

**Energy Trust Small Business Energy
Savings (SBES) Initiative
2015 Process Evaluation Report
Final**

Prepared by
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Executive Summary

This report presents the results of the process evaluation of Energy Trust of Oregon's Small Business Energy Savings (SBES) initiative through 2015. Small Business Energy Savings is a component of the Existing Buildings (EB) program that offers turnkey lighting and lighting controls installation in small businesses, and in 2015 covered up to 80% of the project costs. SBES is delivered by SmartWatt, a subcontractor to EB Program Management Contractor (PMC) ICF. Financing to cover the remaining portion of project cost is offered at 0% interest for 12 months, so that there is potentially no out-of-pocket cost to the customer. Participants receive a 5% discount if they pay cash rather than finance the installation.

SBES is meant for small customers who have not typically been targeted by the EB program trade ally network. The SBES initiative's performance for calendar year 2015 as presented in the PMC's annual report to Energy Trust is summarized in Exhibit ES-1.

Exhibit ES-1 – 2015 Audits, Projects and Savings

	PGE	Pacific Power	Total
# Audits Completed	356	250	606
# Projects Installed	208	153	361
Installed kWh Savings	2,626,525	1,670,776	4,297,301
Installed Program Cost/kWh	\$0.43	\$0.38	\$0.41

The goal of this process evaluation was to obtain feedback on the current initiative design and delivery that can be used to enhance the future implementation of the initiative. Evaluation activities included a combination of secondary data and program document review and primary data collection, including interviews with program staff, the PMC and its subcontractor, installation contractors, 36 SBES participants and 10 customers who received audits but did not install new lighting.

Key findings reported in this report as drawn from these data collection and analysis activities are summarized below.

Conclusions

- The SBES initiative exceeded its 2015 savings goals for both PGE and Pacific Power service territories, reaching small business customers outside the geographic area traditionally served by Energy Trust trade allies.
- Savings come from a diverse mix of business types, with offices, retail, and auto repair facilities together accounting for 60% of projects and over half of kWh savings.

- T8 fluorescents accounted for more than half of savings for all of 2015, but their share of savings was sharply reduced by new program requirements, so that LEDs accounted for the majority of savings in the last three months of 2015 and will likely continue to do so.
- Both utilities help generate leads for SBES, and the volume of leads and referrals has been sufficient to enable SmartWatt to maintain a steady flow of audits and installations. In addition, cold calls by SmartWatt, referrals and other sources account for up to half the audits conducted.
- Staff from Energy Trust, the PMC, SmartWatt and the utilities agree that communications regarding SBES are effective and that the program is being delivered according to plan. The utilities would like to have more detailed information on which specific customers have received audits and accepted proposals.
- Almost all audits result in a proposal, and about 70% of proposals are accepted. While this is high relative to other programs, it may be possible to increase this percentage of proposals accepted by more extensive pre-screening, but the audits themselves appear to have a positive impact on customer awareness of and receptivity to energy efficiency improvements.
- In at least one instance, a customer who had previously received a bid from an Energy Trust trade ally accepted the lower cost (to them) SmartWatt proposal, which led to that trade ally complaining to ICF, Energy Trust and regulators. The complaint was resolved, and SmartWatt has said that their auditor will ask customers if they have an existing relationship with a lighting contractor before conducting an audit and preparing a proposal.
- The assumption that only customers who are “below the radar” for Energy Trust’s trade allies would participate in SBES appears to be mistaken. Over half of the participants interviewed had previously received proposals from a lighting contractor. These previously contacted participants tended to be larger, with an average incentive received that was more than twice as high as the incentive received by participants who had not previously considered a lighting retrofit. The average installed value of the projects completed by those previously contacted would have been roughly \$12,000, which appears to have been sufficient to attract the interest of contractors.
- A review of project data for 2015 also shows 42 projects receiving incentives over \$10,000, including 6 receiving incentives over \$20,000, again indicating projects large enough to interest contractors through the regular EB program, although none of those had previously resulted in a sale.
- The criteria for determining whether a customer qualifies for SBES can be vague. The Energy Trust measure approval document for direct install mentioned that these measures

are “most applicable to commercial buildings less than 25,000 square feet” while the program description Energy Trust presented to utilities said that “most businesses under 10,000 sf will be eligible,” but neither states a specific eligibility criterion (although the PMC provides guidance on approved square footage for various building types). The utilities are using their general commercial rate class when identifying leads for SmartWatt, and SmartWatt has no easy eligibility criterion to use when qualifying a location for an audit, other than the determination that the customer is clearly too large, is already working with a contractor or would be considered “multifamily”, “industrial or agricultural” under Energy Trust rules. There are relatively few site visits where SmartWatt declines to do an audit because a previous relationship with a contractor exists, since the auditor must rely on the customer’s statement that they are not already working with a contractor.

- Average customer size for SBES participants is in line with goals, but the general trend toward a smaller average size for efficiency projects in existing buildings as fewer large-scale opportunities remain untapped will increase the potential for conflicts between trade allies and the more generous SBES direct install incentives.
- SBES participant satisfaction is high. All 36 survey respondents used a rating of 5 to indicate their satisfaction with how long it took to receive the audit results, and 100% of respondents gave ratings of 4 or 5 for their satisfaction with the lighting proposed and installed and the amount they had to pay for the lighting project. Similarly, more than 90% of respondents offered ratings of 4 or 5 for how long it took to schedule the installation, the installation contractor and the SBES offering overall.
- While several respondents recognized that their usage had gone up and down for reasons unrelated to the retrofit, some complained that their electricity bill had increased, and it is not clear that all participants understood the potential savings from their lighting retrofit in the context of their overall usage.
- One goal of SBES is to alert audit participants to non-lighting efficiency opportunities in their buildings, but only seven participants recalled the lighting auditor pointing out such saving opportunities. On the other hand, 62% of participants said they were more likely to install other energy efficiency measures, and none said they were less likely after participating in SBES. We were unable to find SBES participants in the Energy Trust tracking data who had subsequently participated in the regular EB program, but this may be because not enough time had elapsed.
- Despite their involvement with SBES, most participants do not seem knowledgeable about how to pursue efficiency opportunities. The percentage of survey respondents expressing concerns or asking to be contacted by Energy Trust, the PMC or SmartWatt

was higher than for most surveys we have fielded previously, indicating that more follow-up is required with these customers.

- Half of surveyed participants (18 of 36) said they consider Energy Trust primarily responsible for covering up to 80% of the cost of their SBES project, while one-sixth (6 respondents) attribute the initiative to the utilities and one-sixth credited SmartWatt. Three respondents said they did not know or could not distinguish between the roles of SmartWatt, the utilities and Energy Trust, while three offered other responses (all three of those, utility customers, state tax credits).
- Customers who received an audit but did not accept the resulting proposal were still satisfied with the audit process. When asked why they chose not to accept the lighting proposal, three of ten survey respondents mentioned cost, but it does not appear that cost alone was the reason for failure to follow through on the proposed project, with other respondents mentioning the building being for sale and “other priorities.”
- The contractor engaged by SmartWatt for most of the installations through SBES was highly satisfied with SBES and SmartWatt. A second contractor who provided installation services for a short time was not satisfied, perhaps because of a previous issue with a customer accepting the SBES proposal rather than one offered by this contractor.

