Making a Difference

Energy Efficiency in Ontario
2021-2024 Conservation Demand Management and Legacy Framework Results

December 2025

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Table of Contents

1. Executive Summary

The 2021-2024 Conservation and Demand Management (CDM) Framework achieved a total 3.57 TWh of actual and committed energy savings, and 604 MW of actual and committed peak demand savings through its four-year duration, representing 94 per cent and 83 per cent of the savings targets, respectively. These framework results include total verified savings of 1.23 TWh and 264 MW through the IESO's evaluation, measurement and verification (EM&V) process as well as estimated savings from completed projects that are not yet verified, and project commitments yet to be completed. The CDM Framework closed out strong in 2024, approximately doubling year-over-year results, with achievements of 1.9 TWh and 311 MW in actual and committed energy and demand savings, respectively.

The savings achieved in 2024 – 530 GWh for incremental net verified energy and 181 MW for incremental net verified peak demand – were driven by the exceptional performance of programs that launched the year before including Peak Perks, Targeted Greenhouse and Instant Discounts (a stream of the Retrofit Program). These programs were launched in 2023 in accordance with the 2022 Directive to develop expedited options for new and expanded CDM programming to help address system needs. These new and expanded offerings resulted in revised total framework targets of 725 MW of peak demand savings, 3.8 TWh of energy savings, and a total budget of more than $1 billion. There was strong momentum in the Retrofit, Small Business and Industrial Energy Efficiency Programs as well as BizEnergySaver, while four local initiatives were launched to help residential and commercial consumers realize their energy-saving potential and better manage their energy costs.

For the final year of the CDM Framework, verified results showed a boost of more than 75 per cent for energy savings and 480 per cent in peak demand savings from 2023. When factoring in the full verified results over the entire four years, the CDM Framework avoided 207,660 tonnes of CO2(e) for its first year, which is equivalent to the amount produced by about 46,100 vehicles each year. For the 2021-2024 Framework, Save on Energy has helped to ensure the reliability of Ontario's electricity system and energy efficiency remains one of the most cost-effective electricity resources at less than three cents/kWh.

Throughout the course of the 2021-2024 CDM Framework, the Independent Electricity System Operator (IESO) continued to expand and enhance Save on Energy offerings notwithstanding the disruptions brought on by the COVID-19 pandemic, which overlapped with much of the CDM Framework's duration. Over the course of the framework, Save on Energy has expanded its suite of programs initially focused on helping Ontario businesses save electricity costs and build capacity, to begin leveraging smart technology and offering more targeted incentives across a wider array of energy customer segments by the end of 2024. By this time, more than 387,000 applications had been processed under the CDM Framework. As demonstrated throughout this report, the impact of Save on Energy's programs on the system and consumers has been substantial.

CDM Framework programs have consistently achieved broad participation across Ontario. Of the more than 387,000 applications that were processed, approximately 32,000 were from businesses, 200,000 from residential customers, 152,000 from income-qualified households, and around 3,000 from First Nations communities. These figures underscore the IESO's commitment to the adoption of energy-efficiency practices across a broad spectrum of customer segments across Ontario.

Upon the CDM Framework's conclusion, Ontario is renewing its commitment to reducing energy use under the 2025-2036 Electricity Demand Side Management Framework (eDSM Framework), through which energy efficiency will continue to demonstrate its unique role in ensuring a reliable, affordable and sustainable grid. As an essential part of the Ontario government's integrated energy plan, the new eDSM Framework helps form a cornerstone of the province's strategy to keep energy costs down while meeting the growing demand for electricity.

2. Introduction

Since 2011, the IESO has been delivering province-wide energy-efficiency programs under Save on Energy, Ontario's recognized and trusted source for energy-efficiency opportunities and knowledge in the province. Through this brand, the IESO offers programs, incentives and educational content to help every customer segment use energy more wisely. By achieving greater energy efficiency, individuals and businesses have realized significant cost savings. This has helped reduce the amount of energy the provincial electricity system needs to produce and deliver, which can defer or avoid the need for investments in new electricity supply or transmission infrastructure. Investments in energy efficiency have also made businesses more competitive and homes more comfortable to live in, and they have helped reduce greenhouse gas emissions (GHG) from the grid and supported economic growth by creating jobs and purchases of new equipment.

Save on Energy marked its 13th anniversary in 2024. Since 2011, Save on Energy programs have provided energy-efficiency opportunities and resources to more than 621,000 residential and business electricity customers across Ontario to help them better manage their electricity use, saving more than 20 TWh of electricity – equivalent to powering two million homes for one year. These customers completed approximately 80 million energy-efficiency actions over 13 years, which ranged from changing a light bulb to completing complex building retrofits. These savings have been confirmed through the EM&V process, which assesses the resource savings, cost-effectiveness and market impacts of each program, and for which the reports are available on the IESO's EM&V web page.

Demand-side management (DSM) continues to be a critical resource as the IESO prepares for an unprecedented increase in electricity demand in Ontario. The IESO forecasts significant demand growth in the long term, with economic development and population growth driving an increase in electrification, particularly in the mining and industrial sectors and from data centres, and electric-vehicle adoption rates. Ontario's supply mix is also evolving alongside this growth; to ensure reliable and affordable electricity is available when and where it is needed, the IESO is moving forward with ambitious plans to build a significant amount of new supply and transmission infrastructure – and expand upon its energy-efficiency programs. As one of the lowest-cost resources, energy efficiency and, more broadly, DSM has been an essential component of electricity resource procurement, and it will continue to be so for the long term.

