



EVALUATION REPORT

2021-2024 CDM FRAMEWORK CAPABILITY BUILDING INITIATIVES PY2022

Date: 29 September 2023

Prepared for: The Independent Electricity System Operator (IESO)

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This report summarizes Program Year (PY) PY2022 achievements of the Capability Building Initiatives (CBIs) in the 2021-2024 Conservation and Demand Management (CDM) Framework. The IESO administered 13 educational CBIs during 2022: 12 webinars open to energy managers and one coaching Initiative specifically with school board members.

This is Phase 2 of the CBI evaluation. Phase 1 summarized achievements of two CBIs delivered in 2021, and findings are included in the report Evaluation Findings: Mid-Tier Commercial Real Estate and Building Performance Series Initiatives, 2021-2024 CDM Framework Phase 1 Evaluation (August 2022). Phase 2, reported here, includes the 13 events delivered during 2022.

E1. PROGRAM DESCRIPTION

The IESO's CBIs provide educational and training resources to increase energy efficiency knowledge and drive conservation actions that result in electric savings from key end uses, sectors, and channels in Ontario. The Initiatives are organized into three tiers:

- ▶ Foundational (Tier 1): Introductory training and basic knowledge aimed at organizations with limited experience and resources for energy efficiency.
- ▶ Specialized (Tier 2): More advanced training and resources aimed at organizations in key target sectors with a higher level of knowledge gained through training and project experience.
- ▶ Advanced (Tier 3): Direct support through the facilitation of integrated approaches to energy efficiency decision-making targeted at experienced organizations.

In the CBIs, a “project” refers to an ongoing or recurring Initiative to educate and build capabilities among residents of Ontario through targeted information sharing. This evaluation focuses on the events included in Table 1. The webinars are considered Foundational (Tier 1) offerings, while the coaching cohorts are considered Specialized (Tier 2).

Table 1: 2022 CBI Projects

#	Initiative	Targeted Sector	Provider	Method	Participants
Participant Data Available					
1	Optimizing Building Automation Systems in Mid-Tier Buildings for the Return to Office	Mid-tier	CIET	Webinar	34
2	Building Tune-Up - Existing Building Commissioning (EBCx)	n/a	CIET		85
3	Learn How to Get the Most from Your Recommissioning Projects	n/a	CIET		97
4	Energy Efficiency in Mid-Tier Commercial Real Estate - Ask an Energy Expert	Mid-tier	CIET		24
5	Efficient Building Electrification for Municipalities	Munis	CIET		28
6	Efficient Building Electrification for Colleges and Universities	Colleges	CIET		24
7	School Board Coaching Cohort	Schools	CIET	Coaching	14
	Total w/ Participant Data				306
Participant Data Unavailable					
8	Balancing Energy Efficiency with Indoor Air Quality in the Post-COVID	Mid-tier	BOMA	Webinar	n/a
9	Using Energy Treasure Hunts to Discover Low/No Cost Opportunities in Buildings	Mid-tier	BOMA		
10	Performance Benchmarking How Well Do You Know Your Building(s)	Mid-tier	BOMA		
11	Building Performance Series - Existing Building Commissioning: Tune up & Save	Mid-tier	BOMA		
12	Building Performance Series - Developing a Retrofit Strategy for Your Building(s) Your Roadmap to Big Savings	Mid-tier	BOMA		
13	Master your Building Energy Data with Your Very Own Coach	Mid-tier	CIET		

E2. EVALUATION OBJECTIVES

The primary focus of this evaluation was to assess the degree to which the Initiatives are enabling participation in the IESO's programs in the 2021-2024 CDM Framework, including the Retrofit Program, Energy Manager (EM) Program, and Energy Performance Program (EPP). The evaluation also identified energy efficiency projects completed by Initiative attendees that were not incentivized by an IESO CDM program.

Annual energy savings and program attribution are not estimated for CBI due to the outsized challenge and cost of measuring savings and attribution for a program aimed primarily at boosting participation in other programs. Rather, the impact evaluation objective is to monitor the enabling nature of CBI, study the far-reaching impacts of the Initiatives, gather participant feedback, and improve the reach of the Initiative. The process evaluation and value for money components of this evaluation analyze project and program participant and cost data and identify potential improvements to CBI delivery. Specific goals include:

- ▶ Monitoring the overall effectiveness and comprehensiveness of key Initiative elements,
- ▶ Assessing value for money, using participation and project budgets, and
- ▶ Analyzing collected data and making recommendations to improve the Initiatives.

E3. SUMMARY OF RESULTS

- ▶ **CBI Initiatives continue to provide quality and pertinent information in the webinars and coaching cohorts, promoting Save on Energy programs and addressing energy efficiency (EE) resource and information barriers in targeted sectors.**
- ▶ Across PY21-PY22, all 11 CBI survey respondents who reported EE projects "Completed" or "In installation phase" at their buildings said they also participated in another Save on Energy program. Eight of those 11 participated in the Retrofit Program.
- ▶ Fifty-nine percent of survey respondents identified themselves as an Energy Manager. CBI program penetration with Energy Managers is strong. However, of the 33 Energy Managers who attended a webinar in 2022, only 5 attended more than one webinar (where participant data is available).
- ▶ COVID-19 remains influential in energy-related decisions.
- ▶ The Coaching Cohorts offer opportunities for richer savings evaluation based on their delivery method as a targeted workshop where participants focus on building-specific plans. For these Initiatives involving building-specific work plans, the richness of the participant information is worth separate contact channels outside surveys.

E4. KEY FINDINGS AND RECOMMENDATIONS

Finding 1: Program penetration with energy managers is strong. However, of the 33 energy managers who attended a webinar in 2022, only 5 attended more than one webinar (where participant data is available).

Recommendation 1: Consider assembling a curriculum for energy managers comprising a series of webinars to encourage participation in more than one.

