

Appendix A: Energy conservation policy in 2017 and 2018

Abstract

Significant changes to the energy policy landscape in Ontario occurred in 2017 and 2018. Related changes to climate change policy are described in more detail in the ECO's 2018 climate change report *Climate Action in Ontario: What's Next?*¹

With a focus on key developments in 2017 and 2018 impacting energy conservation and fuel switching to or from cleaner energy sources, some of the most important events were:

- The Fair Hydro Plan reduced electricity bills for smaller Ontario electricity consumers by 25% by financing a share of electricity system costs, to be repaid by future electricity ratepayers. Lower rates may reduce the incentive for customers to conserve electricity; however the Plan also included a new Affordability Fund that installs energy-saving measures for households who are not eligible for the low-income Home Assistance Program and who cannot undertake energy efficiency improvements without support.
- The Ministry of Energy, Northern Development and Mines released a new Long-Term Energy Plan in October 2017, which made no new electricity supply commitments, but reaffirmed a long-term commitment to electricity conservation. The Plan largely ignored fuels other than electricity.
- Renewable electricity development came to a halt as the Minister of Energy, Northern Development and Mines issued a directive to IESO to wind down renewable electricity contracts in the early stages of development, including 751 renewable contracts (216 of which had Indigenous participation), repealed the Green Energy Act, and revoked regulatory changes that would have expanded opportunities for customers to participate in the generation of renewable electricity through net metering. The drop in clean electricity supply due to these changes may make it more difficult to use Ontario's clean electricity system to reduce fossil fuel use through electrification in the future.
- Ontario's cap and trade policy, which increased the relative prices of fossil-fuel intensive energy sources, was implemented in 2017 and repealed in 2018. In addition, programs (including many energy efficiency and fuel switching programs) that were based on the funding from cap and trade revenues were established in 2016 and 2017, and cancelled in 2018. The Ontario government then released a new draft Environment Plan with substantially less stringent greenhouse gas emission targets and no form of carbon pricing for most emitters.
- Union Gas and Enbridge Gas Distribution merged into one company that covers most natural gas customers in Ontario. In addition, the government passed Bill 32, The Access to Natural Gas Act, 2018 which will enable the expansion of the natural gas network to unserved customers, with the costs of the expansion to be subsidized by existing gas customers. This may lock in an increase in fossil fuel use.

- Mid-term reviews for electricity and gas conservation programs were completed. For natural gas conservation, only minor changes will be made by the Ontario Energy Board before 2020, while the government’s draft Environment Plan proposes an expansion of natural gas conservation beyond 2020. Future plans for electricity conservation are not known.
- Actions to reduce the use of gasoline and diesel included higher provincial requirements for ethanol in gasoline and the development of a federal Clean Fuel Standard. However, provincial initiatives to support vehicle electrification, including incentives for electric vehicle purchase, were cancelled.
- Annual requirements for energy and water reporting for large private buildings were introduced to help customers understand their energy and water use, benchmark to similar buildings, and identify opportunities to save energy and water. Steps were also taken to give more customers the ability to access their energy data through the Green Button standard.

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Key developments in 2017 and 2018 with potentially significant impacts on energy conservation in Ontario are covered below. This includes initiatives that affect the conservation and use of fossil fuels by influencing fuel switching to or from cleaner energy sources, particularly electricity. The change in government in June 2018 had a significant impact on provincial energy policy, with some key initiatives introduced earlier in 2017 or 2018 being cancelled or reversed.

A.1 The Fair Hydro Plan

The Fair Hydro Plan Act, 2017 was a suite of changes that reduced electricity bills for smaller Ontario consumers eligible for the Regulated Price Plan. Reductions for average residential consumers were 25% in 2017 and limited increases to inflation until 2021. In general, the Fair Hydro Plan reduced bills by rebating the provincial 8% portion of the Harmonized Sales Tax on electricity bills back to ratepayers, transferring electricity support programs from the rate base to the tax base, and most significantly, refinancing a portion of current electricity system costs (Global Adjustment), to be paid back by future ratepayers. After 2021, electricity bills are expected to climb 6.8% per year until 2027. After 2027, electricity bills are expected to be 4% higher than without the Fair Hydro Plan Act. The Financial Accountability Office estimates a net cost to Ontarians of \$21 billion over the 29 years after the Fair Hydro Plan Act was enacted.² The overall impact is lower electricity bills for Ontarians in the short-term but significantly higher costs in the long term.

