aligned with Manitoba CPI. Manitoba Hydro is committed to achieving this level of O&A expenditure and is in the process of developing detailed budgets for 2019/20 to support this commitment.

As discussed in the 2017/18 & 2018/19 GRA, the implementation of a significant work force reduction strategy resulted in cost reductions in both 2017/18 and 2018/19. As shown in Figure 2.11, O&A costs were \$19 million lower in 2017/18 than the prior year and are projected to be further reduced by \$16 million in 2018/19.

Figure 2.11: Year over Year Comparison of O&A Costs

| <i>(in millions of dollars)</i> | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---------------------------------|---------------|---------------|---------------|-----------------|
| | <u>Actual</u> | <u>Actual</u> | <u>Budget</u> | <u>Forecast</u> |
| O&A Expenditures | \$536 | \$517 | \$501 | \$511 |
| Year over Year Inc / (Dec) | | -3.5% | -3.1% | 2.0% |

The year over year decreases in 2017/18 and 2018/19 are primarily due to the impact of the Voluntary Departure Program (“VDP”) which was launched in April 2017 as a means to accomplish the Corporation’s workforce reduction target of 900 employees over a 3 year period ending March 31, 2020. A total of 821 employees were approved under the VDP with the majority of staff departing by March 2018. Manitoba Hydro’s headcount as of April 2017, excluding summer students and

1 seasonal workers, was approximately 6150. The Corporation's projected headcount
2 to March 2020 is approximately 5250.

3
4 Appendix 8 provides Manitoba Hydro's O&A Expenses Quarterly Report for the year
5 ending March 31, 2018 as well as the quarters ending June 30th and September 30th
6 2018, filed in response to Directive 14 of Order 73/15. O&A performance to the end
7 of September 2018 is closely aligned with budget. The September 30, 2018 report
8 provides information for the 2018/19 annual budget by cost element.

9 10 **2.4.7 Impacts of VDP on Pension**

11 At March 31, 2018 Manitoba Hydro recognized a \$30 million actuarial loss in Other
12 Comprehensive Income (OCI) related to the VDP departures based on a December
13 2017 valuation of the pension liability. The loss is primarily a result of deviations in
14 pension valuation assumptions. The pension valuation assumes age 59 as the
15 average age of retirement and that pensioners will take a monthly pension payment.
16 Individuals retiring as part of the VDP who were 55-58 years of age at retirement
17 had a negative impact on the pension valuation as did individuals who withdrew the
18 commuted value of their pension. Manitoba Hydro's actuary (Ellement Consulting)
19 estimates that annual pension payments will increase by approximately \$1 million
20 per year once all the VDP individuals have retired and the current service rate is
21 expected to decrease by 5% by 2019. Additional actuarial losses on the pension
22 obligation of approximately \$30 million and \$7 million are projected for March 2019
23 and March 2020 respectively using fiscal 2017/18 VDP valuation impacts as a proxy.

24 25 **2.5 Capital Expenditure Forecast (CEF18)**

26 Appendix 6 contains a copy of Manitoba Hydro's Capital Expenditure Forecast
27 (CEF18) from 2018/19 to 2027/28. CEF18 identifies all projects greater than \$1
28 million in response to Directive 15 of Order 73/15. Projects greater than \$15 million
29 appear in the body of the report and projects less than \$15 million are summarized
30 in Appendix II of the report.

31
32 Figure 2.12 provides a comparison of CEF18 to CEF16 for Electric operations, which
33 shows a decrease of \$303.6 million over the 10 year period to 2027/28.

1 **Figure 2.12: Comparison of CEF18 to CEF16**

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2019-2023 5 Year Total | 2019-2028 10 Year Total |
|--------------|------------|------------|------------|------------|----------|------------------------------|-------------------------------|
| CEF16 | \$ 2,742.1 | \$ 1,884.2 | \$ 1,666.5 | \$ 1,332.5 | \$ 945.2 | \$ 8,570.5 | \$ 12,122.4 |
| Inc (Dec) | (72.1) | (65.1) | (97.3) | 64.2 | (4.4) | (174.8) | (303.6) |
| CEF18 | \$ 2,670.0 | \$ 1,819.1 | \$ 1,569.2 | \$ 1,396.7 | \$ 940.8 | \$ 8,395.7 | \$ 11,818.8 |

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Figure 2.13 provides a summary of the changes of \$303.6 million over the 10 year period ending 2027/28.

Figure 2.13: Summary of CEF18 Forecast Changes

| (\$ Millions) | 10 Year Increase (Decrease) |
|--|-----------------------------------|
| MAJOR NEW GENERATION & TRANSMISSION | (266.9) |
| Keeyask - Generation | (133.8) |
| Bipole III Reliability | 21.9 |
| Manitoba-Minnesota Transmission Project | 53.6 |
| Birtle Transmission | 4.4 |
| Other Major New Generation & Transmission | (212.9) |
| Electric Business Operations Capital | 0.2 |
| Generation System | (65.3) |
| Transmission System | (123.7) |
| Distribution System | 175.5 |
| Corporate Infrastructure | 6.4 |
| Unallocated Target Adjustment | 7.2 |
| Electric DSM Program | (36.9) |
| ELECTRIC CAPITAL EXPENDITURE & DSM FORECAST TOTAL | (303.6) |