There remains significant potential for system and customer needs to be further supported cost-effectively, which the province has recognized. In December 2024, the IESO was directed to implement an expanded energy-efficiency portfolio with a 12-year, $10.9-billion funding commitment under the 2025-2036 Electricity Demand Side Management Framework. This new eDSM Framework picks up from the CDM Framework and includes programming for all customer segments, a focus on collaboration with energy sector partners and the expansion of programming to include beneficial electrification.

3. 2021 CDM Results

3.1 Overview

In 2021, the IESO was managing energy-efficiency programs under three distinct CDM frameworks, primarily because many projects from previous frameworks were delayed as a result of the impacts of the COVID-19 pandemic. Projects had been winding down under the Conservation First Framework (CFF), which ran from January 2015 to March 2019, and under the Interim Framework (IF), which ran from April 2019 to December 2020. The 2021-2024 CDM Framework launched in January 2021.

In the first year of the 2021-2024 CDM Framework, modest progress was achieved toward meeting the new set of provincial targets. Overall, 451 GWh and 76 MW of actual and committed energy and demand savings was achieved by the end of 2021. This involved 19,116 energy-efficiency projects across the suite of Save on Energy programs. In 2021, the framework delivered 83 GWh of net verified energy savings and 16 MW of net verified peak demand savings. The verified results for program year 2021 had first-year avoided GHG emissions of 2,765 tonnes CO2(e),[1] which is the equivalent of removing approximately 600 vehicles from Ontario roads.[2]

In 2021, the IESO introduced a new framework for CDM programs. On Sept. 30, 2020, the Minister of Energy, Northern Development and Mines directed the IESO to establish the 2021-2024 CDM Framework with the aim of offering a suite of centrally delivered programs to help consumers manage their electricity use while meeting electricity system needs. This framework focuses on cost-effectively achieving provincial peak demand reductions, as well as targeted approaches to address regional and/or local electricity system needs.

The 2021-2024 CDM Framework leverages procurements and calls for proposals to increase competition, improve cost-effectiveness and solicit consumer-based solutions. Programs continue to be targeted at those that need them most, including industrial, commercial, institutional and First Nations consumers, as well as income-eligible customers. In recognition of limited forecast needs in the CDM Framework's first two years, programs were designed to maintain program delivery capacity in the province and meet consumer needs while enabling a ramp-up of program offerings in 2023.

The IESO developed a CDM Framework Program Plan[3] to implement the Directive from September 2020. The Plan detailed the programs to be delivered under the framework over the course of the four years, including their forecast energy savings, demand savings and cost. System needs were considered in determining the original targets for the framework. The Directive and Plan established a target of 440 MW of peak demand savings and 2.7 TWh of energy savings, with an associated cost of $692 million, for the framework's four-year term. As directed by government, the IESO completed

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[1] GHG reporting for first-year avoided emissions as per IESO evaluations for PY2021. This differs from the value previously reported.

2 A vehicle emits about 4.5 tonnes of CO2(e) per year. See U.S. EPA's Greenhouse Gas Equivalencies Calculator and the IESO's Annual Planning Outlook web page.

3 The CDM Framework Program Plan has been updated to reflect the enhanced budget and targets from the Directive issued on Sept. 29, 2022.

a CDM Framework Mid-Term Review (MTR) in 2022. Electricity system needs were subsequently reassessed, and changes made to the programs, targets and budgets of the CDM Framework.

3.2 Overview of CDM Programs and Initiatives

CDM programs for industrial, commercial and institutional consumers continued to support business competitiveness and the province's economic recovery from the COVID-19 pandemic, helping businesses improve their productivity and manage costs. CDM also provided free training, educational programs and incentives for certification courses via the Capability Initiative.

In 2021, programming was renewed for income-eligible consumers and First Nations across Ontario. For income-eligible consumers, access to energy-saving measures was simplified as a single program to deliver the benefits of two previously existing programs, the Affordability Fund Program and the Home Assistance Program, to reduce confusion and enhance customer experience.

The IESO engaged First Nations on program design improvements before relaunching offerings that were suspended under the previous IF due to the outbreak of COVID-19.

Residential and other consumers were supported with tools and guidance to help improve energy efficiency. These included tips and other educational resources to help better manage energy costs in homes and encourage smart buying decisions of energy-efficient appliances and equipment.

New and updated programs in 2021 included those that provided incentives to help Ontario businesses of all sizes implement retrofits and other energy-efficiency projects to manage their energy costs, such as the following:

- **Retrofit Program –** participants can receive incentives for a variety of energy-efficient measures including lighting, HVAC and manufacturing as part of this flagship program of the framework. In 2021, the program was updated to include an expanded list of prescriptive measures with faster application review processes.
- **Small Business Lighting –** specifically for businesses with 50 or fewer employees, this program offered incentives of up to $2,000 for the direct installation of eligible lighting equipment.[4]
- **Energy Performance Program –** this program rewards business customers who are able to achieve continuous whole-building energy improvements under a pay-for-performance model.
- **Energy Manager Program –** this program funded organizations that embedded energy managers and provided support as they implemented strategic energy management best practices.[5]
- **Capability Building Initiative –** this initiative provides free training and other types of educational support aimed at increasing the knowledge and skills of Ontario's energy sector professionals, channel partners and decision-makers. This initiative also provides incentives of up to 50 per cent to cover the cost of energy-related certification courses.

