PY2022 EM&V Key Findings and Recommendations 2021-2024 CDMF Small Business Program (SBP)

No.	KEY FINDINGS	2022 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
1.	**Lighting Reported Peak Demand Savings-CF. The PY2022 SBP reported peak demand savings for lighting measures use a CF of 0.0001425 for all lighting measures except LED Exit Signs, with a CF of 0.0001142.** The CFs used, however, appear conservative, resulting in a high demand realization rate (176%).	Update the CFs used to report peak demand savings to 0.0002734 to better align with evaluation results. This would apply to all lighting measures except for LED Exit Signs, which the evaluation team recommends stay unchanged with a CF of 0.0001142. This would help more accurately report summer peak demand savings. The team bases this recommendation on an analysis of the combined PY2021 and PY2022 SBP lighting project samples—a total of 138 evaluated projects reported at the 90% confidence level with 4.9% precision.	High	The IESO is reviewing the recommendation and considering updates to the Lighting Report Peak Demand Savings CF.
2.	**Initially offered in March 2022, SBP experienced a slow uptake in the adoption of non-lighting measures; only 9% of PY2022 projects included any non-lighting measures, and no non-lighting measures were implemented in the Northern region, despite that this region made up 36% of projects in PY2022.** While the number of projects including non-lighting measures was low, 37% of all projects completed in PY2022 were completed in January, February, or March, prior to the non-lighting offerings availability. The evaluation team expects to see the implementation of these non-lighting measures increase as implementers become more familiar with these non-lighting measures.	Offer continued training and guidance to assessors and installers about the new SBP non-lighting measures including the benefits and appropriate applications for customers. Ensuring that assessors and installers can effectively educate participants on the benefits offered by these new non-lighting measures will help maximize the impact of these new expanded offerings.	Low	The IESO will work with its delivery vendors to ensure assessor and installer training is up to date, and that it includes information on the benefits of the new non-lighting measures.

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3.	**During the PY2022 program year, an unplanned mid-cycle transition to a new implementer affected delivery in the Toronto, Central, and Southwestern regions, which delivered 64% of total projects in PY2021 but only 25% of total projects in PY2022.** The total number of projects implemented in the Eastern and Northern regions (regions that did not undergo implementer transition) in PY2022 (818 total) very closely aligned with PY2021 participation numbers (829 total) while PY2022 participation in the Toronto, Central, and Southwestern regions (276 total) experienced an 82% decrease from PY2021 participation numbers (1,496 total).	If there is a backlog of interested SBP participants in the Southwestern, Central, and Toronto regions who could not participate in PY2022 due to challenges outside of their control, focus additional resources to these regions for future program years.	Medium	The IESO will be increasing assessor resourcing to support the Toronto, Central and Southwest regions.
4.	**More participants who received recommendations to install additional lighting upgrades beyond the project cost cap made those upgrades in comparison to the previous program year.** Program data shows that one-quarter of participants (25%) installed additional energy-efficient equipment despite not receiving full cost coverage following their program participation—a result more than double PY2021's 12%. Of participants installing additional upgrades above the program cost cap in PY2022, the average out-of-pocket payment of $1,253 represents a 70% increase from the PY2021 average out-of-pocket payment of $739.	Continue to encourage assessors and installers to offer participants additional lighting and non-lighting upgrades beyond the program cost cap when applicable. Help interested participants to complete the work, either by installing additional equipment through the program or by providing participants with a recommended equipment list to consider for future installations. Re-evaluate the appropriate program cost cap as equipment and labour costs tend to increase over time. See recommendation 11 for additional information on program cost caps.	Medium	The IESO is exploring updates to the lighting project cost cap to cover increasing costs and to increase savings available to all interested participants. The IESO will also monitor the need to adjust the non-lighting project cost cap as additional non-lighting projects are completed.

