

PY2023 EM&V Key Findings and Recommendations

2021-2024 CDMF Small Business Program (SBP)

No.	KEY FINDINGS	2023 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
1.	<p>Awareness of and interest in SBP's non-lighting equipment offerings continued to be relatively low among participants. Non-Lighting measures contributed only 2% of PY2023 net-verified energy savings. Only one-fourth (25%) of participants who installed lighting-only equipment knew that the program offered other non-lighting equipment upgrades. When asked why they decided not to install non-lighting upgrades, nearly one-half (49%) stated they did not need to install additional equipment, and one-tenth (10%) said the program did not offer equipment of interest to them. Such equipment of interest included heat pumps, solar, thermostats, and cinema equipment (one respondent each). Close to one-half of assessors and installers (five respondents) indicated that their customers were not very interested in the program's non-lighting equipment. Two assessors and installers shared their perspective on why they thought this occurred, with one indicating it was due to a lack of information from assessors and the other indicating it was because the non-lighting equipment was not compatible with equipment at customers' businesses. Further inhibiting the uptake of non-lighting measures, multiple participants who implemented non-lighting measures and received site visits (three) or desk reviews (two) during the PY2023 impact evaluation reported issues or concerns with the installation and performance of their non-lighting measure retrofits. Assessor and installer suggestions for increasing uptake of non-lighting equipment included more marketing (three respondents) and covering all thermostat costs (two respondents).</p>	<p>Expand marketing efforts to generate additional awareness around non-lighting offerings. For example, feature more participating businesses that received non-lighting measures in case studies and testimonials.</p> <p>Identify ways to further assist customers in installing non lighting equipment (e.g., covering all thermostat costs, presenting the customer with co-pay options).</p> <p>Provide additional training opportunities for SBP assessors and installers to ensure they have up-to-date program documentation and the knowledge to effectively market and sell non-lighting measures. Ensure implementers are adequately trained on measure installation to avoid improperly installed measures and dissatisfied participants.</p>	High	<p>The program has increased its marketing efforts for the SBP in 2024 amplifying the focus on non-lighting measures. The SBP will continue to seek out additional marketing opportunities.</p> <p>The Program is also undertaking analysis of current and potential new measures that can be offered.</p> <p>The SBP will engage with vendors on ensuring proper training on correct measure installation and improving assessments.</p>

No.	KEY FINDINGS	2023 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
2.	<p>Assessor workforce shortages likely served as a participation impediment, especially in more remote areas of the province. Delivery vendors and IESO staff all considered the lack of field staff (particularly assessors) to pose a challenge in PY2023. This workforce shortage was most pronounced in the northern part of the province as some assessors could not or did not want to drive to these locations, though the issue occurred in other parts of the province as well. IESO staff mentioned that offering virtual assessments when assessors are unavailable might be worth considering. Delivery vendors suggested covering the cost of driving school as licenses are required for the job. Delivery vendors indicated that uncertainty about assessors' contract lengths may also contribute to fewer individuals being willing to take these jobs.</p>	<p>Identify opportunities to address workforce shortages to ensure the availability of a robust pool of assessors to support SBP. This may include incentivizing assessors willing to travel to Northern areas of the province, allowing installers to perform assessments and installations in the North to minimize workforce needs, allowing for virtual assessments, depending on the customer's location, or partnering with colleges/universities.</p>	High	<p>The Program is currently piloting a virtual assessment process in the northern region to address these travel concerns. In addition to further recruitment efforts, vendors are finding alternative solutions to find assessors (for example, hiring part time energy auditors to conduct assessments on behalf of the program). The program can also consider how to leverage Save on Energy's Capability Building initiatives where possible to further training and employment opportunities.</p>