The near-term reduction in electricity rates may reduce the incentive for some customers to invest in electricity conservation; however, it also reduces the near-term cost of switching from cheaper fossil-fuelled energy sources (such as natural gas) to electricity.

The Fair Hydro Plan's cut to electricity rates is being continued, but changes to the financing component are proposed.

The Fair Hydro Plan also included a \$100 million fund (the Affordability Fund) that supports the free installation of energy saving measures for people who do not quite qualify for low-income conservation programs but who also cannot undertake energy efficiency improvements without support.³

The Fair Hydro Plan's cut to electricity rates is being continued, but changes to the financing component are proposed. The current government has stated intentions in its 2018 Fall Statement to cancel the Global Adjustment refinancing component as designed and to use government funding to maintain electricity rates at the (lower) level that had been enabled through the Fair Hydro Plan.⁴ This will effectively transfer some of the cost of operating the electricity system to taxpayers.

Table A.1. Key activities related to the Fair Hydro Plan in 2017.

Activity	Date
Ontario Fair Hydro Plan Act, 2017 is passed.	June 1, 2017
Regulated Price Plan prices begin reflecting the changes from the Ontario Fair Hydro Plan Act.	July 1, 2017
The Affordability Fund is launched.	October 24, 2017

A.2 New Long-Term Energy Plan

Ontario's 2017 Long-Term Energy Plan was released on October 26, 2017 with implementation plans by the Independent Electricity System Operator (IESO) and Ontario Energy Board (OEB) released in subsequent months. A few notable conservation-related aspects from the plan include:

- continuing commitment to long-term (2032) provincial electricity conservation target,
- no immediate commitments to new electricity supply, and an intention to use market mechanisms for future electricity needs (potentially including some forms of conservation),

- a focus on innovation to balance fluctuations in electricity supply and demand, including consideration of energy storage technologies, funding for demonstration projects, and integration of electric vehicles into the electricity system. These efforts have the potential to reduce electricity waste and displace the use of fossil fuels, and
- a focus on improving energy supply and conservation to First Nation and Métis communities.⁵

The Long-Term Energy Plan did not set conservation targets for other fuels besides electricity, and took only very limited steps to encourage electrification of end uses currently met by fossil fuels, such as heating and transportation. The ECO had previously recommended ways to improve the Long-Term Energy Plan in a special 2016 report, *Developing the 2017 Long-Term Energy Plan*,⁶ but few of these were implemented.

Table A.2. Key activities related to the Long-Term Energy Plan in 2017 and 2018.

Activity	Date
The Ministry of Energy, Northern Development and Mines publishes the 2017 Long-Term Energy Plan.	October 26, 2017
OEB publishes its 2017 Long-Term Energy Plan Implementation Plan.	January 31, 2018
IESO publishes its 2017 Long-Term Energy Plan Implementation Plan.	January, 2018
Minister of Energy, Northern Development and Mines approves IESO's Long-Term Energy Plan implementation plan.	February 15, 2018

A.3 Renewable electricity wind down

After the release of the Long-Term Energy Plan and the change in provincial government, on July 13, 2018, the Minister of Energy, Northern Development and Mines issued a directive to IESO to wind down renewable electricity contracts. The directive affected projects procured under the Feed-in Tariff and Large Renewable Procurement initiative that were in the early stages of development. The projects had not been issued a Notice to Proceed under their Feed-in Tariff contracts and projects with Large Renewable Procurement contracts had not yet achieved their Key Development Milestones.⁷ This resulted in the cancellation of 751 renewable energy contracts of which 216 had Indigenous participation.

751 renewable energy contracts were cancelled, of which 216 had Indigenous participation.

On July 25th, 2018 the White Pines Wind Project Termination Act, 2018 was passed bringing the total number of cancelled renewable energy contracts to 752. This act terminated the White Pines Wind Project, a nine turbine, 18.45 MW project located in Prince Edward County, which, unlike the other cancelled projects, was partially built and close to commercial operation.

