

**ONTARIO ENERGY BOARD**

**EB-2019-0271**

**IN THE MATTER OF** the *Ontario Energy Board Act*, 1998, S. O. 1998, c. 15, Schedule B;

**AND IN THE MATTER OF** an application for approval of a Demand Side Management Plan for 2021.

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**Submissions of Environmental Defence**

**Re Enbridge 2021 Demand Side Management Plan**

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## Introduction

Environmental Defence and the Green Energy Coalition have coordinated their submissions on Enbridge’s proposed 2021 demand side management (DSM) plan. The Green Energy Coalition is advocating for program-level improvements to the proposed plan. Environmental Defence is providing submissions on the importance of making those improvements and, more generally, the importance of achieving greater natural gas savings as quickly as possible.

## Benefits of Natural Gas Energy Efficiency

Natural gas DSM is likely the most important measure the Ontario Energy Board has ever put in place to save customers money. From 1995 to 2018, DSM programs have saved customers a staggering **\$6.3 billion**.<sup>1</sup> These are *net* savings, which have been audited, and which have already been reduced by the cost of the efficiency measures to the customer and utility, the cost of delivering the programs, and free riders.<sup>2</sup> The *gross* savings (i.e. the reduced gas costs from reduced gas use) are far higher. Energy bills in Ontario are far lower than they would otherwise have been because of natural gas DSM.

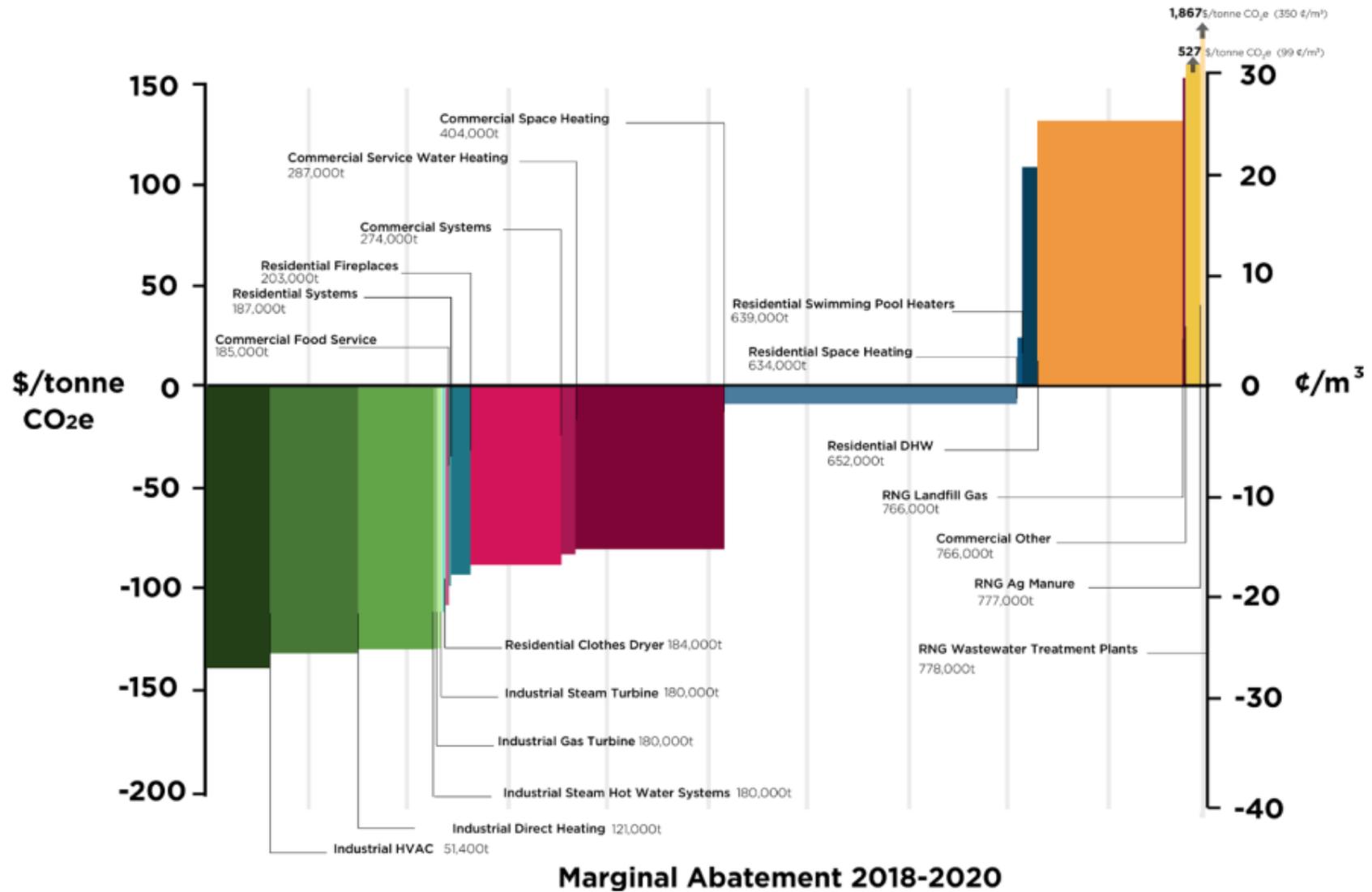
These programs are particularly important today as efforts ramp up to prevent catastrophic climate change. DSM provides carbon emission reductions for a “negative cost” because consumers actually save money and reduce carbon emissions at the same time. This is well-illustrated in the Marginal Abatement Cost Curve prepared for the Ontario Energy Board in 2017, shown on the following page. The bars on the left of the figure show significant *savings* (i.e. negative cost) per tonne of CO<sub>2</sub>e avoided through natural gas DSM programs.