Recommendations

Based on the conclusions summarized above and other findings throughout the report, the following recommendations are designed to help ensure that SBES efforts remain on track and are targeted to those customers who truly would be least likely to be reached by the existing Energy Trust Trade Ally Network through the Existing Buildings program.

- Energy Trust should continue the SBES offering as an effective means of reaching out to small customers who are not served by the existing trade ally network.
- Utility outreach efforts and utility-provided contact information have been valuable sources of leads for SmartWatt and SBES, and utilities are pleased to have this offering available for their customers. To the extent possible, utilities should be supported in their efforts to access Energy Trust data to determine which specific customers have participated in the areas targeted by SBES.
- The more widespread and longer lasting the availability of SBES, the more likely that there will be conflicts with trade allies, especially in light of findings that many customers have been previously contacted. While, on average, SBES is reaching the targeted customer population, more explicit criteria determining whether a customer qualifies for SBES would help alleviate or avoid conflict with trade allies by enabling Energy Trust to state clearly which customers are and are not eligible.

- The fact that a building would be considered “industrial” simply because a very modest level of production is being done in what is otherwise a commercial space should not disqualify a customer from participating in SBES.
- While SBES direct install appears to be the only way to encourage the smallest projects, it may be possible to create a structure of tiered incentives that are greater than the standard lighting incentives but less than the amount provided through SBES to assist trade allies in encouraging customers to implement more substantial projects, such as those valued in the \$8-12,000 range or higher. There would have to be requirements to ensure that projects covered by such incentives would in fact be whole-facility retrofits, but it should be feasible to develop program guidelines that support a primary role for trade allies while still providing support to the smallest customers.
- SmartWatt auditors point out the effect of non-lighting usage and seasonal variation on the overall bill, but it appears that not all participants fully understand that linkage. It may be appropriate to use a leave-behind information piece to remind customers of the seasonality of electric usage and encourage them to pursue energy efficiency options for non-lighting end uses, as well as behavioral and operational changes to manage usage.
- This same leave-behind piece should include contact information encouraging the customer to follow up with the EB program.
- In addition, all participants should receive a follow up phone call and/or email from a representative of the EB program to ask whether the customer has any questions about or interest in non-lighting efficiency options and to go over the “Other Opportunities” checklist left by the auditor. And of course, any follow up inquiries from customers should be acknowledged and responded to promptly.

MEMO



Date: July 7, 2016
To: Board of Directors
From: Spencer Moersfelder, Planning Manager
Sarah Castor, Evaluation Sr. Project Manager
Subject: Staff response to the Small Business Energy Savings process evaluation

This is the first evaluation of the Small Business Energy Savings (SBES) offerings through the Existing Buildings program. The effort rolled out at the end of 2014 and featured lighting offerings through the end of 2015 with a high portion of the overall project cost covered by incentives. The offering was augmented by 0% financing or a 5% discount for customers that paid in full on project completion. The evaluation found that SBES has been an effective means of serving small businesses outside the Portland Metro area, a set of customers that has traditionally been more difficult to reach than large or urban businesses. SBES has met the savings and incentive goals set out by Energy Trust, while achieving high customer satisfaction.

The Existing Buildings program will continue to offer SBES to customers, working with Portland General Electric and Pacific Power via their respective outreach capacities to identify areas for targeting. The utilities have been very receptive to the offerings and have enthusiastically promoted it to customers, resulting in many project leads for the program. In February, the program held a training for utility outreach staff on lighting offers and which customers should be connected with SBES versus a lighting trade ally who could provide standard lighting incentives. The program is now also performing post-installation verification visits on a sample of SBES projects, which provides the opportunity to follow-up with customers to ensure their satisfaction with the project and discuss additional energy efficiency opportunities, if needed.

The evaluation found that some customers may not be aware of the seasonal nature of lighting energy use and savings. Going forward, program staff plan to explore the potential for including more information about this topic in the proposal materials that customers receive. Also, since the evaluation, the program has added a steam trap measure for dry cleaners and laundry facilities to the offering. The program will explore opportunities to add additional measures, including more gas measures, through SBES.

Energy Trust is aware that offering measures through SBES compared to offering the same measures through a lighting trade ally channel requires communication and coordination, and can present challenges. Energy Trust is balancing the need to reach a group of customers that the program has not influenced since the program began in 2003 with the need to maintain a good working relationship with trade allies and

continued savings through that channel. The program will continue to monitor this dynamic and will make adjustments as necessary in order to achieve the best balance possible.

1. Introduction

This report presents the results of the process evaluation of Energy Trust of Oregon's Small Business Energy Savings (SBES) initiative through 2015. Small Business Energy Savings is a component of the Existing Buildings (EB) program that offers turnkey lighting and lighting controls installation in small businesses, and in 2015 covered up to 80% of the equipment and installation costs. The objective of SBES is to replace inefficient lighting with efficient fixtures and lamps. Lighting controls are also included in the list of eligible measures for the initiative. A secondary objective is to encourage participation among small businesses in non-Portland Metro areas that generally have not participated in the EB program in large numbers; in fact, specific regions and zip codes are targeted to ensure that resources can be most effectively deployed.

SBES is delivered by SmartWatt, a subcontractor to EB Program Management Contractor (PMC) ICF. In addition to lighting upgrades, services include an inventory of all lighting and controls at the site and identification of non-lighting energy savings opportunities. Financing to cover the remaining portion of project cost is offered at 0% interest for 12 months, so that there is potentially no out-of-pocket cost to the customer. Participants receive a 5% discount if they pay cash rather than finance the installation.

SBES is meant for small customers who have not typically been targeted by the EB program trade ally network. While program marketing materials only state that eligibility is limited to "existing commercial customers that have a project site in Oregon," the program targets small commercial customers, typically in buildings less than 40,000 square feet. Only commercial customers are eligible; neither multifamily residential nor industrial facilities qualify.

The goal of this process evaluation is to obtain feedback on the current initiative design and delivery that can be used to enhance the future implementation of the initiative. The evaluation addresses the following questions:

- What successes has SmartWatt experienced in implementing the initiative? What challenges has SmartWatt encountered, and how have they addressed these challenges?
- What strategies has SmartWatt been using to recruit customers? Is the program recruiting the types of customers it expected to recruit?
- How is participant eligibility being determined, by SmartWatt and by utility marketing outreach staff?
- Have the marketing materials been useful in recruiting customers? How could the materials be improved?
- What types of businesses are participating in Small Business Energy Savings? What types are less likely to have participated, and why?
- Which measures are most commonly installed? Which are least often installed?

