ONTARIO ENERGY BOARD

EB-2017-0127
EB-2017-0128

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

AND IN THE MATTER OF the Demand Side Management Mid-Term Review;

Comments and Recommendations of Environmental Defence and the Green Energy Coalition On the Demand Side Management Mid-Term Review

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September 28, 2018

Contents

Summary

Natural gas energy efficiency programs (i.e. "Demand Side Management" or DSM) lower gas bills. For each dollar invested, much more than a dollar is saved, primary through natural gas savings. Consumers benefit. According to the latest "Potential Study" commissioned by the Ontario Energy Board (the "OEB"), natural gas DSM programs could save consumers over **$85 billion** dollars in natural gas costs by 2030 if expanded to capture all achievable cost-effective DSM savings.[1] That is over **$23,000 per customer** on average (approximately $1,000 per residential customer and $195,000 per commercial/industrial customer).[2]

The potential savings are so high because there is huge potential to make homes and business more efficient via cost-effective programs that pay for themselves multiple times over.[3] This is especially true for commercial and industrial customers.[4] In addition, the savings from energy efficiency programs persist for a long time (e.g. the lifetime of more efficient equipment).[5] Modest monthly savings add up over the years (even after reducing future savings by a discount rate).[6]

Natural gas DSM programs should be expanded now for 2019 and 2020. Since the OEB set gas DSM targets and budgets, two major changes have occurred.[7] First, the OEB's report on DSM potential found huge opportunities to lower gas bills by expanded programs.[8] Second, the *Greenhouse Gas Pollution Pricing Act* came into force (on June 21, 2018) and put a price on carbon.[9] Carbon pricing significantly increases net benefits, cost-effectiveness, and bill reductions from gas efficiency programs. A price on carbon would greatly increase the consumer savings from efficiency beyond the $85 billion figure cited above (that figure did not include

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[1] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 p. 143 (Energy efficiency programs that are both cost-effective and achievable would result in $85,269 billion in lifetime gas savings for 2019 to 2030, which equals $96.6 billion from 2015-2030 minus approximately $11.0 billion from 2015-2018).

[2] Enbridge and Union have approximately 3,674,944 customers, of which approximately 3,253,104 are residential customers (EB-2017-0255, Exhibit B.ED.7; EB-2017-0224 Exhibit I.C.EGDI.ED.7); ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 pp. 49-50 (Energy efficiency programs that are both cost-effective and achievable would result in $3.1 billion in lifetime gas savings for 2019 to 2030 for residential customers, which equals $4.3 billion from 2015-2030 minus approximately $1.2 billion from 2015-2018).

[3] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016. p. 143.

[4] *Ibid*. pp. 88-89 & 125-127 (Quantifying the major commercial and industrial savings available).

[5] *Ibid.* p. 7.

[6] *Ibid*. p. 143 & footnote 64 on p. 49 (The value of future gas savings cited above have been discounted for the discount/inflation rate to account for the fact that current savings are worth more than future savings.)

[7] Natural gas DSM targets and budgets were set via the OEB's Demand Side Management Framework for Natural Gas Distributors, December 22, 2014 and via the OEB's Decision and Order in EB-2015-0029/0049, January 20, 2016 (approving 2015-2020 DSM plans).

[8] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 p. 143.

[9] *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186.

avoided carbon costs because it was calculated in 2016). These developments warrant a significant expansion of gas efficiency programs and funding.

To the extent that there are concerns about short-term rate impacts of additional spending on efficiency programs, those concerns could be addressed by amortizing efficiency program spending over the life of the savings that they produce. DSM costs are currently incurred immediately even though the benefits accrue for many years. Amortization would match the costs and benefits over time and would allow program participants to pay for energy efficiency programs over time with the savings from reduced gas usage.

Utilities should also be given an incentive to propose and achieve the highest possible savings for consumers. Without a change, utility and consumer interests are misaligned. Without a change, utilities have no financial incentive to propose improved programs that would achieve greater bill reductions.

These and other recommendations are detailed below. In the following sections, we have included recommendations for the remainder of the current DSM Framework (i.e. for 2019 and 2020) and for the development of the next DSM Framework (i.e. for 2021 and beyond). A full list of recommendations can be found on page 11 below.

