

# 2020 Interim Framework (IF) Small Business Lighting Program EM&V Key Findings and Recommendations

## Impact Evaluation

No.	PROGRAM	KEY FINDINGS	2020 EM&V RECOMMENDATIONS	IMPACTS	IESO RESPONSES
1.	Small Business Lighting Program	<p><b>Improved Baseline and Retrofit Photos.</b> In program years 2019 and 2020, SBL implementers submitted photos of the pre-existing baseline and retrofitted fixtures and lamps. These photos are important and helpful when verifying the baseline and retrofit measure types and wattages. In most cases, the photos submitted were taken from wide angles and from a few feet away, which do not provide useful information about the lamp wattage or lamp type. There were a few instances where the photos captured enough detail of the lamps or fixtures to definitively determine the wattages.</p>	<p>As previously recommended for PY2019, specify what information should be captured in the pre-retrofit and post-retrofit pictures that are taken by the SBL assessors/installers. Specify that pictures of the replaced equipment should capture the wattage of the lamps and, if applicable, the type of ballast. This is specifically critical for direct install programs. The participants of such programs often do not possess sufficient information regarding the baseline and retrofit equipment, and the photos collected by the program delivery vendor would help provide the data required for evaluation.</p>	High	<p>The IESO strives to capture the best available information in work orders, which are verified by participants before installations. For future versions of the program, the IESO will consider more specific guidance on the details which should be captured within these photos.</p>

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2.	Small Business Lighting Program	SBL Assessment Tool (Hours of Operation). The SBL Program Assessment Tool used by the assessors and installers collects parameters necessary to calculate energy and demand savings and is simple to use. The evaluator understands that it is important not to complicate the Assessment Tool, but discrepancies between the operating schedules reported on the application and those verified in the field still contribute significantly to the realization rates being less than 100%. Currently, the Assessment Tool only accepts one schedule for the entire facility, and only accepts schedule inputs in terms of a weekly schedule, which is assumed to be constant over the entire year.	The evaluator recommends upgrading the existing Assessment Tool and allow for the creation of multiple schedules for the same facility, where measures can be properly assigned to their respective operating schedules. Additionally, allow the users to highlight the varying operation –seasonality– of the facility, if any. Alternatively, if there is a need to maintain the current Assessment Tool design, the evaluator recommends that clear instructions be provided to the assessors on what hours of operation should be entered in the SBL Assessment Tool. It should be clarified that the schedule entered in the hours of operation fields should be the hours that the new efficient lamps are expected to operate and not the hours of operation of the business. In many instances, the hours the business is open to the public are entered into the SBL Assessment Tool when in fact the lights are turned on when the business is closed to the public or some lights might be off during part of the business hours. Another option is to clarify in the Assessment Tool instructions and in contractor trainings that in cases where multiple schedules exist, the schedule entered should be for the lights that are expected to generate most of the energy savings.	High	A single weekly operating schedule is currently requested to minimize the level of information required by participants and simplify the participation process. The hours of operation are verified by participants prior to installation. For future versions of the program, the IESO will consider alternative approaches which balance the objective of keeping the program simple for participants while also improving realization rates.
3.	Small Business Lighting Program	<b>SBL Assessment Tool (Reported Demand Savings).</b> The SBL Program reported demand savings reflect a change in connected load and are not adjusted for peak coincidence. IESO requires reporting net verified savings based on the summer peak demand definition. This discrepancy is the main contributor to the SBL program peak demand definition.	The SBL Assessment Tool collects actual hours of operation data for each assessed facility. The evaluator recommends utilizing this data to calculate the corresponding portion of the change in the connected load that occurred during the peak window, or the peak coincidence factor (CF) of each project. This would help to correctly report summer peak demand savings. Alternatively, if there is a need to maintain the current Assessment Tool design, the evaluator recommends using a predefined peak coincidence factor (CF) based on 8760 load shapes available in IESO’s Measures and Assumptions List (MAL) and libraries.	High	The IESO has updated its reporting processes to calculate the peak demand savings based on the actual hours of operation collected from the Assessment Tool.