- What other measures are commonly documented on the opportunity checklist? Are participating customers going on to install these measures or participate in other Energy Trust programs?
- How many participants are taking the no-interest financing option vs. paying in cash? How satisfied are participants with the payment options?
- Are participants satisfied with the new lighting measures and controls? Have they experienced energy savings?
- How satisfied are participants with the overall program experience? How could the customer experience be improved?
- How effective has the communication and reporting been between SmartWatt, ICF and Energy Trust? How could it be improved?
- How is coordination working between ICF/Energy Trust and utility marketing outreach staff?
- Has SmartWatt been able to successfully identify and contract with Energy Trust trade allies as installation contractors? Are there any additional opportunities or barriers associated with this objective?

An additional issue identified during the kickoff meeting and addressed by the evaluation was the effect of SBES on Energy Trust's network of trade allies.

2. Evaluation Methodology

To address the above goals, the evaluation team relied on secondary data, program document review and in-person and telephone interviews with program staff. Each of these data sources is discussed below.

2.1 -- Document Review and Secondary Data

Review and analysis of SBES program data and documents helped provide an understanding of how the initiative was implemented in 2015 and supported the analysis of participation by business type and measure. Secondary data sources included:

- Participant tracking data
- Monthly reports, 2014 Energy Trust Annual Report and 2015 PMC report to Energy Trust
- Program materials, including email blasts and marketing materials
- SmartWatt subcontract
- PMC 2015 Marketing Plan

2.2 -- Primary Data

Primary data collection comprised in-person and telephone interviews.

Staff interviews

Interviews were conducted with eight Energy Trust, ICF and SmartWatt staff. These interviews were used both to get a detailed view of current SBES procedures and activities, and also to identify issues that we subsequently explored through other data collection activities.

Utility interviews

Interviews were conducted with representatives from Portland General Electric (PGE) and Pacific Power. The two electric utilities actively promote the SBES initiative and provide leads to the SmartWatt staff, so we wanted to get input from the utilities on their perceptions regarding the effectiveness of the outreach effort and SBES overall.

Installation Contractor Interviews

For the direct installation of lighting through SBES, SmartWatt initially engaged one installation contractor, then added a second one for a relatively short time – about two months. A complete

interview was conducted with the primary installation contractor, and a brief conversation was held with the second contractor, who declined a more extensive interview.

Participant interviews

To gather data on satisfaction from projects that participated in SBES in 2015, we surveyed 36 participants regarding their experience with the program, as shown in Exhibit 2-1.

Exhibit 2- 1 –Completed Surveys, by Utility Territory

Utility	Completes
PGE	21
Pacific Power	15
Total	36

Non-Participant interviews

In light of the generous incentives offered for lighting projects through the SBES initiative, we wanted to understand why some customers who received audits and lighting retrofit proposals chose not to follow through with the proposed projects. SmartWatt had contact information on all customers who had received audits, and was able to provide us with names and phone numbers for a sample so that we could ask them why they chose not to proceed. We completed surveys with 10 of these non-participants: 5 each in PGE and Pacific Power territory.

We had hoped to survey some customers who declined even to have a lighting audit. However, we found that SmartWatt did not collect names or contact information for these sites; they had initially done so but found it was too time consuming in light of the limited value provided by this information, although they continue to track the addresses visited. Some anecdotal observations regarding the reasons for customers not participating were offered by SmartWatt staff, and are reported in the non-participant results section.

3. Results

3.1 – SBES History and Current Status

SBES launched in late 2014, but had only minimal participation that year as initial marketing was done and procedures were put in place. A significant change during 2015 was a change in eligible measures and a reduction in the respective estimated savings in response to November 2014 changes in the Federal ballast standard. Following a transition period during which Energy Trust was still able to claim savings, SBES offerings were revised in August 2015, which had the effect of eliminating some measures – notably T12 to T8 fluorescent retrofits – because they were no longer cost effective.

3.2 – Program Marketing and Delivery

As noted above, SBES is delivered by SmartWatt, a subcontractor to EB Program Management Contractor (PMC) ICF. The delivery process can be summarized as follows:

- Energy Trust, with input from the two electric utilities – PGE and Pacific Power -- decides on areas to be targeted in the next several months, and comes up with a list of zip codes identifying those regions.
- The utilities identify eligible customers in those zip codes and initiate marketing outreach to them. Interested customers are either directed to request more information from the utility, which qualifies the lead before forwarding on to SmartWatt, or they are directed by the marketing materials to call SmartWatt directly.
- SmartWatt calls or visits the leads generated by the utility marketing effort. At the same time, they will typically “cold call” other customers on the same block or in the same shopping center/business park. On average, SmartWatt representatives say, slightly over half the audits performed are with customers who have been referred by the utilities; the rest are primarily the result of visits to other businesses in the same areas or referrals from friends or colleagues.
- For interested customers, SmartWatt conducts a lighting audit and generates a proposal with recommended lighting upgrades and associated delivery/technical costs, up to 80% of which was covered by incentives from the SBES initiative in 2015. The auditor also points out other, non-lighting, energy savings opportunities.
- Customers decide to accept or reject the proposal and, if they accept, choose whether they want to finance their share of the cost at 0% interest over 12 months or pay cash and receive a 5% discount.
- For customers who accept the proposal, an installation date is scheduled. A wholesaler under contract to SmartWatt delivers the required materials to the customer site a day before the agreed-upon install date, when the SBES contractor installs the specified equipment.

Staff interviewed at Energy Trust, ICF, the utilities and SmartWatt all indicated that this process is generally working smoothly. The utilities are very pleased to have an offering for their small business customers, and feel that the marketing and lead development effort has been effective.

One change worth noting has been implemented in program delivery since the 2015 period covered by this evaluation. Beginning in 2016, the incentive offering has been adjusted so that marketing efforts can no longer say that “incentives cover up to 80% of total eligible project cost.” This is because the total project cost that was being presented to 2015 participants also included SmartWatt overhead, and the incentive covered all that overhead as well as part of the equipment and installation cost. As a result, a SmartWatt proposal compared side-by-side with a regular trade ally proposal appeared to have both a higher project cost and a higher incentive, which led to complaints from some trade allies. The 2016 project proposals to customers include equipment and equipment installation costs only -- not SmartWatt overhead. While the net price the customer pays is the same, the incentives are always less than 80% of the total project cost quoted to the customer and are typically about 60% of the cost.

There have been some issues with utilities sending leads that turn out to be engaged in manufacturing, even on a small scale, which causes them to be classified as industrial rather than commercial and disqualifies them from SBES. The PMC and Energy Trust have been working with the utilities to clarify those regulations, including recent training provided to utility representatives to cover the criteria for SBES in the context of the full range of Energy Trust offerings. However, size-based criteria are more difficult to define and apply, since there is no hard cut-off for commercial facilities that are excluded, unless they are chain accounts with 10 or more facilities.