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5.	**New non-lighting measures delivered slightly lower demand and energy savings per incentive dollar than lighting measures but provided significantly higher demand and energy savings per quantity installed.** Specifically, the smart thermostat measure delivers the highest energy and demand savings per unit of any SBP measure category, with a high Program Administrator Cost Test (PAC) Ratio of 1.52. Refrigeration measures did not prove cost-effective, with strip curtains, ECM motors, and coil cleaning measures delivering PAC ratios of 0.46, 0.81, and 0.36, respectively. While delivery in non-lighting measures was low in PY2022, delivering only 4% of program energy and demand savings, the delayed launch of non-lighting offerings until March 2022 impacted the program.	When applicable, encourage assessors and installers to offer non-lighting measures to participants, thus maximizing the SBP's energy and demand impacts. The evaluation team recommends that assessors and installers prioritize and encourage participants to install smart thermostats to increase SBP's impact and cost-effectiveness. Determining non-lighting measures' program impacts should continue on an ongoing basis as implementers become more comfortable with the new non-lighting offerings and participants complete more projects with non-lighting measures.	Low	The IESO will work with delivery vendors to ensure that non-lighting measures are sufficiently promoted to eligible customers. The IESO and vendors will continue monitoring the program to ensure the measure mix maximizes energy and demand impacts while balancing cost-effectiveness.
6.	**In PY2022, the condenser coil cleaning measure accounted for 45% of the energy and demand savings for the refrigeration end-use, but the one-year EUL did not contribute persisting energy or demand savings to the end of the framework accounting period (2026).** Additionally, this measure performed poorly from a cost-effectiveness standpoint, scoring a 0.36 PAC ratio.	Evaluate the effectiveness of offering coil cleaning for coolers and freezers as a standalone non-lighting measure in the SBP. Consider offering a comprehensive tune up measure for refrigeration and HVAC equipment that incorporates additional service beyond coil cleaning (e.g., refrigerant charge adjustment, changing air filters, optimizing zone temperature set points, leak testing and repair, straightening blades and fins), given that comprehensive HVAC tune up measures typically have longer EULs of three or more years.	Low	The IESO will review the recommendation and consider updates to the eligible measures offered through the SBP.

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7.	**The SBP delivery mechanisms could provide a promising opportunity to collaborate with gas utilities to deliver highly cost-effective and GHG-reducing direct-install measures, such as aerators, weatherstripping and pipe insulation.** Offering a comprehensive program can deliver higher GHG reductions without increasing customer touchpoints, while reducing the time required to implement upgrades that address both electric and gas systems. Additionally, if the local gas utility already offers a similar small business program to customers, this collaboration could reduce overall administrative costs and vehicle miles traveled by assessors and installers.	Evaluate the opportunity to collaborate with gas utilities in Ontario to deliver a comprehensive small business assessment program that offers electric and gas energy-efficiency measures.	Medium	The IESO collaborates with Enbridge Gas on other Save On Energy programs, and values opportunities to collaborate with gas utilities. The potential for collaboration in the small business sector is recognized. The IESO plans to continue discussions to identify mutually beneficial opportunities to collaborate in the future.

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8.	**Awareness of non-lighting equipment is relatively low among participants.** PY2022 saw a transition from the Small Business Lighting (SBL) program to SBP, where, for the first time, offerings included non-lighting equipment along with lighting under the same program. Only two-fifths of participants (40%) with installed lighting-only upgrades knew the program also offered non-lighting equipment. These same participants most commonly said they did not install non-lighting equipment either because they did not need to install additional equipment (40%) or because the equipment of interest to them was not available (33%). Assessors and installers indicated that their customers expressed moderate interest in learning that SBP now offers non-lighting equipment (at an average of 3.4 using a scale of one to five, where five means "extremely interested"). IESO staff and program delivery vendors indicated non-lighting measures faced relatively low uptake in PY2022. They attributed this to various factors including the fact that it was the first year that non-lighting offerings became available, a slower-than-anticipated program ramp up, limited interest from participants in initiating projects in general, relatively low savings targets for non-lighting measures, and a relatively small population of participants eligible for non-lighting equipment.	Ensure that all eligible customers know of lighting and non-lighting program opportunities from the start. This could be accomplished by clearly explaining program offerings to customers during initial screenings, sharing program materials (e.g., brochures, e-mails, newsletters) that highlight the new non-lighting opportunities, and ensuring that assessors identify lighting and non-lighting opportunities during the initial site assessment. Consider increasing savings targets for non-lighting measures to encourage program delivery vendors to further promote these offerings to eligible customers. Explore whether adding other non-lighting equipment to the program may be possible.	Medium	The IESO will continue to work with delivery vendors to ensure that all eligible customers are aware of the non-lighting measures available to them. Increases to non-lighting targets are not under consideration at this time. However, other means of promoting these measures will be explored. The recommendation to explore additional non-lighting equipment will be considered when designing future versions of the program.

