



C20: Energy Conscious Blueprint 2013-2014 Process Evaluation: Program Year April 2013 to March 2014

May 26, 2015

FINAL
REPORT



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EXECUTIVE SUMMARY

This section summarizes the methods and findings from the 2014 Process Evaluation of the Connecticut Energy Conscious Blueprint Program.

Introduction

The objective of the Energy Conscious Blueprint (ECB) program is “to maximize electric and natural gas energy savings for ‘lost opportunity’ projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added.”¹ The ECB program seeks to accomplish this by working with new construction trade allies (e.g., contractors, architects, engineering firms) to raise awareness of energy efficient technologies and whole-building design practices and assist these allies in illustrating the benefits of energy efficiency during initial construction to property developers and owners. The program also provides incentives to building owners for incorporating energy efficient equipment into building design or for using energy efficient equipment to replace equipment at the end of its usable life.

The objectives of this evaluation were to assess the program’s effectiveness in reaching its target market, assess participant and vendor satisfaction with the program, and identify barriers that could inhibit the program from achieving its goals.

Program Activity Summary

During the sample period from April 2013 to April 2014, program participants achieved over 136,000 mmBTU in annual energy savings from 420 projects and 751 individual measures. New construction projects accounted for one quarter of projects and 37% of energy savings in the period. Process, lighting, and heating measures comprised the majority of ECB program savings, while cooling measures comprised the greatest number of measures. Heating, process, and lighting measures had the greatest average per-measure savings.

Key Study Methods

The process evaluation was based on analysis of program tracking data, surveys of 70 program participants, 13 program dropouts, and 41 vendors working with the program, and interviews with 10 non-participating customers or “rejecters.” The process evaluation also included web usability testing with 18 vendors and participants to assess how the website meets the needs of program stakeholders.

Summary of Results

Results from the process evaluation indicated that the ECB program is functioning smoothly for participants and vendors. Participants in particular demonstrated high satisfaction with the program. Vendors partnering with the program appear to drive most equipment replacement

¹ Energize Connecticut 2012 Electric and Natural Gas Conservation and Load Management Plan

projects through their marketing efforts, while utility and program staff appear to be the impetus behind many new construction and major renovation projects. Many vendors rely on the ECB program for a quarter or more of their business, and some requested additional support and greater responsiveness from program staff.

Customers rely on utility and program staff to learn how to participate, and vendors rely on utility and program staff to answer questions. Participating customers, dropout customers, and participating vendors all identified financial factors—lack of access to capital and financing—as barriers to completing projects.

Participants consult the utility websites to learn more information about the program but do not use it to figure out next steps to participate in the program. Participating vendors typically use the website to look up incentive information. The findings from web usability sessions indicate that although there is useful information on the Connecticut Light & Power and United Illuminating websites, it is challenging for both vendors and customers to find this information.

Recommendations

Process evaluations serve a variety of purposes, including measuring key performance indicators such as satisfaction, documenting program logic and developments, and providing recommendations for program process improvements. The last of these may be the most important. It is increasingly accepted in the evaluation community that an evaluation should be judged on its usefulness, and recommendations encapsulate how findings from the evaluation can be used.²

The evaluation team assembles recommendations based on the available primary and secondary data sources but in some cases, particularly in energy efficiency program evaluation, the team may have limited access to information necessary to assess the feasibility and cost-effectiveness of recommendations. The independent nature of these evaluations often means the evaluation activities occur separately from implementation and planning. In these circumstances, the evaluation recommendations should be considered potential program improvements that must be assessed by program planners to determine feasibility and cost. To be most useful to program managers, the evaluation typically provides a number of these suggestions, allowing program managers to select and prioritize among the suggestions. The details of how a recommendation would be implemented then become the responsibility of program planning.

The recommendations from this process evaluation are provided below. It is not yet known whether they are feasible or cost-effective to undertake:

- 1. Promote awareness of financing sources for equipment replacement projects.** Dropout customers, participating customers, and vendors consistently identified financial factors as potential barriers to program participation. While some options are available for project financing for equipment replacement projects, these options could be more effectively communicated or expanded.

² Patton, M. (2008). *Utilization-Focused Evaluation*. Los Angeles, CA: Sage Publications.

- 2. Dedicate additional resources and/or develop tools to support vendors.** Vendors play a key role in promoting these programs, and while most vendors reported being satisfied they also indicated ways in which they desire more support from the utilities.
- 3. Increase outreach efforts to individuals involved with new construction projects.** Awareness of the ECB program is low among some building owners, project managers, architects, and developers involved with new construction, and performing outreach to these parties, though time intensive, could help increase the number of new construction participants in the program.
- 4. Verify that website changes have improved signposting to enable more effective webpage scanning.** Both utilities have new websites and the design of the energy efficiency webpages has changed considerably. Improving signposting was the primary critique of the prior websites from the web usability task in this evaluation. Both vendors and customers requested a more intuitive organizational structure within the prior websites, with the specific recommendation of using common program description titles so that they can quickly locate the information they need.
- 5. Create synergies with Energy Opportunities (EO) Program.** The majority of equipment replacement participant respondents were not aware of the Energy Opportunities Program. The EO program and ECB program can be complementary and awareness of both programs should be promoted to customers and vendors.
- 6. Provide data indicators to improve program evaluability.** Due to a bundling process during the data request, the evaluation team did not receive a number of key indicators that would improve evaluability of the program. The evaluation team asks that a number of specific indicators from the program tracking database (found in the full report's Recommendations chapter) be provided in future data requests to facilitate the tracking of performance indicators and to improve evaluability.

