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**MINISTER OF  
CONSERVATION AND CLIMATE**

Legislative Building  
Winnipeg, Manitoba, CANADA  
R3C 0V8

Dr. Jeannette Montufar  
Chair, Efficiency Manitoba  
201 – 155 Carlton Street  
Winnipeg MB R3C 3H8

MAR 31 2020

Dear Dr. Montufar:

The Public Utilities Board has provided its report and recommendations regarding Efficiency Manitoba's first three-year Energy Efficiency Plan. This is a notable moment and I thank the Public Utilities Board, intervenors and members of the public for their review, and commend the Board and staff of Efficiency Manitoba for their efforts to bring this plan forward.

As Minister of Conservation and Climate, I am responsible for considering the plan and recommendations to ensure that my approval to proceed will deliver the results Manitobans expect from our government as we work to achieve our vision of becoming Canada's cleanest, greenest and most climate resilient province.

Efficiency Manitoba plays a vital role in helping to achieving this vision. As the Crown Corporation responsible for demand-side management efforts, Efficiency Manitoba has a mandate to cost-effectively reduce Manitoba's consumption of natural gas and electricity. To that end, I am approving Efficiency Manitoba's first three-year Energy Efficiency Plan, with Efficiency Manitoba's Plan Amendments which recognize the Public Utility Board's recommendation in this regard. All other recommendations contained in the Public Utilities Board Report will be taken under advisement, these will be reviewed further by the department in consultation with Efficiency Manitoba, with no formal obligation assigned to Efficiency Manitoba at this time.

I know that you and your colleagues on the Board understand that it is an important responsibility to guide and oversee Manitoba's publicly owned corporations. I know I can count on your hard work and dedication in fulfilling your Board's duties and responsibilities.

I greatly appreciate the commitment and dedication of the Efficiency Manitoba Board and staff in developing this three-year plan. I look forward to working together with you toward strengthening energy efficiency initiatives across Manitoba.

Warm regards,

A handwritten signature in black ink, appearing to read 'Sarah Guillemard', with a large, stylized initial 'S'.

Sarah Guillemard  
Minister

cc: Honourable Jeff Wharton  
Blair McTavish  
Colleen Kuruluk  
Jay Grewal

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# PLAN AMENDMENTS

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2020/23 EFFICIENCY PLAN

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MARCH 2020

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## INTRODUCTION

1 On October 25, 2019 Efficiency Manitoba filed its first three-year efficiency plan, the  
2 2020/23 Efficiency Plan (the “Plan”) with the Public Utilities Board of Manitoba (the  
3 “PUB”) as per the requirements outlined in the Efficiency Manitoba Act (the “Act”).

4 A public review process was conducted for the Plan throughout November and  
5 December 2019 culminating in an oral hearing which took place from January 6  
6 through January 28, 2020. The PUB delivered its report (the “PUB Report”) to the  
7 Minister of Conservation and Climate as per Section 11 (1) of the Act; public release of  
8 the PUB Report occurred on March 6, 2020.

9 This document contains information on the recommended amendments as provided  
10 in the PUB Report, *Section 13.2.1 Recommendation for Approval of three-year Plan*  
11 *with Amendment*, and which were subsequently accepted by the Minister. This  
12 document is appended to the Plan providing additional narrative, amended tables  
13 and/or data presented to supplement or replace, where indicated, the information  
14 and directly associated information provided within the Plan.

## **AMENDMENT 1 – ENERGY CONSUMPTION BASELINES FOR THE PURPOSES OF TARGET SETTING**

15 As per the definition outlined in the Efficiency Manitoba Act, the electric and natural  
16 gas savings targets are based on the consumption of electricity or natural gas in the  
17 immediately preceding year. Based on timing, the Plan, as well as subsequent  
18 Efficiency Plans will always need to set energy saving targets based on a projected  
19 baseline consumption. The approach taken by Efficiency Manitoba was documented  
20 within *Section A2.2.2 Program Net Energy Savings Methodologies*, within the Plan.

