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Introduction to the 2026 Provincial eDSM Achievable Potential Study

ieso
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Welcome and Introduction

- This engagement is conducted according to the IESO Engagement Principles posted on the IESO Website
- Today's session will be recorded and available for viewing online following the session
- All documents associated with this session can be found on the 2026 Provincial eDSM Achievable Potential Study webpage

Participation

- For questions and comments click on the "raise hand" icon (hand symbol) at the top of the application window. This will indicate to the host you would like to speak
- To unmute audio, click on the microphone icon at the top of the application window
- Audio should be muted when not asking a question

Territory Acknowledgement

The IESO acknowledges the land we are delivering today's webinar from is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit First Nation.

As we have attendees from across Ontario, the IESO would also like to acknowledge all of the traditional territories across the province, which includes those of the Algonquin, Anishnawbe, Cree, Oji-Cree, Huron-Wendat, Haudenosaunee and Métis peoples.

Agenda

- Introduce the next provincial electricity Demand Side Management (eDSM) Achievable Potential Study, including objectives, expected scope, timing, and high-level engagement activities
- Explain the approach of developing an enduring, updateable APS modelling tool for the 2026 and future studies
- Solicit feedback from stakeholders to inform future project activities

Background: What is an APS?

- Achievable Potential Studies (APS) are large modelling exercises that seek to estimate the quantity of energy and/or peak demand savings from energy efficiency, demand response, or distributed energy resources (DERs) that can cost-effectively and realistically be acquired in a specific area over time, and associated implementation costs
- The studies are typically used to inform utility eDSM programs and system planning activities

Background: eDSM APS in Ontario

- The IESO has historically undertaken provincial energy efficiency APS every 3-4 years plus additional provincial APS focused on specific DER technologies on an ad hoc basis
- The last provincial eDSM Achievable Potential Study (APS) was released in 2022 and available here

Background: the 2025-2036 eDSM Framework

- In January 2025, the Ontario government announced a new provincial 2025-2036 eDSM Framework with a $10.9B budget ceiling
- With this mandate the IESO is expanding the scope and scale of its Save on Energy-branded eDSM programs, including energy efficiency, demand response, behind-the-meter solar and storage, and targeted beneficial electrification offerings
- The framework directive requires IESO to develop and publish sequential three-year "program plans" specifying annual energy savings targets, peak demand savings targets, and budgets[1]

[1]The 2025-2027 eDSM program plan is available here

Background:

- The directive also requires the IESO to publish the next provincial eDSM APS by December 31, 2026, the subsequent study by July 30, 2030 to support the framework's mid-term review, and additional studies thereafter on a four-year cadence

2026 eDSM APS Objectives and Planned Scope

Primary Study Objectives

- Inform development of programs, savings targets and budgets for the IESO's 2028-2030 eDSM program plan
- Identify new or underutilized cost-effective savings opportunities to inform enhancements to the suite of Save on Energy programs
- Study results will be used to inform future evaluation of non-wires alternatives options in the Integrated Regional Resource Planning and Bulk Planning process

Planned Scope – Overview

- Like past provincial eDSM potential studies, the next potential study will produce annual estimates of technical, economic, and achievable eDSM potential and associated costs for a 20+ year period
- The APS plans to feature up to three scenarios consistent with the Annual Planning Outlook
- Reflecting the scope of the new eDSM framework, the APS will include energy efficiency, demand response, behind-the-meter DER, and select beneficial electrification measures

Planned Scope – Potential Lenses

Per standard potential study practice, the 2026 APS will produce estimates of:

1. Technical potential: the savings potential resulting from the immediate implementation of all technically-feasible measures regardless of cost-effectiveness, customer awareness, etc.
2. Economic Potential: the savings potential remaining after technically-feasible measures have been screened for cost-effectiveness
3. Achievable Potential: the technically-feasible, cost-effective savings potential that can realistically be acquired after considering customer adoption dynamics and other barriers

Planned Scope - Scenarios

- In alignment with the Minister's Integrated Energy Plan Implementation directive to the IESO concerning scenario planning, the 2026 study plans to feature up to three demand scenarios consistent with the Annual Planning Outlook
- Per the directive, the different demand scenarios reflect variances in assumptions about electrification trends and policies and other areas that impact electricity use
- The IESO and the study consultant are presently confirming if demand scenarios will be premised on the 2026 APO or 2027 APO, considering timing interdependencies

Planned Scope – Measures

eDSM type	Sectors	Notes
Energy efficiency	All	Includes Operational & Maintenance (O&M) measures
Demand response	All	Including EV load control
Behind-the-meter DER	All	Specifically solar PV, battery storage, heating and cooling thermal storage
Beneficial electrification*	Residential, Commercial & Institutional	Limited to electrification of wood/propane/oil-fueled space and water heating

Sectors: Residential, Commercial & Institutional, and Industrial

*The use of electricity instead of other fuels to reduce overall energy use and emissions and subsequently reduce costs for high consumption activities such as home heating and cooling, regardless of fuel type.