Mandate Greater Savings and Bill Reductions

As noted in above, we recommend that the OEB mandate greater savings and bill reductions through expanded DSM programs starting in 2019 and 2020 and continuing more deeply in 2021 onward. Expanded DSM programs and funding would benefit gas consumers and all Ontarians because DSM would:

- **Lower gas bills:** Under the OEB's DSM Framework, DSM programs can only be implemented if the savings they achieve are greater than the costs to Ontario as a whole (i.e. only if they are "cost-effective").[10] Each dollar invested must create *at least* one dollar in savings.[11] In reality, each dollar creates much more than one dollar in savings. For example, Enbridge's 2019 programs are forecast to generate $4.72 for every dollar spent by the utility; its most cost-effective programs in the commercial sector are forecast to generate around $15.00 for every dollar.[12] These programs pay for themselves many times over.

[10] OEB, *Demand Side Management Framework for Natural Gas Distributors*, December 22, 2014, pp. 33-34.
[11] *Ibid*.
[12] EB-2015-0049, Ex. B-2-3, p. 6. These figures include all utility DSM costs (under the Program Administrator Cost Test). The Total Resource Cost Test, which focuses on society-wide costs and benefits, generates average benefits of $2.57 for every dollar invested, with $22.48 for every dollar in the most efficient program.

- **Create $85 billion in natural gas savings**: DSM programs could save consumers over $85 billion dollars in natural gas costs by 2030.[13] The savings are even higher if carbon costs are considered. There is a huge potential to lower gas bills.

- **Create 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.[14] DSM replaces out-of-province gas purchases with made-in-Ontario gas savings and many Ontario-based jobs.

- **Strengthen 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.[15]

- **Save carbon costs:** Carbon emissions from natural gas in Ontario will cost approximately **$2.35 billion** over 2019-2020.[16] Over 2021-2022 the cost will be approximately **$4.23 billion** as the carbon price increases.[17] Natural gas creates approximately 25% of Ontario's carbon emissions and is the largest source of carbon emissions in the province after transportation.[18] However, DSM can reduce emissions from natural gas by 17.8% by 2030.[19] DSM is the cheapest way to reduce Ontario's carbon costs.

- **Achieve parity with electricity efficiency programs:** More natural gas DSM is needed to achieve levels consistent with the electricity sector. Gas DSM has one quarter the budget compared to the electricity sector even though it is much more cost effective and natural gas consumption creates far more carbon emissions.[20]

Cost of Status Quo in 2019 & 2020

Consumers will miss out on major potential savings if programs are not increased now for 2019 and 2020. For example, Enbridge's DSM programs alone are forecast to produce over $289

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[13] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 p. 143 (DSM programs that are both cost-effective and achievable would result in $85,269 billion in lifetime gas savings for 2019 to 2030, which equals $96.6 billion from 2015-2030 minus approximately $19.054 billion from 2015-2018).

[14] EB-2015-0029/0049, Transcript Vol. 10, p. 130, lns. 4-11.

[15] Centre for Spatial Economics, *The Economic Impacts of Reducing Natural Gas Use in Ontario*, April 2011

[16] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 (estimating approximately 47 million tonnes CO2e/yr from natural gas in Ontario); calculation: 47M * $20 [for 2019] plus 47M * $30 [for 2020] = $2,350,000,000.

[17] *Ibid*. (calculation: 47M * $40 [for 2021] plus 47M * $50 [for 2020] = $4,230,000).

[18] 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).

[19] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016, p. iv.

[20] EB-2015-0029/0049, Exhibit K6.2, Transcript Vol. 6, p. 124, ln. 19-26 & Vol. 10, p. 130, lns. 4-11.

million in *net* benefits in 2019 and 2020.[21] If those net benefits can be increased by only 10% (e.g. through improved programs, better focus, etc.), consumers of just Enbridge could realize roughly $30 million in savings.

Furthermore, some DSM opportunities arising in 2019 and 2020 will be lost for decades if they are missed. 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 in 2019 and 2020.