3.3 – 2015 Participation and Savings

The SBES initiative’s performance for calendar year 2015 as presented in the PMC’s annual report to Energy Trust is summarized in Exhibit 3-1. In all, SmartWatt completed 606 audits and installed 361 lighting retrofits in 2015, generating 4.3 million kWh of savings for incentives totaling \$1.76 million. Average cost per kWh was \$0.41 overall, with an average incentive of \$4,892 across all projects. Project size and incentive were higher for PGE customers than for those of Pacific Power, but average cost per kWh was also higher for PGE.

Exhibit 3-1 – 2015 Audits, Projects and Savings

	PGE	Pacific Power	Total
# Audits Completed	356	250	606
# Projects Installed	208	153	361
Installed kWh Savings	2,626,525	1,670,776	4,297,301
Installed Incentive (\$)	\$1,125,125	\$640,815	\$1,765,939
Installed Program Cost/kWh	\$0.43	\$0.38	\$0.41
Average Project Size (kWh)	12,692	10,870	11,904
Average Project Incentive	\$5,500	\$4,154	\$4,892

The disparity between the numbers of audits completed and number of projects installed in the table above is the result of: a) the lag between the time the audit is conducted, the offer is received and accepted, and the installation is completed; and b) the fact that not all proposals are accepted. While almost all audits result in a proposal, about 70% of proposals are accepted, reflecting that it is difficult for some customers to move forward with implementation even though a large percentage of the cost is covered by the incentive. Reasons for some customers rejecting proposals are discussed in section 3.5 below.

Savings for 2015 relative to goals are presented in Exhibit 3-2, which shows that the program achieved 102% of its overall kWh goal with slightly less than its targeted budget. Savings exceeded goals for both PGE and Pacific Power.

Exhibit 3-2 – 2015 Goals and Savings

	PGE	Pacific Power	Total
Minimum Incentive Budget	\$1,124,643	\$650,000	\$1,774,643
Minimum Energy Savings Goals (kWh)	2,550,000	1,650,000	4,200,000
Targeted Cost per kWh	\$0.44	\$0.39	\$0.42
Percent of Budget Installed	100.0%	98.6%	99.5%
Percent of Energy Savings Installed	103.0%	101.3%	102.3%

Other than the small business and geographic targets, SBES was not designed for specific commercial business types. As shown in Exhibit 3-3, a wide variety of building types participated in the initiative, with offices, retail, and auto repair facilities the most common. Together these building types accounted for 60% of projects and over half of kWh savings. It is evident from the table that some building types – notably amusement/recreation/gym, grocery and convenience

store, religious/spiritual and warehousing/storage – had larger than average savings per project, since they account for a larger share of savings than their share of projects.

Exhibit 3-3 – 2015 Projects and Savings by Building Type

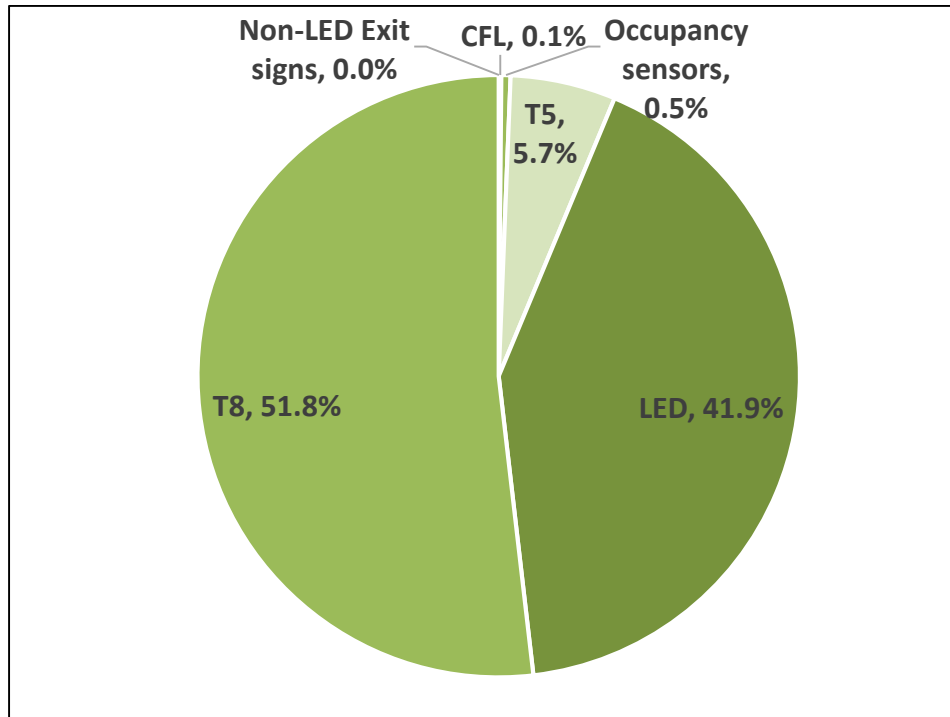
	% of projects	% of kWh
Amusement/recreational/gym	1.5%	4.1%
Auto repair & services	18.5%	17.7%
Commercial*	6.3%	6.8%
Fire protection	2.4%	1.4%
Grocery & convenience store	2.8%	4.5%
Laundry/dry cleaner	0.9%	1.1%
Medical office	2.6%	1.6%
Meeting/assembly	4.3%	2.9%
Office	21.5%	11.4%
Religious/spiritual	2.2%	7.6%
Restaurant	7.8%	6.8%
Retail	20.4%	22.3%
Warehousing and storage	6.1%	8.8%
Other**	2.6%	2.9%

* Various building types

** Bank, funeral home, gas station, school, library, lodging

The specific lighting technologies that have driven SBES savings are presented in Exhibit 3-4 below, which shows that T8s and LEDs accounted for the large majority of 2015 savings, with much smaller shares accounted for by T5s, CFLs, occupancy sensors and non-LED exit signs.

Exhibit 3-4 – 2015 Savings by Lighting Type



After the program baseline was revised in the third quarter of the year to account for changes in the national ballast standard, projects that replaced T12s with T8s were no longer cost effective for Energy Trust and therefore no longer included in SBES proposals. As a result, the share of savings accounted for by T8s fell from 64% in the first 9 months of 2015 to just 34% of savings from October through December. T12 to LED replacements continue to be included.