1. INTRODUCTION

This report presents the results of the 2014 process evaluation of the ECB Program. Per the 2012 Conservation and Load Management Plan, the objective of the Energy Conscious Blueprint (ECB) program is “to maximize electric and natural gas energy savings for ‘lost opportunity’ projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added.” The program seeks to accomplish this by working with new construction trade allies (e.g., contractors, architects, engineering firms) to raise awareness of energy efficient technologies and whole-building design practices and assist these allies in illustrating the benefits of energy efficiency during initial construction to property developers and owners. The program also provides incentives to building owners for incorporating energy efficient equipment into building design or for using energy efficient equipment to replace equipment at the end of its usable life.

This report contains four chapters: (1) Introduction, (2) Methodology, (3) Summary Results, and (4) Detailed Findings. The results of our research are presented at two levels—summary and detailed. The Summary Results chapter provides answers to the key research questions based on synthesized findings from different data collection activities. The Detailed Findings chapter provides all of findings from each data collection activity. This includes many of the findings mentioned in the Summary Results plus additional findings at a greater level of detail.

1.1 Program Description

The Energy Conscious Blueprint Program serves the new construction and equipment replacement markets to capture “lost opportunity” energy savings. The program targets energy savings opportunities during key moments in the design of a new building or with the failure of equipment. Without program intervention, these situations often lead to installation of standard or “at code” equipment, which represent lost opportunities because retrofitting or replacing this equipment during its functional lifetime may not be cost effective.

The program offers incentives in a whole building performance track and in a measure-based track, including lighting, process improvements, HVAC³, motors, and refrigeration. The program works with trade allies, or vendors, in the new construction and equipment replacement market to build awareness of the program.

1.2 Project Objectives

The objectives of this evaluation were to assess the effectiveness of the program in reaching its target market, assess participant and vendor satisfaction with the program, and identify barriers that could inhibit the program from achieving its goals. The process evaluation was based on analysis of program tracking data, surveys of program participants, program dropouts, and vendors working with the program, and interviews with non-participating customers or “rejecters.” The process evaluation also included web usability testing with vendors and participants to assess how the website meets the needs of program stakeholders.

³³ HVAC stands for heating, ventilation and air-conditioning.

1.3 Research Questions

The evaluation team sought to address four main process research questions, which break down into several more detailed questions.

A. How well is the program reaching the target market?

- A. What targeted markets or market segments has the program been most effective/least effective in reaching and why, in terms of end use, customer size, and industry sector?
- B. How are project types and completions changing over time? Are more Whole Building performance projects, those that are incented based on the building performance rather than individual measures, occurring later in the evaluation period? What explains this shift?
- C. How are participants learning about the ECB program specifically as distinct from a general awareness of energy efficiency offerings from CT utilities? Are there differences between utilities?
- D. Why do customers participate in ECB rather than the retrofit program? Do customers understand the different program requirements?

B. How satisfied are participants with the program?

- A. How does the timeframe for project completion affect program marketing and the customer decision to participate?
- B. How well does the program website(s) meet the needs of participants and vendors? Is the level of information appropriate? Is the organization intuitive? Is the experience different for participants and vendors? Are incentive calculations clear? Are the case studies helpful?
- C. What keeps customers from participating (program barriers)? What keeps customers from making energy efficiency improvements without the program (improvement barriers)?
- D. How do customers learn about the steps to complete as part of the program? How do they resolve questions while their projects are in progress?
- E. Are customers satisfied with the program overall? With the enrollment process and paperwork? With the incentive, especially when incentive caps are triggered? With the equipment and actual versus expected energy savings? With the vendor?

C. How satisfied are participating vendors with the program?

- A. Why do vendors refer customers to the program?
- B. From the vendor perspective, what is the most important support or information that they need from the program? How well is that provided?
- C. Where do vendors turn with questions about the programs?

D. What barriers or issues could inhibit the program from achieving its goals?

- A. How might identified barriers be overcome to improve program performance?