Appropriate Levels of Expansion

In the short term (for 2019 and 2020), we recommend that the utilities be asked to increase gas savings by between 10% and 30% via expanded programs and program funding. Over those years, the level of expansion will depend on the utilities' ability to ramp up their programs, not the overall potential to expand. Earlier this year, both utilities were asked by Board Staff under oath whether they could find a cost-effective use for an additional $5 million in DSM spending.[22] Both utilities said yes.[23] Neither utility ruled out or commented on larger increases. A $5 million increase per utility is roughly 12% of the existing resource acquisition DSM budgets.[24] Other reports and experts have identified much larger potential cost-effective increases.[25]

The results of the Potential Study commissioned by the OEB show that expanded programs to achieve 10 to 30% more gas savings would not require higher costs per cubic metre of savings.[26] This is possible by focusing expansion in the most cost effective programs. Therefore, 10 to 30% is a conservative range of increases for the interim.

This recommendation should be read in combination with the below recommendation that DSM costs be amortized. This would allow for funding to achieve greater gas savings while remaining within the budget caps set by the OEB.[27]

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[21] EB-2015-0049, Ex. B-2-3, pp. 6-7 (TRC-plus benefits in 2019 ($143,318,911) and 2020 ($146,079,282). The benefits will be larger with federal carbon pricing.)
[22] EB-2017-0224/0255, Transcript Vol. 2, p. 171, lns. 16-23; Transcript Vol.4, p. 44, lns. 21-28.
[23] *Ibid.*
[24] EB-2015-0029, Exhibit A, Tab 3, p. 6; EB-2015-0049, Exhibit B-2-3, p. 6.
[25] EB-2017-0224/0255, Exhibit L, Direct Testimony of Chris Neme, p. 7, lns. 13-17; ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016.
[26] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016; ED & GEC Mid-Term Review Stakeholder Meeting Presentation, September 6, 2018, p. 4; The Potential Study found that optimized DSM plans could achieve approximately 30% more savings (580M m3 vs 439M m3) with approximately 20% more budget ($393 M vs. $472M).
[27] OEB, *Demand Side Management Framework for Natural Gas Distributors*, December 22, 2014

This recommendation should also be read in combination with the below recommendation that the utilities be given an incentive to maximize savings for consumers. The utilities could be incentivized to develop and implement a plan for the modest increased savings in 2019 and 2020 we are proposing within the existing $10 million incentive cap. But this issue needs to be revisited in more detail in the development of the next DSM framework.

For the development of the next DSM Framework (for 2021 and beyond), we recommend that options to achieve all cost-effective DSM be considered early on in the process.

Reduce Rate Impacts and Maximize Fairness

DSM costs are funded through rates charged to all customers. For almost all participants in DSM programs, the added costs are greatly outweighed by the savings achieved through reduced gas usage. Although their gas rates may go up slightly, this is more than offset by reduced gas usage and charges.

As a result, o*nly non-participants face net costs from DSM programs.* Therefore, the impact of DSM costs on gas rates is really an issue about fairness to customers who have not participated in DSM programs.

As a preliminary matter, even non-participants receive some benefits from DSM investments, just not the same magnitude of benefits as the program participants. DSM reduces the distribution costs all customers pay, suppresses market prices of gas, and provides other financial benefits to non-participants.[28] The OEB has directed the utilities to analyze this issue further.[29] Although the exact magnitude is still being analyzed, DSM investments do result in some system savings for non-participants as well as wider economic benefits that accrue to all Ontarians such as jobs, GDP growth, and increased government revenue. In contrast, many supply-side investments in pipelines are paid by all ratepayers but only benefit a portion of customers in a specific area.

Furthermore, participation must be viewed over a long time period. A customer who participated 15 years ago by upgrading their boiler would still be reaping benefits through reduced gas usage, which would help offset DSM costs.

The best way to ensure fairness to non-participants is to expand DSM programs and funding. Although this seems counterintuitive, expanded programs help address the non-participant fairness issue by:

- Increasing the number of participants (decreasing the number of non-participants); and

[28] EB-2015-0029/0049, *Direct Testimony of Paul Chernick*, July 31, 2015
[29] OEB, *Decision and Order in EB-2015-0029/0049*, January 20, 2016 (approving 2015-2020 DSM plans), p. 87.

- Increasing the *opportunities* to participate (addressing *fairness* to non-participants).

In other words, expanding DSM programs is the best for all consumers because it creates the greatest opportunities for all customers to lower their gas bills. The best way to address rate impacts, which are more accurately described as non-participant impacts, is to expand programs and program funding so that the most customers have an opportunity to participate. This further supports our recommendation to expand DSM programs and funding.