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9.	**Opportunities exist to improve assessor and installer training and education.** Most surveyed assessors and installers reported receiving some training and education. Nearly all received information on the program rules, and many others received information on program offerings as well as installation procedures and practices. Assessors and installers provided a moderately high satisfaction rating (a 4.1 on a scale from one to five, where one indicates "not satisfied at all" and five indicates "extremely satisfied") for program training and education. Assessors and installers most commonly suggested providing marketing and outreach techniques to better promote the program, followed by more information on program rules and offerings.	Ensure trainings stress marketing and outreach techniques and provide more information on program rules and offerings. Regularly offer training and education to ensure new staff remain well-informed about the program and to provide refreshers for others.	Medium	The IESO will continue to work with delivery vendors to ensure trainings are up-to-date and include relevant topics, such as training and outreach techniques and program rules.

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10.	**Participant perspectives on the site visit process were generally positive, but improvement opportunities remain.** Most participants did not offer suggestions for improving the initial site assessment (74%) or the installer visits (75%), which suggests the program largely meets customers' needs. Of those suggesting site visit improvements, respondents most commonly suggested reducing the time required to complete site visits, providing greater flexibility and communication in scheduling visits, improving the assessors' data collection accuracy, and improving the installer's professionalism and transparency in their practices. When asked for other program improvement recommendations, participants frequently suggested improving communications at every stage of the project (e.g., communicating about equipment customers may qualify for before conducting the initial assessment, identifying work performed before leaving the installation site visit, and following up with participants post-visits in case questions arise).	Reduce the time required to complete the assessment and installation visits. Identify areas where additional program support or resources could allow assessors and installers to complete this task more promptly (e.g., provide assessors and installers with expected timeframes in which to complete visits, and/or provide small incentives if visits are completed within the recommended timeframe). Improve communications regarding visit scheduling (e.g., sending reminder e-mails and/or text messages confirming appointments and providing accurate arrival windows). Provide additional training to assessors and installers to ensure their professionalism during assessments and installation visits (e.g., ensure they share their contact information or business cards and that they remain responsive to questions or concerns raised during the visit). Encourage transparency about work performed by informing potential participants about additional installation costs that may be incurred (e.g., lift rentals, ESA fees) and require that installers carefully walk customers through upgrades made before leaving the site. Improve communication at every project stage (e.g., during the initial assessment, clearly communicate equipment for which customers will qualify and explain why, clearly identify work completed before leaving the installation site visit, and follow up with customers after visits in case questions arise).	Medium	The IESO will continue to work with delivery vendors to ensure all customer communications are clear and effective at every stage, service level agreements are adhered to, and to explore specific recommendations to maintain a positive customer experience.