Finding 2: Participants are generally pleased with the content of the Initiatives and are quick to provide feedback and new ideas. About 25% of the respondents included an open-ended response to the question, “**Do you have any other thoughts, questions, or recommendations for Save on Energy with respect to [the Initiative]?**” Most subjective comments were complimentary of the program, with responses like “...great program,” “good support,” and “looking forward to more workshops.” A few comments that touch on recurring themes from participants include “More training on submitting projects for incentives,” “Share more actual projects,” and “We hope to have more sector-specific webinars.” One participant requested a more thorough dive into heat pump applications, and another requested a webinar specific to Colleges and Universities.

Recommendation 2: Consider adding content to CBI educational materials to remind participants how to determine project eligibility and submit projects for incentives. A case study of an example project and how the participant navigated the incentive process could be particularly valuable.

Finding 3: The Coaching Cohorts offer opportunities for richer savings evaluation based on their delivery method as a targeted workshop where participants focus on building-specific plans. For these Initiatives involving building-specific work plans, the richness of the participant information is worth separate contact channels outside surveys.

Recommendation 3: Conduct participant surveys about EE project plans before and after targeted Initiatives, such as the School Boards Coaching Cohort. Asking about building plans before and after the experience may help establish a direct influence of the CBI project.

The Independent Electricity System Operator (IESO) retained EcoMetric to evaluate the 2021-2024 Conservation and Demand Management (CDM) Framework Capability Building Initiatives (CBIs) administered during PY2022 in Ontario. This report summarizes PY2022 achievements of the CBIs in CDM Framework. The IESO administered 13 educational CBI Initiatives during 2022: 11 webinars open to energy managers and other industry professionals and two targeted coaching Initiatives.

Throughout this report, the terms “project,” “event,” and “Initiative” are used interchangeably to refer to the webinars and coaching cohorts.

1.1 PROGRAM DESCRIPTION

The IESO’s CBIs provide educational and training resources to increase energy efficiency knowledge and drive conservation actions that result in electric savings from key end uses, sectors, and channels in Ontario. Figure 1 depicts a sample of the webinar presentations for key CBIs.

Figure 1: Example Webinar Title Slides



This report relies on data and survey responses from participants who attended seven CBI events during PY2022. Attendee contact data was collected and administered by the Canadian Institute of Energy Training (CIET) on behalf of Save on Energy, as seen at the top of Table 2. Participation across

these projects totaled 306. The bottom of Table 2 includes another six Initiatives from PY2022, all but one administered by the Building Owners and Managers Association of Toronto (BOMA).

Table 2: 2022 CBI Projects

#	Initiative	Targeted Sector	Provider	Method	Participants
Participant Data Available					
1	Optimizing Building Automation Systems in Mid-Tier Buildings for the Return to Office	Mid-tier	CIET	Webinar	34
2	Building Tune-Up - Existing Building Commissioning (EBCx)	n/a	CIET		85
3	Learn How to Get the Most from Your Recommissioning Projects	n/a	CIET		97
4	Energy Efficiency in Mid-Tier Commercial Real Estate - Ask an Energy Expert	Mid-tier	CIET		24
5	Efficient Building Electrification for Municipalities	Munis	CIET		28
6	Efficient Building Electrification for Colleges and Universities	Colleges	CIET		24
7	School Board Coaching Cohort	Schools	CIET	Coaching	14
	Total w/ Participant Data				306
Participant Data Unavailable					
8	Balancing Energy Efficiency with Indoor Air Quality in the Post-COVID	Mid-tier	BOMA	Webinar	n/a
9	Using Energy Treasure Hunts to Discover Low/No Cost Opportunities in Buildings	Mid-tier	BOMA		
10	Performance Benchmarking How Well Do You Know Your Building(s)	Mid-tier	BOMA		
11	Building Performance Series - Existing Building Commissioning: Tune up & Save	Mid-tier	BOMA		
12	Building Performance Series - Developing a Retrofit Strategy for Your Building(s) Your Roadmap to Big Savings	Mid-tier	BOMA		
13	Master your Building Energy Data with Your Very Own Coach	Mid-tier	CIET	Coaching	

CBI webinars and events are intended to:

- ▶ Provide building owners/operators and channel partners with the knowledge and resources to complete energy savings projects, and
- ▶ Drive participation in Save on Energy incentive programs.

Figure 2 below is a webinar excerpt promoting new programs.

Figure 2: Sample Slide from Initiative #6: Efficient Electrification for Colleges and Universities

New Program Launches in 2023

The IESO also continues to develop new programs in response to customer feedback. The following programs will 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.
- **Existing Building Commissioning program**, to help companies find opportunities to optimize operations and improve energy efficiency based on their current facility requirements.
- **Commercial Midstream Lighting program** with lighting incentives for lighting distributors to increase sales of energy-efficient lighting through point-of-sale discounts
- **Additional local initiatives** in targeted areas of the province where electricity constraints exist.

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Most CBI projects in PY2022 were focused on Mid-tier commercial real estate, defined as Class B and C buildings. These buildings are slightly older, have average or below-average rent, and are more likely to need maintenance or renovations.

All Initiatives were offered at no cost and led by subject matter experts. All Initiative events were held virtually. Events administered by CIET and targeted at the Mid-tier were largely based on a 2020 report titled Energy Management in the Ontario Mid-Tier Commercial Real Estate Sector: Market Characterization and Engagement Strategy, prepared for the IESO by CIET.¹

¹ <https://www.ieso.ca/-/media/Files/SaveOnEnergy/Industry/Mid-Tier-CRE-Energy-Study.ashx>

Three Initiatives—numbers 5, 6, and 7 in Table 2 above—were targeted at municipalities and educational institutions, specifically colleges and schools. These webinars focused on equipment replacements and optimization possibilities for the most prevalent end uses in educational buildings.

For evaluation purposes, webinar attendees who attended more than one webinar are counted once for each webinar and were sent a survey invite for each webinar in a single combined email. Employees of IESO and the other program administrators are not counted.

The 263 unique CBI participants from the seven Initiatives with participation data represent 149 different organizations. Ninety of the 263 participants were the only person from their organization to participate in an Initiative.