The Green Energy Repeal Act, 2018 (which repealed the Green Energy Act, 2009) was passed on December 6, 2018. The Green Energy Act, 2009 had been an impetus for most renewable electricity development in recent years. Repealing the act was largely symbolic, as no new renewable electricity procurements were active. However, the changes could make it more difficult to build renewable electricity projects in future years.

Renewable electricity provisions removed by the Green Energy Repeal Act included:

- limitations on the municipal planning authority related to the siting of renewable energy generation facilities, and
- existence of the Renewable Energy Facilitation Office which assisted proponents in navigating renewable energy project approvals.

In addition, the Green Energy Repeal Act added a new condition to the environmental approvals process for any future renewable projects, requiring them to demonstrate a need for the electricity they would produce.

The Green Energy Act had also included many provisions related to energy conservation. With the Act's repeal, most of these provisions were transferred to the Electricity Act, 1998 with a key exception being the ability to require home energy ratings and disclosure on listings prior to the sale of a home (although this section had never proclaimed). The new Ontario draft Environment Plan includes a commitment to encourage voluntary disclosure (see **Chapter 3** of this report).

The previous government had indicated plans to transition from procurement contracts for future renewable energy projects to net metering (credits on electricity bills for renewable electricity production) to support customers interested in renewable energy (particularly solar).⁸ On April 20, 2018, several regulatory amendments were made to facilitate wider use of net metering, including enabling third party ownership of net-metered facilities, and supporting virtual net metering demonstration projects.⁹ However, these amendments were revoked on September 25, 2018, as the current government plans to “consider any future improvements to Ontario’s net metering regulatory framework in the context of its broader energy policy priorities for the province.”¹⁰

Changes increased barriers to new renewable energy generation in Ontario.

The changes described above reduced planned renewable energy projects and increased the barriers to new renewable energy generation in Ontario. The cancelled electricity projects had been part of the previously released Long-Term Energy Plan, and would

have supplied roughly 460 MW of capacity and 0.85 TWh of electricity per year. The ECO has previously shown that electrification will be essential to reducing the use of fossil fuels in Ontario, and this will require new electricity supply.¹¹ The cancellation of renewable projects may increase Ontario's future needs for new electricity supply or conservation (the IESO predicts an electricity shortfall of about 1,400 MW in Ontario during the summer of 2023 peaking at about 3,700 MW by 2025 then leveling off at about 2,000 MW over the long term).¹²

Table A.3. Key activities related to renewable electricity in Ontario in 2018.

Activity	Date
O. Reg. 273/18 (Net Metering Regulation) amending O. Reg. 541/05 (Net Metering Regulation) was filed and was to take effect October 1, 2018.	April 20, 2018
Announcement of cancellation of 751 renewable energy contracts.	July 13, 2018
White Pines Wind Project Termination Act, 2018 is passed.	July 25, 2018
O. Reg. 273/18 (Net Metering Regulation) amending O. Reg. 541/05 (Net Metering Regulation) is revoked.	September 25, 2018
The Green Energy Repeal Act, 2018 is passed.	December 6, 2018

A.4 Carbon pricing: cap and trade start-up and shutdown

On January 1, 2017, Ontario began a cap and trade program, which put a price on greenhouse gas (GHG) emissions. The program affected Ontarian's energy choices by increasing the price of fossil fuels and providing a source of funding for investments in energy efficiency improvements or fuel switching to less GHG intensive energy sources. Details about the cap and trade program can be found in past ECO reports (Facing Climate Change and Ontario's Climate Act: From Plan to Progress).

The government began to shut down the program on July 3, 2018 and the Cap and Trade Cancellation Act, 2018 passed on October 31, 2018, which formally ended it. There are two main impacts of this decision on Ontario's energy system:

- eliminating the price on GHG emissions reduces the financial incentive to conserve fossil fuels, and
- cancelling most energy efficiency and fuel switching programs previously funded by the revenues of the program.

Now that Ontario has no provincial carbon pricing system, the federal carbon price backstop will apply instead.