### **CALCULATION OF ELECTRIC LOAD FOR THE PURPOSES OF TARGET SETTING**

21 The PUB Report recommended that Efficiency Manitoba use the electric consumption  
22 baseline calculated based on the definition of general consumer sales in the Electric  
23 Load Forecast and adjusted for the savings in the MH 2018/19 DSM Plan. The  
24 following table outlines the electric percent of load calculations using the definition of  
25 general consumer sales from Manitoba Hydro's Electric Load Forecast. This sales  
26 forecast is presented at the customer meter and excludes sales from Street Lighting  
27 and Flat Rate Water Heating. It also excludes the estimated 2018/19 and 2019/20 DSM  
28 savings. This revised methodology results in the 3-year average forecast DSM savings  
29 as a percent of load of 1.51%. This remains consistent with the Efficiency Manitoba  
30 mandated electric savings target. Efficiency Manitoba's actual savings will be  
31 evaluated and verified by the third-party assessor and the actual weather adjusted  
32 consumption will be used for that calculation.

33

34 **AMENDED TABLE 3.1 2020/23 EFFICIENCY PLAN SUMMARY – ELECTRIC PORTFOLIO SAVINGS**

	2020/21	2021/22	2022/23	Average
Reference electric load (GWh)	22,341	22,347	22,275	-
Annual electric savings (GWh)	331	343	335	336
Savings as a percent of electric load	1.48%	1.53%	1.51%	1.51%

35 *Note: Reference electric load and energy savings are at meter*

**CALCULATION OF THE NATURAL GAS LOAD FOR THE PURPOSES OF TARGET SETTING**

36 The PUB Report recommended that Efficiency Manitoba amend the gas consumption  
 37 baseline calculated in the Plan to be based on Centra’s forecasts of gas consumption  
 38 for the years preceding the Plan years, adjusted for expected DSM savings in the  
 39 2018/19 and 2019/20 DSM Plans and EM’s Plan, while continuing to remove  
 40 consumption used for industrial processes and generation of electricity. Efficiency  
 41 Manitoba is unable to provide this amendment without exposing information  
 42 considered commercially sensitive by Centra. Implementing this amendment would  
 43 result in natural gas consumption data being revealed which could negatively impact  
 44 ratepayers by undermining Centra’s negotiating position for commodity,  
 45 transportation and storage services. In the Plan, Efficiency Manitoba used the publicly  
 46 available 2017/18 gross actual natural gas volume consumption from Manitoba  
 47 Hydro’s 2017/18 annual report less consumption used for industrial processes and  
 48 generation of electricity to provide a representative consumption baseline for  
 49 determining the natural gas savings target. The actual savings achieved as a percent  
 50 of natural gas volume will be determined in accordance with the Efficiency Manitoba  
 51 Act; using actual prior year weather adjusted natural gas energy consumption  
 52 however this calculation will be deemed commercially sensitive and therefore not  
 53 available in the public domain.

## AMENDMENT 2 – NEXT STEPS TOWARDS INNOVATION STRATEGY

54 The PUB Report recommended Efficiency Manitoba specifically set out how it intends  
55 to research, engage in pilot projects, and otherwise pursue new and emerging  
56 technologies over the three years of the Plan and how it intends to incorporate  
57 emerging technologies in future efficiency plans. The approach taken by Efficiency  
58 Manitoba was documented within *Appendix A - Section A9.3 Emerging Technologies*  
59 within the Plan and included:

- 60 • information on the technology adoption lifecycle;
- 61 • the use of market research & studies within the energy conservation  
62 landscape;
- 63 • the approach to assessing the technical merits of emerging technologies  
64 within the Manitoba market including consideration of local climate and energy  
65 rates; and
- 66 • an overview of the approach to pilot projects and research support or  
67 partnerships that Efficiency Manitoba will pursue.