3.4 -- Participant Feedback

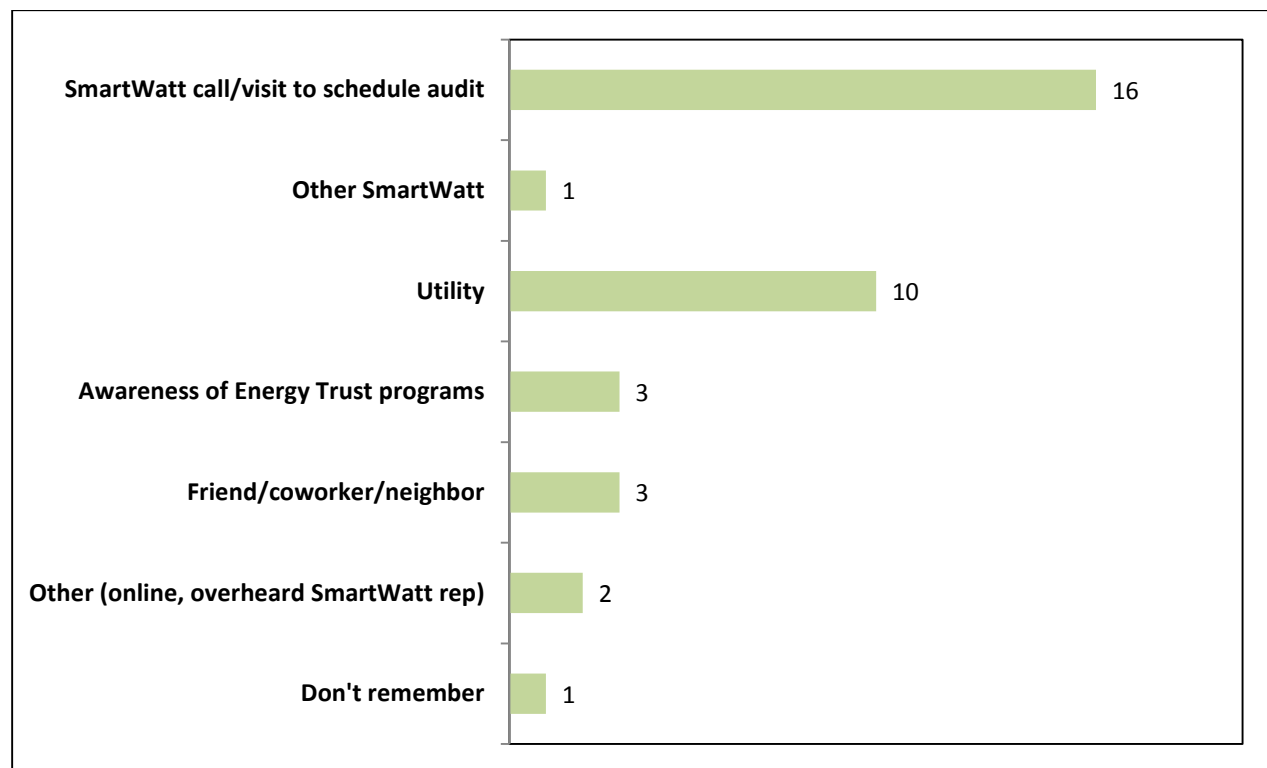
Several aspects of program participation were of particular interest in obtaining and analyzing feedback from participants for the evaluation of the SBES initiative. One of the primary areas of interest for this evaluation was the role of the two investor owner utilities (IOUs) in the marketing and promotion of SBES and the perceptions of customers regarding the roles of Energy Trust, the utilities and SmartWatt in making this offering available. We therefore asked respondents both about their source of awareness of SBES and who they thought was responsible for providing them with the associated incentive. In addition, we sought feedback on other aspects of program participation and satisfaction with SmartWatt, its installation contractors and SBES overall.

Program Awareness and Participation

Because both PGE and Pacific Power have actively promoted SBES, we wanted to determine how participants first heard about this opportunity. As shown in Exhibit 3-4, slightly less than half of

respondents said they first learned about SBES when they were contacted by SmartWatt, either by phone or in person, to schedule an audit, while about 30 percent said they had heard about SBES through their electric utility before they had contact with SmartWatt and 10 percent said they were generally aware of Energy Trust programs or had heard about SBES from a friend or colleague.

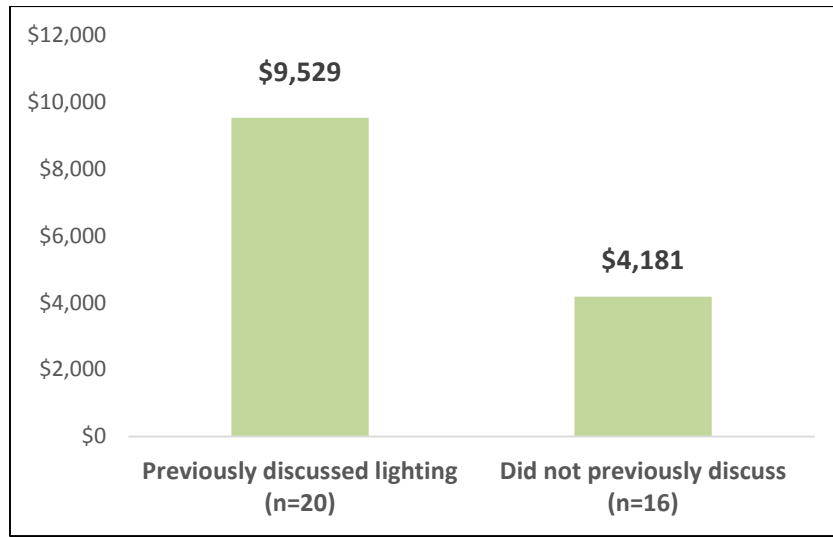
Exhibit 3-4 – Source of SBES Awareness (n=36)



Participants were also asked whether they had previously discussed lighting upgrades for their facility with a lighting or electrical contractor. Surprisingly, in light of the SBES focus on customers who were assumed not to have been reached by trade allies, 55% of respondents answered that they had previously discussed an upgrade, with about half of those saying the discussions had happened in the past year. Reasons for not following through with the project generally centered on cost, mentioned by 12 participants, and inertia or not having it be a priority, cited by 6 respondents.

These results appear to contradict a fundamental assumption of the SBES initiative: that these small customers simply are not of interest to trade allies or other contractors. One reason some participants had previously been contacted is that they may not be as “small” as assumed. A comparison of the size of projects, presented in Exhibit 3-5, shows that previously contacted participants received an average incentive (\$9,521) that was almost twice as high as the incentive received by respondents who had not previously considered a lighting retrofit (\$4,181).

Exhibit 3-5 – Average Incentive by Whether Lighting Upgrade Previously Discussed



Since the incentive covered up to 80% of the project cost, the average installed value of the projects completed by those previously contacted would have been roughly \$12,000, which appears to have been sufficient to attract the interest of contractors. A review of project data also shows 42 projects receiving incentives over \$10,000 in 2015, including 6 receiving incentives over \$20,000, again indicating projects large enough to interest contractors through the regular EB program.

This raises the question of whether the criteria for customers to qualify for SBES may not be stringent enough. As noted previously, the criteria are rather flexible, and very few customers are denied an audit and proposal because of their size, although SmartWatt does turn some customers over to the general lighting program when the overall magnitude of the facility is clearly outside of SBES criteria. Since neither the utilities nor Energy Trust know the square footage or lighting intensity of individual customer facilities, pre-screening customers will continue to be a challenge.