Amortize DSM Costs

Currently, the full cost of gas efficiency programs is borne by consumers in year one even though the benefits accrue in the future over many years (e.g. over the 15-year lifespan of energy efficient equipment). This creates a major mismatch in the timing of the costs and the benefits. DSM program costs could be amortized to address this misalignment. The potential benefits include:

- **Softening rate impacts:** If DSM programs are amortized (e.g. over 15 years) the impacts on rates will be spread out over time and participants will be able to pay for the cost of DSM programs via the savings from reduced gas usage.

- **Consistency with supply-side investments:** When utilities invest in pipelines the costs are amortized over time. Amortizing DSM costs would be more consistent with how supply-side investments are recovered.

- **Intergenerational fairness:** Without amortization, the people investing in DSM may not fully benefit from those investments (e.g. if they move to a different province). Amortization decreases the number of people who pay but do not benefit.

- **Allow expansion of cost-effective DSM:** To the extent some stakeholders and/or the OEB have concerns about the impact on rates of expensing additional DSM spending, paying for DSM upfront impedes investment in cost-effective programs. Amortizing would allow Ontario to achieve greater savings through expanded gas efficiency.

For 2019 and 2020, if $2 rate impact cap is held firm, we recommend that a portion of DSM costs be amortized (e.g. rate based) to allow expanded programs within the existing cap. For the next DSM Framework (covering 2021 and beyond) we recommend exploring amortization for all DSM costs.

Incentivize the Maximization of Energy Bill Reductions

The utilities should be incentivized to develop optimal DSM plans that maximize energy bill reductions. At the moment, they are not. Under the current model, utilities have a financial incentive to meet and beat targets set out in their approved multi-year DSM plans. However, they

have no financial incentives to design optimal plans that maximize benefits to consumers, achieve the highest energy bill reductions possible, or include the most cost-effective programs available. The utilities actually have a perverse incentive to propose plans with only modest savings targets that are easier to meet and beat.

In other words, utilities are incentivized to *execute* DSM plans well, but not to *design and develop* optimal plans. For example, the utilities have no financial incentive to make additional efforts to include innovative and highly cost-effective programs in their proposed plans.

There are a number of ways to align utility and consumer interests at the DSM plan development stage. For example, the incentive cap could be allowed to increase if the utilities propose plans that achieve higher net benefits. This could be done by holding the current ratio of net benefits to the incentive pot cap constant. This would allow the utilities to earn more if they achieve more energy reductions for customers without increasing the ratio of utility benefits to consumer benefits. Incentives would still be earned for meeting targets, but the maximum incentive amount could increase if more net benefits are achieved via better DSM plans.

We recommend that options to incentivize the maximization of net benefits be considered as a priority issue in the development of the next DSM Framework. In the interim, the modest program expansion we are proposing for 2019/2020 can be addressed within the existing incentive cap because the utilities do not appear to be on track to reach the existing cap.

Accurately Account for Carbon Costs

The DSM Framework was created before carbon pricing and therefore did not account for carbon pricing. Simple but important adjustments are needed now that the *Greenhouse Gas Pollution Pricing Act* has come into force and has put a price on carbon.[30] These adjustments are necessary for the DSM planning and development work that will occur over the coming years.

Excluding carbon costs from cost-benefits analyses would be **distortionary** and result in sub-optimal DSM plans. In particular, excluding carbon costs would:

- **Skew long vs. short-lived measures:** Carbon pricing increases the relative benefits of longer-lived DSM measures vs. shorter-lived ones (because carbon costs increase over time); and

- **Skew gas vs. other avoided costs:** Avoided cost calculations for DSM include non-gas saving (e.g. electricity, water). Carbon pricing increases the relative value of gas savings vs. other avoided costs.

[30] *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186.

Excluding carbon costs would also be inaccurate and unsound. Carbon costs are real and large. The carbon emissions from natural gas in Ontario will cost approximately $6.5 billion over the next four years.[31] Ignoring these costs would cause:

- Underestimation of the gas DSM potential;
- Underestimation of the net benefits and cost-effectiveness of gas DSM; and
- Underestimation of the benefits and cost-effectiveness of gas DSM versus electricity efficiency programs.