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<sup>1</sup> EB-2019-0271, Exhibit I.ED.2, Page 1.

<sup>2</sup> *Ibid.*; OEB, *Filing Guidelines to the 2015-2020 DSM Framework*, p. 26-31; OEB, *Demand Side Management Framework for Natural Gas Distributors*, December 22, 2014.

## Marginal Abatement Cost Curve Prepared for the Ontario Energy Board<sup>3</sup>



<sup>3</sup> ICF, *Marginal Abatement Cost Curve*, EB-2016-0359, July 20, 2017, prepared for the Ontario Energy Board, p. 14.

Aside from major energy bill reductions, DSM provides other important ancillary benefits, such as:

- **Creating jobs in Ontario:** Energy efficiency creates jobs in Ontario, both for contractors and trades people who sell and/or install efficiency measures and throughout the economy by increasing disposable income (or business profits) that can create numerous additional jobs when spent in the local economy.<sup>4</sup> DSM replaces out-of-province gas purchases with made-in-Ontario gas savings and many Ontario-based jobs.
- **Strengthening Ontario's economy:** DSM improves efficiency and productivity by allowing business to produce the same output with fewer inputs. This makes businesses more competitive and creates economic growth.<sup>5</sup>
- **Save carbon costs:** Carbon emissions from natural gas in Ontario will cost approximately **\$4.23 billion** over 2021-2022.<sup>6</sup> Natural gas creates approximately 25% of Ontario's carbon emissions and is the largest source of carbon emissions in the province after transportation.<sup>7</sup> However, even a conservative analysis indicates that DSM can reduce emissions from natural gas by 20% by 2038.<sup>8</sup> DSM is the by far the cheapest way to reduce Ontario's carbon costs.<sup>9</sup>

## Binding Directives from the Government of Ontario

The Government of Ontario, through a binding directive from the Minister of Energy, requires the “achievement of all cost-effective DSM.”<sup>10</sup> The current provincial government reaffirmed this requirement in the March 20, 2019 Minister's Directive. This updated directive stated that the requirement to achieve all cost-effective DSM “shall remain in full force and effect.”<sup>11</sup>