[4] The Small Business Lighting program re-launched in March 2022 as the Small Business Program.
[5] The Energy Manager Program was replaced by a new program called the Strategic Energy Management Program in 2022.

Programs that offered incentives for income-eligible electricity consumers and First Nations in 2021 included:

- **Energy Affordability Program –** available to income-eligible residents, energy-savings upgrades are tailored to the specific needs of participants' homes, at no cost. Two types of support were made available: comprehensive support that includes a home assessment and direct installation of energy-saving measures, and energy-saving kits that include measures to be installed by residents.
- **Remote First Nations Energy-Efficiency Program –** this program provides funding support to remote First Nations to implement energy-efficiency projects that helps manage energy use more effectively to save on energy costs and increase the comfort of homes and businesses.

3.3 COVID-19

The COVID-19 pandemic and related measures had a material impact on the IESO's ability to deliver its planned programming and on customers' receptiveness to implementation in 2021. The IESO identified the following impacts on CDM program offerings owing to the pandemic:

- Provincial lockdowns and supplemental safety protocols disrupted program delivery.
- Launch dates for some programs were delayed, while others were paused. For some programs, administrative costs still accrued despite not delivering savings due to requirements to maintain call centre and other capabilities.
- Participants managing uncertainty and shifting budget priorities reduced the number and timing of energy-efficiency projects. Industries also experienced challenges related to staffing and site access.
- Supply chain issues and inflation affected energy-efficiency projects, along with related increased time, costs and complexity for implementation.
- Changes to energy-use patterns introduced challenges to project measurement and verification for participants and program administrators. This led to increased program administrative costs along with decreased savings certainty.

As a result of these challenges, participants in some programs under the 2015-2019 CFF and 2019-2020 IF were granted extensions to complete their projects.

In response to COVID-19, in-person interactions between Save on Energy representatives and customers were temporarily suspended in 2020 and again in 2021, including visits to residences and businesses. New programs under the 2021-2024 CDM Framework remained flexible to ensure safe delivery and continued to provide opportunities to help those who needed them most. They also contributed to reduced energy costs as businesses and residents were recovering from the impacts of COVID-19.

3.4 2021-2024 CDM Framework Performance

In 2021, the first year of the CDM Framework, Save on Energy programs made modest progress toward meeting the new set of provincial targets despite the impacts of the COVID-19 pandemic.

Program	Energy Savings (GWh)	Peak Demand Savings (MW)	Budget ($M)
Retrofit Program	416.5	70.2	62.6
Small Business Lighting	11.6	3.3	4.2
Energy Manager Program	0.8	0.1	0.4
Energy Performance Program	12.6	1.8	2.3
Energy Affordability Program	8.8	0.8	11.0
First Nations Programs	0.8	0.1	0.0
Total	**451**	**76**	**80**
2021 CDM Program Plan Targets	**543**	**89**	**136**

4. 2022 CDM Results

4.1 Overview

When combined with the 2021 performance outlined in Section 3 and including new projects committed in 2022, the first two years of the framework achieved 1.1 TWh of actual and committed energy savings, and 173 MW of actual and committed peak demand savings. The actual and committed savings totals represented 108 per cent of the 2021-2022 energy savings target and 110 per cent of the 2021-2022 peak demand savings target. These achievements were a result of 41,825 energy-efficiency projects initiated across the suite of Save on Energy programs. In the second year of the framework, the programs delivered 302 GWh of incremental net verified energy savings and 35 MW of incremental net verified peak demand savings. The verified results for program year 2022 had first-year avoided GHG emissions of 57,233 tonnes CO2(e),[6] which is the equivalent of removing approximately 12,700 vehicles from Ontario roads.[7]

In 2022, the IESO continued to focus on delivering programs and building momentum toward achieving the 2021-2024 CDM Framework targets, as outlined below in Section 4.4. In addition, there were two key developments aimed at enhancing portfolio outcomes in the second half of the framework and beyond:

- The CDM Directive of September 2020 required the IESO to undertake the Mid-Term Review in 2022 to reassess forecasted electricity system needs and inform potential changes to programs, targets and budgets for the second half of the CDM Framework.
- On April 4, 2022, the Minister provided a letter to the IESO in response to the 2022 Annual Acquisition Report (AAR). The letter, which complemented the CDM Directive from September 2020, requested that the IESO develop expedited options for new and expanded CDM programming to help address the system needs identified in the 2021 Annual Planning Outlook (APO) and further discussed in the 2022 AAR.