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Major New Generation and Transmission (“MNGT”) capital expenditures over the 10-year period are forecast to be \$5,391.2 million. Compared to CEF16, this is a reduction of \$266.9 million primarily associated with Other MNGT projects included in CEF16. Several of these projects were completed in 2017/18 including: Wuskwatim–Generation, Pointe du Bois Spillway Replacement, Kelsey Improvements & Upgrades, Riel 230/500kV Station, Kettle Improvements & Upgrades and Pointe du Bois Transmission. The Grand Rapids Fish Hatchery Upgrade & Expansion project has been reclassified to Business Operations Capital

1 and all future investment requirements related to the Gillam Redevelopment and
 2 Expansion Project will also be included as Business Operations Capital items. In
 3 addition, the Keeyask – Generation project cash flow reduced by \$134 million over
 4 the 10 year period, however, the total project forecast remains unchanged at \$8.7
 5 billion. The Business Operations Capital (BOC) forecast did not materially change
 6 compared to CEF16.

7

8 **2.5.1 Summary of MNGT Projects**

9 A summary of capital expenditure requirements for each project within MNGT can
 10 be found in CEF18 on pages 10 through 12. Figure 2.14 summarizes by investment
 11 category the total project cost and forecast cash flow for each of the 4 projects.
 12

13

Figure 2.14: Total Project Costs for Major New Generation & Transmission

| MAJOR NEW GENERATION & TRANSMISSION (\$ Millions) | Total Project Cost | 2019 | 2020 | 2021 | 2022 | 2023 | 2019-2023 5 Year Total | 2019-2028 10 Year Total |
|--|--------------------------|----------------|----------------|--------------|--------------|--------------|------------------------------|-------------------------------|
| Capacity & Growth | | | | | | | | |
| New Energy | | | | | | | | |
| Keeyask - Generation | 8,726.0 | 1,265.4 | 1,016.6 | 846.9 | 763.9 | 311.2 | 4,204.0 | 4,241.3 |
| System Load Capacity | | | | | | | | |
| Bipole III - Converter Stations | 2,780.7 | 345.7 | 23.1 | 0.2 | - | - | 369.0 | 369.0 |
| Bipole III - Transmission Line | 1,957.6 | 290.2 | 10.2 | 2.4 | - | - | 302.8 | 302.8 |
| Bipole III - Collector Lines | 246.6 | 25.6 | - | - | - | - | 25.6 | 25.6 |
| Bipole III - Community Development Initiative | 56.6 | 1.1 | - | - | - | - | 1.1 | 1.1 |
| System Load Capacity Total | 5,041.5 | 662.6 | 33.4 | 2.6 | - | - | 698.5 | 698.5 |
| Grid Interconnections - Import/ Export | | | | | | | | |
| Manitoba-Minnesota Transmission Project | 451.7 | 162.0 | 144.4 | 91.2 | - | - | 397.6 | 397.6 |
| Birtle Transmission | 56.5 | 2.5 | 20.0 | 18.2 | 13.0 | - | 53.8 | 53.8 |
| Grid Interconnections - Import/ Export Total | 508.2 | 164.5 | 164.5 | 109.3 | 13.1 | - | 451.4 | 451.4 |
| Capacity & Growth Total | 14,275.7 | 2,092.5 | 1,214.4 | 958.9 | 777.0 | 311.2 | 5,353.9 | 5,391.2 |

14

15

16 Directives 15 and 16 of Order 59/18 directed Manitoba Hydro to consider
 17 implementing recommendations made by the IEC's with respect to Keeyask, MMTP
 18 and GNTL, as well as filing detailed quarterly reports for all Major New Generation
 19 and Transmission projects currently under development. An update with respect to
 20 each of these directives is provided below.

21

22 **Directive 15 of Order 59/18**

23 Manitoba Hydro has implemented certain recommendations, and is in the process of
 24 considering implementation of other recommendations made by the IECs in the
 25 2017/18 & 2018/19 GRA for those projects that are within its control in order to
 26 properly assess any projected cost savings and schedule impacts.

1 With respect to the Manitoba Minnesota Transmission Project, recommendations
2 were mainly focused on schedule modifications such as breaking apart long duration
3 activities and removing constraints. These recommendations have been addressed
4 and a basis of estimate will be prepared when details of contractor pricing are
5 received. Currently however, it does not appear that these changes have had a
6 measurable impact to the project budget.

7

8 With respect to the Keeyask project, the recommendations proposed by MGF
9 Project Services were primarily focused on improving outcomes of the General Civil
10 Works Contractor ("GCC") with the goal of achieving the control budget of \$8.7
11 billion and the control schedule first unit In-Service Date of August 2021.

12

13 In January 2018, during the 2017/18 & 2018/19 GRA, Manitoba Hydro laid out its
14 approach on the closer collaboration between Manitoba Hydro and the GCC to
15 improve performance and achieve the plan for the 2018 construction season and
16 ultimately deliver the project within the revised control budget of \$8.7B and related
17 schedule. The intended approach aligned with the closer collaboration on execution
18 planning and oversight of the GCC recommended by MGF as well as working with
19 the GCC to develop an achievable plan in 2018 based on production experienced to
20 date. Manitoba Hydro has increased the pressure on the GCC to perform, and has
21 collaborated wherever possible to stimulate greater productivity.