1.2 EVALUATION OBJECTIVES

The primary focus is the degree to which the Initiatives are enabling participation in the IESO's programs active in the 2021-2024 CDM framework, including Retrofit, Energy Manager, and EPP. Annual energy savings and program attribution are not estimated for CBI due to the outsized challenge and cost of measuring savings and attribution for a program aimed primarily at boosting participation in other programs. Rather, the evaluation objective is to monitor the enabling nature of CBI, gather participant feedback, and improve processes. The process evaluation and value for money components of this evaluation analyze project and program participant and cost data and identify potential improvements to CBI delivery.

Key evaluation objectives are to:

- ▶ Monitor the overall effectiveness and comprehensiveness of key Initiative elements,
- ▶ Assess value for money, using participation and project budgets, and
- ▶ Analyze collected data and make recommendations to improve the Initiatives.

This section discusses the methods EcoMetric used to study the impacts of the Initiatives across the IESO's portfolio of programs, and the methods used to evaluate the design, delivery, and administration of the Initiatives.

2.1 IMPACT EVALUATION

EcoMetric reviewed program materials and resources and designed online participant surveys to gather information about energy efficiency projects influenced by the Initiatives. Surveys were administered by EcoMetric, and email invites sent by the IESO Evaluations team. Table 3 shows participant counts, survey counts, and response rates by Initiative.

Table 3: Web Survey Overview

+	Initiative	Survey Invites Sent	Survey Completes	Completion Rate
1	Optimizing Building Automation Systems in Mid-Tier Buildings for the Return to Office	34	2	6%
2	Building Tune-Up - Existing Building Commissioning (EBCx)	83	13	16%
3	Learn How to Get the Most from Your Recommissioning Projects	97	24	25%
4	Energy Efficiency in Mid-Tier Commercial Real Estate - Ask an Energy Expert	24	3	13%
5	Efficient Building Electrification for Municipalities	28	7	25%
6	Efficient Building Electrification for Colleges and Universities	24	9	38%
7	School Board Coaching Cohort	14	2	14%
	Total	306	60	20%

The overall completion rate of 20% exceeded the response rate of the survey deployed for the PY21 evaluation (12%). We estimated a response rate of 10-12% for a web survey, which included the possibility of a small incentive in the form of a gift card. Participants who completed the survey were

entered into a random drawing to win gift cards awarded by EcoMetric. Figure 3 and Figure 4 provide an example of the survey invite and survey participants received.

Figure 3: Survey Invite

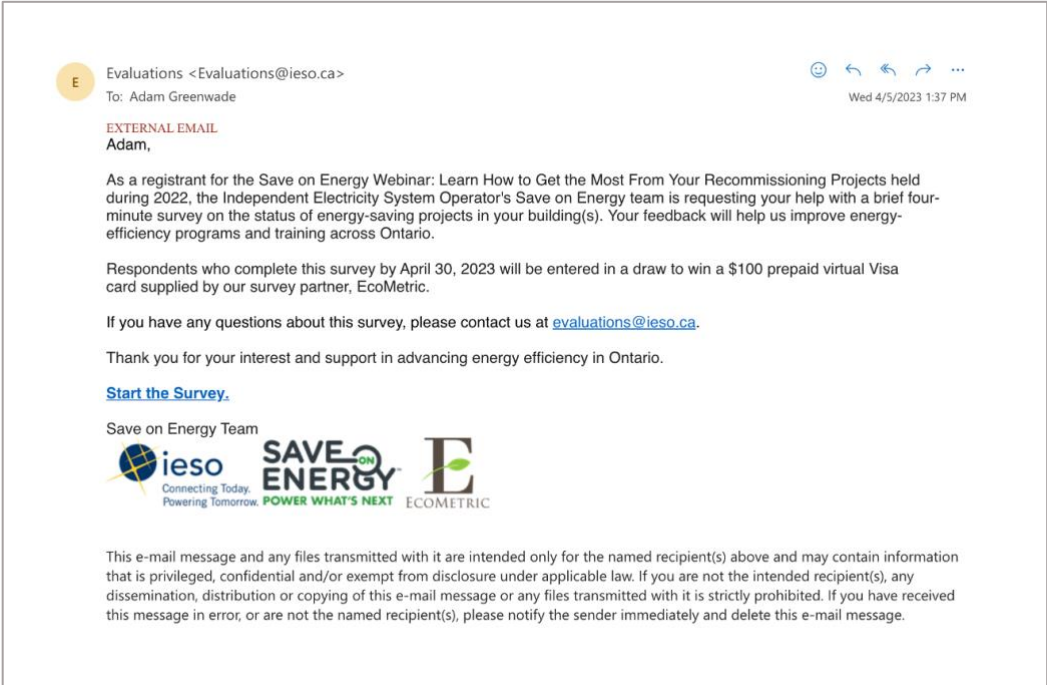
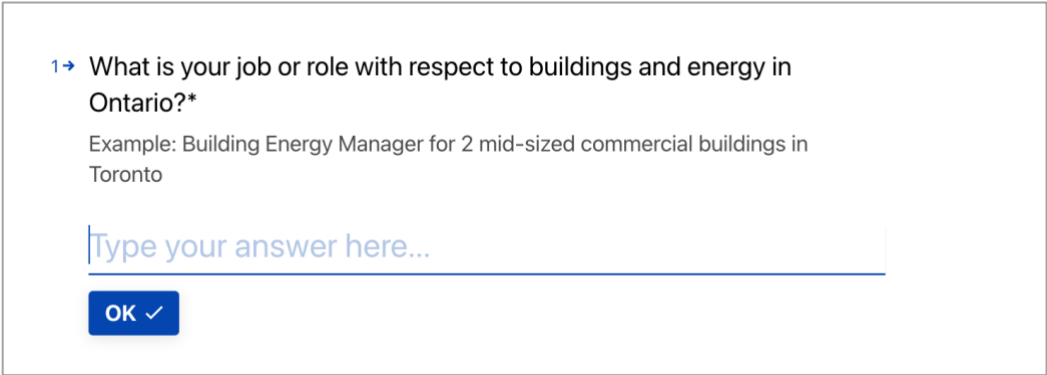


Figure 4: Example Survey Question



The CBI evaluation focuses on influence in terms of education and enablement rather than quantified savings impacts. Along with observations of overall program flow and participant feedback, recommendations are based on survey responses and project/program comparisons.