However, a stated goal of Energy Trust’s EB program is to increasingly have the program be “contractor-driven,” meaning that trade allies will be encouraged to serve as the marketing and delivery arm of the program. As opportunities among larger customers dwindle, trade allies will increasingly be forced to reach out to relatively smaller customers. Energy Trust program managers have noted that the average size of EB projects has been steadily getting smaller. This will raise the possibility – or even the likelihood – of more instances where SBES unknowingly undercuts a trade ally attempting to market the standard EB program.

Program Satisfaction and Suggestions

One of the choices participants must make is how to pay their share of the lighting installation: pay cash and receive a 5% discount, or pay the amount in 12 monthly installments at 0% interest.

Overall, program tracking data show that about one-third of participants financed the installation, approximately the same as the 32% of survey respondents who financed. Respondents were universally satisfied with the choice of payment option; when asked their satisfaction with their selection on a 1 to 5 scale, where 1 is not at all satisfied and 5 is extremely satisfied, only a single respondent offered a 4 rating when asked their satisfaction with their selection on a 1 to 5 scale, all the others rated their satisfaction with their choice a 5.

Participant satisfaction with a variety of program elements is presented in Exhibit 3-6 and shows a high level of overall satisfaction. All respondents used a 5 rating to indicate their satisfaction with how long it took to receive the audit results, and 100% of respondents gave ratings of 4 or 5 for their satisfaction with the lighting proposed and installed and the amount they had to pay for the lighting project. Similarly, more than 90% of respondents offered ratings of 4 or 5 for how long it took to schedule the installation, the installation contractor and the SBES offering overall.

Exhibit 3-6 – Participant Satisfaction, 1-5 scale

Component of program delivery	Satisfaction: 1 to 5 scale		
	Mean	n	% 4 or 5
How long it took to receive the audit results	5.00	28*	100%
The specific types of lighting proposed	4.94	36	100%
Amount you had to pay for the lighting project	4.81	35	100%
How long it took to schedule the installation	4.61	36	92%
The installation contractor who put in the lights	4.72	36	94%
The lighting that was installed	4.94	36	100%
The SBES offering overall	4.72	36	92%

* Not asked for those who got results the same day

A number of participants offered favorable comments praising the program and emphasizing how they would not have been able to complete the lighting project without the SBES initiative. In addition, a handful of respondents who provided ratings of less than 4 also offered comments.

When asked if they had suggestions for program improvement, most respondents either responded with praise for the program or said they had no specific suggestions. One participant said that he wished the auditor had made it clearer upfront that as much as 80% of the cost would be covered; he did not really understand that initially.

Participants were also asked whether they have observed energy savings since their lighting retrofit. Fewer than half – 16 of 36 -- said they had noticed a change. Of those, 9 respondents said they were saving about what they had expected, while 3 were saving more than expected. The other 4 said either that they were saving less than expected or that their usage had gone up.

While several respondents commented that their usage had gone up and down for other reasons, it is not clear that all participants understood the potential savings from their lighting retrofit in the context of their overall usage. If the project was done in the spring, usage could easily increase because of cooling requirements over the summer, even if lighting usage was sharply reduced. SmartWatt auditors point out the effect of non-lighting usage on the overall bill, but it appears that not all participants fully understand that linkage. It may be appropriate to use a leave-behind information piece to remind customers of the seasonality of electric usage and encourage them to pursue energy efficiency options for non-lighting end uses.

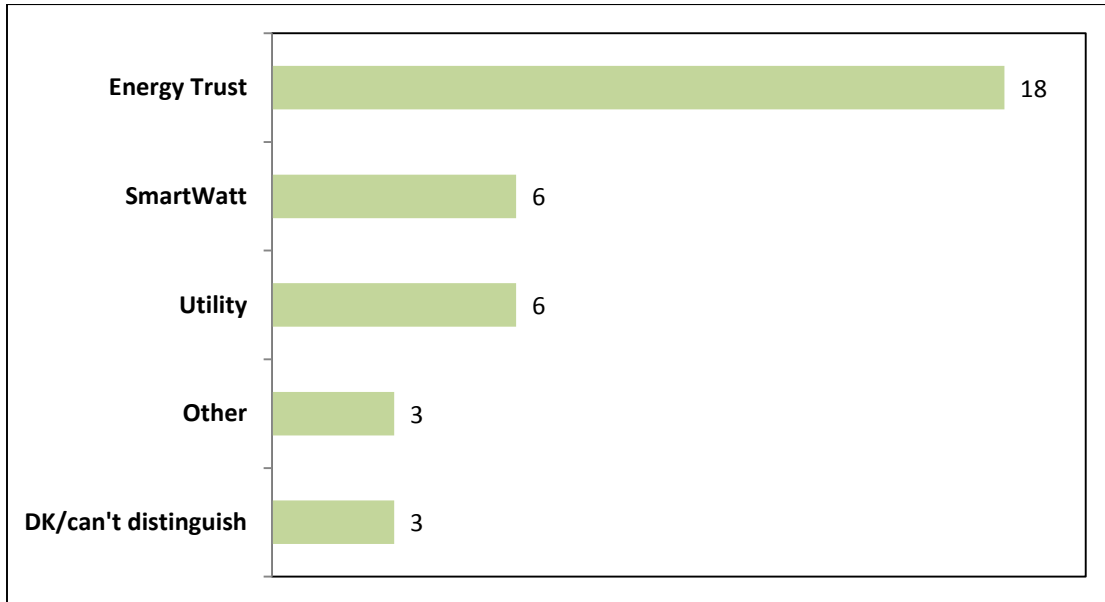
One of the goals of SBES is to alert lighting audit participants to other efficiency opportunities in their buildings. However, only seven participants recalled the lighting auditor pointing out such saving opportunities, which included outdoor signage lighting and heating and cooling upgrades. Among those who did not recall receiving recommendations, several said that they rent the building and other changes would be the responsibility of the landlord, while two said they did not recall other recommendations, but had recently installed heat pumps, although this was apparently not done through the EB program.

On the other hand, when participants were asked whether they were more likely, about as likely, or less likely to install other energy efficiency measures, 62% said they were more likely to take such actions, and none said they were less likely, indicating that SBES increased awareness of energy efficiency and the likelihood of participants taking action.

Despite their involvement with SBES, however, most participants do not seem knowledgeable about how to pursue efficiency opportunities. During the course of the survey, about 25% of respondents had some comment or request that would have required SmartWatt, ICF or Energy Trust to contact them. Concerns included problems with RF radio reception since the new lighting was installed, a mess left by the contractor, increased usage and a request for assistance with another facility owned by the respondent. The percentage of respondents expressing such concerns was higher than for most surveys PWP has fielded previously, and indicates that more follow-up is required with these customers.

Finally, we asked participants which organization they considered primarily responsible for their being able to install new lighting and having up to 80% of the cost of the project covered. Responses are summarized in Exhibit 3-7 and show that half of participants consider Energy Trust primarily responsible for SBES, while one-sixth attribute the initiative to the utilities and one-sixth credited SmartWatt. Three respondents said they could not distinguish between the roles of SmartWatt, the utilities and Energy Trust, while three offered other responses (all three of those, utility customers, state government and tax credits.)