22

23 By the end of November 2018, the GCC exceeded the concrete production goal of
24 105,000 m3 for the year representing a year-over-year improvement of more than
25 20% over last year's production. In total, more than 83% of the required volume of
26 concrete to build the Keeyask Generating Station has now been placed. The GCC
27 also met the planned quantities for earthworks for the year, achieving roughly
28 double the volumes of production from last year. In addition to improving
29 production rates, the work completed in 2018 was also completed more efficiently.
30 Though significant project risks remain, the progress to date has been positive and
31 the necessary improvements to achieve the control budget of \$8.7B are being
32 realized and the first unit In-Service Date (ISD) is currently trending ahead of the
33 control schedule.

1 **Directive 16 of Order 59/18**

2 Manitoba Hydro has provided detailed quarterly reports on the following MNGT
3 capital projects:

- 4 • Keeyask Generating Station – a 7 unit, 695-megawatt hydroelectric
5 generating station under construction at Gull Rapids on the low Nelson River
6 in northern Manitoba.
- 7 • Bipole III Transmission Reliability Project – a high voltage direct current
8 transmission line that delivers renewable energy to southern Manitoba.
9 Bipole III was brought into service on July 4, 2018.
- 10 • Manitoba–Minnesota Transmission Project – a new 500kV AC Transmission
11 Line between Winnipeg and Duluth, Minnesota which will connect to the
12 Minnesota Power’s proposed Great Northern Transmission Line.
- 13 • Birtle Transmission Project – a new 230kV Transmission Line between Birtle,
14 Manitoba and Tantallon, Saskatchewan.

15

16 Please see Appendix 7 for copies of Manitoba Hydro’s Public MNGT Capital Reports
17 for the quarter ended March 31, 2018, and the quarters ended June 30, 2018 and
18 September 30, 2018.

19

20 **3.0 PROPOSED RATE CHANGES & CUSTOMER IMPACTS BY CLASS**

21

22 Manitoba Hydro’s electric rates were last adjusted effective June 1, 2018 to reflect
23 the 3.6% rate increase approved by the PUB in Order 59/18. Pursuant to Order
24 59/18, the rates that came into effect on June 1, 2018 reflected the following rate
25 design considerations:

26

- 27 • the creation of a First Nation On Reserve Residential customer class, with no
28 increase from August 1, 2017 rates;
- 29 • the application of no rate increase from August 1, 2017 rates to Residential
30 Diesel class customers, and,
- 31 • the adjustment of class revenues to commence migration of customer
32 classes toward the Zone of Reasonableness (“ZOR”) of 95% to 105% over a
33 ten year period.

1 Manitoba Hydro filed an Application to Review and Vary some of the directives in
2 Order 59/18 including the directives related to the creation of a First Nation on
3 Reserve Residential Customer Class. In its Order 90/18, dated July 13, 2018, the PUB
4 denied Manitoba Hydro's application to Review and Vary these directives. On August
5 10, 2018, Manitoba Hydro filed a Motion with the Court of Appeal seeking Leave to
6 Appeal portions of PUB Orders 59/18 and 90/18 with respect to the creation of a
7 new customer class for First Nation on Reserve Customers. As of the filing of this
8 Application, these issues remain before the Court of Appeal.

9
10 As part of its 2019/20 one-year electric rate application, Manitoba Hydro is
11 requesting approval of a 3.5% rate increase, effective April 1, 2019, to be applied
12 equally, across all customer classes.

13
14 In Order 59/18 the PUB directed for the 2018/19 test year rate, that Manitoba Hydro
15 is to assume a 10-year timeframe to move all classes within the zone of
16 reasonableness. The PUB further stated at page 199 of Order 59/18 that it would
17 *"...examine the Revenue to Cost Coverage ratios arising from the Prospective Cost of*
18 *Service Study filed with the next GRA and will consider adjustment to the*
19 *differentiation of rates as necessary, including to consider the impact of Bipole III*
20 *entering service".*

21
22 Manitoba Hydro intends to continue the migration of customer classes into the ZOR
23 in its next full General Rate Application, anticipated to be filed in late 2019, based on
24 the results of its next Prospective Cost of Service Study ("PCOSS") to be developed
25 following approval by the MHEB of a new Integrated Financial Forecast. The next
26 PCOSS will reflect Bipole III coming into service. As this is anticipated to have a
27 significant impact on customer class costs, pausing further differentiation until
28 Manitoba Hydro can assess which classes may remain outside the ZOR once the
29 impacts of Bipole III have been reflected will limit potential over-corrections that
30 may be unnecessary following Bipole III coming into service. The across-the-board
31 increase proposed as part of this Application will not negatively impact the
32 migration of class revenues that has been achieved to date following the
33 implementation of differentiated rates approved by the PUB in Order 59/18.

1 In consideration of this one-year electric rate application and in absence of an
 2 updated PCOSS, Manitoba Hydro is proposing to apply the increase to all
 3 components of the rates (monthly basic charges, energy charges and demand
 4 charges) on an across-the-board basis for all customer classes, with the exception of
 5 Diesel General Service. For Diesel General Service customers Manitoba Hydro is
 6 proposing to increase the grid portion of the rate (Basic Charge and first 2,000 kWh
 7 per month for non-government customers) by 3.5% with the non-grid portion of the
 8 rate remaining unchanged.