The solution is simple. We recommend that carbon costs be added to DSM screening and cost/benefit analyses while maintaining 15% as a non-energy non-carbon benefits adder. Studies show that 15% is a conservative estimate of non-energy and non-carbon benefits.[32]

Pilot Performance/Benchmarking-Based DSM Programs

We recommend that both utilities run a pilot program to test performance/benchmarking-based DSM programs that have the potential to achieve deep savings extremely cost effectively.[33] This kind of DSM appears to provide the potential to achieve three times the savings typically identified by traditional methods for many commercial and institutional buildings.[34] In a nutshell, this kind of program analyzes data from a group of buildings (e.g. schools) to determine energy use benchmarks on a square foot basis. Intervention is then focused on the worst performers with the highest potential. Targets and results are based on actual before and after measurements of gas consumption for each building.

Key benefits include:

- **Deeper savings are possible** (by focusing on the least efficient buildings and on operational and retrofit measures);
- **Higher cost-effectiveness is achievable** (by focusing on the most cost-effective measures in the least efficient buildings);

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[31] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016 (estimating approximately 47 million tonnes CO2e/yr from natural gas in Ontario); calculation: 47M * $20 [for 2019] plus 47M * $30 [for 2020] plus 47M * $40 [for 2021] plus 47M * $50 [for 2020]= $6,580,000,000.

[32] Lisa A. Skumatz, *Non-Energy Benefits / Non-Energy Impacts (NEBS/NEIS) and their Role & Values in Cost-Effectiveness Tests*, March 14, 2014(https://energyefficiencyforall.org/sites/default/files/2014_%20NEBs%20report%20for%20Maryland.pdf); *Massachusetts Program Administrators— Non-Energy Impact Framework Study Report*, January 23, 2018.

[33] Enerlife Consulting, *Ontario Energy Board DSM Mid-Term Review Stakeholder Meeting*, September 6, 2018.

[34] *Ibid*.; presentation by Ian Jarvis.

- **Targets are more concrete** (because they are based on bringing inefficient buildings up to the top quartile of performance);

- **Results can often be verified more accurately** (using before and after measurements of actual gas consumption);

- **Auditing is simpler and more robust** (because it is based on actual usage data); and

- **Free riders are reduced or eliminated** (by following an intervention-based approach to achieve large savings measure that are not happening now, monitoring actual usage, and allowing for subsequent comparative analysis).

A pilot could provide valuable information and lessons learned for the development of the next DSM Framework. We believe it is in the interest of consumers to begin this work as soon as possible.

Integrated Resource Planning

Although the utilities have made some progress with respect to Integrated Resource Planning ("IRP"), they have fallen far short of what the OEB directed them to do. IRP can save consumers many millions of dollars in cases were supply-side pipeline projects can be avoided or delayed via less expensive DSM. This requires pre-planning so that the DSM can be rolled out early enough to avoid the pipeline upgrades. Because the utilities have fallen far short of OEB directives, consumers could end up incurring millions in unnecessary costs that could have been avoided with proactive IRP. Every month that passes without proper IRP, expensive projects become unavoidable and consumers suffer.

Interim Examination of Demand Side Alternatives

In 2014, the OEB directed the utilities "to provide a more rigorous examination of demand side alternatives, including rate options, in all gas leave to construct applications."[35] This directive applied immediately while research was ongoing on a more comprehensive approach to IRP. The Board made this directive in the proceeding concerning the over $600 million "GTA Pipeline" project. Although it was too late to implement demand side alternatives for that project, the evidence showed that demand side alternatives should be considered early on in the process in the future.

IRP then became mandatory under the Long-Term Energy Plan, the Conservation Directive, and the DSM Framework. The DSM Framework states as follows:

[35] Ontario Energy Board, *Decision in EB-2012-0451/0433, January 30, 2014*, p. 46-47 (GTA Pipeline).

> As part of all applications for leave to construct future infrastructure projects, the gas utilities must provide evidence of how DSM has been considered as an alternative at the preliminary stage of project development.
>
> In order for the gas utilities to fully assess future distribution and transmission system needs, and to appropriately serve their customers in the most reliable and cost-effective manner, the Board is of the view that DSM should be considered when developing both regional and local infrastructure plans. This is consistent with the direction outlined in the LTEP and the Conservation Directive, which state that the Board shall take steps it considers appropriate towards implementing the government's policy of putting conservation first in electricity distributor and gas distributor infrastructure planning processes at the regional and local levels, where cost-effective and consistent with maintaining appropriate levels of reliability. The Board expects the gas utilities to consider the role of DSM in reducing and/or deferring future infrastructure investments far enough in advance of the infrastructure replacement or upgrade so that DSM can reasonably be considered as a possible alternative. If a gas utility identifies DSM as a practical alternative to a future infrastructure investment project, it may apply to the Board for incremental funds to administer a specific DSM program in that area where a system constraint has been identified.[36]