Exhibit 3-7 – What Organization is Primarily Responsible for Covering 80% of Cost?

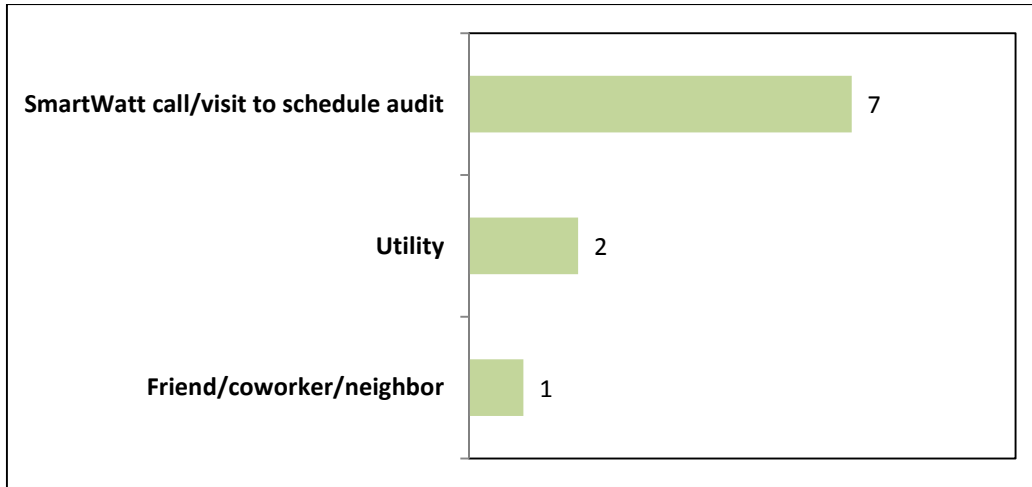


3.5 – Non-participant Feedback

To understand why some customers who received audits and lighting retrofit proposals chose not to follow through with the proposed projects, we completed surveys with 10 of these non-participants: 5 each in PGE and Pacific Power territory.

Results show that most of those interviewed first learned about SBES when SmartWatt called or visited to schedule the audit, while two had previously heard about it from their utility, as shown in Exhibit 3-8. As mentioned previously, 30% of participants heard about SBES from their utility, suggesting that the conversion rate of audits for those pre-qualified leads is higher than for customers who have never heard of SBES before they are contacted by SmartWatt.

Exhibit 3-8 – Source of Non-participant SBES Awareness – number of responses (n=10)



As with participants, those not accepting the proposal were asked if they had previously discussed lighting upgrades for their facility with a lighting or electrical contractor. The three who responded that they had done so all said that they did not follow up on the installation because the cost was too high.

Those who received an audit were generally very satisfied with the audit process. Respondent ratings of satisfaction with various aspects of SBES delivery are summarized in Exhibit 3-9, showing that at least 8 of 10 respondents rated their satisfaction a 4 or 5 for every aspect of audit delivery.

Exhibit 3-9 – Audit-only Participant Satisfaction, 1-5 scale (n=10)

Component of audit delivery	Satisfaction: 1 to 5 scale		
	Mean	n	% 4 or 5
How long it took to receive the audit results	4.8	10	100%
The specific types of lighting proposed	4.5	10	90%
Amount you would have had to pay for the lighting project	4.1	10	80%
The audit overall	4.6	10	90%

While the number of responses was too small for differences in mean responses to be statistically significant, it is worth noting that cost appears to have been a concern despite 80% of the cost being covered by Energy Trust. When asked why they chose not to accept the lighting proposal, three respondents mentioned cost, including the fact that their landlord was unwilling to pay the 20% share of project cost.

However, it does not appear that cost alone was the reason for failure to follow through on the proposed project. Other reasons mentioned include the building being for sale (two respondents) and “other priorities” (one respondent). In addition, one customer said they installed the

recommended lighting themselves at a lower cost and three said they were still considering the project and might do it later.

As noted previously, we were unable to contact any customers who declined the audit, since SmartWatt did not have contact information in those cases. However, the SmartWatt project manager said that common reasons for declining the audit were the fact that the facility either was rented or in the process of being sold or that the building owner could not be contacted to give permission for the audit. Even in cases where a customer had been referred to SmartWatt by one of the utilities, it was sometimes impossible to reach the business contact after multiple attempts.

3.6 – Trade Ally Feedback

The SBES initiative has used two local contractors to provide the actual installation of lighting projects proposed by the auditor and accepted by the customer. SmartWatt located its first installer by making phone calls to lighting contractors serving the geographic areas targeted by the initiative and the IOUs. There was no formal RFP or notice to bid; this was at least in part deliberate to allow the initiative to maintain a low profile and not attract the attention of and potential complaints from other trade allies. The first installer signed up in late 2014 as SBES was launching. In 2015 the SBES workload was rather uneven, and SmartWatt tried to provide the installation contractor with enough advance notice that they could build these direct install jobs into their overall schedule. As the workload has become steadier, the contractor has dedicated two full time crews to SmartWatt installations, with the option to add more if needed.

A second installer signed up and did a few jobs over about a month in late 2015. This contractor was the one who had previously complained to Energy Trust because they had presented a bid to a customer who instead participated in SBES. This contractor installed several projects in the area where they are based, but did not continue working with SmartWatt.

We contacted representatives from both installation contractors to get their feedback. The first, long-term, contractor rated their satisfaction with SBES at 5 on the 1 to 5 scale, and had praise for SBES and SmartWatt, stating that “SmartWatt is one of ten firms we work for, and SmartWatt is the best of the ten regarding communications and scheduling.”

The other contractor indicated that he was not satisfied with his experience with SBES, but was unwilling to give an interview.

4. Conclusions and Recommendations

Conclusions

Key findings reported throughout this report are summarized below.