9

10 Until the Court of Appeal rules on the issue of the creation of a First Nations On-
 11 Reserve Residential customer class, Manitoba Hydro proposes to apply the same
 12 rate increase to all residential customers (including the First Nations On-Reserve
 13 Residential and Diesel Residential customers) for the 2019/20 fiscal year.

14

15 The proposed 3.5% rate increase applied on an across-the-board basis generates
 16 additional revenue of \$59 million for fiscal 2019/20.

17

18 On a class by class basis, the proposed increase in revenues is shown in Figure 3.1
 19 below.

20

Figure 3.1: Additional Revenues by Customer Class

22

| Customer Class | 2019/20 Additional \$(000s) |
|---------------------------------|--------------------------------|
| Residential | 24,800 |
| General Service (GS) Small* | 11,900 |
| GS Medium | 7,400 |
| GS Large | 13,600 |
| Area & Roadway Lighting | 800 |
| Miscellaneous | 200 |
| Total General Consumers Revenue | 58,800 |

23

*includes revenues from General Service customers in Diesel
 Communities

24

1 A Proof of Revenue for the 2019/20 test year depicting the total revenue increase by
 2 customer class is provided in Appendix 10. Rate Schedules for proposed rates
 3 effective April 1, 2019 are provided in Appendix 11 and Bill Comparisons between
 4 current June 1, 2018 rates and proposed April 1, 2019 rates are provided in
 5 Appendix 12.

6

7 **3.1 Rate Design and Cost of Service Directives**

8 Order 59/18 set out a number of directives related to Manitoba Hydro’s cost of
 9 service study and rate structures.

10

11 **Directives 24 to 27**

12 Manitoba Hydro has completed the modifications to the cost allocation model that
 13 will be used for future Cost of Service Studies to reflect these directives which direct
 14 non-tariffable transmission costs be excluded from the allocation of export
 15 revenues, the addition of a new subfunction to allocate the specified customer
 16 services costs to all classes other than GSL 30-100kV and GSL >100kV and export
 17 revenues be treated as a reduction to cost in the calculation of Revenue to Cost
 18 Coverage ratios. Manitoba Hydro is continuing to study the Service Drop allocator
 19 and Common Costs and intends to have the review completed in time for the next
 20 Prospective Cost of Service Study to be filed with the next full GRA.

21

22 **Directive 28**

23 Directive 28 requested information regarding the rationale for the declining block
 24 rate structure for the General Service customer classes and an evaluation of the
 25 block thresholds and charges. The declining block rate structure for the General
 26 Service Small, General Service Small Demand and General Service Medium
 27 customers is on account of class consolidation that began with rates implemented
 28 on July 1, 2008 and was necessary to recover the demand costs related to General
 29 Service Small customers that are not demand metered and to reflect the higher load
 30 factors of the General Service Small Demand and General Service Medium
 31 customers. There are no changes currently proposed to these customer classes as
 32 Manitoba Hydro intends to study whether consolidation of these classes continues
 33 to be appropriate.

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Directive 29

Directive 29 directed filing of a time-of-use rate design proposal for general service large customers. Manitoba Hydro has invited customers in the General Service Large >100 class and representatives of the Manitoba Industrial Power Users Group to a kick off meeting on December 4, 2018 which will mark the beginning of the customer consultation phase. The consultation phase, originally anticipated to begin by the end of October 2018, was delayed to allow for additional internal review to analyze and study the key inputs and considerations underlying a time-of-use rates proposal in order to provide customers with updates that will allow for meaningful participation at the outset of the consultation process. Over the next several months, through group and individual consultations, Manitoba Hydro intends to solicit feedback and gather information from customers for the purposes of developing the new rate structure.

