

2019 Interim Framework (IF) Retrofit Program

EM&V Key Findings and Recommendations

No.	PROGRAM	KEY FINDINGS	2019 EM&V RECOMMENDATIONS	IMPACT	IESO RESPONSE
1.	Retrofit Program	Low uptake of prescriptive non-lighting projects. Prescriptive non-lighting projects account for only 3% of overall program population.	Increase promotion or incentive level to help improve Prescriptive non-lighting measures uptake.	High	The IESO is considering strategies to increase the volume of non-lighting projects influenced through the Retrofit program, including changes to incentive levels and the addition of new measures.
2.	Retrofit Program	Discrepancy between reported and verified lamp wattages. Based on sampled projects, the assumed base case and retrofit case wattages for Omni-directional A-shape lamps were found to be inconsistent with verified base case and retrofit case wattages. Review of 5 evaluated prescriptive lighting projects with Omni-directional A-shape lamps provided weighted average of 0.014 kW base case and 0.003 kW Retrofit case, which is much higher than the program assumed average of 0.006 kW and 0.002 kW for base case and retrofit case.	Review and adjust the base case and retrofit case wattage assumptions applied to Omni-directional A-shape lamps. Updated savings assumptions may help to support a business case for increased incentive rates which may result in greater uptake.	Medium	The deemed base case and retrofit case wattages for Omni-directional A-shape lamps will be reviewed for future versions of the program.
3.	Retrofit Program	Discrepancy between reported and verified lamp base case wattages. Based on sampled projects, the assumed base case wattage for LED troffers was found to be inconsistent with verified base case wattage. Review of 12 evaluated prescriptive lighting projects with 26 LED troffers provided weighted average of 0.115 kW base case which is much higher than the program assumed average of 0.087 kW base case. This inconsistency was observed in 2' x 4' LED troffer more than any other LED troffer type.	Review and adjust the base case wattage assumptions applied to LED troffers. Updated savings assumptions may help to support a business case for increased incentive rates which may result in greater uptake.	High	The deemed base case wattage for LED troffers will be reviewed for future versions of the Retrofit program.

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4.	Retrofit Program	<p>Program free-ridership (FR) was moderately high in PY2019. The program's net-to-gross (NTG) was high in PY2019 (91.6%). However, FR was also moderately high (28.7%). The program's spillover (SO) at 20.3% helped offset the FR which led to a strong NTG. Nearly two-thirds (61%) of participants said they would not have completed an upgrade, would have postponed it, or would have completed scaled-back version of it in the absence of the program, but the remaining one-third (32%) would have done the same upgrade anyway, suggesting that there is still room for FR to continue improving in future program years.</p>	<p>Maintain focus on minimizing High FR. Key areas of focus include: (1) identifying and targeting customers who would not make upgrades without program support; and (2) screening applications for customers who have not already begun implementing measures.</p>	High	<p>Currently, part of the technical review process is determining if the project was started prior to the application submission. Also, applicants are required to disclose details of any other funding they receive for their projects. The IESO will continue to review and adapt its processes to minimize free-ridership.</p>
5.	Retrofit Program	<p>Opportunities exist to improve the overall application process. The most common suggestions for improving the application process were shared by participants, applicant representatives, and contractors: streamlining the process by reducing the number of application steps or avoiding repetitive application steps (9 participants and 14 applicant representatives and contractors), clarifying what information is needed (5 participants, 14 applicant representatives and contractors), and minimizing the time needed to complete the application (6 participants).</p>	<p>Identify ways to simplify the application process to improve the program experience for both the participants and those who support the program's delivery. Consider reducing the number of application steps, avoiding repetitive steps, clarifying information needs, and minimizing the time needed to complete the application process.</p>	High	<p>The IESO has published documents which detail the information needed to submit complete applications to reduce the volume of information requests. Additionally, the IESO has hosted webinars to provide training to the market and has implemented improvements to the online Retrofit Portal for application submissions and has also launched a Fast Track process to streamline the review for prescriptive applications with incentives less than \$6,000. The IESO will continue to investigate additional changes to simplify the program experience for the market.</p>
6.	Retrofit Program	<p>The new Application Portal presented challenges to some users. One in four participants (22%) said they had some issues with the Retrofit Application Portal. Of the participants with issues, more than one-half mentioned issues uploading documents and/or malfunctioning components of the website as the main issues. Common issues mentioned by applicant representatives and contractors were that it was difficult to register customers and that there was slow customer support for the portal.</p>	<p>Continue to enhance the Application Portal and its customer support to meet the needs of its various users as the program evolves.</p>	High	<p>The IESO has implemented various enhancements to the portal, based on feedback received, and a ticket management system has been implemented to improve the process of resolving issues with the portal.</p>