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4. Small Business Lighting Program	<p><b>SBL Reporting and Tracking (Measure-Level Cost).</b> The SBL Program reporting database is structured into two sets of data; one for projects' high level information such as address, contact information and business type, and the other set is for measures' information which details key aspects of the individual measures included within each project, such as quantity and type of equipment installed. Currently, cost data are reported on the project level, and no measure-level information is available. During PY2019 evaluation cycle, both cost and incentive data were reported at the project level. Incentive data is now reported at the measure level.</p>	<p>Along with measure-specific energy and demand savings, and incentive data, the evaluator recommends reporting separate forcast values for each measure, as opposed to reporting project-level cost. Having access to such information will increase the evaluator's visibility into the program's performance, and allow the evaluator to run various analyses regarding the cost effectiveness and performance of each implemented measure type.</p>	Medium	<p>The IESO will consider strategies to obtain more granular reporting on measure costs details in future versions of the program.</p>
5. Small Business Lighting Program	<p><b>Project claimed incentives below program incentive cap.</b> The evaluation analysis determines that 82% of the 2020 SBL participants did not exceed the maximum incentive, nor did they implement any measures beyond the cap. The average project incentive was \$1,552. This finding is consistent with what was observed for PY2019, where the average claimed incentive was \$1,401, and 72% of the 2019 participants did not reach the incentive cap.</p>	<p>These observations indicate that there may be room for more opportunities/savings from SBL participants. It is recommended to consider expanding the SBL eligible measures list, to ensure participants have sufficient measures to choose from to maximise their benefit, and program savings.</p>	Medium	<p>The IESO will continue to identify cost-effective opportunities to expand the list of eligible measures under the program and identify opportunities for businesses to maximize their savings and participation under the program. New non-lighting measures are planned to be included in a future version of the program.</p>

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6.	Small Business Lighting Program	<b>The implementation cost per kWh varies drastically, with an average of \$0.3/kWh.</b> Depending on the facility type, the installation cost per kWh of net verified energy savings for the program ranged from \$0.08 to \$0.44. The high cost resulted from installing more Linear LED Tubes, while the lower cost was attributed to installing a higher quantity of Screw-in fixtures. For instance, offices and warehouses, which had an average cost of \$0.42/kWh, had 73% and 48% of their energy savings produced by Linear T8 LED Tubes, respectively. In contrast, both hotel/motel and agricultural facilities, which had an average cost of \$0.11/kWh, had 68% and 56% of their energy savings achieved from A-lamps replacements, respectively.	To maximize the cost effectiveness of the program, consider focusing on reaching out to facilities that tend to install more screw-in fixtures than linear tubes, such as hotel/motels and agricultural facilities. For more details and a full list of implementation cost per facility type, please refer to section 3.3.2 of the 2020 SBL evaluation report.	Medium	The IESO will continue to evaluate and update the program offerings and outreach tactics to maximize program cost-effectiveness.

## Net-to-Gross and Process Evaluation

No.	PROGRAM	KEY FINDINGS	2020 EM&V RECOMMENDATIONS	IMPACTS	IESO RESPONSES
1.	Small Business Lighting Program	<b>Program free-ridership (FR) was low in 2020, relative to historical results, at 5.6%.</b> The program's NTG was high at 99.1%, with a correspondingly low FR score at 5.6%. More than two-fifths (46%) of participants were not planning on upgrading their lighting prior to learning about the program. Of those already planning on upgrading their lighting, almost two-fifths (39%) would have waited at least one year, and almost one-third (32%) would have installed less expensive or less efficient lighting without the program. More than one-tenth (14%) would have installed the same lighting equipment and paid the full cost themselves, which is indicative of some level of FR. The low FR indicates the program is mainly reaching the participants who would not have made lighting upgrades without the program.	Maintain focus on minimizing FR. Key areas of focus include: <ul style="list-style-type: none"> <li>identifying and targeting customers who would be unlikely to make upgrades without program support,</li> <li>screening customers to ensure they have not already begun implementing measures, and</li> <li>encouraging all participants to complete the evaluation surveys to ensure that the FR results are as representative of the true population of program participants as possible.</li> </ul>	High	The IESO will continue to identify and support businesses and projects that require the program to proceed with implementing energy-efficient measures. The IESO has instructed its program delivery vendor to specifically target independently-owned small businesses through outreach efforts.