4.2 Overview of CDM Programs

In 2022, new programs launched included:

- **Industrial Energy Efficiency Program (IEEP) –** replaced the Process and System Upgrades Program, to support industrial customers in improving their industrial processes and implementing system optimization projects.
- **Local Initiatives Program –** to facilitate implementing CDM solutions to address regional and local electricity planning needs. In 2022, the IESO launched the BizEnergySaver direct-install program designed to help industrial, commercial and institutional, and multi-residential building

[6] GHG reporting for first-year avoided emissions as per IESO evaluations for PY2022. This differs from value previously reported.
7 A vehicle emits about 4.5 tonnes of CO2(e) per year. See U.S. EPA's Greenhouse Gas Equivalencies Calculator and the IESO's Annual Planning Outlook web page.

owners and operators make equipment improvements to reduce their energy consumption. BizEnergySaver was targeted at the Richview South area of Toronto upon its launch.

- **Small Business Program –** replaced the Small Business Lighting Program to offer direct-install incentives on an expanded range of equipment, both lighting and the addition of non-lighting, for small businesses.
- **First Nations Community Building Retrofit Program –** an initiative that aims to improve energy efficiency in band-owned commercial and institutional facilities located in First Nations in Ontario.
- **Strategic Energy Management Program –** evolved from the Energy Manager Program to help organizations improve their energy performance by implementing an integrated system of organizational practices, policies and processes to achieve persistent energy savings.
- **Capability Building Initiative –** these Save on Energy training sessions, webinars and workshops were attended by 306 energy professionals, and an additional 228 energy professionals were provided financial incentives of up to 50 per cent of the course fees to attend any of the 12 IESO-approved certification courses. In addition, the IESO began building a library of energy guides, fact sheets and other resources to support energy professionals.

4.3 Mid-Term Review

The CDM Directive from Sept. 30, 2020, required the IESO to undertake the MTR in 2022, which examined:

- Alignment of the demand reduction target, electricity target and framework budget with provincial, regional and/or local electricity system needs, as identified by the IESO.
- Alignment of CDM program offerings with consumer needs in Ontario and a comparison against programs from other jurisdictions.
- Lessons learned and recommendations from competitive mechanisms for procuring energy-efficiency resources, including results to date of the Energy Efficiency Auction Pilot.
- The progress and impact of CDM programs, including for income-eligible and First Nations consumers; and
- Recommendations for the remainder of the CDM Framework.

The September 2020 Directive was subsequently amended to include an additional requirement for the review:

- An exploration of opportunities for LDCs to build on IESO CDM programs where they can add value to the distribution system.

Based on reviews of customer and system needs, programs and competitive mechanisms – and informed by consultations with LDCs, customer associations, municipalities, CDM service delivery partners and other stakeholders – the IESO submitted to the government in December 2022 a series of recommendations and next steps as part of the MTR:

- Continue to implement the enhanced 2021-2024 CDM Framework Program Plan, including programming for income-eligible and First Nations, according to budgets, targets and schedules, while fulfilling program-enhancement opportunities.
- Collaborate with other entities, including Enbridge and Natural Resources Canada, to help program participants achieve deeper savings and reduce IESO administrative costs.
- Engage with LDCs on opportunities to build on CDM programs to provide local system benefits, leveraging the Ontario Energy Board's CDM Guidelines for Electricity Distributors.
- Adopt an enduring approach for post-2024 that better leverages CDM as a resource to respond to evolving system and customer needs while continuing to provide appropriate reporting and government oversight.
- Establish post-2024 CDM targets and budgets that reflect forecasted system needs; achievable potential; and equity, diversity and inclusion so no one is left behind.
- Re-allocate a portion of the current framework's budget for research and development activities for post-2024 programs, including single- and multi-family residential programs, and efficient electrification programs.

4.4 AAR Report-Back Programs

The 2021 APO highlighted an emerging capacity need beginning in 2025 as well as emerging energy needs by 2028; the outlook also identified key locations where capacity needs are required from existing or new facilities. In response, the 2022 AAR put forward additional actions: a combination of new resource procurements as well as the opportunity to expand the 2021-2024 CDM Framework to meet system needs. While the 2021-2024 CDM Framework planned savings were built into the IESO's forecast, the 2019 CDM Achievable Potential Study (APS) identified further cost-effective CDM options that could help meet emerging system needs. As system needs evolve (a result of forecast demand growth and retiring generation assets), the IESO considers it an imperative to continue to pursue cost-effective and sustainable solutions and ensure that these solutions are ready and available to respond when needed.

On April 4, 2022, the Minister provided a letter to the IESO in response to the 2022 AAR. The letter, which complemented the CDM Directive from September 2020, requested the IESO to develop expedited options for new and expanded CDM programming to help address the system needs identified in the 2021 APO and further discussed in the 2022 AAR. The IESO submitted its report to the Minister on July 15, 2022, and received a Directive to proceed with the IESO's proposal of four new or expanded programs. These new and expanded offerings resulted in revised total framework targets of 725 MW of peak demand savings, 3.8 TWh of energy savings, and a total budget of more than $1 billion. These new programs built on the early findings from the MTR and were brought in to address the 2025-2026 system needs identified in the 2022 AAR as well as the interest in CDM programs from the growing agricultural greenhouse sector in southwestern Ontario.

4.5 2021-2024 CDM Framework Performance

The IESO continued to administer the current framework programs in 2022 and worked with participants to realize incremental in-service project savings. The data below represents actual net verified and non-verified committed savings and costs at the end of 2022.