### 2020/2023 EFFICIENCY PLAN

68 Efficiency Manitoba will be taking a phased and collaborative approach to build out  
69 the strategy that will be employed to use the Innovation Fund in the most optimal and  
70 value-added manner including consultation with the Energy Efficiency Advisory  
71 Group (EEAG). The intent is to engage with the research and emerging technologies  
72 market in Manitoba to assess the best use of funds that will work within the existing  
73 market and leverage partners that already exist and/or fill gaps in the market.

74 The first step will be to conduct background research and compile a program  
75 concept document based on an assessment of best practices of delivery strategies  
76 from jurisdictions across North America. Research will also be conducted on the local  
77 emerging technology and research landscape to determine partners that already exist  
78 and the role that they play in supporting new technologies. The research will inform a  
79 preliminary plan for the fund. Efficiency Manitoba will review this preliminary design  
80 concept with stakeholders and the EEAG to determine areas of agreement or  
81 potential improvements. The final innovation strategy plan design will include the  
82 following critical elements;

- 83 • Program goals, targets and key performance indicators (KPI)s;
- 84 • Funding Offer details (funding limits/terms, leveraging requirements,  
85 applicant/project eligibility);
- 86 • Program administration and governance approach (solicitation/application,  
87 project evaluation and selection, contracting & execution);
- 88 • Program forecasts (budget, participation, resourcing requirements);
- 89 • High level go-to-market strategy;
- 90 • Monitoring, data collection and evaluation plan;
- 91 • Risk assessment and mitigation plan.

92

93 Efficiency Manitoba has already been monitoring emerging technologies and  
94 providing varying levels of research and support. Some examples of pilot projects  
95 that Efficiency Manitoba can focus initial efforts on include:



<b>Codes &amp; Standards</b>	<b>Agricultural</b>	<b>Commercial &amp; Industrial</b>	<b>Residential &amp; Income Qualified</b>	<b>Indigenous</b>
Cold Climate-Air Source Heat Pump standards for Manitoba climate	Advanced grain bin drying technology  Establishing a network of biomass fuel suppliers	Commercial building air tightness testing  Informational sub-metering and trending  Advanced industrial drying technologies (vacuum desiccant)	Cold Climate-Air Source Heat Pump installation and education in appropriate homes  Home energy monitoring systems	On-reserve woodstoves installation and education  Deep energy retrofits

96

**FUTURE EFFICIENCY PLANS**

97 The technologies in future efficiency plans pursued through either programming or  
 98 innovation funding will be determined during the course of delivery of the 2020-2023  
 99 three-year efficiency plan; as the market and/or technical conditions will continue to  
 100 evolve and are not yet known pertaining to specific technologies. The Demand Side  
 101 Management Market Potential Study discussed in *Appendix A - Section A9.3.4 Pilot*  
 102 *Projects & Partnerships* of the Plan, as well as market research and technology pilots  
 103 and demonstrations, will assist in informing Efficiency Manitoba of the most valuable  
 104 technologies and strategies to pursue in the next efficiency plan.

**AMENDMENT 3 – UNBUNDLED INDIGENOUS PROGRAMS**

105 The PUB Report recommended Efficiency Manitoba “unbundle” the Metis and First  
 106 Nations programs into separate bundles. As provided in *Appendix A - Section A6*

107 *Indigenous Programs* of the Plan, all Indigenous offers except for the Indigenous Small  
 108 Business Program (*Section A6.3*) are separated into First Nations on reserve and  
 109 Metis offers. Specific programs for First Nations customers are the Insulation and  
 110 Direct Install Program (*Section A6.2*) and the Community Geothermal Program  
 111 (*Section A6.4*). The Metis Income Qualified offer is a Metis specific program (*Section*  
 112 *A6.5*). Outlined in the amended tables below are the separate First Nations and Metis  
 113 Small Business participation and corresponding budgets.