Now that Ontario has no provincial carbon pricing system, the federal carbon price backstop will apply instead.¹³ On January 1, 2019, large industry began participating in a federal output-based pricing system, which will add a price to GHG emissions above specified thresholds. For most other consumers, on April 1, 2019, fossil fuels will have an added fixed charge, which will be a slightly higher price than the price added by Ontario's cap and trade program when it was cancelled (\$20 in 2019 compared to approximately \$18 per tonne).¹⁴

While the federal system will preserve some financial incentive to conserve fossil fuels through carbon pricing, the use of revenues will be different. Whereas all of the proceeds from Ontario's cap and trade system were required to be used to invest in GHG mitigation programs, most of the revenues from the federal fossil fuel charge will be returned to households as a Climate Action Incentive rebate.¹⁵ The federal government is developing a plan to use the remaining fuel charge proceeds to support the transition for small and medium businesses, municipalities, universities, colleges, schools, hospitals, non-profit organization and Indigenous communities.¹⁶ Similarly, the federal government is developing a plan to use output-based pricing system revenues to support large industry.¹⁷

The cancellation of the cap and trade program removed approximately \$2 billion in annual funding for GHG mitigation programs in Ontario. This significantly reduces the investment in energy efficiency or

electrification efforts in the province. Some of the programs funded by cap and trade included:

- GreenON programs,
- school retrofits,
- university and college retrofits,
- Hospital Energy Efficiency Program,
- Electric Vehicle and Charging Infrastructure Incentive Program,
- Municipal GHG Challenge Fund,
- Social Housing Apartment Improvement Program,
- Ontario Municipal Commuter Cycling Program, and
- GO Transit improvements.

The Financial Accountability Officer of Ontario has reported the provincial government plans to continue funding some programs with other revenue streams.¹⁸ However, most have been cancelled, including those in Table A.4. Additional details are available in ECO's 2018 climate change report *Climate Action in Ontario: What's Next?*¹⁹

The cancellation of cap and trade also affect potential federal funding for energy efficiency and GHG mitigation efforts. In December 2017, the federal government announced a \$420 million funding commitment to support Ontario's efforts, as part of the federal Low Carbon Economy Leadership Fund. Some of this funding would be used to support the GreenON Rebates program, and for college and university building retrofits.^{20,21,22} However, in November 2018, the federal government announced that, given the Ontario government's decision to cancel climate action programs, it would be exploring options to reinvest the remaining Ontario portion of the federal funds in new initiatives.²³

Table A.4. Key activities related to carbon pricing in Ontario in 2017 and 2018.

Activity	Date
O. Reg. 143/16 (Quantification, Reporting and Verification of Greenhouse Gas Emissions Regulation) takes effect.	January 1, 2017
The first compliance period for Ontario's cap and trade program begins.	January 1, 2017
O. Reg. 46/17 (Ontario Climate Change Solutions Deployment Corporation) establishes GreenON.	February 17, 2017
GreenON begins offering numerous programs: <ul style="list-style-type: none"> · GreenON Installations, · GreenON Modern Wood Heating Pilots, · GreenON Rebates, · GreenON Social Housing, · GreenON Small and Medium Businesses, · Food Manufacturing and Covered Agriculture, · GreenON Challenge, and · GreenON Industries. 	2017-2018
Ontario's first cap and trade auction raises \$472 million. ²⁴	March 22, 2017
The Government of Canada releases "Technical Paper on the Federal Carbon Pricing Backstop." ²⁵	May 18, 2017
Ontario signs an agreement to integrate and harmonize cap and trade programs with Quebec and California, effective January 1, 2018.	September 22, 2017
Government of Canada announces \$420 million in funding for Ontario from the Low Carbon Economy Fund.	December 15, 2017
O. Reg. 539/17 (Ontario Offset Credits) made under the Climate Change Mitigation and Low-carbon Economy Act, 2016 takes effect.	January 1, 2018
Amendments to the cap and trade program and reporting regulations, new service of documents regulation, and administrative penalties regulation take effect.	January 1, 2018
The Government of Canada releases "Regulatory Framework for the Output-Based Pricing System" and the draft legislative proposals to implement the federal carbon pricing system. ²⁶	January 15, 2018
Ontario's last Cap and Trade auction raises \$472 million. ²⁷ The cap and trade program raised \$2.9 billion in total across 6 auctions. ²⁸	May 15, 2018
The cancellation of GreenON programs is announced.	June 19, 2018
The federal Greenhouse Gas Pollution Pricing Act is enacted.	June 21, 2018