Cumulative (2021-2022)

Program	Energy Savings (GWh)	Peak Demand Savings (MW)	Budget ($M)
Retrofit Program	1,040.8	160.2	136.1
Small Business Lighting Program	16.7	4.4	6.5
Energy Manager Program	15.7	1.9	4.9
Energy Performance Program	32.2	4.6	5.8
Energy Affordability Program	18.1	2.1	28.5
Industrial Energy Efficiency Program	N/A	N/A	0.2
Local Initiatives	N/A	N/A	0.2
First Nations Programs	0.9	0.1	3.3
Total	**1,124**	**173**	**186**
CDM Plan Target (2021-2022)	**1,041**	**157**	**180**

5. 2023 CDM Results

5.1 Overview

In 2023, the IESO focused on delivering the existing suite of programs while also expanding its program offerings, as proposed in its 2022 MTR and in accordance with the updated Ministerial Directive from Sept. 29, 2022. The addition of these new and expanded offerings resulted in higher total 2021-2024 CDM Framework targets of 725 MW of peak demand savings and 3.8 TWh of energy savings, and a total budget of more than $1 billion. More information on the new and updated offerings is included below in Section 5.2. When combined with the previous two years performance outlined in Section 3 and Section 4, respectively, and including new projects committed in 2023, the first three years of the framework achieved 1.7 TWh of actual and committed energy savings, and 283 MW of actual and committed peak demand savings. The actual and committed savings totals represent 76 per cent of the 2021-2023 energy savings target and 66 per cent of the 2021-2023 peak demand savings target. These achievements were a result of 76,402 energy-efficiency projects[8] initiated across the suite of Save on Energy programs. In 2023, the 2021-2024 CDM Framework delivered 312 GWh of incremental net verified energy savings and 32 MW of incremental net verified peak demand savings. The verified results for program year 2023 had first-year avoided GHG emissions of 52,439 tonnes CO2(e),[9] which is the equivalent of removing approximately 11,600 vehicles from Ontario roads.[10]

In 2023, the IESO continued to focus on delivering programs and building momentum toward the achievement of the 2021-2024 CDM Framework targets. In 2023, two new programs launched per the original CDM Plan:

- **Existing Building Commissioning Program –** to help owners, operators and managers of commercial and institutional buildings improve their energy performance by implementing building operational changes and best practices.
- **Instant Discounts –** a commercial mid-stream lighting stream offered under the Retrofit Program, in which incentives are directed to the lighting distributors to increase sales of energy-efficient lighting through point-of-sale discounts, improved product stocking, marketing and distributor training. Almost all commercial lighting incentives were transferred to the Instant Discounts stream of the Retrofit Program in December 2023.

New programs as outlined in the 2022 Directive also launched in 2023, including:

- **Peak Perks –** a residential demand response program for homes with existing central air conditioning and smart thermostats to help lower energy use at peak times.

[8] This project count does not include Peak Perks enrolment numbers.
[9] GHG reporting for first-year avoided emissions as per IESO evaluations for PY2023. This differs from the value previously reported.
[10] A vehicle emits about 4.5 tonnes of CO2(e) per year. See U.S. EPA's Greenhouse Gas Equivalencies Calculator and the IESO's Annual Planning Outlook web page.

- **Targeted Greenhouse Program –** a program geared toward greenhouse operations in southwestern Ontario, including incentives to install LED lighting, advanced controls and behind-the-meter distributed energy resources.
- **Enhancements to the Retrofit Program –** added a custom stream to support businesses to undertake more complex energy-efficiency projects with a standard incentive rate based on energy or demand savings achieved.
- **Enhancements to the Local Initiatives Program**
  - Regional incentive adders to province-wide programs to help address local area needs and constraints.
  - The BizEnergySaver program was made available in Ottawa in 2023.
  - The launch of CoolSaver, which helps homeowners and tenants tune up and upgrade their home cooling systems to reduce their electricity consumption and energy costs. Launched in the Richview South area of Toronto, York Region and Ottawa in 2023.

New programs in 2023 achieved 464 GWh in energy savings and 111 MW in peak demand savings with spending just over $102 million. More details about the AAR programs are provided here.

Capability Building Initiative – attendance in Save on Energy training sessions, webinars and/or workshops grew to 735 energy professionals in 2023, building off the momentum from the previous year. The number of IESO-approved training courses was expanded from 12 to 18, with incentives for course fees provided to 231 energy professionals.

5.2 2021-2024 CDM Framework Performance

The IESO continued to administer the current framework programs in 2023 and worked with participants to realize incremental in-service project savings. The data below represents actual net verified and non-verified actual and committed savings and costs at the end of 2023.

Cumulative (2021-2023)

Program	Energy Savings (GWh)	Peak Demand Savings (MW)	Budget ($M)
Retrofit Programs	1,203.0	180.1	192.0
Small Business	23.9	6.5	10.6
Energy Performance	37.9	5.3	5.4
Energy Management	33.6	4.3	6.7
Industrial Energy Efficiency	87.3	0.9	5.8
Targeted Greenhouse	242.0	2.4	46.2
Local Initiatives	39.8	6.9	6.4
Residential Demand Response	0.0	74.0	10.9
Energy Affordability Program	28.7	2.4	53.3
First Nations Programs	2.1	0.3	5.7
Total	**1,698**	**283**	**343**[11]
CDM Targets (2021-2023)	**2,225**	**431**	**532**

[11] Central Services budgets were excluded from this table.