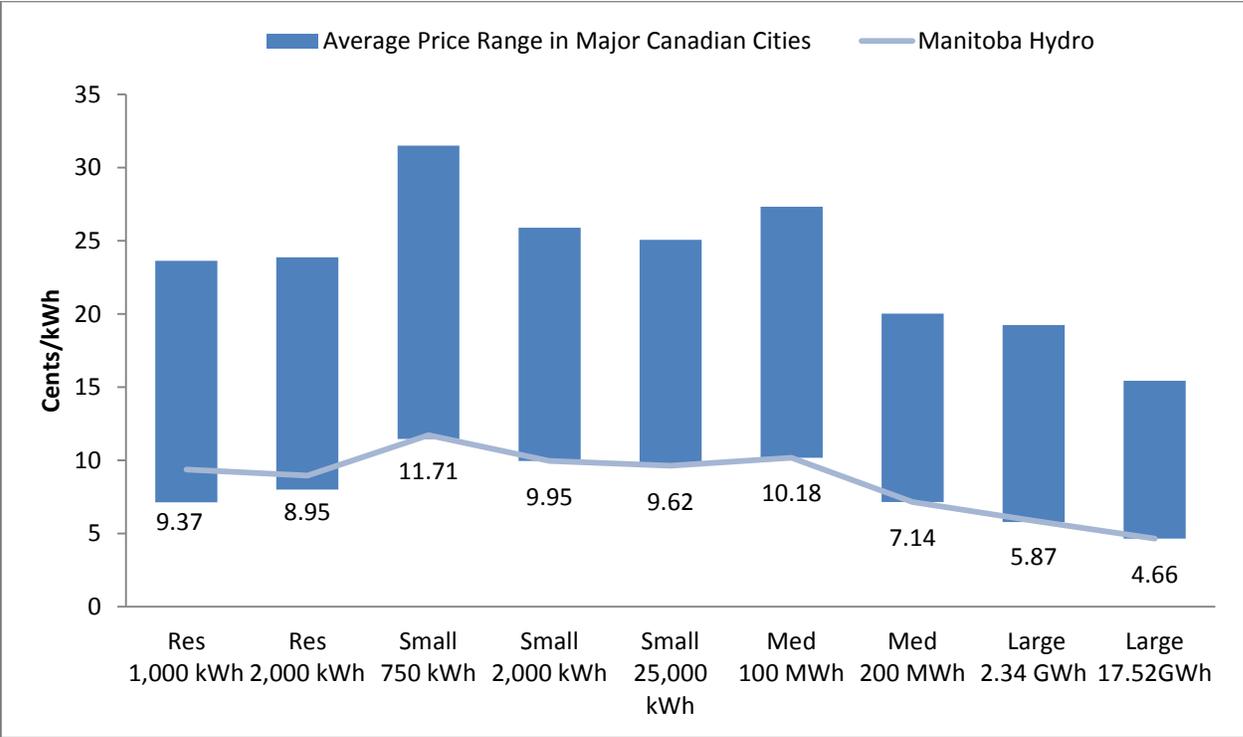
3.2 Comparison of Manitoba Hydro’s Electricity rates to Neighbouring Jurisdictions

Manitoba Hydro has used Hydro Quebec’s annual “*Comparison of Electricity Prices in Major North American Cities*”¹, to compare average rates for all major rate classes paid by Manitoba customers with those of other major Canadian utilities, as shown in Figure 3.2.



¹<http://www.hydroquebec.com/data/documents-donnees/pdf/comparison-electricity-prices.pdf>

1 **Figure 3.2: Comparison of Average Electricity Prices in Major Canadian Cities**
2 **Rates in effect April 1, 2018 (Price per kWh)**



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The 2018 Hydro Quebec survey demonstrates that the average price per kWh paid by Manitobans is amongst the lowest in large Canadian cities.

A summary of rate changes from utilities across Canada from 2007 to 2019 is provided in Figure 3.3 below.

1 **Figure 3.3: Utility Rate Changes 2007 to 2019**

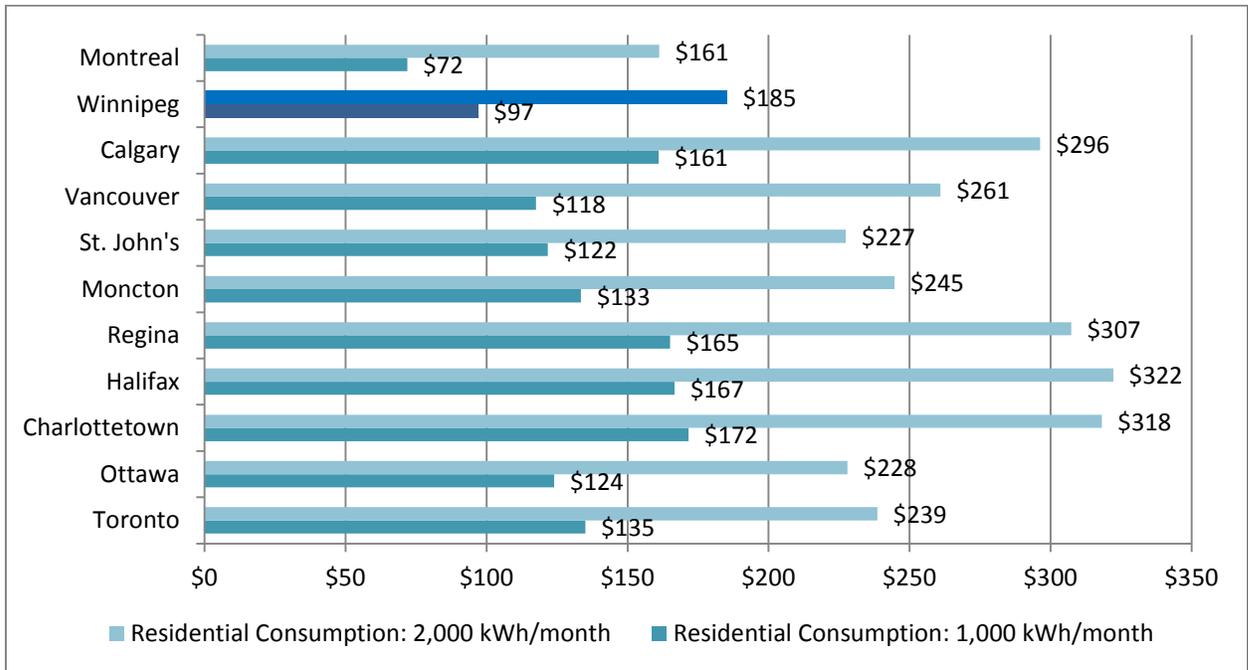
| Utility Rate Changes (%) | | | | | | | | | | | | | | | |
|--------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------------|----------------|-----------------------------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019* | Cumulativ e | Current Rate Index*** |
| Manitoba Hydro | 2.2 | 5.00 | 2.90 | 2.80 | 2.00 | 4.40 | 3.50 | 2.75 | 3.95 | 3.36 | 3.36 | 3.60 | 3.50 | 53.1 | 100 |
| Hydro Quebec | 1.90 | 2.90 | 1.20 | 0.35 | -0.40 | -0.50 | 2.41 | 4.30 | 2.90 | 0.70 | 0.70 | 0.30 | 0.80* * | 18.9 | 109 |
| BC Hydro | 2.10 | 0.83 | 9.28 | 7.29 | 7.77 | 7.07 | 1.44 | 9.00 | 6.00 | 4.00 | 3.50 | 3.00 | 3.00 | 86.4 | 142 |
| SaskPower | 4.20 | 0.00 | 8.50 | 4.50 | 0.00 | 0.00 | 4.90 | 5.50 | 5.00 | 5.00 | 3.50 | 3.50 | 0.00 | 54.4 | 159 |
| NB Power | 5.90 | 3.00 | 3.00 | 3.00 | 0.00 | 0.00 | 2.00 | 2.00 | 1.60 | 1.66 | 1.77 | 0.88 | 2.00 | 30.2 | 171 |
| NS Power | 3.80 | 0.00 | 9.30 | 0.00 | 6.05 | 8.70 | 3.00 | 3.00 | 0.00 | -1.00 | 1.50 | 1.70 | 1.50 | 43.9 | n/a |
| Toronto Hydro | -4.11 | -0.99 | 4.95 | 10.84 | -8.18 | 18.80 | -7.52 | 18.93 | -3.07 | 20.47 | -2.52 | -25.38 | 2.00 | 14.8 | n/a |

