

Summary Status Table in Response to the Report of the Standing Committee on Public Accounts

Climate Change: Ontario's Plan to Reduce Greenhouse Gas Emissions

(Volume 2, Chapter 3, 2019 annual Report of the Office of the Auditor General of Ontario)

Ministry of Environment, Conservation and Parks

Submitted: April 1, 2021

Rec #	Committee's Recommendation	Completed Undertaking and Steps Taken to Support the Status	Work Outstanding	Estimated Implementation Date (Month & Year)
1	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should clearly label proposed plans, strategies, and policies on the Environmental Registry as "Draft."	No longer applicable Postings on the registry which have not been finalized are automatically labelled as proposals.	N/A	N/A
2	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should: a) consider whether the Climate Change Advisory Panel needs a clearly defined mandate with corresponding objectives and targets; and	Fully implemented A ten-member Advisory Panel on Climate Change (APCC) with a focus/expertise in climate resilience was appointed in November 2019. A Terms of Reference was developed for the committee. The panel has been meeting on a bi-monthly basis since January 2020. It submitted its Annual Progress Report to the minister on November 26th, 2020 and will provide a final report and recommendations in Fall 2021.	N/A	N/A
	b) make its advice publicly available for Ontarians.	Fully implemented The APCC's 2020 Annual Progress Report is available upon request.	N/A	N/A
3	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should: a) update the integrated energy-emissions-economy model with new information as available;	Fully implemented The ministry uses a comprehensive energy-emissions-economy model provided by an independent research company to estimate the environmental and economic effects of various policy options. This model is regularly updated with new data sources, such as Environment and Climate Change Canada (ECCC)'s 2020 National Inventory Report and Independent Electricity System Operator (IESO)'s 2020 Annual Planning Outlook. A working group comprised of members from various MECP branches meets regularly to discuss best practices for greenhouse has estimation and refine estimates association with actions in the Made-in-Ontario Environment Plan and as new actions are developed as part of the evolution of the Environment Plan.	N/A	N/A

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		Modelling runs have been carried out using the ministry's integrated model in support of evolving the development of initiatives in the Environment Plan. Changes to the model are ongoing and based on updates to latest available policy details, assumptions and data sources.		
	b) improve communication and information sharing with other ministries to improve its understanding of planned and proposed initiatives as they occur; and	In process of being implemented The ministry has been developing options and working with partner ministries across the OPS to build consensus on the next steps for evolving Ontario's climate change plan. The ministry has established an assistant deputy minister endorsed Director's Level Climate Change Working Group. This group is chaired by the Ministry of the Environment, Conservation and Parks (MECP) and meets quarterly to discuss climate change across government and work plan and track implementation initiatives.	Confirm details for the proposed elements of the implementation strategy, and implementation approach with partner ministries. MECP to seek TB/MBC approval of implementation plan.	Ongoing
	c) create and publish a regular report with up-to-date information and emission forecasts, in order to publicly track the Ministry's progress towards meeting the 2030 emission-reduction goals.	In process of being implemented The ministry is developing a climate change plan implementation strategy that will address the need to keep Ontarians updated on Ontario's climate change initiatives. The ministry has provided two updates to the public on the anniversary of the Environment Plan-one in 2019 and one in 2020.	Confirm details for the proposed elements of the implementation strategy, and implementation approach with partner ministries. MECP to seek TB/MBC approval of implementation plan.	December 2021
4	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should ensure the evidence and assumptions underlying the Environment Plan are based on sound evidence and current information.	Fully implemented The ministry evaluates the potential effectiveness of our policies by using integrated modelling whenever it is feasible to estimate	N/A	N/A

