Bill 4 - Cap and Trade Cancellation Act, 2018

Submission

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c/o Carleton University
1125 Colonel By Drive
Ottawa, ON K1S 5B6
info@efficiencycanada.org

Efficiency Canada
The national voice for an energy efficient economy

About Efficiency Canada

Efficiency Canada is a new organization, launched in May 2018, that acts as the national voice for an energy efficient economy. Efficiency Canada is an operating unit of the Carleton University Sustainable Energy Research Centre. We envision a future where energy efficiency is widely recognized as the “First Fuel”, where energy savings improve by at least 2% per year, and where efficiency supports job growth across all sectors and provinces.

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Introduction

In July 25th 2018 the Ministry of the Environment, Conservation and Parks released the "Bill 4 – An Act Respecting the Preparation of a Climate Change Plan", providing for the wind down of the cap and trade program and repealing the "Climate Change Mitigation and Low-Carbon Economy Act, 2016". The Bill announced the *Cap and Trade Cancellation Act, 2018* and indicated an intention to develop a new plan to reduce greenhouse gas emissions.

This submission first discusses the benefits of energy efficiency for achieving significant and low-cost greenhouse gas reductions while creating jobs and improving economic competitiveness. Efficiency is also integral to maintaining Ontario's low-carbon electricity grid, at lowest cost to consumers.

We outline some guidelines and ideas for incorporating energy efficiency into a new climate change plan. These include:

1) Attracting private finance into energy efficiency markets.
2) Implementing high-performance building codes.
3) Making building energy use transparent.
4) Letting efficiency compete to provide the lowest cost energy services.

Energy efficiency creates jobs, improves competitiveness, and lowers costs

Energy Efficiency means using less energy to produce the same outcome. For example, when houses have appropriate insulation, less heat is necessary to maintain indoor temperature, saving energy costs.

Improving energy efficiency creates jobs. Upgrading buildings and industries creates jobs throughout the province in sectors such as construction, manufacturing, and retail. As people save and re-spend money the economic impact is increased three fold. In a recent study commissioned by Efficiency Canada, we asked how many jobs would be created in Ontario if it targeted energy savings consistent with North American best practices. **Economic modelling showed that 57,000 annual jobs, between now and 2030, would be created in the province.**[1]

Energy efficiency also improves business competitiveness. Spending less money on energy cushions businesses against unexpected costs, and frees up dollars to invest in more productive capital improvements, and human resources. Examples from Ontario show that CEOs realize that the return on investment from efficiency is much broader than expected.[2] This is because energy efficiency upgrades can also reduce operational and maintenance costs, better designed

[1] Dunsky Energy Consulting 2018, The Economic Impact of Improved Energy Efficiency in Canada, available at https://www.efficiencycanada.org/wp-content/uploads/2018/04/Economic-Impact-of-Pan-Canadian-Framework-Energy-Effciency.pdf

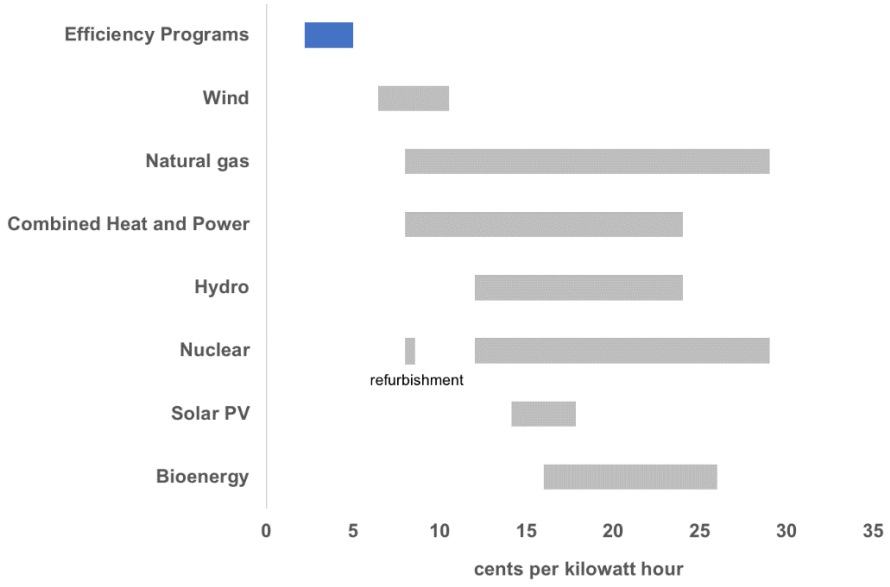
[2] See *https://www.saveonenergy.ca/en/For-Business-and-Industry/Improving-your-business/CEOs-make-energy-efficiency-a-priority*

buildings can increase employee satisfaction and productivity, and improved lighting can increase retail sales.