* Where published information on proposed increases is not available, Manitoba Hydro has assumed a 2% inflationary increase
** Hydro Quebec is proposing an overall 0.8% increase in 2019, but only 0.2% for industrial customers.
*** This index is based on the Edison Electric Institute Survey and compares the average price per kWh for the various utilities. Manitoba Hydro's average price is \$0.0649/kWh in Canadian dollars based on 12 months data ending December 2017.

1 In addition to average prices, a comparison of monthly bills aids in providing context
 2 for what customers in each jurisdiction are paying on a monthly basis. The charts
 3 provided in Figures 3.4 to 3.8 compare projected monthly bills for major Canadian
 4 cities in 2019/20. Consistent with calculations in Figure 3.4, where published
 5 information on projected increases is not available, a simplifying and conservative
 6 assumption has been made that annual rate increases will be in line with inflation at
 7 2% each year. Where information is available, projected rate increases have been
 8 reflected in the bill calculations.

9
 10

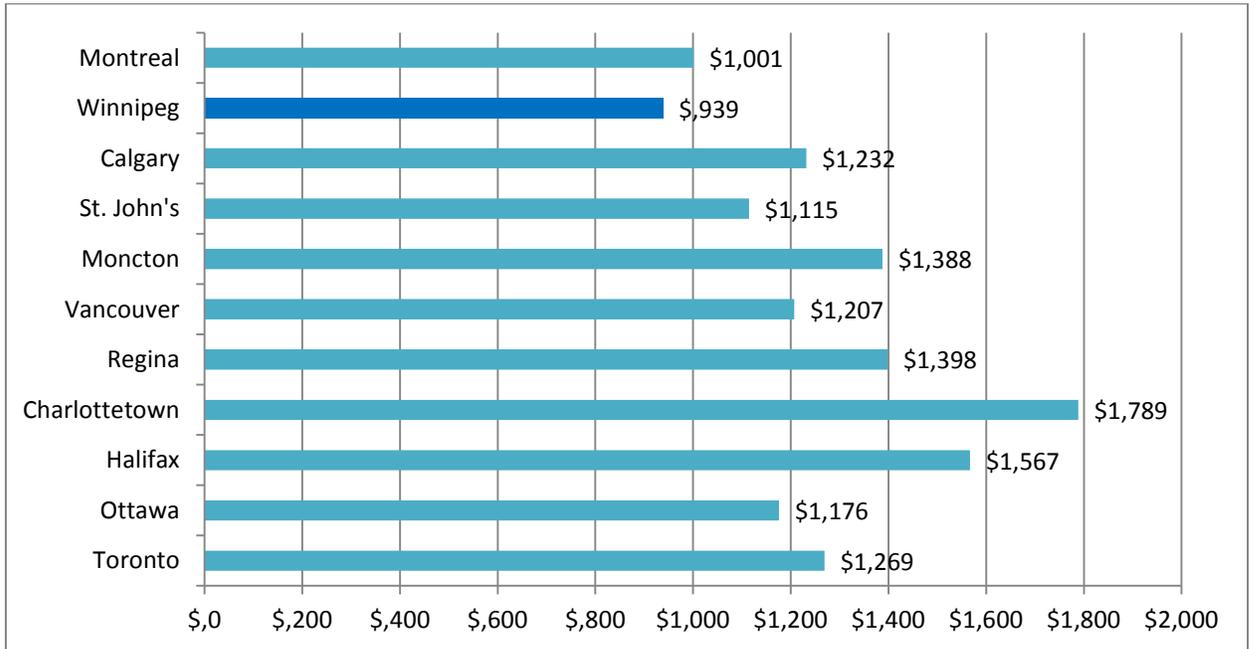
Figure 3.4: Residential Monthly Bill Comparisons in 2019/20



