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**MAY 10, 2023**

# 2021-2024 Conservation and Demand Management (CDM) Framework Update

## Presentation for the Stakeholder Advisory Committee

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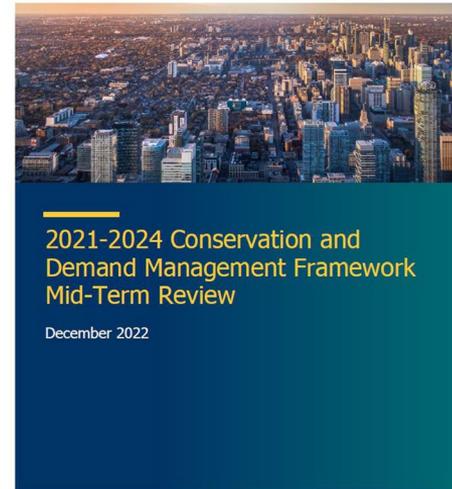
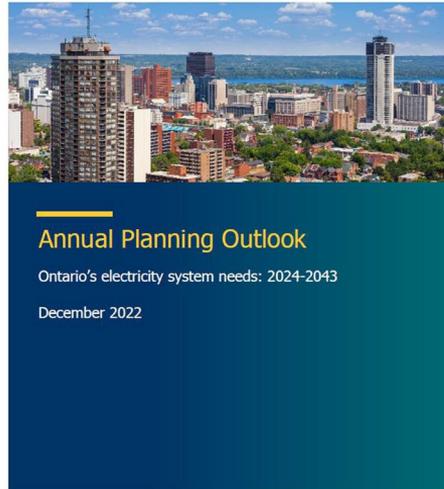
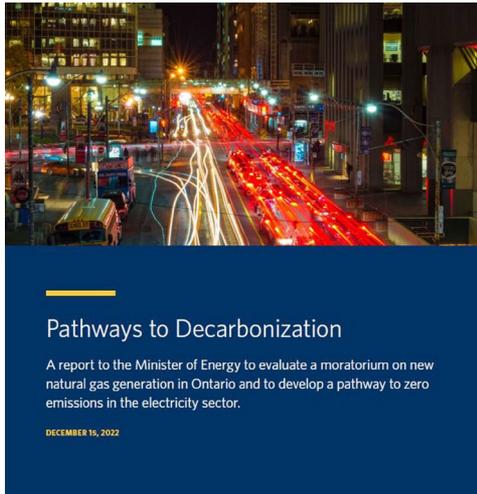
# Purpose

- Provide an update on the implementation of recommendations from the CDM Mid-Term Review, including:
  - New Save on Energy programs being implemented in 2023
  - Collaboration with LDCs in the delivery of CDM
  - Collaboration and coordination with Natural Resources Canada and Enbridge
- Seek feedback on additional actions that can be undertaken

# Discussion Questions

- Are there other areas where enhanced LDC collaboration/partnership would further drive and guide the energy sector transformation that this work should keep in mind?
- Are there increased opportunities for collaboration (with Natural Resources Canada, Enbridge or other sector partners) the IESO should consider?
- As we plan for the delivery of CDM post 2024, are there any further areas to be considered beyond the recommendations from the CDM Mid-Term Review?

# The Energy Transformation



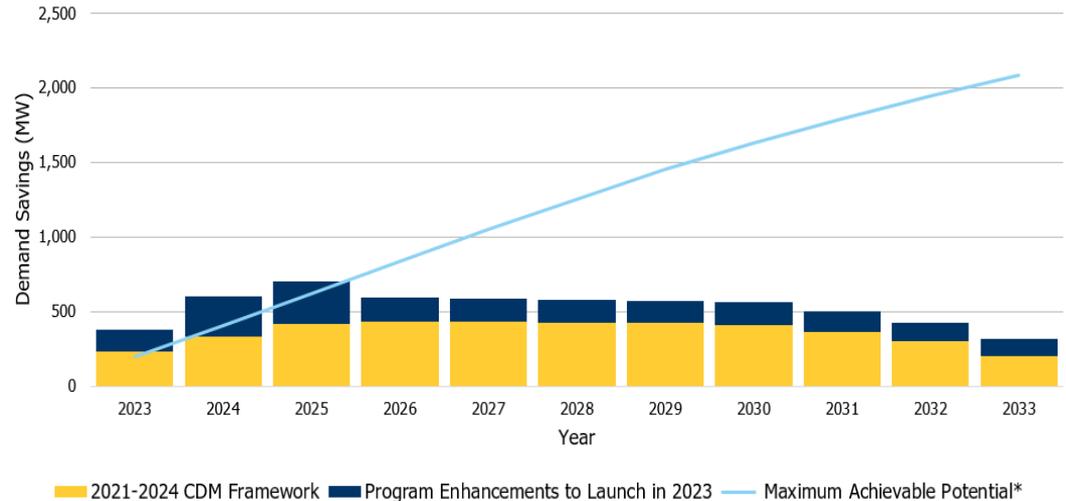
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Trilogy of reports highlight progress made to prepare the electricity system of the future and the work needed to address the challenges ahead, including the importance of CDM, among other resources, to cost-effectively meet both system and customer needs, and reduce emissions.