Efficiency is also integral to maintaining Ontario's low-carbon electricity grid, at lowest cost to consumers. Ontario has made significant progress in reducing GHG emissions from its electricity system, predominantly through phasing out coal and reducing its reliance on fossil fuel generation. In 2017, non-emitting resources produced 96% of Ontario's electricity supply needs.[3] To maintain its climate leadership, Ontario must remain vigilant against increased GHG emissions and work to lower the burden electricity costs can place on Ontario consumers. There is a potential that Ontario will need to build new gas fired generation as nuclear reactors are either refurbished or retired beginning in 2020, as well as contracted facilities reaching the end of their commercial agreements. Maintaining and increasing energy savings through energy efficiency and codes and standards today could avoid both higher costs and the increase in GHG emissions.

The following figure presents the levelized cost of energy efficiency programs versus generation in Ontario. In 2016, it only cost Ontario 2.2 cents to save a kilowatt-hour through its Save on Energy conservation programs. Even if these programs costs were to increase to a high of 5 cents/kwh (as seen in some jurisdictions), efficiency still remains much lower cost in comparison to natural gas, nuclear, and renewable energy. Ontario should continue to invest in electricity energy efficiency to maintain its low-carbon grid and to lower consumer bills.

Cost of Energy Efficiency versus Generation in Ontario (2016)[4]



[3] IESO, Power Perspectives, *Today's Challenges, Tomorrow's Opportunities*, http://www.ieso.ca/-/media/files/ieso/document-library/publications/power-perspectives.pdf?la=en

[4] See *Environmental Commissioner of Ontario 2018 Conservation Report, p. 138, IESO 2016 Large Renewable Procurement & Molina 2014.*

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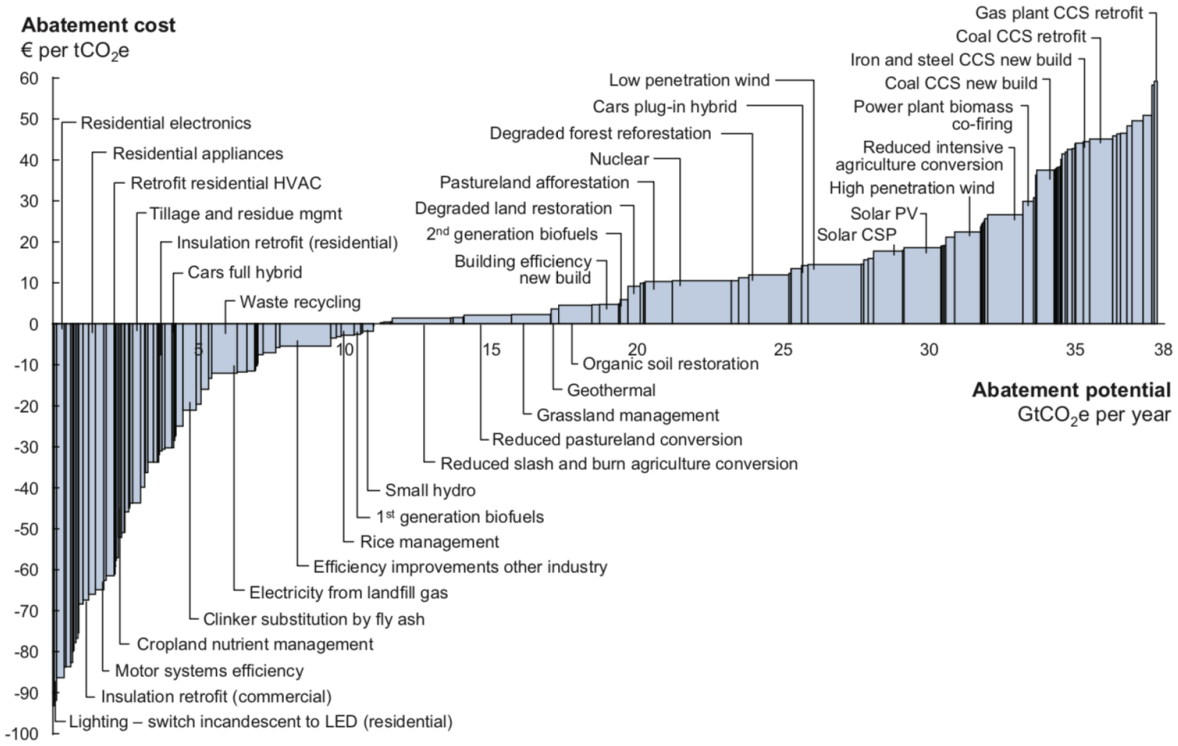
A New Climate Change Plan

We recognize that the government wishes to take a new approach to reducing GHG emissions. Any overall GHG reductions targets should be in line with Canada's international commitment to limit warming to 1.5 degrees, which calls for maintaining Ontario's existing target of reducing emissions 80% below 1990 levels by 2050.