EcoMetric has found that attempting to quantify savings for CBI with any degree of certainty is not a valuable exercise. The CBIs do not lend themselves well to estimating typical program impacts, such

as energy savings and cost-effectiveness. The biggest obstacle is attribution, which is an outsized evaluation challenge for an enabling program of this size and type.

For instance, consider that in response to this survey sent to 306 program participants, four people said they completed a project that was directly influenced by the Initiative in which they took part. They participated in that Initiative between 6 to 18 months ago in 2022. Each of those four who completed projects was aware of the Save on Energy incentive opportunities before attending their Initiative, and three of those four projects also received an incentive from the Retrofit Program. Due to the interactivity between programs and the ephemeral nature of most of the Initiative events (webinars), **quantifying energy savings from CBI would necessitate assumptions around attribution: ascertaining what portion of large, building-wide projects would not have happened in the absence of an hour-long webinar or two attended by a single decision maker.**

2.2 PROCESS EVALUATION

The process evaluation included a review of program materials, analysis of participant and budget data, and thematic analysis of survey outcomes that inform program administration. EcoMetric used survey results and Initiative data to assess and update progress meters toward these CBI goals:

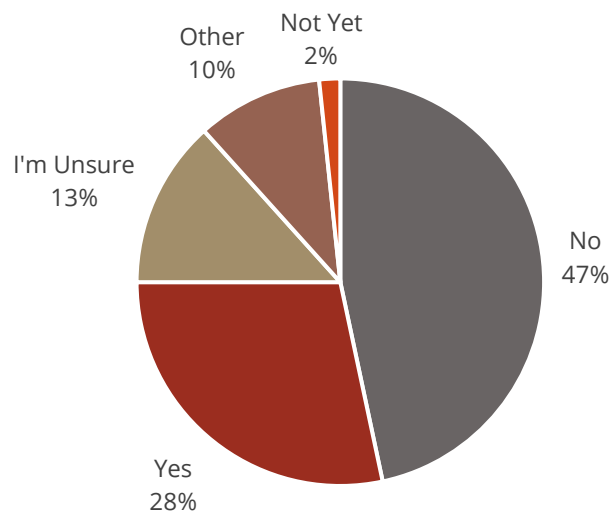
- ▶ Increasing electricity savings in targeted sectors,
- ▶ Reducing the financial barrier to energy efficiency projects, and
- ▶ Reducing the resource and information barriers to energy efficiency projects.

This section details the results from the impact evaluation of the CBIs in PY2022. For the impact evaluation, EcoMetric focused on gathering information on projects that CBI participants completed after their participation and assessing the influence of the CBI on the decision to complete the projects. As detailed in Section 2.1, the quantification of savings for CBI would necessitate a more robust evaluation focused on collecting much more data on baseline and efficient conditions, which was out of scope for the PY2022 evaluation surveys.

3.1 PROGRAM INFLUENCE

Figure 5 shows a summary of the projects named in response to the survey question *“Did the [webinar/coaching cohort] lead directly to any energy efficiency projects in your building(s)?”*

Figure 5: Did the [Initiative] Lead Directly to any Energy Efficiency Projects in your Building(s)? (n=60)



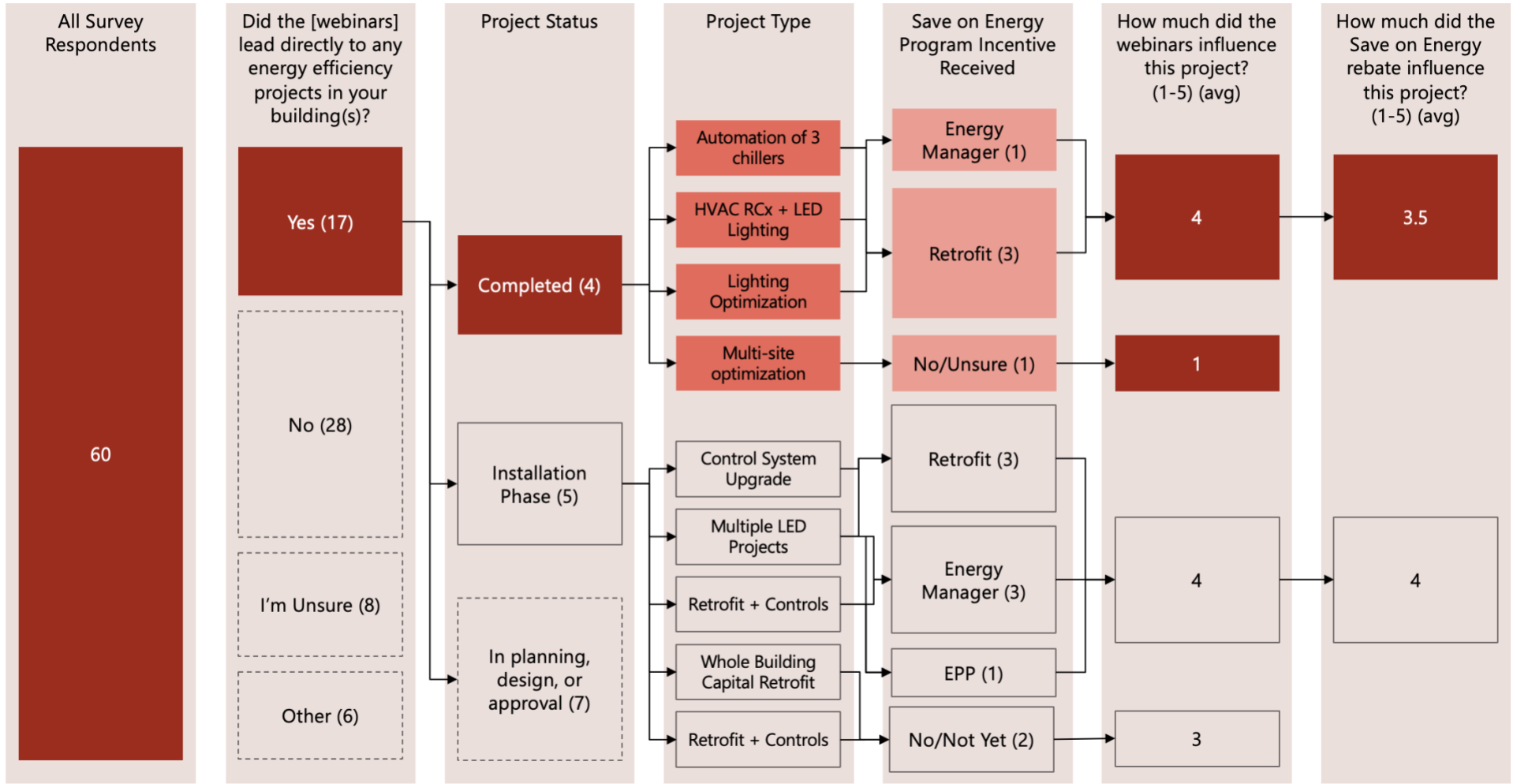
Seventeen respondents (28%) responded “Yes.” See Figure 6 for a visual of the participant program flow from there. Four of these projects were reported as “Completed,” another five were reported as “In the installation phase,” and another seven were “In planning, design, or approval.”