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7.	Retrofit Program	<p>Discrepancy between reported and verified hours of use. Assumed hours of use (HOU) for the following measures were found to be inconsistent with verified HOU:</p> <ol style="list-style-type: none"> Review of 9 evaluated prescriptive lighting projects with LED tube re-lamping provided a weighted average of 2969 hours per year of lighting operation which is lower than the program assumed HOU of 3759 hours per year. Review of 7 evaluated prescriptive lighting projects containing LED High Bay fixtures provided a weighted average of 2764 hours per year of lighting operation, which is lower than the program assumed HOU of 3308. 	<p>Review the HOU input assumptions applied to LED tube re-lamping and LED High Bay fixtures to determine if they are consistent with lamp operation in the field.</p>	Medium	<p>The IESO will review the hours of use assumptions applied to LED tube re-lamping and LED High Bay fixtures projects to determine if any adjustments need to be made.</p>
8.	Retrofit Program	<p>A desire for additional training exists among applicant representatives and contractors. The most-requested training and education topics mentioned were program and application rules (35%), program offerings (26%), marketing techniques (22%), and how to receive support when they or a customer are applying (17%).</p>	<p>Offer additional training opportunities on topics that will provide the applicant representatives and contractors with the knowledge they need to effectively support the program.</p>	Medium	<p>The IESO has offered training webinars on the Retrofit Portal, the application submission process, the development of measurement and verification plans and has also published frequently asked questions (FAQs) and other guides to support the market with participation in the program.</p> <p>The IESO will continue to listen to the feedback received on the program and will adapt its training offerings and program materials, as needed.</p>
9.	Retrofit Program	<p>Satisfaction with the program communications is good but room for improvement exists. Over three-fifths (65%) of participants were satisfied or completely satisfied with the Retrofit program communications they received from the IESO. However, only two-fifths of surveyed applicant representatives and contractors (44%) gave their communications with IESO a positive rating, which suggests there is some room to improve. Common suggestions included improving the quality and consistency of technical advice and improving the timeliness of customer support.</p>	<p>Improve IESO communications with program participants and program partners with a focus on improving the quality and consistency of technical advice and improving the timeliness of customer support.</p>	Medium	<p>The IESO has implemented a centralized support function to answer any questions that current or potential applicants have with the program. There are also regional program delivery vendors to provide more hands on support with opportunity identification and application approval. The IESO also utilizes newsletters, social media and the Save on Energy website to provide broad program updates.</p> <p>The IESO will continue to listen to feedback received from the market and adapt its communication approach as needed.</p>

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10. Retrofit Program	<p>Additional cross-program promotion opportunities exist. Given that over one-half (51%) of respondents had not applied to any other energy-efficiency programs in PY2019 besides the Retrofit program, opportunities exist to further promote the Save on Energy programs to Retrofit customers.</p>	<p>Continue to identify cross-program promotion opportunities by 1) promoting other program opportunities to all participating Retrofit customers at both the start and end of the participation process, and 2) ensuring that participating customers in particular segments, such as small businesses, are aware of the other program opportunities that are designed with them in mind.</p>	Medium	<p>The IESO recently posted a Retrofit/Process and Systems Upgrade (PSU) comparison chart to communicate the benefits of those two programs so participants could determine which one suits best.</p> <p>The IESO will continue to work with its vendors to identify opportunities for cross promotion of programs based on customer and project types identified.</p>
11. Retrofit Program	<p>Measuring Job Impacts. Distinguishing between labour and non-labour project costs is important for measuring job impacts. In particular, it allows the model to make a distinction between direct and indirect impacts due to demand from energy efficient products and services. Obtaining data on labour versus non-labour project costs is tedious and time consuming for the Retrofit Program with the current set of project data. Some invoices have the cost breakout and some do not.</p>	<p>Request contractors to break out labour versus non-labour on project invoices. This would allow for streamlined data collection and an accurate breakout for all projects.</p>	Low	<p>The IESO strives to balance the level of detail requested by applicants with customer experience, The IESO will review opportunities to collect this level of information through the application process in future versions of the program.</p>