Large increases in DSM investments and savings are needed to achieve all cost-effective DSM.<sup>12</sup>

## Policies of the Government of Ontario

The OEB's statutory objectives include the promotion of energy efficiency “in accordance with the policies of the Government of Ontario.”<sup>13</sup> The relevant policy of the Government of Ontario, as reflected in the Environment Plan, calls for significant incremental investments and savings from DSM in 2021 and onward. This is a major component of the Government of Ontario's plan

<sup>4</sup> EB-2015-0029/0049, Transcript Vol. 10, p. 130, Ins. 4-11; Dunsky Consulting, *The Economic Impact of Improved energy Efficiency in Canada*, April 3, 2018 ([LINK](#)); Efficiency Canada, *Less is More*, May 2018 ([LINK](#)).

<sup>5</sup> Centre for Spatial Economics, *The Economic Impacts of Reducing Natural Gas Use in Ontario*, April 2011

<sup>6</sup> ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 (47M tonnes CO<sub>2</sub>e/yr from natural gas in Ontario); calculation: 47M \* \$40 [for 2021] plus 47M \* \$50 [for 2020] = \$4,230,000

<sup>7</sup> EB-2017-0255, Exhibit B.ED.29; EB-2017-0224, Exhibit I.1.EGDI.ED.29 Ontario's Climate Change Update 2014 (<https://www.ontario.ca/page/ontarios-climate-change-update-2014#section-4>).

<sup>8</sup> Navigant, *2019 Integrated Ontario Electricity and Natural Gas Achievable Potential Study*, September 13, 2019, prepared for the IESO and OEB, p. ix.

<sup>9</sup> ICF, *Marginal Abatement Cost Curve*, EB-2016-0359, July 20, 2017, prepared for the Ontario Energy Board, p. 14.

<sup>10</sup> Minister's Directive, March 26, 2014, para. 4(i).

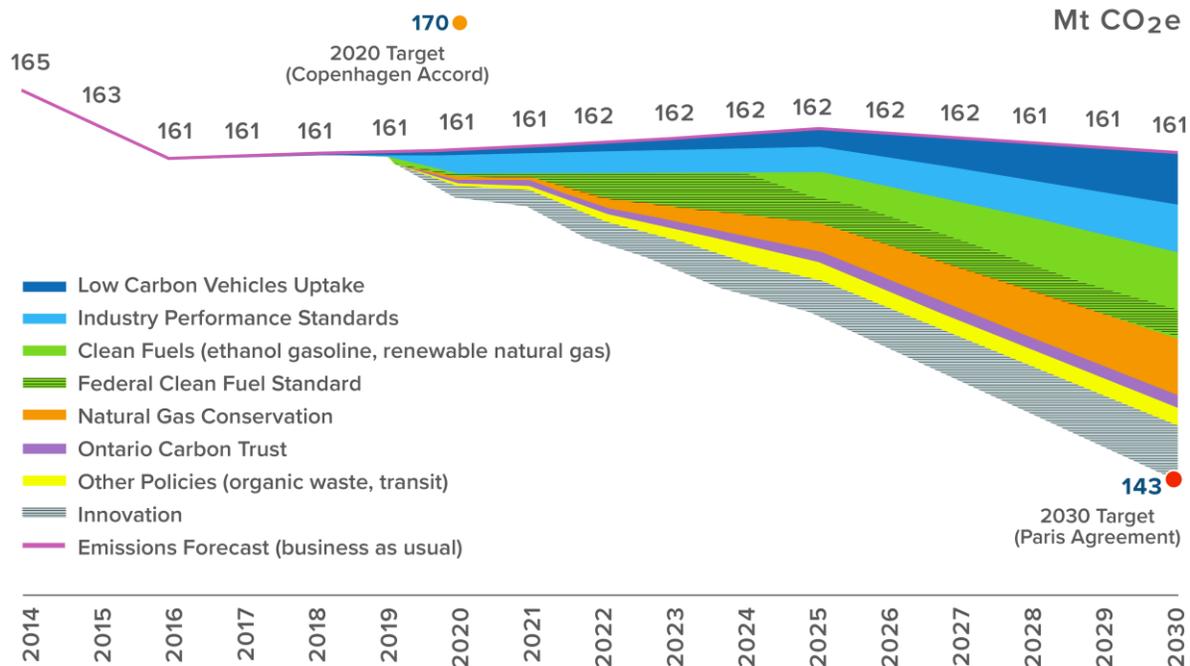
<sup>11</sup> Minister's Directive, March 06, 2019, para. 5.