The utilities have not followed these directions to rigorously examine demand side alternatives in gas leave to construct applications. None of the utilities' leave to construct applications since the 2014 GTA Pipeline decision make any reference to demand side alternatives. We therefore recommend that the OEB reiterate its direction from the 2014 GTA Pipeline case that the utilities rigorously examine demand side alternatives in leave to construct applications.

Integrated Resource Planning Transition Plan

In 2016, the OEB directed the utilities to "work jointly on the preparation of a proposed transition plan that outlines how to include DSM as part of future infrastructure planning activities."[37] The document prepared by the utilities is not a transition plan and does not outline how to include DSM as part of future infrastructure planning activities.

In the GTA Pipeline decision in 2014, a number of challenges were identified in relation to IRP. For example, IRP requires assumptions about the impact of DSM on *peak* demand (whereas DSM is typically considered based on *annual* demand). The transition plan does not propose or outline solutions to those challenges. In essence, it reiterates the existence of the challenges already identified years ago. For example, it does not include an analysis of the relationship between DSM and peak demand. Instead states what was already known, that "the dynamics

[36] Ontario Energy Board, *DSM Framework*, December 22, 2014, p. 35-36.
[37] OEB, *Decision and Order in EB-2015-0029/0049*, January 20, 2016 (approving 2015-2020 DSM plans), p. 84.

between energy efficiency's impact on peak demand and the distribution system, versus the annual savings and reduced GHG emissions would need to be fully understood."[38]

Although the utilities have done some case study work, they have disregarded the concern expressed by the OEB in 2016 that this work would take too long and would delay the delivery of a transition plan. The OEB specifically said in 2016 that "the OEB is concerned that the time required to complete a case study would delay the utilities' infrastructure planning activities proposal and the transition plan would not be available in time for the mid-term review."

Although the so-called transition plan includes a "roadmap" for 2017-2019, that is not a transition plan. For example, the steps for 2019 include "continued consideration of scope of IRP" and "continued monitoring (and possible completion) of in-field IRP case studies."[39] In essence, the utilities are planning to study the issue further – exactly what the OEB wanted to avoid in its 2016 decision.

In short, the document prepared by the utilities does not outline *how* or *when* DSM will be included in infrastructure planning. Therefore, we recommend that the OEB direct the utilities to propose specific methodologies and processes that address the IRP issues outlined in past OEB decisions and in the IRP report prepared by ICF International, to be filed with the OEB in 2019.

Act Now and Plan for 2021 Forward

The DSM Midterm Review is an opportunity to make adjustments to the current DSM Framework for 2015-2020 and to provide guidance regarding the development of the next DSM Framework for 2021 and beyond. The Board's DSM Framework states that "The Board may also consider it appropriate to provide guidance on the nature of the gas utilities' DSM activities beyond 2020" in the Mid-Term Review.[40] We have therefore recommended actions for the short term (2019-2020) and focus areas for the future (2021 and beyond).

In addition, we recommend that the first stakeholder meeting for the development of the next DSM Framework occur in January of 2019. The purpose of this meeting would be to identify key issues and areas where further work and research is required. This kind of proactive meeting would allow time for additional work and research in 2019 as part of the planning and development of the next DSM Framework.

Scope

The recommendations detailed herein are within the scope of the Mid-Term Review, in part because they flow from the conclusions of the Potential Study commissioned by the OEB. The

[38] EB-2017-0128, Enbridge Submission, Appendix E, p. 9.
[39] *Ibid*., p. 11.
[40] Ontario Energy Board, *DSM Framework*, December 22, 2014, p. 4.