6. 2024 CDM Results

6.1 Overview

The 2021-2024 CDM Framework had its strongest performance in its final program year, with 2024 achieving 1.9 TWh and 311 MW of actual and committed energy and demand savings, respectively. The increased momentum of the portfolio was bolstered by the exceptional performance of Peak Perks, Targeted Greenhouse and Instant Discounts (a stream within Retrofit), all of which launched in 2023 in accordance with the 2022 directive to develop expedited options for new and expanded CDM programming to help address the system needs. When totalling results from 2021 to 2023 outlined in Section 3, Section 4 and Section 5 and including new projects committed in 2024, the framework achieved 3.57 TWh of actual and committed energy savings, and 604 MW of actual and committed peak demand savings. These actual and committed savings represent 94 per cent of the 2021-2024 CDM Framework energy savings target and 83 per cent of its peak demand savings target. The commitments for the framework as of the end of 2024 are 2.1 TWh and 218 MW of energy and demand savings, respectively. These achievements were a result of 186,931 energy-efficiency projects[12] initiated across the suite of Save on Energy programs. Overall, CDM Framework programs have consistently achieved broad participation across Ontario. Between 2021 and 2024, the current framework processed more than 387,000 applications, including approximately 32,000 from businesses, 200,000 from residential customers, 152,000 from income-qualified households, and around 3,000 from First Nations communities.

The strong performance in 2024 boosted verified results by more than 75 per cent for energy savings and 480 per cent in peak demand savings when compared with 2023. For 2024, the framework delivered 530 GWh of incremental net verified energy savings and 181 MW of incremental net verified peak demand savings. The verified results for program year 2024 have first-year avoided GHG emissions of 95,223 tonnes CO2(e),[13] which is the equivalent of removing approximately 21,000 vehicles from Ontario roads.[14]

In 2024, the IESO continued to focus on delivering programs and building momentum toward the achievement of the 2021-2024 CDM Framework targets. Programs that launched in 2023 and demonstrated exceptional performance in 2024 include:

- **Peak Perks –** 2024 was the first full activation season for Peak Perks. Enrolment grew strongly exceeding its target and reached 206,000 participants by year-end. The program called nine events during the activation season.

[12] This project count does not include Peak Perks enrolment numbers.
[13] GHG reporting for first-year avoided emissions as per IESO evaluations for PY2024. This differs from the value previously reported.
[14] A vehicle emits about 4.5 tonnes of CO2(e) per year. See U.S. EPA's Greenhouse Gas Equivalencies Calculator and the IESO's Annual Planning Outlook web page.

- **Targeted Greenhouse –** the IESO's greenhouse LED lighting measures have proven highly popular, resulting in 487 GWh of actual and committed electricity savings in 2024. Greenhouse measures alone accounted for 48 per cent of verified energy savings in the Retrofit Program for the year, highlighting this sector's importance to the province's energy-efficiency efforts. This local initiative delivered 52 MW of verified local peak demand savings.[15] The IESO has identified several transmission-constrained areas, with one of them being southwestern Ontario owing to rapidly increasing electricity demand from agriculture, manufacturing and residential growth in the region.
- **Instant Discounts –** this stream offered under the Retrofit Program continued to expand in 2024, with about 550,000 efficient-lighting measures sold through the program. By the end of 2024, the program had more than 150 participating distributors (more than 500 branches), providing full coverage across the province.

The **Retrofit Program** is the largest program for the framework. The program offers up to 50 per cent coverage on eligible costs for a wide variety of projects and has several streams that businesses in Ontario can participate in to upgrade their existing equipment and systems to more energy-efficient alternatives. The program covers both prescriptive and larger custom upgrades, and it also includes Instant Discounts, a mid-stream lighting offering. Retrofit continued its strong performance, with commitments greater than anticipated, resulting in a need for additional budget under the 2021-2024 CDM Framework.

The **Small Business Program** saw record participation levels with approximately 2,850 businesses registered in the program, representing a 48 per cent increase from 2023. A majority of 2024 participants availed themselves of an increase to the program's lighting cap that came into effect in November 2023. The lighting project cost cap was increased from $2,000 to $3,000 resulting in larger project sizes and more savings.

The **IEEP** saw momentum build, with seven contracts executed across diverse sectors, such as automotive and steel manufacturing. Some common project types included variable-frequency drive installations on pumps and fans, as well as chiller installation and optimization. IEEP projects that were not completed within the timeframe of this framework have been transitioned to the 2025-2036 eDSM Framework. Insights from the IEEP have shaped the redesigned industrial program offering, now branded as the XLerate Program, launching in Q4 2025. In mid-2024, the IESO received $19.6 million from Natural Resources Canada through the Green Industrial Facilities Manufacturing Fund. This contribution allows for the expansion of energy management offerings including expanded curriculum, energy manager funding and energy information system incentives, and energy practitioner training to industrial customers. This program was launched in Q1 2025.

BizEnergySaver activity continued to trend upwards, with 200 installations completed, and approximately 300 signed work orders in progress by the end of 2024. This local initiative program offers direct-install measures to industrial, commercial and institutional, and multi-residential building owners and operators in the Richview South area of Toronto and the Ottawa region.