114 **AMENDED TABLE A6.4 SMALL BUSINESS OFFERS ENERGY SAVINGS SUMMARY**

	2020/21	2021/22	2022/23
No. of buildings – First Nations Small Business	15	15	20
Annual electric savings (GWh) (at generation) - First Nations Small Business	0.185	0.185	0.22
Annual capacity savings (MW) (at generation) - First Nations Small Business	0.035	0.035	0.045
	2020/21	2021/22	2022/23
No. of buildings – Metis Small Business	15	15	20
Annual electric savings (GWh) (at generation) - Metis Small Business	0.185	0.185	0.22
Annual capacity savings (MW) (at generation) - Metis Small Business	0.035	0.035	0.045

115

116 **AMENDED TABLE A6.5 SMALL BUSINESS OFFERS BUDGET & COST EFFECTIVENESS SUMMARY**

		2020/21	2021/22	2022/23
Annual electric budget (\$) - First Nations Small Business		\$156,500	\$185,000	\$236,000
Annual electric budget (\$) - Metis Small Business		\$156,500	\$185,000	\$236,000
			Electric	Natural gas
Program Administrator Cost Test results	Ratio		1.31	-
	Net Present Value (\$)		\$1.80 M	-
	Levelized Cost		5.31¢/kWh	-

117

**AMENDMENT 4 – REVISED ALLOCATIONS WITHIN ENABLING STRATEGIES AND CORPORATE OVERHEAD BUDGETS**

118 The PUB Report recommended Efficiency Manitoba amend the Plan to allocate the  
 119 costs within the Enabling Strategies and Corporate overhead budget categories using  
 120 the cost driver approach, such that 70% is allocated to the electric portfolio and 30%  
 121 is allocated to the natural gas portfolio. The approach taken by Efficiency Manitoba  
 122 was documented within *Section 4.4.2 Portfolio Programming Budget* within the Plan  
 123 and included a savings driver approach such that within the Plan 75% of costs within  
 124 these categories were allocated to the electric portfolio while 25% were allocated to  
 125 the natural gas portfolio.

126 The following tables provide the budget values provided within *Section 4* of the Plan  
 127 and amended based on this PUB recommendation. Note that the annual portfolio  
 128 incentive budgets (Table 4.5 within the Plan) were not impacted by this  
 129 recommendation nor was the total combined budget (electric plus natural gas  
 130 portfolio).

131 **AMENDED TABLE 4.1 2020/23 EFFICIENCY PLAN BUDGET SUMMARY**

	2020/21	2021/22	2022/23	Average
Annual electric budget	\$44,025,000	\$50,622,000	\$50,395,000	\$48,347,000
Annual natural gas budget	\$19,162,000	\$21,803,000	\$23,633,000	\$21,533,000
Total budget	\$63,187,000	\$72,425,000	\$74,028,000	\$69,880,000

132 *Note.* Currency is expressed in nominal dollars. Totals may not add up exactly due to rounding.

133 **AMENDED TABLE 4.6 ANNUAL PROGRAM BUDGETS (\$ AND %) – PRIVATE SECTOR**

	Annual average	
<b>Electric portfolio – private sector program costs</b>		
Electric program delivery	\$3,643,000	7.5%
Electric enabling strategies	\$4,751,000	9.8%
Electric advertising	\$1,151,000	2.4%
Electric program costs (sub-total)	\$9,545,000	19.8%
<b>Natural gas portfolio – private sector program costs</b>		
Natural gas program delivery	\$1,521,000	7.2%
Natural gas enabling strategies	\$1,989,000	9.2%
Natural gas advertising	\$710,000	3.3%
Natural gas program costs (sub-total)	\$4,220,000	19.7%
<b>Overall portfolio – private sector program costs</b>		
Overall program delivery	\$5,164,000	7.4%
Overall enabling strategies	\$6,739,000	9.6%
Overall advertising	\$1,861,000	2.7%
Overall program costs (total)	\$13,765,000	19.7%