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		greenhouse gas emission reductions from various activities. The ministry uses a comprehensive energy-emissions-economy model provided by an independent research company to estimate the environmental and economic effects of various policy options for fighting climate change. This model is regularly updated with new data sources, such as Environment and Climate Change Canada (ECCC)'s 2020 National Inventory Report and Independent Electricity System Operator (IESO)'s 2020 Annual Planning Outlook. A working group comprised of members from various MECP branches meets regularly to discuss best practices for greenhouse has estimation and refine estimates association with actions in the Made-in-Ontario Environment Plan and as new actions are developed as part of the evolution of the Environment Plan. Modelling of Environment Plan initiatives will continue. Doing so ensures that integrated modelling estimates (where appropriate) reflect the latest available policy details, assumptions, data sources and up to date model functionality.		
5	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should: a) explore opportunities for private sector investment to develop critical infrastructure for electric vehicles in Ontario;	In process of being implemented In December 2019 the ministry established an inter-ministerial working group on low-carbon vehicles that will explore opportunities to support the uptake of electric vehicles in Ontario. The working group is comprised of MECP, Ministry of Economic Development, Job Creation and Trade (MEDJCT), Ministry of Transportation (MTO), Ministry of Infrastructure (MOI), Energy, Northern Development and Mines (ENDM) and Ministry of Government and Consumer Services (MGCS). Several staff working group meetings have been held, a Terms of Reference has been agreed to, and an assistant deputy minister meeting was held Nov 16, 2020.	The Low-Carbon Vehicle Working Group will continue to discuss actions and trends related to electric vehicle uptake to inform provincial actions on low-carbon vehicles and potential emission reductions.	December 2021

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		MECP has done a preliminary update of electric vehicle forecast in the Reference Case and included in integrated modelling results.		
	b) improve emission-reduction estimates for both hybrid and fully electric cars: and	In process of being implemented The energy-emissions-economy model is continuously improving based on up-to-date research and evidence. For instance, battery costs for electric vehicles were recently updated in the model by an independent research company to reflect technological advancements in the field. MECP has done a preliminary update of electric vehicles forecast in the Reference Case and included this information in integrated modelling results.	Improvements to the integrated emissions-economy model will be made as needed to reflect current and update information.	Ongoing / regular business
	c) assess the feasibility of increasing the use of compressed natural gas and calculate the corresponding impact on emissions and take into account the leakage of methane in the production and transportation of natural gas.	Fully implemented MECP has taken into consideration the default values in the GHGenius 5.0e Canadian lifecycle assessment model for compressed natural gas (CNG) in Ontario. Preliminary estimates using GHGenius suggest emissions from CNG trucks are about 15% lower compared to diesel trucks. Reductions from using compressed renewable natural gas (RNG) are higher. The Environment Plan included an action to collaborate with the private sector to remove barriers to expanding 24/7 compressed natural gas refueling stations for trucks along the 400-series highways, and maintain the existing tax exemption (gasoline and fuel tax) on natural gas as a transportation fuel. On October 2, 2020, the Minister of Government and Consumer Services, through her authority under the Technical Standards and Safety Act, 2000, approved the Technical Standards and	N/A	N/A

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		Safety Authority's (TSSA) proposed alternate rules for the Operating Engineers regulation, under the act. The newly approved alternate rules will adopt a risk-informed framework and provide organizations with options to comply and achieve safety and compliance outcomes. The ministry will monitor compressed natural gas activity in Ontario over the next year to assess the feasibility of increasing the use of compressed natural gas in trucks beyond the measures already implemented.		
6	The Standing Committee on Public Accounts recommends that when assessing the development of renewable natural gas, the Ministry of the Environment, Conservation and Parks and the Ministry of Energy, Northern Development and Mines should collaborate to a) assess the feasibility of increasing the supply and reducing the cost of renewable natural gas in Ontario;	In the process of being implemented Meetings between the ministry and the Ministry of Energy, Northern Development and Mines (ENDM) have occurred to discuss a potential voluntary renewable natural gas (RNG) program. MECP will continue to work with ENDM to address considerations of and barriers to increasing RNG supply for Ontario's uptake.	Enbridge will implement its voluntary RNG program. ENDM and MECP will continue to monitor.	March 2022
	b) consider developing and implementing a pilot program to conduct a price discovery of the renewable natural gas market in Ontario; and	In process of being implemented (by Enbridge) On September 24, 2020, the Ontario Energy Board approved Enbridge's application to offer a Voluntary Renewable Natural Gas program on a pilot basis. The pilot program will serve as an assessment of the feasibility of increasing renewable natural gas supply in Ontario using a voluntary program. Enbridge plans to launch the program in 2021.	The ministry continues to monitor RNG activity in Ontario.	March 2022
	c) take into account renewable natural gas leakage during production and transportation.	Fully implemented Default values for the lifecycle assessment of greenhouse gas emissions, including for gas leakage, for renewable natural gas used in Ontario are available from the Canadian GHGenius 5.0e.	N/A	N/A