[15] Verified local peak demand savings

Four new local initiatives were launched in 2024, offering new opportunities for residential and commercial consumers across the province to realize their energy-saving potential and better manage their energy costs:

- **Ottawa Distributed Energy Resources –** this was introduced as a local initiative program in January 2024 to target the Ottawa region with incentives for businesses to install rooftop solar panels for load displacement purposes (no net metering). This measure proved successful and has since transitioned to a province-wide offering in the Retrofit Program under the eDSM framework.
- **HomeEnergySaver Program –** this program launched in March 2024 and provides incentives to Ontario homeowners with electrically heated homes in electrically constrained areas to purchase and install heat pumps. Participants could also receive an additional financial incentive for a smart thermostat to maximize the operation of their new heat pump. This program ceased as of January 2025, when the Home Renovation Savings Program was launched.
- **HomeSealSaver Program –** this program launched in March 2024 in the community of Belle River, in Essex County. The program offered incentives to residential customers for air sealing, insulation, AC tune-ups and replacements. The program was terminated in December 2024 due to low participation volumes.
- **Commercial CoolSaver Program –** this program launched in August 2024 in collaboration with Alectra Utilities to offer free air conditioning tune-ups for HVAC systems and exclusive instant discounts on various high-efficiency upgrades to eligible businesses in York Region.

The **Save on Energy Capability Building Initiatives** saw continued success in 2024 with 2,751 energy professionals attending training sessions, webinars, and/or workshops, and 230 energy professionals receiving financial incentives for attending any of the 18 IESO-approved training courses. The initiative aimed to strengthen the ability of businesses and organizations across Ontario to identify and implement energy efficiency projects, increase engagement with Save on Energy incentive programs, and improve overall program outcomes.

The **Energy Affordability Program (EAP)** ended the CDM Framework with strong participation driven by targeted marketing and interest in the cold-climate air-source heat pump offering. This measure was introduced into the EAP in late 2023, and about 1,600 heat pump applications were completed in 2024, its first full year in market. A total of 54,900 energy-saving kits were distributed to eligible Ontario ratepayers by the end of 2024, reflecting a strategic shift in distribution that leveraged partnerships with community organizations such as food banks, United Way and the Salvation Army to enhance outreach and accessibility. First Nations programming increased funding caps and implemented new delivery approaches in 2024 to boost participation. The **First Nations Community Building Retrofit Program** increased its funding to $330,000 per community[16] and a marketing campaign was launched highlighting a participating community – Wasauksing First Nation – which increased exposure for the program. By the end of 2024, there were 42 First Nations enrolled under the 2021-2024 CDM Framework. The **Remote First Nations Energy Efficiency Program** adopted a new delivery strategy in 2024 that has proved successful; the blitz approach to program delivery involves bulk-scheduling installations for communities at the same time to improve

[16] Increased from $100,000 per community.

program efficiency and increase community satisfaction. There were 13 communities enrolled by the end of 2024.

6.2 2021-2024 CDM Framework Performance

The IESO continued to administer the current framework programs in 2024 and worked with participants to realize incremental in-service project savings. The data below represents actual net verified and non-verified actual and committed savings and costs as of the end of 2024.

Cumulative (2021-2024)

Program	Energy Savings (GWh)	Peak Demand Savings (MW)	Budget ($M)
Retrofit Programs	1,889.5	317.0	364.7
Small Business	36.2	9.7	19.2
Energy Performance	60.3	8.5	8.4
Energy Management	127.8	20.2	19.4
Industrial Energy Efficiency	175.5	20.5	34.3
Targeted Greenhouse	729.2	7.1	136.3
Local Initiatives	463.0	27.2	120.7
Residential Demand Response	0.0	185.6	30.7
Energy Affordability Program	82.4	7.6	154.2
First Nations Programs	6.0	0.9	15.4
IESO Services	-	-	41.9
Total	**3,570**	**604**	**945**
CDM Targets (2021-2024)	**3,799**	**725**	**1,034**

The overall cost-effectiveness results for the 2021-2024 CDM programs are provided below:

Cost-Effectiveness Metric	Cost-Effectiveness Result
PAC	2.32
LUEC ($/kWh)	0.02
LUEC ($/kW)	0.20

7. Winding Down Legacy Frameworks

7.1 Overview

Throughout the duration of the 2021-2024 CDM Framework, the IESO continued to manage the wind-down of two legacy energy-efficiency frameworks. These two legacy frameworks are the 2015-2019 CFF and the 2019-2020 IF. These frameworks were affected by the COVID-19 pandemic, resulting in project completion extensions for several programs under both these frameworks. For more information on the COVID-19 pandemic's impacts on program delivery, see Section 3.3.

In 2014, the Ministry of Energy directed the then-Ontario Power Authority (since merged with the IESO) to establish the CFF that would be administered by local distribution companies to enable the achievement of cost-effective conservation programming throughout the province and help achieve the province's long-term electricity savings target of 30 TWh by 2032. In 2019, the IESO was directed to wind down the CFF and refocus CDM programming on the most cost-effective initiatives.

The March 2019 Directive also tasked the IESO with establishing the IF to offer a suite of electricity CDM programs centrally delivered through the IESO. In addition to centrally delivered programs, there was an opportunity for LDCs to apply for funding to deliver cost-effective localized CDM programs. The IF programs targeted commercial, institutional, industrial, income-qualified and residential consumers, as well as First Nation communities.