134 *Note.* Currency is expressed in nominal dollars. Totals may not add up exactly due to rounding

135

136 **AMENDED TABLE 4.7 ANNUAL STAFF BUDGETS (\$ AND %) – EFFICIENCY MANITOBA STAFF**

	Annual average	
Electric portfolio – staff costs		
Electric program design/modelling, admin. and support	\$4,491,000	9.3%
Electric enabling strategies	\$1,108,000	2.3%
Electric corporate overhead	\$999,000	2.1%
Electric staff costs (sub-total)	\$6,598,000	13.6%
Natural gas portfolio – staff costs		
Natural gas program design, admin. and support	\$1,940,000	9.0%
Natural gas enabling strategies	\$407,000	1.9%
Natural gas corporate overhead	\$428,000	2.0%
Natural staff costs (sub-total)	\$2,775,000	12.9%
Overall portfolio – staff costs		
Overall program design/modelling, admin. and support	\$6,431,000	9.2%
Overall enabling strategies	\$1,515,000	2.2%
Overall corporate overhead	\$1,427,000	2.1%
Overall staff costs (sub-total)	\$9,375,000	13.4%

137 *Note.* Currency is expressed in nominal dollars. Totals may not add up exactly due to rounding.

**AMENDED TABLE 4.8 ANNUAL OVERHEAD BUDGETS (\$ AND %) – PRIVATE SECTOR**

	Annual average	
Electric portfolio	\$1,046,000	2.1%
Natural gas portfolio	\$448,000	1.7%
Total (overall portfolio)	\$1,495,000	2.1%

138 *Note.* Currency is expressed in nominal dollars. Totals may not add up exactly due to rounding

139 As this recommendation impacted the electric and natural gas portfolio costs, the  
 140 cost effectiveness analysis provided within the Plan is also modified. The following  
 141 tables provide the cost effectiveness analysis results provided within *Section 5* of the  
 142 Plan and amended based on this PUB recommendation. Within the following  
 143 amended Tables 5.3 and 5.4 Efficiency Manitoba is also revising the cost-effectiveness  
 144 metrics approach with respect to treatment of interactive effects. Interactive effects

145 increase natural gas consumption due to electric energy efficiency programming  
 146 which also decreases the natural gas marginal value benefits. The revised approach  
 147 below was modified subsequent to submission of the Plan in order to allocate the  
 148 decreases in natural gas benefits to the electric portfolio and not burden the natural  
 149 gas portfolio with these interactive effects.  
 150 The approach and methodology for determining the “Overall portfolio metrics” shown  
 151 in the following tables has remained the same and are only amended based on the  
 152 cost allocation revisions addressed in this section.

153 **AMENDED TABLE 5.3 ELECTRIC PROGRAMMING AND PORTFOLIO COST-EFFECTIVENESS**  
 154 **METRICS**

	PACT ratio	PACT NPV	PACT Levelized Cost
Overall portfolio with allocated natural gas interactive effects	3.21	\$331 million	2.22 ¢/kWh
Overall portfolio metrics	3.31	\$347 million	2.22¢/kWh

155 *Note.* Overall portfolio metrics include impact of interactive effects, enabling strategies and  
 156 corporate overhead. Allocated natural gas interactive effects include negative natural gas  
 157 program administrator benefits due to electric programming.

158 **AMENDED TABLE 5.4 NATURAL GAS PROGRAMMING AND PORTFOLIO COST-EFFECTIVENESS**  
 159 **METRICS**

		PACT NPV	PACT Levelized Cost
Overall portfolio without electric interactive effects	1.21	\$13 million	15.35¢/m <sup>3</sup>
Overall portfolio metrics	0.96	(\$2 million)	19.17¢/m <sup>3</sup>

160 *Note.* Overall portfolio metrics include impact of interactive effects, enabling strategies and  
 161 corporate overhead.