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		The ministry's energy-emission-economy model accounts for gas leakage during production and transportation.		
7	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should use best practices, such as integrated modelling, to analyze interactions between, and overlap of, various federal and provincial initiatives.	Fully implemented The ministry evaluates the potential effectiveness of our policies by using integrated modelling whenever it is feasible to estimate greenhouse gas emission reductions from various activities. The ministry uses a comprehensive energy-emissions-economy model provided by an independent research company to estimate the environmental and economic effects of various policy options for fighting climate change. A greenhouse gas (GHG) working group comprised of members from various MECP branches meets regularly to discuss best practices for GHG estimation and refine the estimates associated with actions in the Made-in-Ontario Environment Plan and as new actions are developed as part of the evolution of the Plan.	N/A	N/A
8	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should a) use integrated modelling to account for interactions and overlap with other emission-reduction initiatives; and	In the process of being implemented As the policy design for the Emission Reduction Fund (ERF) is finalized, the ministry will continue to use best practices, including integrated modelling to assess the contribution of the ERF towards Ontario's 2030 emissions-reduction target. Some potential program designs may not be suitably modelled by the integrated model.	The ministry is continuing to improve its emissions forecasting by making use of more robust integrated modelling approaches. These estimates will depend on the design of the program, which is in development.	December 2021
	b) finalize the framework for the Emission Reduction Fund.	In process of being implemented The ministry continues to look at leading jurisdictions for best practices on the funding, developing and administering of emission reduction funds.	The ministry continues to consult with stakeholders to design and develop the emissions reduction fund.	April 2022

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9	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should consistently follow the Intergovernmental Panel on Climate Change Guidelines and avoid counting emissions reductions associated with organic waste diversion that occur outside Ontario's borders.	Fully implemented MECP has internally modified methodology for estimating greenhouse gas (GHG) reductions from organic waste diversion as to not count GHG emissions reductions that are due to organic waste diversion that would otherwise have been sent to U.S. landfills. MECP has also notified all applicable branches within the ministry of the methodological change and of the resulting change in estimation of the GHG emissions avoided by 2030 from actions to increase organic waste diversion.	N/A	N/A
10	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should work with the Ministry of Energy, Northern Development and Mines to a) determine the feasibility of implementing various energy storage technologies in Ontario; and	In process of being implemented The Ministry of Energy, Northern Development and Mines (ENDM) is the lead ministry on electricity storage. The ministry is monitoring activity by the Independent Electricity System Operator and Ontario Energy Board in this area, including their research and consultations on electricity storage. MECP notes: Oneida Energy Storage LP, a joint venture between NRStor Inc. and Six Nations of the Grand River Development Corporation, is developing a 250/1000 megawatt-hour energy storage facility, which will be the largest energy storage facility in Canada. MECP's hydrogen discussion paper was posted for consultation; includes topic area on hydrogen's role in a reliable and affordable energy system, including energy storage.	The ministry will engage with ENDM to confirm objectives, and for research and analysis (e.g. costs of potential storage initiatives).	March 2022

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	b) explore emerging and new energy storage technologies in order to increase Ontario's capacity.	In process of being implemented ENDM is the lead ministry on electricity storage. MECP is monitoring activity by Independent Electricity System Operator and Ontario Energy Board in this area, including their research and consultations on electricity storage. MECP notes: Oneida Energy Storage LP, a joint venture between NRStor Inc. and Six Nations of the Grand River Development Corporation, is developing a 250/1000 megawatt-hour energy storage facility, which will be the largest energy storage facility in Canada. The ministry is working across government to support the adoption of new and innovative emissions reducing technologies on an ongoing basis and in the context of specific actions identified in the Environment Plan. In Spring 2020 the ministry held two Ministerial Advisory Council meetings on Clean Technology and Hydrogen. A diagnostic of Ontario's Clean Tech Sector was presented to the Ontario Jobs Recovery Committee in August 2020. A hydrogen discussion paper which includes ideas on alternative energy storage options was developed with input from ministries and posted publicly on the Environmental Registry of Ontario in November 2020. MECP is currently analyzing stakeholder input on the hydrogen discussion paper received through the Environmental Registry of Ontario and has established an industry working group to develop recommendations.	The ministry will continue to engage with ENDM review input from the hydrogen discussion paper	March 2022