7.2 2015-2019 Conservation First Framework Update

In 2024, the IESO continued to work with LDCs as well as program participants to wind down remaining CFF project commitments. CFF reporting is expected to be fully completed by the end of 2025. To date, the CFF investments have totalled $1.8 billion and resulted in 9.1 TWh of net verified energy savings and 1,309 MW of peak verified demand savings. The framework achieved broad participation, with approximately 78.1 million applications, including 550,000 from businesses, 77.5 million[17] from residential customers, 40,000 from income-qualified households, and 10,000 from First Nations communities. These results underscore the sustained and substantial impact of CDM programs over time.

The final extension of the CFF required projects to be completed by the end of 2023, with participant reporting obligations continuing into 2024. The data below represents net verified actual costs and in-service project savings as of the end of 2024.

Cumulative (2015-2024)

	Energy Savings[18] (GWh)	Peak Demand Savings (MW)	Budget ($M)
Total	9,100	1,309	1,812
CFF Target	7,400	N/A	2,455

[17] Residential participation includes the Save on Energy coupon program.

[18] Includes savings that are persistent to 2020, and additional savings incurred in program years 2021, 2022, 2023 and 2024.

7.3 2019-2020 Interim Framework

For the IF, the IESO continued to work with participants in 2024 to bring projects into service and realize their savings. By the end of the year, the IF achieved 1.4 TWh of actual verified energy savings (97 per cent of the IF target) and exceeded its peak demand savings target by 4 per cent to achieve 197 MW. In total, the IF processed approximately 102,000 applications, including 26,000 from businesses, 44,000 from residential customers, 30,000 from income-qualified households, and 2,000 from First Nations communities.

There are a small number of committed industrial projects remaining in the IF pipeline and they are anticipated to close out by the end of 2025. IF savings of 69 GWh and 15 MW, and a budget of $12 million remained in the committed stage at the end of 2024, and they represent projects that are expected to be in service in 2025.

The data below represents net verified actual costs and in-service project savings at the end of 2024.

Cumulative (2019-2024)[19] **Program**	**Energy Savings[20] (GWh)**	**Peak Demand Savings[21] (MW)**	**Budget ($M)**
Retrofit Program	995.6	132.6	146.2
Small Business Lighting Program	45.2	11.2	15.0
Energy Manager Program	75.8	16.9	9.4
Process & Systems Upgrade Program	211.2	30.0	26.1
Energy Performance Program	2.5	0.5	0.8
Foodservice Distributor Discount Program	0.5	0.1	0.7
Home Assistance Program	29.1	2.8	34.9
Conservation on the Coast - Home Assistance Program	0.2	0.0	2.4
First Nations Conservation Programs	0.6	0.1	2.0
Remote Indigenous Pilot	0.1	0.0	1.3
LDC Local Program	18.8	3.3	7.3
Total	**1,380**	**197**	**246[22]**
IF Targets	**1,429**	**190**	**353**

In 2024, the IF programs remained cost-effective, as demonstrated in the following cost-effectiveness results for the framework:

Cost-Effectiveness Metric	**Cost-Effectiveness Result**
PAC	3.63
LUEC ($/kWh)	0.02

[19] In the 2023 Annual Report, the cumulative total budget erroneously published plan values as actuals. It has been updated in this 2024 Annual Report.
[20] One-hundred per cent of savings persistence in 2024.
[21] One-hundred per cent of savings persistence in 2024.
[22] Central Services budgets were excluded from this table.

Glossary

Actual Savings – energy or peak demand savings accounted for once energy-efficiency projects are completed and then reported to and approved by the IESO.

Committed Savings – energy or peak demand savings accounted for once energy-efficiency projects have been pre-approved for implementation. Once projects are completed, and then reported to and approved by the IESO, committed savings become actual savings.

Conservation and Demand Management (CDM) Framework Program Plan – the CDM Framework Program Plan is an overview of the CDM programs to be delivered by the IESO, under the Save on Energy brand, from January 2021 to December 2024. The plan sets out forecast budgets and, where applicable, savings targets and estimated cost-effectiveness for the portfolio of CDM programs.

Conservation First Framework (CFF) – the CFF delivered electricity conservation programs to customers from 2015 to 2019.

Interim Framework (IF) Program Plan – the IF Program Plan is an overview of energy-efficiency programs IESO offered in Ontario from April 2019 to December 2020. It sets out forecast budgets and, where applicable, targets and expected cost-effectiveness for Save on Energy programs.

Levelized Unit Energy Cost (LUEC) – a metric that normalizes the costs incurred to design and deliver programs per unit energy saved over the lifetime of the project.

Net Verified Energy and Peak Demand Savings – the energy or peak demand savings that result following evaluation of CDM programs. During the evaluation process, reported savings have an adjustment factor applied that determines the percentage of reported savings that are attributable to CDM programs.

Program Administrator Cost Test (PAC) – a CDM cost-effectiveness screening test that compares the costs incurred to design and deliver programs by the program administrator with avoided electricity supply-side resource costs (e.g., generation, transmission, etc.)

Savings Persistence – a measure of the length of time (measured in years) over which energy and/or peak demand savings will remain in effect and, therefore, continue to provide benefit to the electricity system.

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