The four “completed” projects are in large commercial buildings and include:

- ▶ An automation project involving three chillers,
- ▶ An HVAC retrocommissioning + LED lighting retrofit project,
- ▶ A lighting optimization project, and
- ▶ An optimization project spanning multiple sites and end uses.

Three of the four completed projects confirmed participation in the Save on Energy Retrofit program and one of those three also participated in the Energy Manager program. The participant projects reported “In installation phase” are similar in type and scope and similarly embedded with the Retrofit program, as seen in Figure 6.

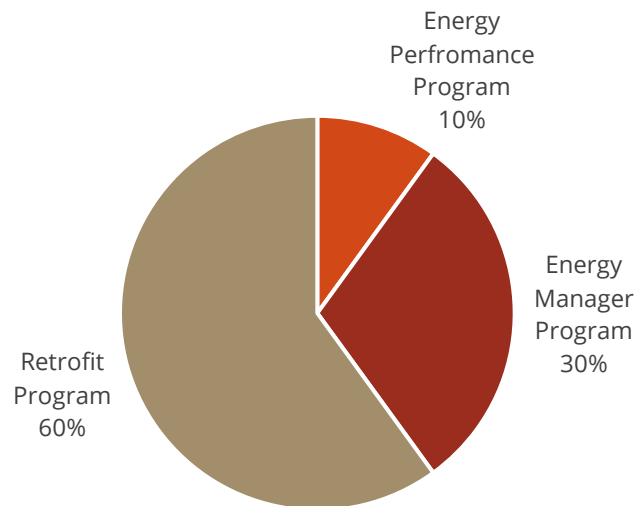
Figure 6: CBI Participant Flow



3.2 PROGRAM ENABLEMENT

All nine CBI survey respondents who reported EE projects “Completed” or “In installation phase” at their buildings said they also participated in another Save on Energy program.² Six of those nine participated in the Retrofit Program. Of those six, three respondents also participated in the Energy Manager Program, and one other participated in EPP. Figure 7 visually illustrates these results.

Figure 7: Did the [Initiative] Lead to Participation in Other Save on Energy Programs? (n=9)



3.3 PROJECT CHARACTERISTICS

Most survey respondent’s projects are comprehensive/whole-building projects, as detailed in Table 4. Of the 17 reported projects, 15 (89%) included multiple end uses and/or measure types.

² Out of the nine respondents, three participated in more than one IESO program.

Table 4: What Energy-Saving Technologies did the Project(s) Influenced by the [Initiative] Include?
(n=60, multiple responses allowed)

	Optimization	New Controls/BAS	Scheduling	Capital Retrofit	Demand Response	Total by End Use
Space Heating	10	7	12	6	2	37
Space Cooling	10	8	7	6	2	33
Air handling/ventilation	14	9	5	8	3	39
Hot water	6	3	1	8	2	20
Lighting	6	6	5	14	1	32
Plug Loads	-	2	2	3	1	8
Total by Type	46	35	32	45	11	

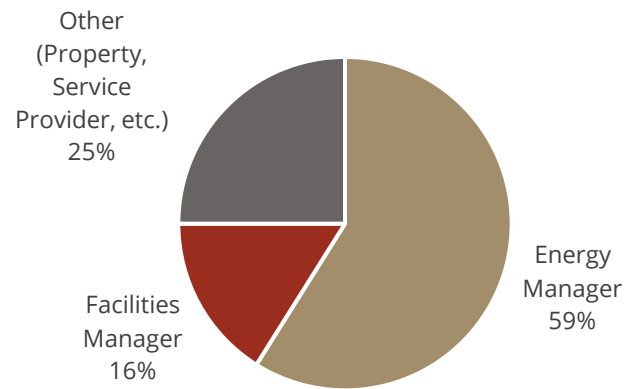
3.4 PARTICIPANT JOBS AND ROLES

Fifty-nine percent of survey respondents identified themselves as an Energy Manager, as shown in Figure 8. Specific Energy Manager jobs/roles included:

- ▶ “Energy Manager for 100 K-12 facilities”
- ▶ “Manager of Energy Efficiencies for over 45 manufacturing facilities in Toronto,” and
- ▶ “Energy Manager for a university.”

Facilities Manager was another popular role, and the remaining respondents were a mix of Project Managers, Asset Managers, Energy Engineers, Service Providers, and others. Compared to PY2021, there are far fewer building management roles, likely due to the fact that no BOMA participants were surveyed in PY2022.

Figure 8: What is Your Job or Role Regarding Buildings and Energy in Ontario? (n=60)



This section details the process evaluation results of the CBIs in PY2022.

4.1 INITIATIVE DELIVERY AND TARGETING

The PY22 CBIs consisted of 12 webinars and two targeted coaching Initiatives. The webinars focused on HVAC maintenance and operations, savings opportunities beyond lighting, performance benchmarking, existing building commissioning, building envelope issues, and energy management plans. The webinars were held virtually from February to December 2022.

While the evaluation portion of CBI for PY21 exclusively included webinars targeted at Mid-tier Commercial Real Estate (“Mid-Tier”), PY22 introduced new sectors, as shown in Table 5. Initiatives targeted at the Mid-Tier sector still account for about half of the PY22 CBI portfolio.