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11	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should work with partner ministries to a) update the model with more precise emission-reduction estimates from prospective technologies;	Fully implemented The model is updated regularly to incorporate latest information and research in technology advancements, costs, economic outlook, energy prices, as well as emerging policies from other provinces and the federal governments. For instance, battery costs for electric vehicles were recently updated in the model by the independent research company to reflect technological advancements in the field.	N/A	N/A
	b) support the adoption of new and innovative emission-reduction technologies; and	In process of being implemented The ministry is working across government to support the adoption of new and innovative emissions reducing technologies on an ongoing basis and in the context of specific actions identified in the Environment Plan. In Spring 2020 the ministry held two Ministerial Advisory Council meetings on Clean Technology and Hydrogen. A diagnostic of Ontario's Clean Tech Sector was presented to the Ontario Jobs Recovery Committee in August 2020 and a hydrogen discussion paper was developed with input from ministries and posted publicly on the Environmental Registry of Ontario in November 2020. A Hydrogen Strategy Working Group comprised of experts from industry and academia was established to help inform the development of a hydrogen strategy for Ontario.	The ministry is currently reviewing feedback received on the hydrogen discussion paper. The ministry is working with MEDJCT on a follow-up to the Clean Tech Diagnostic and to profile some initiatives in a revised climate change plan, following Cabinet approval (TBC). Over a three-month term, the Hydrogen Strategy Working Group will build on input received through the public consultation process and Ontario's hydrogen discussion paper to propose recommendations for Ontario's hydrogen strategy – to be released in 2021.	December 2021
	c) continually monitor emerging global emission-reduction technologies that could have an impact in Ontario.	Fully implemented The ministry is working across government to support the adoption of new and innovative emissions reducing technologies on an on-going basis and in the context of specific actions identified in the Environment Plan.	N/A	N/A

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		In Spring 2020 the ministry held two Ministerial Advisory Council meetings on Clean Technology and Hydrogen, a diagnostic of Ontario's Clean Tech Sector was presented to the Ontario Jobs Recovery Committee in August 2020 and a hydrogen discussion paper was developed with input from ministries and posted publicly in November 2020. The ministry will continue to monitor emerging emission-reduction technologies that could have an impact in Ontario.		
12	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should work with the Ministry of Transportation and its partner agencies to a) determine how interacting programs and policies will lead to emissions reductions; and	In process of being implemented The ministry is currently in discussions with the Ministry of Transportation to better understand transit programs and policies and how they interact with other emission reduction policies.	The ministry will continue to use integrated modelling. Doing so ensures that integrated modelling estimates (where appropriate) reflect the latest available policy details, assumptions, data sources and up to date model functionality and that imitative interactions and overlaps are accounted for whenever possible.	Ongoing
	b) update the integrated energy-emissions-economy model with evidence-based, transit-related data and information where applicable.	In process of being implemented This work will also inform how best to integrate emission reduction estimates from transit programs and policies with estimates for previously announced Environment Plan initiatives.	The ministry will continue to use integrated modelling. Doing so ensures that integrated modelling estimates (where appropriate) reflect the latest available policy details, assumptions, data sources and up to date model functionality and that imitative interactions and overlaps are accounted for whenever possible	Ongoing
13	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should work with partner ministries to update its climate change plan to include detailed actions, based on sound evidence and supported by feasibility and cost analysis.	In process of being implemented The ministry remains committed to addressing climate change and fulfilling the requirements of the Cap and Trade Cancellation Act.	The ministry proposes to return to Cabinet in Spring 2021 (TBC) after having worked with partner ministries, with updates to the climate change plan. including emissions reduction estimates, feasibility assessments and cost analysis.	December 2021