O. Reg. 386/18 (Prohibition Against the Purchase, Sale and Other Dealings with Emission Allowances and Credits) is passed revoking O. Reg. 144/16 (The Cap and Trade Program).	July 3, 2018
Ontario ends the Electric and Hydrogen Vehicle and Charging Incentive Programs.	August 31, 2018
Ontario misses deadline to provide federal government with carbon pricing plan.	September 1, 2018
The Government of Canada announces the federal carbon pricing backstop will apply in Ontario. ²⁹	October 23, 2018
The Cap and Trade Cancellation Act, 2018 is passed, revoking the Climate Change Mitigation and Low-carbon Economy Act, 2016.	October 31, 2018
The Government of Canada publish numerous instruments in order for the output-based pricing system to take effect in Ontario starting on January 1, 2019. ³⁰	October 31, 2018
The Government of Canada announces that the previous \$420 million in funding for Ontario from the Low Carbon Economy Fund will be reinvested in other climate change initiatives as a result of Ontario's cancellation of climate action programs.	November 8, 2018
Federal output-based pricing system begins in Ontario.	January 1, 2019

The plan proposes to meet a 60% less ambitious GHG target.

A.4.1 New draft provincial Environment Plan

The Ontario government released a new draft Environment Plan on November 29, 2018. The plan signals general directions for where the province sees Ontario's environmental future. The plan proposes to meet a significantly less ambitious GHG target than the previously legislated targets, and does not include carbon pricing as an emissions reduction tool (except for large emitters). The new plan is 60% less ambitious since it only targets 18 Mt CO₂e of reductions between 2018 and 2030 compared to the previous plan's target of reductions of 47 Mt CO₂e over this period.³¹ Additionally, there is no 2050 emissions reduction

target. A few energy-related highlights in the plan include:

- Reviewing the energy efficiency provisions in the Building Code,
- Implementing an "emissions performance standard" for large emitters which is similar to the federal carbon pricing scheme for large emitters,
- Launching a taxpayer-funded emissions reduction fund that could potentially be used to fund energy efficiency measures,
- Working with the OEB and natural gas utilities to increase the cost-effective conservation of natural gas,
- Increasing the renewable content in gasoline from 5% to 15% (a planned increase to 10% in 2020 is already in place), and
- Requiring natural gas utilities to implement a voluntary renewable natural gas option for customers.

A.5 Merger of Union Gas and Enbridge Gas Distribution and natural gas system expansion

Union Gas and Enbridge Gas Distribution applied to the OEB for amalgamation on November 2, 2017 and their application was approved on August 30, 2018.³² The new single entity will have approximately 3.6 million customers and service 99.8% of natural gas customers overseen by the OEB (which does not include natural gas customers in Kitchener and Kingston). The OEB will still set rates for the single entity. For now, the distributors continue to operate as separate entities, and offer separate services, including similar but not identical sets of conservation programs, to their customers.

The number of gas utility customers will increase, due to continued customer growth in areas already served by the utilities, but also because the Ontario government took steps to expand natural gas utility service to more parts of Ontario, with this expansion to be subsidized by existing gas customers. On November 17, 2016, the OEB decided that the cost of expanding infrastructure to new communities could be recovered through higher rates for those communities (if they were willing to pay) but not through subsidization from existing natural gas customers.³³ However, these higher rates could be complemented by grants from Ontario's Natural Gas Infrastructure Program.³⁴ This model enabled utilities to make an economic case (and receive approval from the OEB) for several system expansions (Fenelon Falls,³⁵ Scugog Island,³⁶ southern Bruce Peninsula,³⁷ and several additional communities in southwestern Ontario),³⁸ all of which relied on some level of grant funding. In total, roughly 11,000 new customers could have been connected through these grant-funded projects.³⁹ Interestingly, the successful applicant for one of the approved expansions (southern Bruce) was a new entrant (EPCOR Natural Gas Limited), instead of Union Gas or Enbridge. EPCOR also purchased the one other OEB-regulated gas distributor in Ontario, NRG, which serves a small number of customers in southwestern Ontario.