Table 5: Targeted Sectors

Targeted Sector	CBI Events	% of Events	Budget	% of Budget
Mid-Tier (w/ participant data)	2	15%	\$16,800	18%
Mid-Tier (no participant data)	6	46%	\$26,050	27%
Colleges/Universities	1	8%	\$8,450	9%
District School Boards	1	8%	\$15,450	16%
Municipalities	1	8%	\$8,450	9%
Other	2	15%	\$20,000	21%
Total	13	100%	\$95,200	100%

The Initiatives were created and delivered in partnership with the Canadian Institute of Energy Training (CIET) and the Building Owners and Managers Association (BOMA) Toronto. **The webinars and coaching sessions were high quality and well designed to inform participants of energy efficiency opportunities at their facilities, as well as how they can receive incentives and technical support through IESO Save on Energy Programs for those opportunities.** The Initiatives’ focus on lower cost optimization and recommissioning projects is a strong strategy to enable energy efficiency projects in the mid-tier commercial real estate market.

The primary method of marketing and outreach for the webinars was direct outreach to an existing network of building owners/operators, energy managers, and channel partners. The IESO also leaned

on partner organizations, such as BOMA Toronto, for their network of contacts across the Mid-Tier, College/University, Municipal, and other targeted sectors. **The direct outreach to existing networks of market actors that the IESO is conducting is the most cost effective method of outreach for the Initiatives.** Other strategies like mailers and social media campaigns have been seen to be much less effective in the commercial and industrial sectors.




4.2 STATUS OF KEY INDICATORS

The IESO's Save on Energy Capability Building Strategy for the CDM 2021-2024 Framework states that the purpose of the Initiatives is to help increase electricity savings from key end uses, sectors, and channels. CBI-specific goals and strategies include:

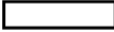
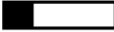


- ▶ Increasing electricity savings in targeted sectors,
- ▶ Reducing the financial barrier to energy efficiency projects, and
- ▶ Reducing the resource and information barriers to energy efficiency projects.

EcoMetric assessed progress toward goals based on survey results and Initiative data, considering the counterfactual scenario of these Initiatives not existing in the marketplace. EcoMetric defines "initial progress" as early steps to meeting goals amongst a portion of participants. "Substantial progress" represents measured and observed progress towards Initiative goals amongst the population of participants. "Market-level progress" is measured and observed progress towards goals beyond program participants. The results are summarized in Table 6.

Table 6: PY2022 CRE and BPS Initiative Progress Towards Goals

CBI Goal	Progress Indicators	Progress Towards Goal
Increase Electricity Savings in Targeted Sectors	Enabled EE projects from CBI, Participation	
Reduce Financial Barrier to EE Projects	Estimated effect from Initiative material on program rebate opportunities and low cost, no cost measures	
Reduce Resource and Information Barriers to EE Projects	Perceived quality, coverage, and estimated effect of information provided in the Initiative materials	

Progress Key

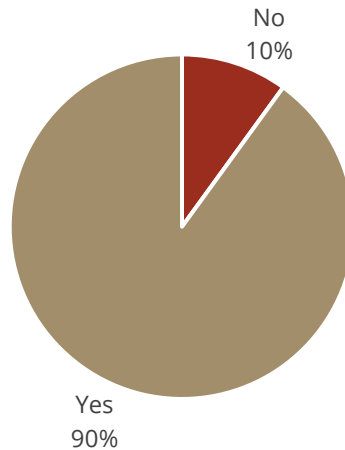
-  No Progress
-  Initial Progress
-  Substantial Progress
-  Market-level Progress

These progress indicators were also used after PY21, and the indicated values here are nearly identical to PY21, except for a bump from “Initial” to “Substantial” Progress for Goal 3, *Reduce Resource and Information Barriers to EE Projects*. **CBI Initiatives continue to provide quality and pertinent information in the webinars and coaching cohorts, promoting Save on Energy programs and addressing EE resource and information barriers in targeted sectors.**

4.3 AWARENESS OF SAVE ON ENERGY PROGRAMS

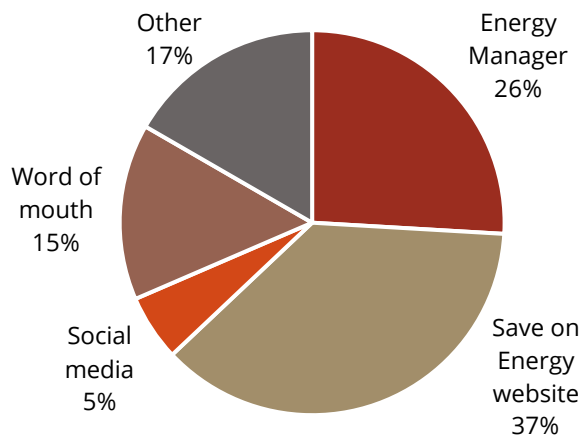
Ninety percent of the survey respondents were aware of Save on Energy program incentive opportunities before their participation in the Initiative, as shown in **Figure 9**. This is up from 67% in PY2021.

Figure 9: Were You Aware of Save on Energy Program Incentive Opportunities Before the [Webinar]? (n=60)



The most popular source of knowledge about incentive opportunities was the Save on Energy website (37% of respondents), as shown in Figure 10. Energy Managers are the second most common source.

Figure 10: Where Did Respondents Learn about Save on Energy Program Rebate Opportunities? (n=60)



4.4 COVID-19 IMPACTS AND SOLUTIONS

“How did COVID-19 impact energy-related decisions at your building during 2022?”