# CDM Mid-Term Review: Significant Energy Efficiency Opportunity Post-2024

- Save on Energy programs leveraging all feasible energy-efficiency opportunities within the 2021-2024 framework
- Significant potential for CDM post-2024 to further support system needs: 1,900 MW savings by 2033



\* Based on 2019 Achievable Potential Study

# CDM Mid-Term Review Recommendations

Progress has been made on the following recommendations, particularly as they relate to challenge statements identified by the Stakeholder Advisory Committee, including resource adequacy, modernization and efficiency.

## **Resource Adequacy:**

- Continue to implement the 2021-2024 Framework Program Plan, including the new and enhanced programs enabled by the October 2022 Directive, according to budgets, targets and schedule, while implementing program-enhancement opportunities identified as part of the individual program reviews.
- Continue to pursue program-delivery collaboration opportunities with Enbridge and Natural Resources Canada to help program participants achieve deeper savings and reduce IESO administrative costs.

# CDM Mid-Term Review Recommendations Cont'd

## **Modernization and Efficiency:**

- Engage with LDCs on opportunities to build on IESO CDM programs to provide local system benefits, leveraging the OEB CDM Guidelines for Electricity Distributors.
- Adopt an enduring approach for post-2024 that moves away from time-bound frameworks and better leverages CDM as a resource to respond to evolving system, market and customer needs.
- Conduct research in support of developing post-2024 CDM programs to meet evolving system and customer needs – particularly programs addressing sectors identified as high potential in the Achievable Potential Study refresh and customer decarbonization trends.

# CDM Framework – New Programs in 2023

The IESO submitted a revised CDM Plan to the Minister in December 2022 which included the following new and enhanced programs to be launched in 2023:

- **Strategic Energy Management program**, an evolution of the Energy Manager program that provides training, resources and enhanced technical support to companies with a dedicated energy management team. *(January – in market)*
- A new **residential demand response program** for homes with existing central air conditioning and smart thermostats to help lower energy use at peak times *(June)*
- Enhancements to the **Save on Energy Retrofit Program** for businesses, institutional and industrial customers to include custom energy-efficiency projects *(May)*
- **Existing Building Commissioning program**, to help companies find opportunities to optimize operations and improve energy efficiency based on their current facility requirements. *(June)*

# CDM Framework – New Programs Cont'd

- **Commercial Midstream Lighting program** with lighting incentives for lighting distributors to increase sales of energy-efficient lighting through point-of-sale discounts (*September*)
- Enhancements to the **Save on Energy Local Initiatives Program** to reduce barriers to participation and to add flexibility for incentives for distributed energy resources (DER) solutions in targeted areas of the province where electricity constraints exist (*Ongoing*)
- **Targeted support for greenhouse growers** in Southwest Ontario, including incentives to install LED lighting, advanced controls or behind-the-meter DERs, such as combined solar generation and battery storage (*Ongoing*)

# LDC/IESO CDM Working Group

- Working group established in February: 11 LDC and two IESO representatives; co-chaired by the IESO and Synergy North
- LDCs selected by the OEA/EDA to be representative of geography and size
- Goal is to prepare joint LDC-IESO recommendation to Minister in summer 2023

## Objectives

- Identify post 2024 opportunities for enduring LDC-IESO collaboration on joint delivery of CDM
- Identify funding sources and their applications
- Identify clear roles and accountabilities to ensure ratepayer value
- Identify how the IESO should support LDCs in their CDM applications to the OEB

## Outcomes

- Clear roles and accountabilities of LDCs and IESO delineated, which build on their strengths in CDM delivery
- Recommended funding sources and their applications for LDC-IESO CDM collaboration
- Recommended tools to facilitate LDC participation
- Type of support needed to be provided by IESO for LDC CDM applications to OEB
- Barriers to collaboration and enabling mechanisms to address them delineated

# Collaboration

## Natural Resources Canada

- Exploring funding opportunities to supplement Save on Energy programs, including the Green Industrial Facilities and Manufacturing Program, and the Deep Retrofit Accelerator Initiative
- Collaborated in 2021/22 on the Energy Manager Program

## Enbridge

- Currently collaborating in the delivery of the Energy Affordability Program with a “one-window” delivery approach, as well as various capability building and training initiatives
- Collaborated in the midstream Food Distributor Program in 2021/2022