The Ontario government took steps to expand natural gas utility service to more parts of Ontario, with this expansion to be subsidized by existing gas customers.

Ontario's Bill 32, Access to Natural Gas Act, 2018 which received royal assent on December 6, 2018, changed direction. Bill 32 amended the Ontario Energy Board Act, 1998 to allow some costs of expansion to be recovered from other gas customers, but the government pulled grant funding for previously approved projects (three projects for which transfer payment agreements were signed will proceed – Fenelon Falls, Moraviantown First Nation, and Nipigon LNG).⁴⁰ It appears that the government's goal is for the new model to facilitate natural gas system expansion to more unserved customers, but how it will affect the previously approved system expansions is uncertain.

The approach of subsidizing natural gas system expansion may lock in an increase in fossil fuel use. Alternatives (such as increased energy conservation and energy supply from electric heat pumps) could have potentially achieved the government's objective of reducing energy costs for these Ontarians, but with a lower environmental impact.

Table A.5. Key activities related to natural gas mergers and system expansions in Ontario in 2016, 2017 and 2018.

Activity	Date
OEB issues decision allowing higher rates for communities newly served by natural gas, and denies subsidies from existing gas customers.	November 17, 2016
OEB approves purchase of NRG by EPCOR Natural Gas Limited.	August 3, 2017
OEB approves Union Gas expansion to several communities in southwestern Ontario.	August 10, 2017
Enbridge Gas Distribution and Union Gas file for amalgamation.	November 2, 2017
OEB approves Enbridge's expansion to Fenelon Falls.	March 1, 2018
OEB approves EPCOR Southern Bruce Inc's application to enter into franchise agreements with the Municipality of Arran-Elderslie, Municipality of Kincardine and the Township of Huron-Kinloss.	April 12, 2018
OEB approves Enbridge's expansion to Scugog Island.	May 31, 2018
OEB approves amalgamation of Enbridge Gas Distribution and Union Gas.	August 30, 2018
Bill 32, Access to Natural Gas Act, 2018 is enacted.	December 6, 2018

A.6 Electricity and gas conservation programs

Funding for electricity and gas conservation programs under the current frameworks is provided through 2020, and both program frameworks underwent a mid-term review in 2017 and 2018. The review for natural gas conservation has been completed by the OEB, with only minor changes implemented. The review for electricity conservation has also been completed, but it is unclear whether the Minister of Energy, Northern Development and Mines will implement any changes before the end of the current framework.

In advance of the mid-term review being completed, the Minister of Energy, Northern Development, and Mines issued several directives in 2017 and 2018 to make changes to the electricity conservation framework. In December 2016, the Minister had directed local distribution companies (LDCs) to revise their conservation plans by May 2017 to include all province-

wide conservation programs. Where an LDC is not making a province-wide conservation program available, the IESO shall deliver the program in that LDC's licensed service area. In August of 2017, the IESO was directed to centrally deliver the Home Assistance (Low Income) Program, taking this program over from LDCs. The IESO was also directed in August 2017 to partner with GreenON to deliver GHG reduction programs for homes and businesses while ensuring there was no duplication with existing conservation programs.

After the 2017 Long-Term Energy Plan was released, the Minister issued a Directive amending the definition of conservation, now allowing in front of the meter activities. For example, improvements to distribution infrastructure to reduce line losses can be used by LDCs to reduce their electricity consumption to be counted towards their conservation targets. The Directive also stated that gas-fired combined heat and power programs would not be eligible to apply as a conservation measure after July 1, 2018.

Beyond 2020, funding for natural gas conservation programs may increase.

Beyond 2020, funding for natural gas conservation programs may increase, based on the new provincial draft Environment Plan (discussed previously). The future of electricity conservation currently remains uncertain as the Ministry of Energy, Northern Development and Mines has indicated that many of the recommendations arising from the electricity mid-term review may be out of date, given current government priorities.⁴¹ The government's recent draft Environment Plan also does not include any

electricity conservation initiatives to meet the province's climate goals.