Potential Study is critical report for the Mid-Term Review according to all the key DSM documents. For example:

- The **Conservation Directive**, which is binding on the OEB, states that the Potential Study is intended to "inform natural gas efficiency planning and programs."[41]

- The **OEB's DSM Framework** states that "The mid-term review will be informed by a study of achievable potential."[42]

- The **OEB's 2015-20 DSM Plans Decision** specifically lists the Potential Study as one of the studies that must be filed for the Mid-Term Review.[43]

- The **OEB's June 20, 2017 DSM Mid-Term Review Letter** states that the review will "include a review of the mid-term study and reports listed in the DSM Decision," which includes the Potential Study.[44]

An updated Potential Study is being prepared for 2019. This will inform the development of the next DSM Framework for 2021 onward. The 2016 version was specifically created to inform the DSM Mid-Term review. However, the utilities' presentations do not refer to it at all. Our recommendations simply follow the requirement that the Potential Study be used to "inform natural gas efficiency planning and programs."[45]

In addition, the Board's June 20, 2017 letter notes that the Mid-Term Review will allow the board to "consider the DSM Framework relative to the overall energy conservation landscape."[46] Carbon pricing drastically increases net benefits, cost-effectiveness, and bill reductions from gas DSM. It also brings about new role for DSM as a cheap hedge against future carbon prices. This warrants consideration of expanded programs and funding for 2019 and 2020.

For further submissions regarding scope, see the letter to the Board from Environmental Defence and the Green Energy Coalition dated September 2, 2019.

List of Recommendations

Environmental Defence and the Green Energy Coalition offer the following recommendations:

1. **Mandate Greater Gas Cost Savings**

    a. For 2019 and 2020: Invite the utilities to increase gas savings by between 10%

[41] Directive from the Minister of Energy to the Ontario Energy Board, March 26, 2014, para. 4(vi).
[42] OEB, *Demand Side Management Framework for Natural Gas Distributors*, December 22, 2014, p. 4.
[43] OEB, *Decision and Order in EB-2015-0029/0049*, January 20, 2016 (approving 2015-2020 DSM plans), p. 85.
[44] OEB, *Letter re DSM Mid-Term Review (EB-2017-0127 and EB-2017-0128)*, June 20, 2017, p. 2.
[45] Directive from the Minister of Energy to the Ontario Energy Board, March 26, 2014, para. 4(vi).
[46] OEB, *Letter re DSM Mid-Term Review (EB-2017-0127 and EB-2017-0128)*, June 20, 2017, p. 1.

and 30% via expanded DSM programs and program funding

b. For the next DSM Framework: Consider options to achieve all cost-effective DSM

2. Amortize DSM Costs

a. For 2019 and 2020: If the $2 rate impact cap will be held firm, amortize a portion of DSM costs (e.g. by rate basing) to allow expanded programs within the existing cap

b. For the next DSM Framework: Explore amortization for all DSM costs

3. Incentivize the Maximization of Energy Bill Reductions

a. For the next DSM Framework: Consider all options to provide utilities with an incentive to propose and achieve the highest possible net benefits for consumers as a priority issue

4. Accurately Account for Carbon Pricing

a. For 2019 onward: Add carbon costs to DSM screening and cost/benefit analyses while maintaining 15% as a non-energy non-carbon benefits adder

5. Pilot Performance/Benchmarking-Based DSM Programs

a. For 2019 and 2020: Invite the utilities to pilot performance/benchmarking-based DSM programs

6. Integrated Resource Planning

a. Reiterate the OEB's direction from the 2014 GTA Pipeline decision that the utilities rigorously examine demand side alternatives in all leave to construct applications

b. Direct the utilities to propose specific methodologies and processes that address the IRP issues outlined in past OEB decisions and in the IRP report prepared by ICF International, to be filed with the OEB in 2019

7. Guidance for the Next DSM Framework

a. Hold the first stakeholder meeting in January of 2019 to identify key issues and areas where further work and research is required

Conclusion

Natural gas DSM is likely the biggest and best opportunity for the Ontario Energy Board to reduce gas bills for Ontario. Over the next 12 years DSM could reduce gas consumption by 17.8%.[47] Province-wide, the gross gas savings would be worth **$85 billion** *plus* the avoided carbon costs. The entire province would benefit via increased jobs, productivity, competitiveness, and economic growth. This is a made-in-Ontario alternative to continuing to send dollars out of province to purchase gas from elsewhere.

To achieve these massive benefits for consumers and the province as a whole, immediate action is needed for 2019-2020 and proactive planning is needed for 2021 and beyond. We hope these recommendations will be implemented to the benefit of all Ontarians.

[47] ICF International, *Natural Gas Conservation Potential Study*, commissioned by the OEB, July 7, 2016, p. iv.