No.	KEY FINDINGS	2023 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
3.	<p>Sector-specific outreach may be instrumental in converting more SBP opportunities into projects. Delivery vendors and IESO staff believed opportunities still exist for lighting measures under SBP, though they noted that savings per project were diminishing. Surveyed assessors and installers believed similarly, providing an average rating of 4.6 on a scale of one to five, where five indicates “a great amount of opportunity still exists,” when asked to rate the remaining opportunities for SBP to generate new participants interested in installing energy-efficient lighting upgrades. One IESO staff member recommended reviewing the remaining program potential for small businesses at the sector level. Assessors and installers identified business sectors that they recommend the program more directly target, while providing insights on equipment that may be of most interest to those sectors. Warehousing (nine respondents), grocery and industrial (eight respondents each), and restaurant and retail (six respondents each) were most frequently mentioned by assessors and installers, with various types of lighting frequently recommended for most sectors. By comparing the count of small businesses by sector in Canada to the PY2023 SBP participation by facility type, the evaluators determined that some business types (e.g., Commercial [Retail] and Commercial [Office]) are overrepresented in PY2023 SBP participation. Though these two business types make up 56% of all PY2023 SBP projects, they represent only 34% of small businesses in Canada. Underrepresented business types include Agricultural, Commercial [Restaurant], Commercial [Warehouse/Wholesale], Industrial/Manufacturing, and Government/Public Institution which combine to represent 48% of Canadian small businesses but only 25% of PY2023 SBP projects.</p>	<p>Analyze sector-level program saturation and the related remaining program potential. Review program participation by measure and sector to identify trends.</p> <p>Target program outreach efforts towards key business sectors, highlighting eligible equipment and services that may be of most interest to them. For example, this may involve expanding the catalogue of case studies and testimonials to feature sector-specific projects or collaborating with organizations representing the business interests of these sectors.</p>	Medium	<p>The program will explore sector-level participation, including at the measure level, to identify opportunities to increase uptake from underserved sectors.</p> <p>The program will also consider opportunities to improve marketing and vendor outreach efforts to underserved sectors where it makes sense. Vendors currently work with local BIAs to promote the programs, which can be expanded to include sector-specific organizations.</p>

No.	KEY FINDINGS	2023 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
4.	Changing participant eligibility criteria interested some. According to assessors and installers, the program eligibility limitation requirement for businesses to have an operating capacity of 50 or fewer employees generally did not affect their customers—only two indicated turning away prospective participants due to this limitation. One of these assessors reported turning away 100 customers, while the other reported turning away five. Neither delivery vendor thought a need existed to increase this limit. IESO staff were more inclined to express interest in exploring this eligibility criteria given that the limit was originally meant to serve as a proxy for energy consumption due to the unavailability of utility data.	Consider aligning the program’s eligibility criteria related to the number of employees a business must have for SBP participation with small business criteria set by other informed entities (e.g., Statistics Canada defines a small business as 1-99 employees).	Medium	The SBP is not currently considering a broad change to customer eligibility at this time given that the needs of most small businesses are met with the current eligibility criteria. Changing the requirements from 1-99 employees may result in fewer eligible businesses that can participate compared to an operating limit of 50 employees on premises at one time. The IESO will continue monitoring the number of customers turned away due to the eligibility criteria.
5.	Most participants find program partners trustworthy, though improvement opportunities exist. Participants were asked to rate the trustworthiness of various program partners on a scale of one to five, where one indicates “not trustworthy at all” and five indicates “extremely trustworthy.” Over four-fifths of participants (85% and 84%, respectively) stated that the representative who performed the initial site assessment and the representative who performed the installation site visit were either very or extremely trustworthy. Suggestions for improving program partner trustworthiness included improving follow-up times with customers (three respondents), reassurance that the program is legitimate (three respondents), providing shorter timelines to complete the work (two respondents), and ensuring that representatives follow through with all job aspects (two respondents).	<p>Coordinate with program delivery vendors to ensure program assessors and installers have the training and support needed to minimize issues related to promptness, timeliness, and follow-through. This may involve instituting longer periods under which new assessor hires are required to “shadow” more experienced staff on site visits or conducting closer oversight and guidance related to assessor and installer communications with customers.</p> <p>Refer to Process Progress Update 2 regarding recommended activities to support the program’s legitimacy as well as Process Progress Update 3 regarding site-visit improvement opportunities. These can be found in the 2021-2024 CDM Framework Small Business Program PY2023 Evaluations Result Report.</p>	Medium	<p>The Program will work with its delivery vendors to review staff training practices and whether shorter timelines are feasible.</p> <p>The SBP is seeking to add additional information to advise customers on determining legitimate SBP representatives through its public channels (i.e. website updates, program materials. The program has also increased its marketing in 2024 to increase customer awareness of the SBP as an offering for businesses.</p> <p>The IESO will discuss communication process improvements with delivery vendors to ensure communication is open and consistent.</p>
6.	Updating Smart Thermostat measure eligibility criteria could improve energy and demand savings per install. During the PY2023 evaluation, 14/15 sampled smart thermostat projects had a programmable thermostat baseline and 11/15 projects had gas heating. Additionally, there were two instances of multiple smart thermostat measures installed at the same facility even though they were controlling the same conditioned space, and one smart thermostat was installed in a facility without Wi-Fi leading to reduced verified savings per thermostat.	<p>Consider utilizing measure savings for each smart thermostats baseline thermostat type (traditional programmable vs. manual).</p> <p>Limit measure eligibility to one smart thermostat per HVAC system/conditioned space.</p> <p>Include qualified install of smart thermostats to require Wi-Fi connection and implementation of energy saving control sequences during installation.</p>	Medium	<p>The program reviewing its savings substantiation for the Smart Thermostat measure and will make changes, where appropriate.</p> <p>The Program will also work with vendors to ensure that wi-fi connectivity is confirmed at the time of installation, as this requirement for wi-fi connection is already in place.</p>