162

**AMENDMENT 5 – 10-YEAR LIFECYCLE REVENUE IMPACT**

163 The PUB Report recommended that Efficiency Manitoba amend the Plan to calculate the  
164 Lifecycle Revenue Impact (LRI) Analysis over a 10-year period.

165 The table below outlines the revised Electric and Natural Gas LRI using a 10-year time  
166 period and also incorporates the revised allocation of Enabling Strategies and  
167 Corporate Overhead costs as provided in Amendment 4. The following tables provide  
168 the LRI analysis results provided within *Section 5* of the Plan and amended based on  
169 these PUB recommendations. The LRI metric is a directional estimate that calculates  
170 the impact on electric or natural gas rates resulting from the activities and costs  
171 proposed within the Plan. This analysis does not include other factors outside the  
172 purview of Efficiency Manitoba as those considerations are determined by Manitoba  
173 Hydro and/or Centra Gas.

174 **AMENDED TABLE 5.6 LIFECYCLE REVENUE IMPACT RESULTS – ELECTRIC PORTFOLIO**

	One-time equivalent rate increase
Lifecycle revenue impact (¢/kWh)	0.061¢/kWh
Percent increase (using 6¢/kWh)	1.02%
Percent increase (using 8¢/kWh)	0.77%
Percent increase (using 10¢/kWh)	0.61%

175 **AMENDED TABLE 5.7 LIFECYCLE REVENUE IMPACT RESULTS – NATURAL GAS PORTFOLIO**

	One-time equivalent rate increase
Lifecycle revenue impact (¢/m <sup>3</sup> )	0.46¢/m <sup>3</sup>
Percent increase (using 19¢/m <sup>3</sup> )	2.42%
Percent increase (using 21¢/m <sup>3</sup> )	2.19%
Percent increase (using 23¢/m <sup>3</sup> )	2.00%

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177

## AMENDMENT 6 – NEXT STEPS TO ADVANCING RECONCILIATION

### 178 EFFICIENCY MANITOBA'S PLANS TO ADVANCE RECONCILIATION

179 The PUB Report recommended that the Plan be amended to specifically address how  
180 Efficiency Manitoba will advance reconciliation. Efficiency Manitoba's efforts to  
181 advance reconciliation will be guided by the principles of respect, engagement,  
182 understanding, and action. Throughout the PUB hearing, including testimony before  
183 the Panel and intervenors, Efficiency Manitoba outlined its plans to advance  
184 reconciliation through the ongoing processes of establishing and maintaining mutually  
185 respectful relationships between Indigenous and non-Indigenous peoples. Efficiency  
186 Manitoba's work both in advancing reconciliation and ensuring that energy efficiency  
187 programs meet the needs of Indigenous peoples in Manitoba, aligns with the Truth  
188 and Reconciliation Commission's Calls to Action and guiding principles, and the  
189 government of Manitoba's Path to Reconciliation Act. Efficiency Manitoba will  
190 advance reconciliation through the following:

- 191 • Mutually respectful on-going dialogue about energy efficiency with Indigenous  
192 customers, communities and organizations;
- 193 • The establishment of an Indigenous Energy Efficiency Working Group, separate  
194 from the EEAG established under section 27 of the Act, to discuss and address  
195 the specific barriers and needs of Indigenous customers;
- 196 • Required cultural awareness training for Efficiency Manitoba staff and third-  
197 party service providers who are delivering programs to First Nation  
198 communities;



March 18, 2020

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- 199       • The creation of culturally relevant materials in coordination with Indigenous  
200           partners and ensuring materials can be available in a community's traditional  
201           language;
- 202       • Contributions to economic reconciliation by working to increase Indigenous  
203           contractors and services partners to assist in the delivery of energy efficiency  
204           programs; and
- 205       • Undertaking a Truth and Reconciliation Audit, performed by an Indigenous  
206           business, to provide additional suggestions to advance reconciliation.

207