- The SBES initiative exceeded its 2015 savings goals for both PGE and Pacific Power service territories, reaching small business customers outside the geographic area traditionally served by Energy Trust trade allies.
- Savings come from a diverse mix of business types, with offices, retail, and auto repair facilities together accounting for 60% of projects and over half of kWh savings.
- T8 fluorescents accounted for more than half of savings for all of 2015, but their share of savings was sharply reduced by new program requirements, so that LEDs accounted for the majority of savings in the last three months of 2015 and will likely continue to do so.
- Both utilities help generate leads for SBES, and the volume of leads and referrals has been sufficient to enable SmartWatt to maintain a steady flow of audits and installations. In addition, cold calls by SmartWatt, referrals and other sources account for up to half the audits conducted.
- Staff from Energy Trust, the PMC, SmartWatt and the utilities agree that communications regarding SBES are effective and that the program is being delivered according to plan. The utilities would like to have more detailed information on which specific customers have received audits and accepted proposals.
- Almost all audits result in a proposal, and about 70% of proposals are accepted. While this is high relative to other programs, it may be possible to increase this percentage of proposals accepted by more extensive pre-screening, but the audits themselves appear to have a positive impact on customer awareness of and receptivity to energy efficiency improvements.
- In at least one instance, a customer who had previously received a bid from an Energy Trust trade ally accepted the lower cost (to them) SmartWatt proposal, which led to that trade ally complaining to ICF, Energy Trust and regulators. The complaint was resolved, and SmartWatt has said that their auditor will ask customers if they have an existing relationship with a lighting contractor before conducting an audit and preparing a proposal.
- The assumption that only customers who are “below the radar” for Energy Trust’s trade allies would participate in SBES appears to be mistaken. Over half of the participants interviewed had previously received proposals from a lighting contractor. These previously contacted participants tended to be larger, with an average incentive received

that was more than twice as high as the incentive received by participants who had not previously considered a lighting retrofit. The average installed value of the projects completed by those previously contacted would have been roughly \$12,000, which appears to have been sufficient to attract the interest of contractors.

- A review of project data for 2015 also shows 42 projects receiving incentives over \$10,000, including 6 receiving incentives over \$20,000, again indicating projects large enough to interest contractors through the regular EB program, although none of those had previously resulted in a sale.
- The criteria for determining whether a customer qualifies for SBES can be vague. The Energy Trust “blessing memo” for direct install mentioned that these measures are “most applicable to commercial buildings less than 25,000 square feet” while the program description Energy Trust presented to utilities said that “most businesses under 10,000 sf will be eligible,” but neither states a specific eligibility criterion (although the PMC provides guidance on approved square footage for various building types). The utilities are using their general commercial rate class when identifying leads for SmartWatt, and SmartWatt has no easy eligibility criterion to use when qualifying a location for an audit, other than the determination that the customer is clearly too large, is already working with a contractor or would be considered “multifamily”, “industrial or agricultural” under Energy Trust rules. There are relatively few site visits where SmartWatt declines to do an audit because a previous relationship with a contractor exists, since the auditor must rely on the customer’s statement that they are not already working with a contractor.
- Average customer size for SBES participants is in line with goals, but the general trend toward a smaller average size for efficiency projects in existing buildings as fewer large-scale opportunities remain untapped will increase the potential for conflicts between trade allies and the more generous SBES direct install incentives.
- SBES participant satisfaction is high. All 36 survey respondents used a rating of 5 to indicate their satisfaction with how long it took to receive the audit results, and 100% of respondents gave ratings of 4 or 5 for their satisfaction with the lighting proposed and installed and the amount they had to pay for the lighting project. Similarly, more than 90% of respondents offered ratings of 4 or 5 for how long it took to schedule the installation, the installation contractor and the SBES offering overall.
- While several respondents recognized that their usage had gone up and down for reasons unrelated to the retrofit, some complained that their electricity bill had increased, and it is not clear that all participants understood the potential savings from their lighting retrofit in the context of their overall usage.

- One goal of SBES is to alert audit participants to non-lighting efficiency opportunities in their buildings, but only seven participants recalled the lighting auditor pointing out such saving opportunities. On the other hand, 62% of participants said they were more likely to install other energy efficiency measures, and none said they were less likely after participating in SBES. We were unable to find SBES participants in the Energy Trust tracking data who had subsequently participated in the regular EB program, but this may be because not enough time had elapsed.
- Despite their involvement with SBES, most participants do not seem knowledgeable about how to pursue efficiency opportunities. The percentage of survey respondents expressing concerns or asking to be contacted by Energy Trust, the PMC or SmartWatt was higher than for most surveys we have fielded previously, indicating that more follow-up is required with these customers.
- Half of surveyed participants (18 of 36) said they consider Energy Trust primarily responsible for covering up to 80% of the cost of their SBES project, while one-sixth (6 respondents) attribute the initiative to the utilities and one-sixth credited SmartWatt. Three respondents said they did not know or could not distinguish between the roles of SmartWatt, the utilities and Energy Trust, while three offered other responses (all three of those, utility customers, state tax credits).
- Customers who received an audit but did not accept the resulting proposal were still satisfied with the audit process. When asked why they chose not to accept the lighting proposal, three of ten survey respondents mentioned cost, but it does not appear that cost alone was the reason for failure to follow through on the proposed project, with other respondents mentioning the building being for sale and “other priorities.”
- The contractor engaged by SmartWatt for most of the installations through SBES was highly satisfied with SBES and SmartWatt. A second contractor who provided installation services for a short time was not satisfied, perhaps because of a previous issue with a customer accepting the SBES proposal rather than one offered by this contractor.

Recommendations

Based on the conclusions summarized above and other findings throughout the report, the following recommendations are designed to help ensure that SBES efforts remain on track and are targeted to those customers who truly would be least likely to be reached by the existing Energy Trust Trade Ally Network through the Existing Buildings program.

- Energy Trust should continue the SBES offering as an effective means of reaching out to small customers who are not served by the existing trade ally network.

- Utility outreach efforts and utility-provided contact information have been valuable sources of leads for SmartWatt and SBES, and utilities are pleased to have this offering available for their customers. To the extent possible, utilities should be supported in their efforts to access Energy Trust data to determine which specific customers have participated in the areas targeted by SBES.
- The more widespread and longer lasting the availability of SBES, the more likely that there will be conflicts with trade allies, especially in light of findings that many customers have been previously contacted. While, on average, SBES is reaching the targeted customer population, more explicit criteria determining whether a customer qualifies for SBES would help alleviate or avoid conflict with trade allies by enabling Energy Trust to state clearly which customers are and are not eligible.
- The fact that a building would be considered “industrial” simply because a very modest level of production is being done in what is otherwise a commercial space should not disqualify a customer from participating in SBES.
- While SBES direct install appears to be the only way to encourage the smallest projects, it may be possible to create a structure of tiered incentives that are greater than the standard lighting incentives but less than the amount provided through SBES to assist trade allies in encouraging customers to implement more substantial projects, such as those valued in the \$8-12,000 range or higher. There would have to be requirements to ensure that projects covered by such incentives would in fact be whole-facility retrofits, but it should be feasible to develop program guidelines that support a primary role for trade allies while still providing support to the smallest customers.
- SmartWatt auditors point out the effect of non-lighting usage and seasonal variation on the overall bill, but it appears that not all participants fully understand that linkage. It may be appropriate to use a leave-behind information piece to remind customers of the seasonality of electric usage and encourage them to pursue energy efficiency options for non-lighting end uses, as well as behavioral and operational changes to manage usage.
- This same leave-behind piece should include contact information encouraging the customer to follow up with the EB program.
- In addition, all participants should receive a follow up phone call and/or email from a representative of the EB program to ask whether the customer has any questions about or interest in non-lighting efficiency options and to go over the “Other Opportunities” checklist left by the auditor. And of course, any follow up inquiries from customers should be acknowledged and responded to promptly.