Energy efficiency can play a significant role in helping reduce emissions. Canada-wide, a recent study of energy efficiency potential by the International Energy Agency suggests that efficiency could provide 30-40% off the reductions required to reduce emissions 80% below 2005 levels by 2050.[5]

Efficiency can also achieve GHG reductions at low cost. This is demonstrated, on a global level, by the McKinsey abatement cost curve. The curve orders different GHG reduction options from lowest cost to higher cost, from a societal perspective. There are many energy efficiency measures – such as improvements to residential appliances; heating, ventilation and air conditioning (HVAC), and insulation – that have *negative costs*, or represent an overall net benefit from a societal perspective.

Global GHG abatement curve beyond business-as-usual – 2030[6]



Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO_2e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.
Source: Global GHG Abatement Cost Curve v2.0

[5] See *https://www.efficiencycanada.org/canada-resource-potential/*
[6] See *McKinsey*

Adopting Energy Efficiency Best Practices

Efficiency Canada's mandate includes tracking energy efficiency policy and program best practices. The new Ontario climate plan can integrate energy efficiency best practices, as well as new techniques and technologies into its climate action plan. We recommend the following:

1) **Attracting private finance into energy efficiency markets**

   Private capital providers are currently enabling building upgrades in sectors with good credit profiles, such as government and high-quality commercial buildings. However, there are structural barriers that prevent engaging private finance in supporting the upgrade of the province's entire building stock.

   Ontario's new climate action plan can broaden the market for energy efficiency through initial risk absorption and aggregation of energy efficiency projects in a way that crowds-in private sector finance and builds familiarity with energy efficiency financing opportunities.

   The Ontario Climate Change Solutions Deployment Corporation (OCCSDC) could be given a clear mandate to attract private capital into upgrading Ontario's building stock. Green Banks in the United States and internationally have demonstrated the ability to increase the amount of private finance leveraged over time, and provide returns to government investments.

2) **Implementing high-performance building codes**

   Improving building codes can reduce GHG emissions at low cost, and trigger innovations in the building sector if focused on performance. Ontario could adopt a "step code" akin to the one implemented in British Columbia, which provides a predictable path towards higher performance buildings. This policy could give municipalities the freedom to move through these steps to achieve a final agreed upon outcomes, such as net-zero construction.

3) **Making building energy use transparent**

   Providing greater transparency on building energy strengthens consumer knowledge and improves the functioning of markets. Ontario can move forward with benchmarking large building energy performance in the private and public sectors, and require disclosure of energy performance prior to the sale of a home.

   To manage concerns that energy performance disclosure will be too cumbersome, we suggest the government explore methods to introduce home energy labeling and building benchmarking in more effective, and consumer-friendly ways. New methods that use

central cost-sharing, sensors, and predictive models can create quicker and more "turn key" assessments.

4) Letting efficiency compete to provide the lowest cost energy services

Energy efficiency can avoid the need for new power plants, transmission lines, and fossil fuels at much lower costs if it is considered as an alternative to these supply options. Jurisdictions like Massachusetts have implemented guidance to utility regulators to procure "all cost-effective" energy efficiency. Ratepayers benefit when they fund energy efficiency instead of generation because it is lower cost.

Ontario can lower GHG emissions, and reduce energy bills by expanding natural gas conservation programs, or demand side management (DSM) programs. Conservation potential studies in Ontario demonstrate large untapped, cost-effective, opportunities to improve efficiency.[7] Ontario could cut natural gas use by 18%, reducing annual GHG emissions by 9.3 million tonnes, by 2030, by investing in cost-effective energy efficiency.

Ontario must also expand and improve its electricity energy efficiency to avoid emissions, and additional ratepayer costs, that will come with nuclear plant shut-downs during upcoming planned refurbishments. There is potential for Ontario to re-align programs to focus on achieving substantive long-term savings by preparing markets to adopt more efficient designs and technologies, and to move towards more competitive and performance-based program designs.

The new government has stated that it is considering shifting some conservation-related costs from the rate base to the government's tax-based budget. This will provide an electricity rate subsidy, at the cost of the provincial treasury. **An unintended consequence of linking this subsidy to energy conservation costs could be that energy efficiency is unable to compete against more expensive generation options** as the budget is determined by government rather than a cost-benefit analysis that compares the costs of energy efficiency programs to avoided generation costs. This would increase bills and create political controversies over the local siting of power projects. If the government follows through with a subsidization of electricity rates we suggest doing so in such a way that does not discriminate against a particular energy option, ensuring that energy efficiency can effectively compete against higher cost generation.

[7] ICF International, Natural Gas Conservation Potential Study, Ontario Energy Board 2016.

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Conclusion

Efficiency Canada welcomes the opportunity to comment on Bill 4 and the government's new climate change strategy. We are available to help Ontario incorporate new energy efficiency best practices and techniques into its climate change plan.