The responses to this question were similar to what we saw in PY2021 and throughout 2022 - lingering impacts of COVID-19 caused delays, cancellations, and a continued sense of urgency around ventilation. Eight respondents (13%) included the word “ventilation” in their responses. Some of those responses include:

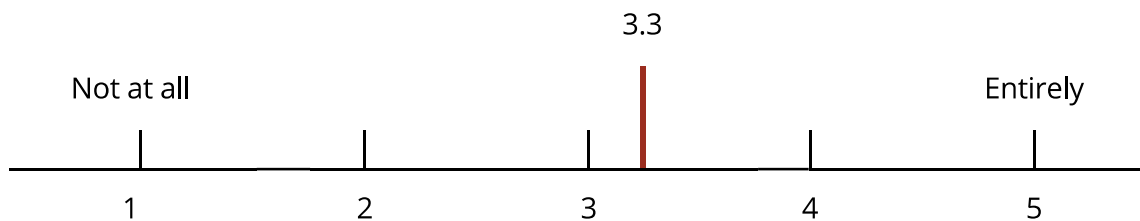
- ▶ “Shift focus to ventilation projects as a priority.”
- ▶ “The Ministry followed AHRAE’s recommendation for additional ventilation [in schools].”

- ▶ “Ventilation was prioritized over cost savings.”
- ▶ “We are ventilating our buildings as much as possible (no recirc) so any ventilation related projects could not be fully implemented.”
- ▶ “We prioritized projects that related to enhanced ventilation.”

*How much would you say the unique challenges of the COVID-19 pandemic influenced energy-related decisions at your building(s) *during 2022*?*

Participants indicated an average score of 3.3 in response to this question, as illustrated in Figure 11. This is similar the PY2021 average of 3.5 for the same question.

Figure 11: PY2022 COVID-19 Influence



4.5 OTHER ANECDOTAL INPUT AND FEEDBACK FROM SURVEYS

In response to the survey question **“Do you have any other thoughts, questions, or recommendations for Save on Energy with respect to [the Initiative]?”**

- ▶ “It would be very helpful if there is a 1-on-1 follow up meeting.”
- ▶ “More thorough dive of heat pump application [desired].”
- ▶ “More training on submitting projects for incentives.”
- ▶ “Share more actual projects, provide hands on training to the site level operators.”
- ▶ “We hope to have more sector-specific webinars so that the participants could better relate and learn from each other’s experiences.”
- ▶ “Webinars are very useful; live events are good for networking and insightful discussions directly with individuals.”

The completion rate for the PY2022 CBI Evaluation online surveys was 20% - an excellent rate for an online survey marketed to participants via direct IESO emails. The survey remains short (around 6 minutes, according to TypeForm) to accommodate the nature of email recruiting and to get at least a serviceable number of survey completions.

As summarized in Section 4.1, the Initiatives were high quality and comprehensive. The energy efficiency technologies and strategies the Initiatives focus on are well matched for the targeted sectors of mid-tier real estate, municipals, schools, and universities. Based on survey feedback from participants, the IESO should consider developing more case studies that detail the process from design to implementation of energy efficiency projects that received incentives from an IESO Save on Energy program.

EcoMetric performed a value of money assessment, in-lieu of a traditional cost-to-benefit ratio calculation, as energy savings are not estimated for the CBI program, and the costs of projects enabled by CBI are absorbed by other Save on Energy Programs. Project-level budget data was provided by the IESO, and for purposes of this analysis, it is assumed that spending is equal to budget.³

5.1 KEY METRICS

Table 7 includes key metrics on budget/spending for Capability Building Initiatives.

Table 7: Key Value for Money Metrics

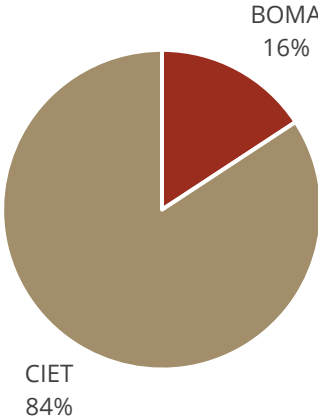
Metric	CBI
Overall spending PY22	\$95,200
Overall spending PY21-PY22	\$156,257
Spending per participant (306)	\$226
Spending per Initiative (13)	\$7,323
Spending per Initiative (webinars only) (12)	\$4,475
Spending per enabled project (completed) (4)	\$23,800
Spending per participant who participated in another Save on Energy Program (7)	\$13,600

Total budget across CBI Initiatives during PY2022 was \$95,200. For comparison, total administrative-only cost for the EM program was \$432,000, and the administrative-only cost for EPP

³ Workbook titled "Capability Building Initiatives Summary," provided to EcoMetric by the IESO on 2023/7/12.

was \$98,000. Most CBI spending (84%) financed programs provided through the partnership with the Canadian Institute of Energy Training (CIET), as shown in Figure 12.

Figure 12: PY22 Spending by Service Provider



The average cost per Initiative during PY2022 was \$7,323. The School Board Coaching Initiative was the most expensive project at a cost of \$15,450.

Table 8 includes participation and program spending by Initiative, alongside spending per participant, for Initiatives where participant data was available. Budget for the Initiatives where participation data was tracked (projects 1-7 in Table 1, totaling \$69,150) accounted for 73% of the total CBI budget during PY2022 (\$95,200).

Table 8: Spending by Initiative

Project #	Initiative	Participants	Spending	Spend per Participant
1	Optimizing Building Automation Systems in Mid-Tier Buildings for the Return to Office	34	\$8,400	\$247
2	Building Tune-Up - Existing Building Commissioning (EBCx)	85	\$10,000	\$118
3	Learn How to Get the Most from Your Recommissioning Projects	97	\$10,000	\$103
4	Energy Efficiency in Mid-Tier Commercial Real Estate - Ask an Energy Expert	24	\$8,400	\$350
5	Efficient Building Electrification for Municipalities	28	\$8,450	\$302
6	Efficient Building Electrification for Colleges and Universities	24	\$8,450	\$352
7	School Board Coaching Cohort	14	\$15,450	\$1,104
	Total (participant data available)	306	\$69,150	\$226

Participant data was provided for the seven Initiatives included in Table 8. Table 9 includes budget information for another six Initiatives where participant data was unavailable.