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11.	**Raising the visibility of existing co-pay options for participants who reach project cost caps and considering co-pay options for participants not reaching the cap may lead to the completion of larger projects.** Over one-half of participants (55%) said they reached the lighting incentive project cap of $2,000 compared to less than one-tenth (8%) of participants saying they reached the project incentive cap of $2,500 for non-lighting projects. Of participants reaching the incentive project cap, over one-third (35%) had to cut back on the size, scope, or efficiency of their equipment upgrades. Had they been interested in doing so, customers could have taken advantage of an existing co-pay opportunity offered to customers reaching the cap to help them install additional equipment. Of participants who did not reach the project incentive cap, one-half (50%) would have considered taking advantage of a co-pay offer to help them install additional equipment had the offer been available to them (currently, the co-pay offer is only available to those reaching the cap). Program assessors and installers provided similar feedback, indicating that an average of 72% of their lighting projects and 50% of their non-lighting projects reached the caps. Additionally, assessor and installer estimates suggest that an average of 68% of their customers had to reduce the size, scope, or efficiency of equipment upgrades due to reaching the cap. Program delivery vendors reported seeing very little interest in co pay offers to date as customers are often unwilling to incur a portion of project costs themselves.	Ensure that customers reaching the project incentive caps know of the existing co-pay opportunity available to them. Explore the feasibility of expanding the customer co-pay option to customers not reaching project incentive caps to increase the scope of projects for these customers.	Medium	The IESO is exploring updates to the lighting incentive project cost cap, which would help accommodate larger projects at no cost to the customer. The IESO will also continue working with delivery vendors to ensure that participants reaching the project cost caps are aware of co-pay opportunities, and encouraged to take advantage of all program options available to them.

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12.	**Some participants experienced challenges in signing up for the program or found the customer journey unclear.** Nearly one-fourth of participants (23%) stated that they experienced challenges when signing up for program participation, such as extra expenses or fees they had not been informed of (30%) or difficulty scheduling the initial site visit (23%). Similarly, assessors and installers cited some customers remaining unclear about the program when asked about barriers they perceived that prevented more customers from participating. IESO staff indicated that customers are sometimes confused about the process as they speak with many staff involved with the program throughout the process. To reduce customer confusion, assessors and installers recommended providing additional customer education, minimizing the number of steps needed to participate, and minimizing the number of parties involved.	Clarify the program's journey for participants by offering additional customer education about all the steps involved (e.g., carefully explaining the process during initial screening calls, providing infographics in e-mails or brochures describing the steps, reiterating the process during the site visits, offering short video tutorials on the program website or on social media). Minimize the number of steps needed for program participation to simplify the process. For example, combine site visits for lighting and non-lighting equipment installations whenever possible. Minimize the number of parties involved to reduce customer confusion. For example, consider assigning a main point of contact to each customer.	Medium	The IESO will continue working with the delivery vendors to review the customer journey and explore options for simplifying the process, e.g. establishing a main point of contact and providing additional education. Separate site visits for lighting and non-lighting measures may continue to be necessary due to differences in expertise needed to install this equipment and challenges sourcing available contractors that offer all eligible non-lighting and lighting equipment offered through the program.
13.	**Eligibility requirements proved difficult for some customers to meet.** Assessors and installers indicated that the main reasons why an applicant was ineligible to participate in the program were that either the equipment of interest did not meet eligibility requirements or that the customer had already upgraded their equipment. Program delivery vendors noted some difficulties in qualifying equipment for the program, given that many small businesses still operated at reduced hours, preventing them from achieving higher savings.	Consider alternative program approaches that may help customers facing limited operating hours to qualify for eligible equipment. For example, work with customers with limited operating hours to identify whether they have a timeline to ramp up operating hours, and if so, prioritize reaching back out to them once operating hours have increased.	Medium	The IESO will continue to work with its delivery vendors to offer all eligible measures to qualifying participants, while exploring opportunities to maximize electricity and demand savings for small businesses operating at reduced hours.