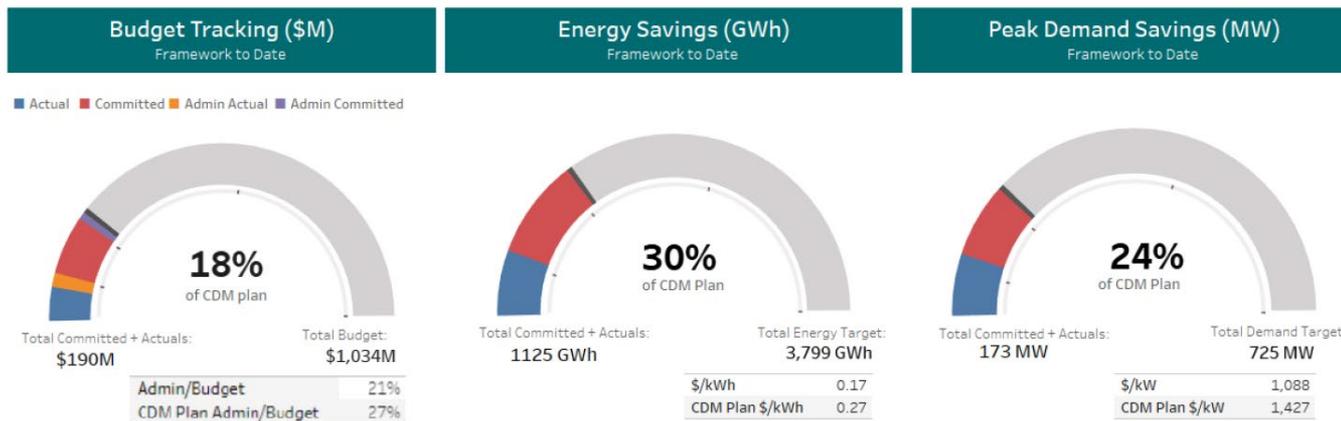
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# Appendix

# Results To Date



- Based on the updated CDM Plan and realigned annual targets, the Framework exceeded 2021-2022 performance targets by 8% and 10% in terms of energy savings and peak demand reductions, respectively
- Q4 2022 saw increased Support Program activity with 26% quarter-over-quarter increase in Energy Affordability Program (EAP) applications and 9 community registrations under First Nations Community Building Retrofit Program (FNCBRP) – targeting 70 by end of 2024 – demonstrating renewed interest in non-health related matters in these communities
- IESO remains confident that adjustments/enhancements over the next 21 months will close current forecast shortfalls

# CDM Mid-Term Review Themes

- **Significant opportunity exists for additional CDM investments** to cost-effectively help meet growing system needs beyond the current framework: as much as 485 MW and 5.2 TWh by 2028, and 1,851 MW and 16.1 TWh in 2033 is identified in the 2022 refresh of the Achievable Potential Study.
- Moving to **longer-term funding commitments** (e.g. beyond four years) would deliver a number of benefits: facilitating customer project planning, minimizing disruption and customer confusion with framework transitions, and enabling greater reliance on CDM in system planning.
- **Consumers are placing a greater priority on decarbonization objectives.** Increased investment will enable support for more complex energy efficiency projects that can deliver deeper savings, including the pursuit of electrification and behind-the-meter (BTM) distributed energy resource (DER) projects.
- Jurisdictions across North America are increasingly more **focused on equity, diversity and inclusion**, an important development that the IESO is reflecting in the design and delivery of its programs.
- There is **more demand for co-ordination** between electricity CDM, natural gas Demand Side Management (DSM), and federal greenhouse gas (GHG) reduction programs.
- **Local Distribution Companies (LDCs) have made valuable contributions to CDM program** planning, delivery and marketing under various framework arrangements and can play a bigger role going forward in CDM.

# Pathways to Decarbonization

- The IESO's Pathways to Decarbonization report reinforces the importance of conservation and demand management in meeting decarbonization targets. Analysis indicates that almost 12,000 MW of energy reductions by consumers—though reducing overall energy use or reducing demand at peaks—could be required to meet zero emissions targets by 2050.
- The achievable conservation and demand management potential supports key findings from the IESO's Pathways to Decarbonization report, which concludes that Ontario is in a strong position to decarbonize its rapidly-growing electricity grid, starting with a moratorium on natural gas generation in 2027 provided new storage, nuclear, renewables and expanded conservation efforts are ready when needed. Achieving zero emissions objectives requires Ontario to continue to build and expand its use of conservation and demand management to meet system needs.
- To support the continued growth of conservation and demand management in Ontario, the IESO recommends that Save on Energy offerings be expanded to:
  - Better leverage conservation and demand management as one of the lowest-cost resources to respond to evolving system and customer needs
  - Offer new and enhanced programs for where there is untapped potential, such as the residential sector, which includes multi-family and social housing customers
  - Develop efficient electrification programs to minimize the grid impacts of customer electrification, including from electric vehicles

# Opportunity for 'No Regrets' Actions

- Accelerate current efforts to acquire new non-emitting supply, including expanded energy-efficiency programs
- Begin planning, siting and environmental assessments for new nuclear, storage, hydro and transmission facilities to allow for faster implementation
- Further work and investment to determine if low-carbon fuels, such as hydrogen or renewable natural gas, can replace some of the flexibility of natural gas
- Ensure regulatory, approval and permitting processes are ready to manage future investment at scale
- Galvanize collaboration amongst stakeholders and Indigenous communities
- Establish open, transparent and traceable process to measure progress and demonstrate results of decisions and actions taken along the way

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# Thank You

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