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		The ministry has been developing options and working with partner ministries across the Ontario Public Service to build consensus on the next steps for evolving Ontario's climate change plan.		
14	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should obtain and review an independent assurance report from the vendor of the integrated model for estimating emissions on an annual basis.	Fully implemented The ministry last obtained assurance reports from the vendor in February 2020, which did not identify information technology weaknesses. The ministry will continue to ask the vendor to provide assurance reports on a yearly basis. The ministry will continue to ask the vendor to provide assurance reports on a yearly basis.	N/A	N/A
15	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should work with the Ministry of Agriculture, Food and Rural Affairs to include agriculture-specific initiatives in an updated Environment Plan to reduce emissions.	In process of being implemented MECP has been working with Ontario Ministry of Agriculture Food and Rural Affairs (OMAFRA) to identify agricultural initiatives in Ontario's evolving climate change plan. MECP and Ontario Ministry of Agriculture Food and Rural Affairs (OMAFRA) have met to discuss opportunities for nature-based solutions for Ontario.	Continue to work with OMAFRA to confirm agriculture specific initiatives that could be recommended for inclusion in an updated climate change plan.	December 2021
16	The Standing Committee on Public Accounts recommends that The Ministry of the Environment, Conservation and Parks should determine and compare costs and net emissions reductions associated with all initiatives included in the Environment Plan.	In process of being implemented Environmental and economic estimates generated by the ministry's energy-emissions-economy model are based in part on behavioral changes caused by simulated Environmental Plan initiatives. The model considers multiple factors, including costs associated with abatement options available to entities. The model regularly undergoes revisions to incorporate latest information and	The ministry works with the vendor to ensure the model is constantly kept up to date. Environmental and economic impact estimates of Environment Plan initiatives will be completed as the Environment Plan continues to evolve.	December 2021

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		research in technology advancements, costs, economic outlook, energy prices, as well as emerging policies from other provinces and the federal governments.	The ministry proposes to return to Cabinet in Spring 2021 (TBC) after having worked with partner ministries, with updates to the climate change plan, including emissions reduction estimates, feasibility assessments and cost analysis.	
17	So that actions and decisions made by ministries support Ontario's ability to meet its greenhouse gas reduction target, we recommend that the Secretary of Cabinet, in conjunction with the Ontario Deputy Ministers' Council, require ministries to use the guidance tools developed by the Climate Change Leadership Team.	Update to be provided by Cabinet Office.		
18	So that ministries consider the impact that their decisions may have on greenhouse gas emissions, we recommend that the impact of decisions that affect emissions be evaluated and highlighted in all Treasury Board submissions.	Update to be provided by Cabinet Office.		
19	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should a) develop and implement measurable performance metrics; b) report at least annually to the public on the government's performance metrics and overall cumulative progress toward meeting its 2030 emissions target; and c) explain the outcomes of all initiatives to reduce emissions in the annual report.	In process of being implemented The Ministry recognizes the importance of public reporting and has committed to reporting on progress against its Plan and target on a regular basis. The Ministry agrees with the Auditor General's recommendation about the importance of performance metrics and outcome-based reporting, and will consider this advice as it finalizes its approach to public reporting, monitoring and evaluating progress against the commitments in its Plan. The ministry has provided two updates to the public on the anniversary of the Environment Plan-one in 2019 and one in 2020.	Finalize approach to public reporting, monitoring and evaluating progress against the commitments in the Plan.	December 2022
20	The Standing Committee on Public Accounts recommends that the Ministry of the Environment, Conservation and Parks should	In process of being implemented The ministry has been developing options and working with partner ministries across the Ontario Public Service to build	The ministry proposes to return to Cabinet in Spring 2021 (TBC) after having worked with partner ministries, with updates to the climate change plan.	December 2021

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	a) update the draft of the Environment Plan with recent integrated modelling and refined emission-reduction estimates;	consensus on the next steps for evolving Ontario's climate change plan. The ministry will continue to follow best practices (including integrated modelling where appropriate) to develop and update estimates the economic and environmental impacts of initiatives towards meeting Ontario's 2030 emissions target.		
	b) provide specific timelines and expected emissions reductions for each action; and	In process of being implemented This work is ongoing as the ministry considers new initiatives and updates design elements of initiatives to address climate change.	The ministry proposes to return to Cabinet in Spring 2021 (TBC) after having worked with partner ministries, with updates to the climate change plan.	December 2021
	c) present the updated draft Environment Plan, which includes subsequent developments before Cabinet for approval as required.	In process of being implemented The government will continue to evolve the Made-in-Ontario Environment Plan in a way that addresses new technologies and opportunities, and that works for our diverse communities, including rural, Northern and Indigenous communities.	The ministry proposes to return to Cabinet in Spring 2021 (TBC) after having worked with partner ministries, with updates to the climate change plan.	December 2021