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14.	**Though generally well received, the transition from SBL to SBP resulted in some challenges that slowed program ramp up.** PY2022 was the first year employing a regional delivery approach for SBP using multiple delivery vendors. Simultaneously, it was the first year that the program offered lighting and non-lighting equipment together. IESO staff and delivery vendors reported that the transition from SBL to SBP went relatively smoothly from the customer's perspective, though they noted it took more time than anticipated to ramp up program delivery. Shipping delays, increased customer concerns about scams, and lower levels of customer interest than in prior years were cited by IESO staff and delivery vendors as main drivers behind the slower-than-anticipated ramp up in PY2022. Additionally, the bankruptcy of one delivery vendor meant the program needed to pivot quickly to ensure the service of existing applications and participants.	Continue to support, train, and communicate with delivery vendors as they strive to meet their delivery goals in future program years.	Medium	Increasing participation in the program while providing a seamless customer experience is a priority for the IESO and delivery vendors alike. The IESO remains committed to supporting and working with its delivery vendors to meet the program targets and objectives.
15.	**Offering information and guidance around ESA fees will continue to be important.** In PY2022, installers indicated that SBP projects sometimes incurred ESA fees, and that the installers typically paid for them themselves. Less than one-tenth of participants (6%) reported paying ESA fees, and all those who paid them indicated they knew of fees prior to signing the work order for their project. Installers, however, noted that assessors sometimes brought up ESA fees prior to signing the work order for their project, though not always. Delivery vendors reported challenges sometimes arose in determining whether ESA fees were required for certain equipment types, especially related to new non-lighting equipment, such as refrigeration. IESO staff reported working closely with delivery vendors and installers to determine ESA fees or to identify updates on ESA fees.	Continue to work closely with delivery vendors and installers when determining ESA fee requirements. Create a one-page visual aid document detailing ESA fee requirements by technology/measure type for delivery vendors and installers to reference while in the field. Ensure that all assessors inform customers of any relevant ESA fees prior to signing the work order for their project.	Medium	The IESO will continue working with delivery vendors to ensure assessors are correctly identifying and communicating ESA fee requirements.

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16.	**Transportation cost increases have affected delivery vendor and installer profit margins.** Five of the eight surveyed assessors and installers said that increases in diesel costs affected their profit margins in PY2022. According to delivery vendors, this particularly held true for assessments and site visits in the north of the province, where customer sites were farther apart and harder to reach. Delivery vendors noted they had been absorbing the increased transportation costs associated with their assessors' transportation costs, and most installers said their own increased transportation costs were typically not included in the costs of their SBP projects.	Consider ways to compensate delivery vendors and installers for rising transportation costs (for example, consider further measure cost increases that account for increased transportation costs).	Medium	The IESO has increased funding for certain eligible measures in early 2023 based on feedback from its delivery vendors to address increased costs due to inflation. The IESO will continue to monitor changing measure costs, work with its delivery vendors, and explore options for increasing measure cost caps to account for rising costs such as transportation where required, while balancing program cost-effectiveness and maintaining rate-payer value.
17.	**Market conditions continued to present some participation barriers in PY2022.** Delivery vendors reported that supply chain issues related to longer lead times, project back orders, and shipping delays posed challenges to program delivery in PY2022. Delivery vendors also noted these issues could vary widely from week to week. IESO staff agreed that increases in delivery and equipment costs and issues with equipment availability continued to impact the program's volume. Two assessors and installers noticed supply chain issues over the last year, identifying issues particularly related to 8-foot linear LED fixtures and LED tubes. Four of eight surveyed assessors and installers cited rising equipment costs, with two reporting that all equipment costs had risen, and one respondent each indicated that costs rose for high-bay lighting and luminaires.	Continue to monitor supply chain issues and equipment costs to ensure the program provides the most appropriate measure mix possible. Proactively and regularly gather equipment availability and lead times from delivery vendors to ensure the program provides the most appropriate measure mix possible to meet customer needs.	Medium	The IESO will continue working closely with delivery vendors to understand market conditions affecting measures, and modify the program where appropriate.

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18.	**Some customers expressed interest in receiving guidance and financial support to further electrify their facilities.** The majority of participants did not plan to complete electrification projects at their facilities to address GHG emissions (71%). Rather, participants' reasons for most commonly not completing electrification projects included financial constraints (19%), insufficient information on electrification (13%), and that their company did not plan to electrify their facilities (13%). Participants suggested financial incentives and information on upgrades and costs of electrification projects would be most useful in helping them complete electrification projects if they consider completing such projects in the future.	Explore the feasibility of supporting customers interested in completing electrification projects through financial incentives and information on electrification project upgrades and costs.	Medium	The IESO recognizes the growing importance of efficient electrification to customers. Although the program's near-term focus is on providing electricity energy and peak demand savings, this recommendation may inform the design of future program offers.