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2.	Small Business Lighting Program	<p><b>Many participants who were recommended additional lighting upgrades beyond the program upgrades made those upgrades.</b> Nearly three-fourths (74%) of participants who were recommended additional lighting upgrades installed them. However, some participants who wanted the additional lighting upgrades installed at the same time as the program upgrade installation stated this was not possible because the installer did not have the available equipment.</p>	<p>Assist participants who are interested in installing additional lighting upgrades beyond those covered by the SBL program by consulting with customers and installers regarding the potential of having those upgrades completed concurrently with the SBL program-qualified upgrades.</p>	Medium	<p>The IESO will continue to work with its program delivery vendors to ensure installations are completed effectively and with the right supply of eligible measures.</p>
3.	Small Business Lighting Program	<p><b>Expanding the scope of lighting offerings was the most common improvement suggestion mentioned by assessors and installers.</b> Assessors and installers were least satisfied with the number and types of equipment incentivized (53% satisfied or very satisfied). Additionally, the most commonly cited area of program improvement was expanding the scope of lighting offerings. Assessors and installers highlighted the need for outdoor lighting and signage offerings, particularly wallpacks, floodlights, and poles. Some assessors and installers also specifically mentioned the addition of 8-foot T8 lamps.</p>	<p>Explore the feasibility of including more program lighting products (for example, outdoor lighting and signage offerings, 8-foot T-8 lamps).</p>	Medium	<p>The IESO will continue to evaluate and update the program offerings to include measures that deliver cost-effective savings and support the needs of small businesses. Eligible businesses will be encouraged to participate in other Save on Energy programs that offer additional measures and opportunities.</p>

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4.	Small Business Lighting Program	<b>Participant satisfaction with the program and its processes was high overall, but there is room for program improvement.</b> The majority of participants had no suggestions for improving the initial site assessment (82%), the installer visit(s) (74%), or the overall installation process (90%), which suggests a high level of satisfaction with the program. One-tenth (11%) of participants reported disruptions to their business due to program upgrades. Of those with suggestions for improvements, the most common were to, reduce the time it takes to complete the assessor and installer visits, improve the assessor or installer's professionalism (such as being more transparent about work performed and improving responsiveness to questions), and provide more flexibility in scheduling the visits.	The following are recommended: Reduce the time it takes to complete the assessment and installer visits. Identify areas where additional program support or resources could allow the assessors/installers to complete this task more promptly. Continue to provide additional training to assessors and installers to ensure professionalism during assessments and installer visits. Provide more flexibility in scheduling the visits (for example, coordinating with participants to identify suitable times for the visit and providing accurate arrival windows).	Medium	Supporting businesses and providing high customer satisfaction are essential and additional precautions have been implemented to support businesses during the COVID-19 health emergency. Methods to improve customer satisfaction, including increasing scheduling flexibility, professionalism, and installation time will all be considered through future versions of the program. The IESO will continue to administer customer satisfaction surveys for the program to monitor program performance and to measure the impact and opportunities to improve customer experience.
5.	Small Business Lighting Program	<b>Additional cross-program promotion opportunities exist.</b> Less than one in ten (8%) of SBL participants had also participated in the Retrofit program in 2020, and approximately one in fifty (2%) participated in the Refrigeration Efficiency Program (REP).	Continue to identify cross-program promotion opportunities, which can be achieved through two means. Firstly, promoting other program opportunities to all participating SBL customers at both the start and end of the participation process. Secondly, ensuring that participating SBL customers are aware of the other program opportunities designed with their business segment in mind.	Medium	Cross-program opportunities will continue to be employed to support businesses. A network has been established between the IESO's delivery vendors for the Small Business Lighting program and Retrofit programs to share qualified leads for the respective programs.
6.	Small Business Lighting Program	<b>Opportunities exist to expand program marketing.</b> Assessors and installers emphasized the importance of promoting the program more to potential customers. Respondents cited different modes of communication to promote the program, including social media, bill inserts, and online.	Increase marketing efforts across different platforms (e.g., social media, online, and through community groups such as small business associations).	Medium	The IESO will continue to work with its program delivery vendors to increase program awareness by implementing online marketing initiatives and by reaching out to industry associations.