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Figure 3.5: Small Power (10,000 kWh) Monthly Bill Comparisons in 2019/20

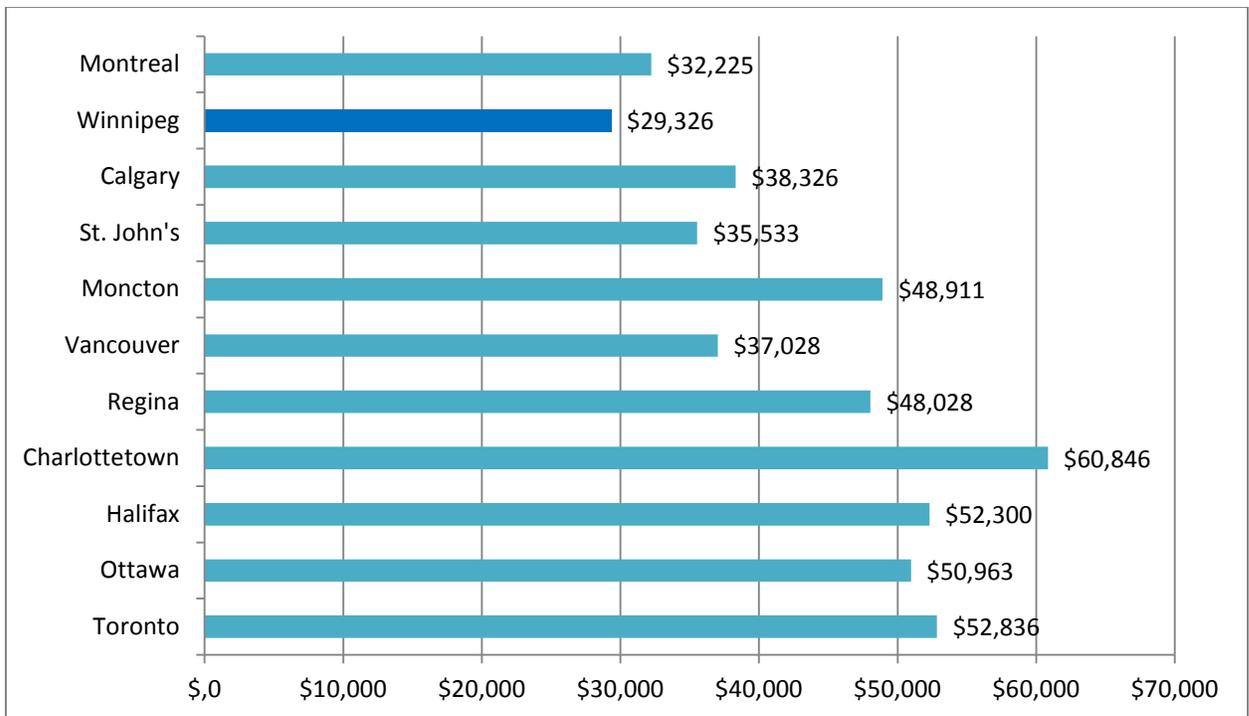


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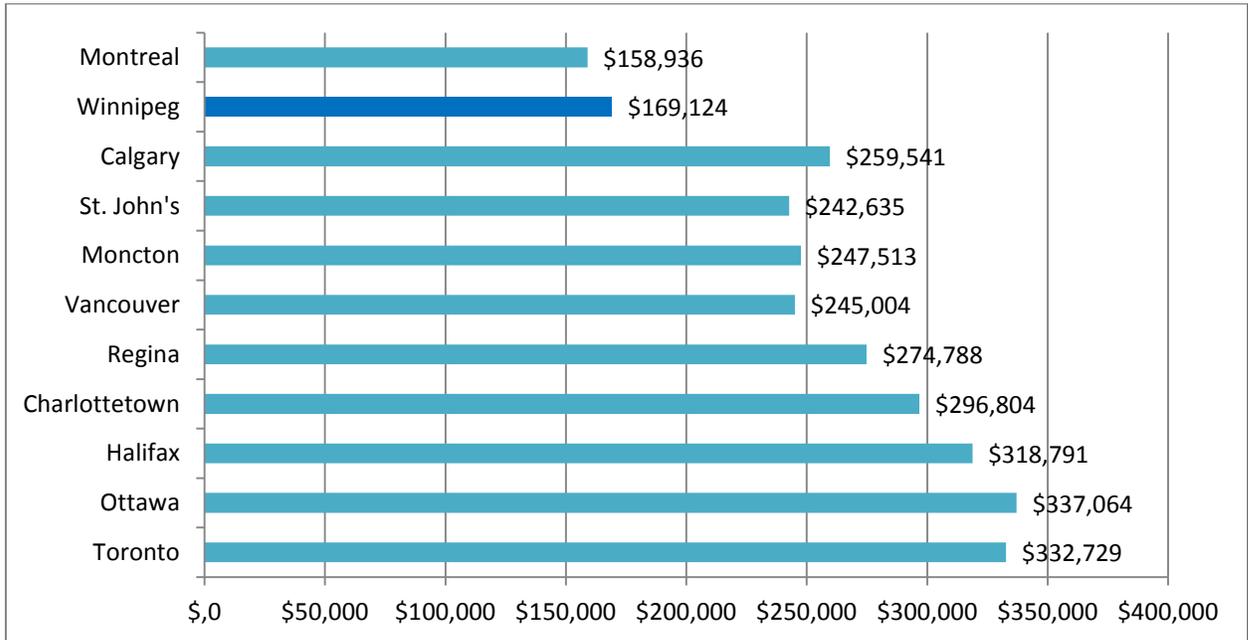
Figure 3.6: Medium Power (1,000 kW) Monthly Bill Comparisons in 2019/20