No.	KEY FINDINGS	2023 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
7.	<p>Participants not installing all equipment recommended during the initial assessment did so for a variety of reasons. Nearly four-fifths (79%) of participants reported installing all equipment recommended during the initial site assessment. Of those not installing all upgrades recommended (11%, or 30 respondents), over one-half (57%) chose not to do so due to reaching the cost cap even though SBP offers copay opportunities for participants to implement additional recommended upgrades and maximize their energy savings. Another one-fifth (17%) reported not needing to install the equipment. Fewer participants (3% each) mentioned complexities in changing their applications, a lack of follow-through from the program regarding equipment installations, or they did not want to undertake additional work. Participants not installing recommended equipment upgrades largely reported not installing additional lighting (63%). Other equipment not installed included insulation, smart thermostats, heat pumps, and freezers (mentioned by 3% each). Assessors understanding each participant's target payback period and including this information in the discussion about recommended measures could help participants install more equipment recommended during the initial site assessment.</p>	<p>Further explore what opportunities may exist to encourage participants to install all equipment recommended in the assessment. This may involve empowering assessors to ask follow-up questions about why the customer is not interested or addressing concerns customers may have regarding the equipment. This could be paired with follow-up calls or e-mails from program delivery vendors' call centers, conducted immediately after the assessment, to gauge why customers did not install all recommended equipment and to encourage them to do so, if feasible at that time.</p> <p>Refer also to Recommendation 1b related to ensuring customers remained informed of all their options, regardless of whether project cost caps are reached.</p>	Low	The IESO will work with its vendors to see if more customer feedback can be acquired when all recommended equipment is not installed by the customer.
8.	<p>Lighting measures achieved a 99.48% realization rate for summer peak demand savings for 71 lighting projects sampled during the PY2023 Impact Evaluation. This demonstrates that the updated 0.0002734 CF applied to SBP lighting measures in PY2023 results in much more accurate estimated peak demand impacts compared to PY2021 and PY2022 results with a 0.0001425 CF. However, the evaluated summer peak demand realization rate did not achieve the targeted 10% precision at 90% confidence, with PY2023 evaluated results achieving 11.62% precision at 90% confidence. This indicates that while the updated CF results in accurate summer peak demand savings at the program level, project-level variance or error is expected.</p>	<p>Continue monitoring the lighting measure summer peak demand savings realization rate to determine if future CF updates are warranted due to changing market conditions or participation trends.</p>	Low	The IESO will continue monitoring the CF and make updates, if appropriate.

No.	KEY FINDINGS	2023 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
9.	<p>Increases in the lighting project cost cap helped customers complete more of the work of interest to them. SBP raised its lighting project cost cap from \$2,000 to \$3,000 in November 2023. Raising the lighting cap sought to help address challenges related to inflation, measure cost increases, and customers reaching the cap without completing all the desired work (though delivery vendors noted that numerous customers are reaching the new \$3,000 lighting cap already). After the increase to \$3,000, only 12% of projects exceeded the cost cap compared to 23% of projects prior to the cost cap increase in PY2023, based on the results of the impact evaluation. Nearly one-fourth (22%) of participants reported cutting back on the size, scope, or efficiency of their equipment upgrades due to reaching the project cost cap. Additionally, the evaluators determined that the increased lighting cost cap led to a 21% increase in average project size (kWh saved per project). When asked which upgrades would interest them in the absence of project cost caps, participants most frequently mentioned additional lighting (69%).</p>	<p>Continue monitoring the lighting project cost cap to ensure it meets the needs of most participants. For example, given the new lighting project cost cap was not introduced until late in 2023, additional evaluation research is recommended in future years to gauge the impact of this cap on customer projects.</p> <p>Regardless of whether project cost caps are reached, ensure the program informs customers of all options and relevant information (e.g., co-pay opportunities, payback period calculations associated with additional equipment purchases).</p>	Low	<p>The IESO will continue monitoring the impact of the cost cap through future program evaluations.</p> <p>The IESO will follow up with its SBP vendors to ensure customers are informed of all options and relevant information.</p>