Table 9: Spending by Initiative (no participant data available)

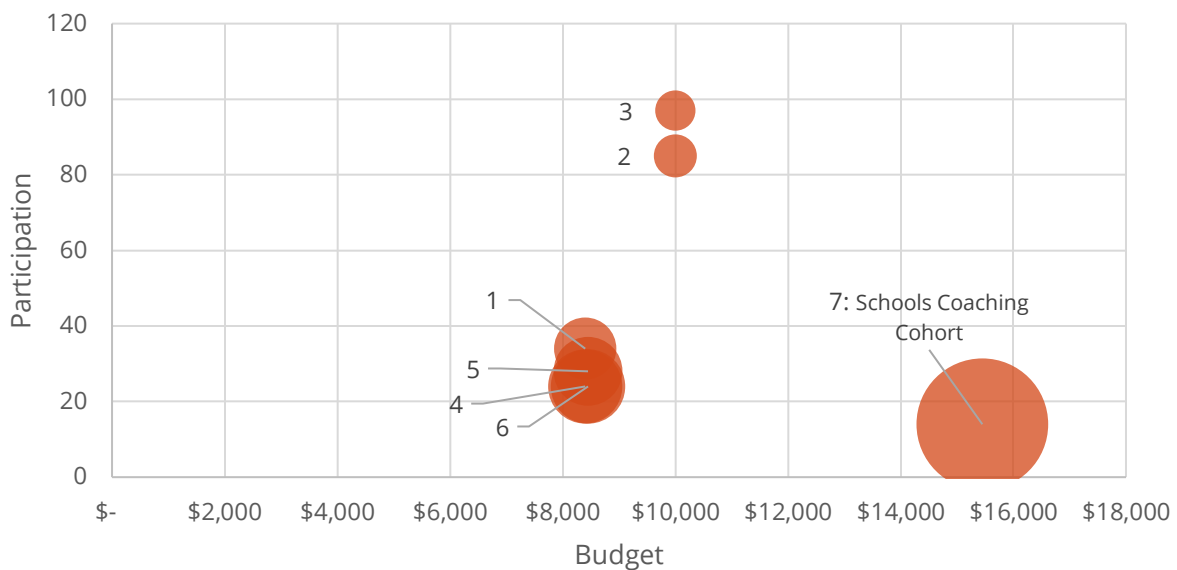
Project #	Initiative	Spending
8	Balancing Energy Efficiency with Indoor Air Quality in the Post-COVID	\$3,000
9	Using Energy Treasure Hunts to Discover Low/No Cost Opportunities in Buildings	\$3,000
10	Performance Benchmarking How Well Do You Know Your Building(s)	\$3,000
11	Building Performance Series - Existing Building commissioning: Tune up & Save	\$3,000
12	Master your Building Energy Data with Your Very Own Coach	\$11,050
13	Building Performance Series - Developing a Retrofit Strategy for Your Building(s) Your Roadmap to big savings	\$3,000
	Total (no participant data available)	\$26,050

As shown in Table 8, the average spending per participant in PY2022 was \$226. For comparison, PY22 EM Program administrative-only spending per Energy Manager was \$8,820, and PY22 EPP administrative-only spending per participating facility was \$551.

Cost per participant ranged from \$103 (Project #3, \$10,000 with nearly 100 participants) to \$1,104 (Project #7, the School Board Coaching Initiative, with a cost above \$15,000 and 14 participants). When only webinars are included, and the School Board Coaching Initiative is omitted, the average cost per participant is \$184.

Figure 13 shows the Budget, Participation, and relative spending per Participant for the seven Initiatives with participant information. The School Boards Coaching Cohort (#7) stands out with its high overall and per-participant cost. The School Boards Coaching Cohort also exhibits the strongest link between survey respondents and EE projects at 2-for-2 (100%), albeit across a very small sample.

Figure 13: Spending and Participation by Initiative
 Large bubble size = Higher spending per participant



Legend for Figure 14:

1. Optimizing Building Automation Systems in Mid-Tier Buildings for the Return to Office
2. Building Tune-Up - Existing Building Commissioning (EBCx)
3. Learn How to Get the Most from Your Recommissioning Projects
4. Energy Efficiency in Mid-Tier Commercial Real Estate - Ask an Energy Expert
5. Efficient Building Electrification for Municipalities
6. Efficient Building Electrification for Colleges and Universities
7. School Board Coaching Cohort

Finding 1: Program penetration with energy managers is strong. However, of the 33 energy managers who attended a webinar during 2022, only 5 attended more than one webinar (where participant data is available).

Recommendation 1: Consider assembling a curriculum for energy managers comprising a series of webinars to encourage participation in more than one.

Finding 2: Participants are generally pleased with the content of the Initiatives and are quick to provide feedback and new ideas. About 25% of the respondents included an open-ended response to the question, “**Do you have any other thoughts, questions, or recommendations for Save on Energy with respect to [the Initiative]?**” Most subjective comments were complimentary of the program, with responses like “...great program,” “good support,” and “looking forward to more workshops.” A few comments that touch on recurring themes from participants include “More training on submitting projects for incentives,” “Share more actual projects,” and “We hope to have more sector-specific webinars.” One participant requested a more thorough dive into heat pump applications, and another requested a webinar specific to Colleges and Universities.

Recommendation 2: Consider adding content to CBI educational materials to remind participants how to determine project eligibility and submit projects for incentives. A case study of an example project and how the participant navigated the incentive process could be particularly valuable.

Finding 3: The Coaching Cohorts offer opportunities for richer savings evaluation based on their delivery method as a targeted workshop where participants focus on building-specific plans. For these Initiatives involving building-specific work plans, the richness of the participant information is worth separate contact channels outside surveys.

Recommendation 3: Conduct participant surveys about EE project plans before and after targeted Initiatives, the School Boards Coaching Cohort. Asking about building plans before and after the experience may help establish a direct influence of the CBI project.

Finding 4: Participant data is not recorded for about half of the PY22 CBI projects, primarily the BOMA webinars. This excludes a large segment of the Initiatives from evaluation activities.

Recommendation 4: Capture participant attendance and contact data for all Initiatives if possible.

Finding 5: Some participants surveyed wanted Initiatives to have more case studies of specific projects and more information on submitting projects for Save on Energy initiatives.

Recommendation 5: Consider developing more case studies that detail the entire process from design to incentive of energy efficiency projects that successfully participated in an IESO Save on Energy program.