<sup>12</sup> Navigant, *2019 Integrated Ontario Electricity and Natural Gas Achievable Potential Study*, September 13, 2019.

<sup>13</sup> *Ontario Energy Board Act*, 1998, S.O. 1998, c. 15, Sched. B, s. 2(5).

to meet its 2030 emissions reductions target. The savings from natural gas energy efficiency are illustrated in orange in the below excerpt from the Environment Plan.

*Environment Plan: Path to Meeting Ontario's 2030 Emission Reduction Target*



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If savings levels do not increase, Ontario will be missing the 2021 savings level called-for in the Environment Plan and it will be more challenging to meet the final, 2030 target. Although Environmental Defence does not believe it is possible to remain on track for 2021 without additional investments, we believe the 2021 plan should be maximized to produce the greatest possible savings in the circumstances.

The recent report of the Auditor General of Ontario makes it clear that expanded natural gas energy efficiency starting in 2021 is an essential part of the Environment Plan. For example, it stated as follows:

The Plan estimates 3.2 Mt in emissions reductions from Natural Gas Conservation programs. These programs provide incentives to customers, including residential, commercial and industrial customers, to reduce their natural gas use. In estimating these reductions, the Ministry based its calculations on a study that modelled various future potential scenarios. The Ministry selected a scenario that assumes that **all cost-effective natural gas conservation would be funded and achieved.**<sup>15</sup>

<sup>14</sup> Ontario, *Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan*, November 29, 2018, p. 23.

<sup>15</sup> Auditor General of Ontario, *2019 Annual Report (December 4, 2019)*, p. 125.

The Auditor General’s report also makes it clear that the Environment Plan calls for additional investments in natural gas energy efficiency *in 2021*.<sup>16</sup> It also shows that energy efficiency is by far the most significant provincial government action in the Environment Plan when it comes to reducing carbon dioxide emissions (see the figure below). Success of the Environment Plan hinges on natural gas energy efficiency.