Measure Scope - Beneficial Electrification

- The 2026 study will explore electrification potential for water- and space-heating end uses fuelled by wood, propane, or fuel oil
- The 2026 study will not explore electrification of natural-gas fuelled end uses as:

1.) the Ontario Energy Board recently completed a natural gas Demand Side Management APS that included electrification measures[3]

2.) The framework directive prohibits IESO from duplicating OEB approved natural gas programming and Enbridge is expected to continue delivering natural gas electrification programming

[3]This study is available here

Measure Scope - V2G/B

- The 2026 study will not include Vehicle-to-Grid/Building (V2G/B) measures due to the unavailability or high uncertainty of data required for modelling, and significant barriers to actual delivery of a large-scale, cost-effective V2G/B program in the near- to mid-term
- More details are available in the memo posted here
- The IESO expects to include V2G/B measures in the 2029 APS or subsequent APS as adequate data to inform credible modelling becomes available

Deliverables

- The study will produce estimates of technical, economic, and achievable energy and/or peak demand savings potential (as applicable) for energy efficiency, demand response, and behind-the-meter solar and storage measures
- Estimates will be produced by transmission zone, sector, subsector, and end-use category
- In addition to results data files, written reports summarizing potential results and detailing methodology and input assumptions will be provided

2026 eDSM APS Approach

A New APS Approach

- Historically, the IESO has procured a new consultant to deliver each new achievable potential study
- Consultant Cadmus Group is currently building a new, sophisticated long-term demand forecasting tool known as "LEAF" for the IESO
- Cadmus also performs APS studies for energy utilities and agencies across North America
- Cadmus will build an additional eDSM potential study module integrated with LEAF, leveraging LEAF's demand forecasts and core end-use modelling functionality

Benefits of Developing an Enduring APS Model

Benefit	Description
1. Planning alignment	Integrating directly with the new long-term demand forecasting tool improves alignment between APS studies and the Annual Planning Outlook – the primary planning product used to inform generation investment
2. Flexibility	Establishing an "in house" APS modelling capability will provide the IESO much greater flexibility to update results as the demand forecast, avoided generation costs, or other key input assumptions evolve, and to explore different scenarios and sensitivities
3. Input assumptions	Establishing a consistent methodology across multiple APS enables the IESO to custom design Ontario-specific market research around APS input assumptions, improving confidence in modelling results
4. Ratepayer cost savings	Moving to an enduring model will deliver significant ratepayer costs savings over the course of multiple studies

A New APS Approach (2)

- For clarity, while the creation of an enduring tool will establish a consistent modelling **methodology** for subsequent APS, IESO will continue to be able to update the model **inputs**, including demand forecasts, avoided generation costs, retail rates, measure assumptions, etc.

Stakeholder Engagement (1)

- The IESO expects significant stakeholder interest in the 2026 APS and desire to provide feedback on draft modelling methods and assumptions in addition to draft results
- **IESO and Cadmus will hold engagement webinars focussed specifically on draft modelling methods and assumptions**

Stakeholder Engagement (2)

Planned Timing	Engagement Activity
September 2025 until December 2026	Smaller group meetings with stakeholder groups to introduce the study, understand stakeholder priorities, solicit input on specific areas
September 16, 2025	Introduction engagement webinar and feedback window opens (window closes September 30)
Q4 2025 – Q2 2026*	Methodology and Assumptions engagement webinars
Q3-4 2026	Draft results webinar
Q4 2026	Final results webinar and engagement conclusion

*Detailed timing and topic structure for Methods & Assumptions webinars will be confirmed pending further discussions with Cadmus and stakeholder feedback to today's webinar

Study Coordination with Related gDSM and DER Work

- The 2025-2036 eDSM Framework directive advises that the IESO's achievable potential studies should be, as far as appropriate and reasonable, be coordinated with natural gas Demand Side (gDSM) Management research and the Ontario Energy Board's work on DER integration and non-wires alternatives
- To this purpose, in addition to the broader external engagement, the IESO has convened an advisory group with the Ontario Energy Board, Enbridge, and Ministry of Energy & Mines (as observer) to ensure appropriate coordination and consideration of gDSM research and the OEB's DER integration initiatives in the 2026 APS

Particular Stakeholder Feedback Requested

1. Are there any policy/market/technology considerations IESO and Cadmus should be aware of to inform the development of draft assumptions?
2. Do stakeholders envision using the APS results for additional purposes, and if so, how?
3. Beyond the three identified demand scenarios, are there additional sensitivities IESO should consider exploring in further analysis?

Next Steps

- All documents associated with this engagement can be found on the 2026 Provincial eDSM Achievable Potential Study webpage
- If you have any questions on the information shared today, please contact IESO Engagement at engagement@ieso.ca

Thank You

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