A new achievable potential study was initiated in 2018 that will help assess the post-2020 conservation potential for both natural gas and electricity conservation programs, which will inform future conservation targets and budgets. The current government has also signaled a potential policy change of shifting some funding for conservation programs from the rate base to the tax base.

Some of these developments are covered in more detail in [Chapter 2](#) of this report, and specific program results from 2016 and 2017 are provided in [Appendix C](#) for electricity conservation, and [Appendix D](#) for natural gas conservation.

Table A.6. Key activities related to electricity and natural gas conservation programs in Ontario in 2017 and 2018.

Activity	Date
OEB initiates the natural gas conservation mid-term review.	June 20, 2017
The Minister of Energy, Northern Development and Mines issues a Directive to IESO to partner with GreenON to deliver GHG reduction programs for homes and businesses, and to deliver the Home Assistance Program.	August 7, 2017
The Ministry of Energy, Northern Development and Mines publishes the 2017 Long-Term Energy Plan.	October 26, 2017
The Minister of Energy, Northern Development and Mines issues a Directive to IESO amending the definition of conservation to include improvements in the efficiency of distribution system infrastructure, and exclude behind the meter generation projects that use fossil fuels (e.g., combined heat and power projects that use natural gas).	October 26, 2017
IESO initiates the joint natural gas and electricity conservation potential study.	February 8, 2018
The Minister of Energy, Northern Development and Mines issues a Directive to IESO transferring a portion of target and budget from the Industrial Accelerator program to centrally-delivered and province-wide conservation programs, and initiating design of a centrally delivered First Nations conservation program.	February 8, 2018
The IESO publishes the electricity conservation mid-term review report.	March 29, 2018
The IESO submits electricity conservation mid-term review advice report to Minister of Energy, Northern Development and Mines.	June 1, 2018
OEB completes the natural gas conservation mid-term review.	November 29, 2018

A.7 Cleaner transportation fuels: more ethanol, less electrification

Several different policy and program initiatives were undertaken in 2017 and 2018 that affected efforts to reduce the use of petroleum-based transportation fuels (gasoline and diesel), primarily through fuel switching to cleaner energy sources. In addition, an updated Growth Plan for the Greater Golden Horseshoe was issued in May 2017, which, through its land-use planning policies, could significantly impact the kilometres driven by Ontarians, and thus the amount of transportation fuel used (further changes were proposed in January 2019). A complementary initiative to develop a transportation plan for the Greater Golden Horseshoe was launched in October 2017. Changes to the Growth Plan are discussed in detail in **Chapter 4** of this report.

On December 14, 2017, Ontario announced the Green Commercial Vehicle program. Through incentives to customers, this program aimed to increase the number of commercial low emissions vehicles (electric or natural gas powered), improve the aerodynamics of commercial vehicles, reduce commercial vehicle idling, and increase the number of electric refrigeration units. The program was cancelled on July 3, 2018 as its funding came from the cap and trade system which was also cancelled.

Ontario's Electric and Hydrogen Vehicles Incentive Program and Ontario's Electric Vehicle Charging Incentive Program were established in 2010 (then known as the Electric Vehicle Incentive Program). The programs provided rebates for the purchase of electric and hydrogen fuel cell vehicles as well as charging infrastructure. Both programs were cancelled on July 11, 2018 as part of the cancellation of Ontario's cap and trade system and related initiatives.

On April 10, 2018, O. Reg. 227/18 was enacted leading to changes in O. Reg. 535/05 (Ethanol in Gasoline) that will come into effect on January 1, 2020, in an effort to reduce GHG emissions from

gasoline. These changes will require gasoline suppliers to maintain an average 10% renewable content (e.g., ethanol) in regular gasoline, beginning in 2020, and will require the renewable content to have 45% lower lifecycle greenhouse gas emissions than gasoline. The changes also revise how compliance with the minimum renewable content of gasoline requirement is calculated, moving to a method based on the GHG intensity of the blended gasoline.

In Ontario's most recent draft Environment Plan, electrification and lower-carbon transportation fuels both play a role in the government's plan to meet its 2030 emissions reduction target. Part of the 2030 target is to be reached by the uptake of low carbon vehicles, primarily electric vehicles (although no specific commitments are made), "increasing the ethanol content of gasoline to 15% as early as 2025",⁴² and the federal Clean Fuel Standard (described below).