Figure 2: Emission-Reduction Areas in Plan to Reach 2030 Target

Prepared by the Office of the Auditor General of Ontario

Plan Area	Description	Ministry Estimate (Mt) <sup>1</sup>	OAGO Revised Estimate (Mt)	Section References in This Report
<b>"Business As Usual" Emissions Forecast</b>	<b>Ontario's 2030 emissions if no new emission-reduction actions taken</b>	<b>160.9</b>	<b>163.6<sup>2</sup></b>	<b>S. 4.4.3</b>
<b>Emissions Reductions</b>		<b>Reduced By</b>		
Low Carbon Vehicles Uptake	Increased uptake of electric vehicles	2.6	0.0	S. 4.4.1
	Increased uptake of compressed natural gas-powered freight vehicles	0.2	0.0	S. 4.4.2
Clean Fuels	Increased renewable content in gasoline	1.0	1.0	No issues noted
	Increased renewable natural gas supply	2.3	0.0	S. 4.4.3
Federal Clean Fuel Standard	Proposed federal standard that would require fuel suppliers to reduce the carbon intensity of their fuels	1.3	0.0-6.5	S. 4.4.4
Natural Gas Conservation	Natural gas conservation and efficiency programs delivered by utilities	3.2	3.2	S. 4.4.5
Industry Performance Standards	Facility- or sector-specific standards for industry to pay a price for emissions that exceed set levels	2.7 <sup>3</sup>	1.0	S. 4.4.6
Emission Reduction Fund	Loans to pay for the capital costs of energy-efficiency projects for buildings	0.5	0.3	S. 4.4.7
	Reverse auction (funding projects with the lowest cost emission reductions)	0.1	0.0-0.1	S. 4.4.8
Other Policies	Improved diversion of food and organic waste from landfills	1.0	0.7	S. 4.4.9
	Implementation of the GO Regional Express Rail across the GO Transit network	0.1	0.1	S. 4.5
Innovation	Increased energy storage capacity	0.3	0.0	S. 4.4.10
	Cost-effective fuel switching (from high-carbon heating to electricity in buildings)	0.2	0.0	S. 4.4.10
	Future Innovation (other future market-developed technologies)	2.2	0.0	S. 4.4.11
<b>Net Emissions Reductions<sup>4</sup></b>		<b>17.6</b>	<b>6.3-13.0</b>	
<b>Net Emissions</b>		<b>143.3</b>	<b>150.6-157.3</b>	

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<sup>16</sup> *Ibid.* at p. 151 (describing “additional required funding for this scenario from 2021 to 2030”) and p. 142 (showing a bar chart indicating an incremental increase in emissions reductions from DSM starting in 2021).

<sup>17</sup> *Ibid.* at p. 123.

## Lost Savings and Opportunities

Many DSM opportunities are lost for decades if they are missed.<sup>18</sup> For example, if equipment is purchased without upgrading to the most efficient option, the customer must wait until the end of life of the equipment before an efficiency upgrade is cost-effective again. Similarly, if a house is renovated or built without efficiency upgrades, those improvements may not ever be cost-effective. These are instances where higher-than-necessary gas bills will be “locked in” for decades because of insufficient DSM levels.

## Request

When Enbridge filed its application in November of 2019, it could have proposed increased DSM investments and savings for 2021 in line with the Environment Plan, binding Ministerial directives, and the interests of consumers in lower energy bills. There was plenty of time at that stage to consider incremental investments. Indeed, the OEB and IESO potential study had been released two months earlier and found a very large potential to achieve greater savings with highly-cost-effective investments.<sup>19</sup> Unfortunately, Enbridge declined to put forward an option of increased DSM investments for the OEB to consider. Environmental Defence strongly believes additional investments are required in 2021 and going forward, but this is outside the scope of this hearing as established in *Procedural Order No. 1*.<sup>20</sup>

Therefore, Environmental Defence requests that the OEB implement the improvements proposed by the Green Energy Coalition for 2021, which are intended to reallocate resources to more cost-effective higher savings opportunities. However, recognising that these are very minor improvements in comparison to what is needed, Environmental Defence’s primary request is that the OEB expedite its DSM framework proceeding. We believe this is necessary to generate lower energy bills for consumers, fulfill binding Ministerial directives, ensure consistency with government policies, avoid lost opportunities, and provide important benefits such as jobs and growth.

Thank you for the opportunity to make these submissions.

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<sup>18</sup> Ontario Energy Board, *Filing Guidelines to the 2015-2020 DSM Framework*, EB-2014-0134, p. 14 (“Lost opportunity markets refer to DSM opportunities that, if not undertaken during the current planning period, will no longer be available or will be substantially more expensive to implement in a subsequent planning period. An example of preventing a lost DSM opportunity would be improving the thermal envelope of a building at the time the building is undergoing unrelated major renovation work.”).

<sup>19</sup> Navigant, *2019 Integrated Ontario Electricity and Natural Gas Achievable Potential Study*, September 13, 2019, prepared for the IESO and OEB.

<sup>20</sup> OEB, *Procedural Order No. 1*, February 24, 2020, p. 3.