5

1

Figure 3.7: Large Power (5,000kW) Monthly Bill Comparisons in 2019/20

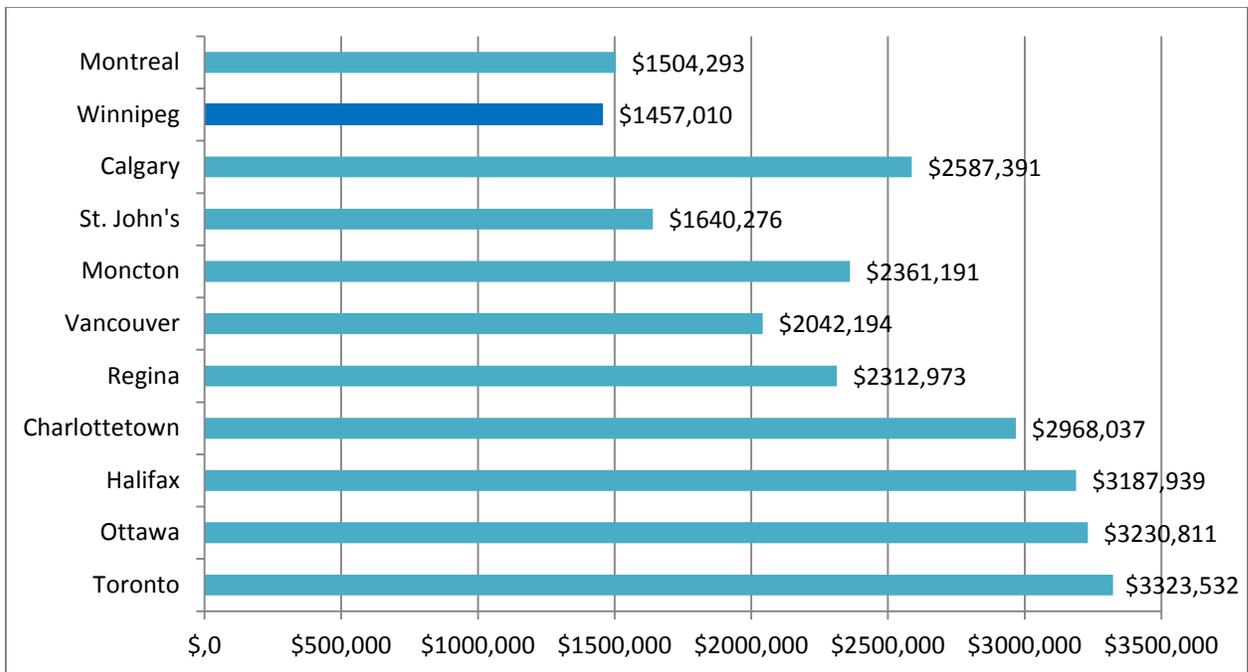


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Figure 3.8: Large Power (50,000kW) Monthly Bill Comparisons in 2019/20



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To measure its performance in the overall North American context, Manitoba Hydro uses the results of both the Edison Electric Institute (“EEl”) survey as well as monthly

1 statistics obtained from the United States Department of Energy (“DOE”). Unlike the
 2 EEI data that provides investor-owned utility comparisons, the DOE data provides
 3 comparisons by State which includes numerous utilities within each state. Figure 3.9
 4 below provides the Total Retail Average Rate compared to other low-cost
 5 jurisdictions and neighboring utilities, including primary Mid-continent Independent
 6 System Operator states, based on the July 2018 DOE data and July 1, 2018 EEI data,
 7 using an exchange rate of 1 US \$ =1.32154 Canadian as of July 3, 2018. The Average
 8 Retail Rate was determined by dividing the combined total revenue billed by the
 9 combined total kilowatt hours billed for the 12-month period ending June 30, 2018
 10 for all customer classes (residential, commercial and industrial).

11

12

Figure 3.9: Average Retail Price

13

14

| State / Province | Average Retail Price Cents per kWh |
|------------------|---------------------------------------|
| Manitoba Hydro | 6.49* |
| Hydro Quebec | 6.97 |
| BC Hydro | 9.22 |
| SaskPower | 10.67 |
| North Dakota | 11.00 |
| South Dakota | 13.09 |
| Minnesota | 12.36 |
| Wisconsin | 14.06 |

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*Total revenue used in the calculation includes PUB-approved rate increases of 3.36% effective August 1, 2017 and the portion of 3.6% effective June 1 to June 30, 2018.

As demonstrated in the Figures above, Manitoba continues to maintain an advantage over most North American jurisdictions with respect to the average monthly customer bills and average prices for all customer classes.