A national clean fuel standard is to be implemented in 2020.

On December 20, 2018, the Government of Canada released a Clean Fuel Standard Regulatory Design Paper for the liquid fuels stream that outlines elements of a national clean fuel standard to be implemented in 2020,⁴³ to come into force by 2022 for liquid fuels. The paper states that liquid fossil fuels will be required to reduce their carbon intensity by approximately 11% by 2030. The scope of the proposed Clean Fuel Standard covers all liquid fuels (including gasoline, diesel, jet fuel, kerosene, and heavy and light fuel oils), whereas Ontario's current system applies only to gasoline (through O. Reg. 535/05) and diesel (through O. Reg. 97/14). In addition, Canada's proposed standard would allow compliance through end-use fuel switching (e.g., switching from gasoline to natural gas, propane, electric, or hydrogen powered vehicles), unlike Ontario's current regulations.

Table A.7. Key activities related to conservation of transportation fuels in Ontario in 2017 and 2018.

Activity	Date
The Ministry of Municipal Affairs and Housing releases the updated Growth Plan for the Greater Golden Horseshoe.	May 18, 2017
The Ministry of Transportation launches the Greater Golden Horseshoe transportation plan.	October 24, 2017
The Ministry of the Environment, Conservation and Parks publishes “Discussion paper: Developing a modern renewable fuel standard for gasoline in Ontario”.	November 29, 2017
The Ministry of Transportation announces the Green Commercial Vehicle Program.	December 14, 2017
O. Reg. 227/18 (Ethanol in Gasoline) is enacted, amending O. Reg. 535/05 (Ethanol in Gasoline).	April 10, 2018
The Ministry of Transportation cancels the Green Commercial Vehicle program.	July 3, 2018
The Ministry of Transportation cancels the Electric and Hydrogen Vehicle and Charging Incentive programs.	July 11, 2018
Government of Canada releases Clean Fuel Standard Regulatory Design Paper.	December 20, 2018

A.8 Energy data

Building on requirements already in place for energy reporting for individual buildings by the broader public sector (O. Reg. 397/11) and the provincial government, Ontario rolled out energy benchmarking and reporting for large commercial, industrial, and multi-residential private buildings in 2017 and 2018 (O. Reg. 20/17). Unlike the requirements for the public sector, the new regulation for private buildings also requires reporting of water use, and data submission through Portfolio Manager, to facilitate comparison with other buildings. The goal of the regulation is to help building owners benchmark their energy and water use, allow comparisons with similar buildings, identify ways to reduce energy and water use and costs, and measure improvement over time.

O. Reg. 20/17 (Reporting and Energy Consumption and Water Use) was made in February 2017. Reporting will be required annually, and will be phased in over three years, depending on building size and type. The first reporting deadline was July 1, 2018, for commercial and industrial buildings over 250,000

square feet. No data from these submissions have been made publicly available yet.

Ontario rolled out energy benchmarking and reporting for large commercial, industrial, and multi-residential private buildings.

Ontario also took steps to facilitate implementation of Green Button. Green Button is a common standard for energy data, which can facilitate customers’ ability to make use of software tools to understand, analyze and reduce their energy use. Legislative amendments were made in December 2017 giving the government the authority to require energy utilities to provide energy data to customers in a specified format. The Ministry of Energy, Northern Development and Mines consulted on regulatory changes that would be needed to implement these requirements, but has not made a final decision on this proposal.⁴⁴

Table A.8. Key activities related to energy data in Ontario in 2017 and 2018.

Activity	Date
O. Reg. 20/17 (Reporting on Energy Consumption and Water Use) is enacted.	February 2, 2017
Ministry of Energy, Northern Development and Mines initiates consultation on regulatory amendments to support Green Button implementation.	November 29, 2017
Amendments to Green Energy Act and Ontario Energy Board Act are made, providing authority to require energy utilities to provide customer access to their energy data in specified format.	December 14, 2017
The deadline to report energy use in 2017 for buildings of at least 250,000 square feet under O. Reg. 20/17.	July 1, 2018

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