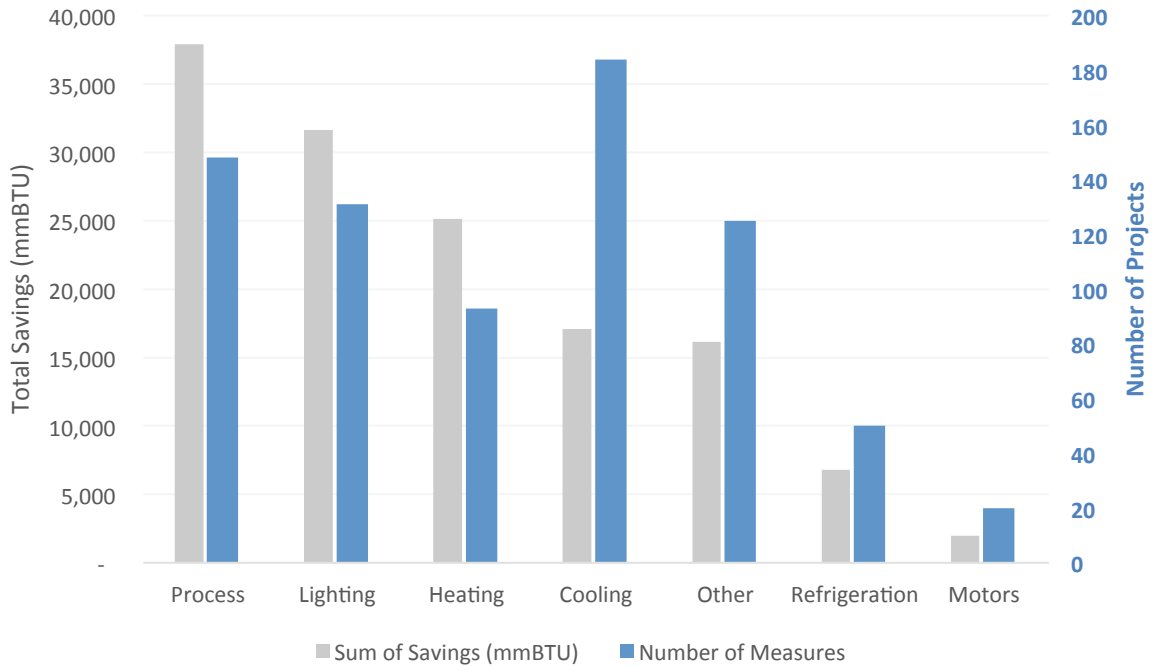
1.4 Program Population Summary

The research team analyzed the program tracking data in order to understand trends in program participation by end use, geography, and time. The tracking data for the process evaluation, or the program population, includes program participants that completed projects between April 2013 and April 2014. Program participants in this time period achieved over 136,000 mmBTU in annual energy savings from 420 projects and 751 individual measures.⁴ Figure 1-1 illustrates the total annual energy savings and total number of measures by category.

Unlike retrofit programs where lighting accounts for the majority of savings, the ECB program tracking data show that projects and savings are distributed across measure types. Process, lighting, and heating measures comprised the majority of ECB program savings, while cooling measures comprised the greatest number of measures. Process improvements came almost exclusively from equipment replacement projects, and lighting measures came predominantly from new construction projects.³ Figure 1-2 illustrates the average energy savings per implemented measure. Heating, process, and lighting measures had the greatest average per-measure savings.

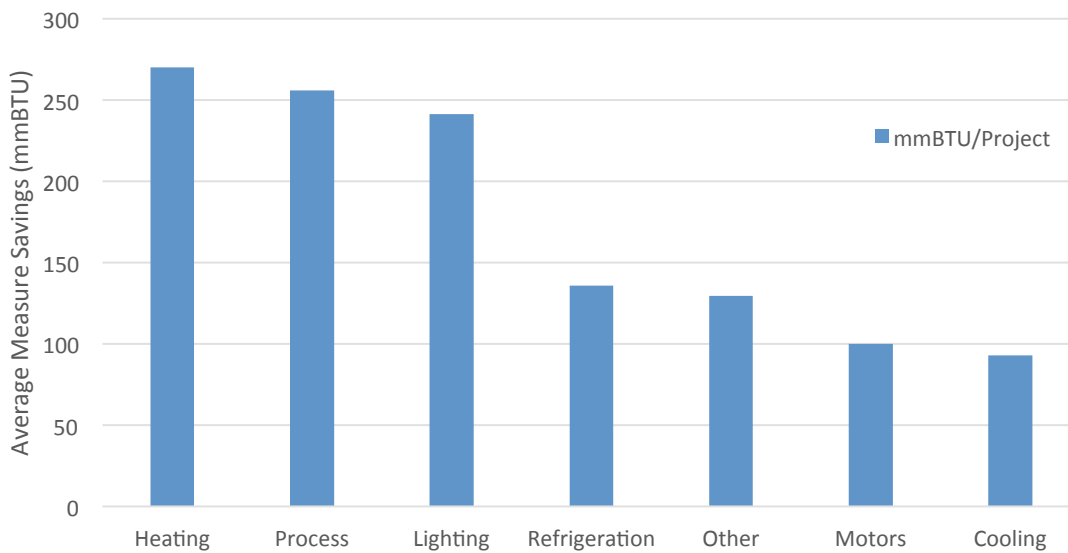
⁴ Data reported do not include measures with zero or negative savings values for administrative adjustments and incentive caps.

Figure 1-1: Cooling technologies represent the greatest number of measures, while process measures account for the most energy savings.



Note: Savings values reported in this figure do not include measures with zero or negative savings values for administrative adjustments and incentive caps.

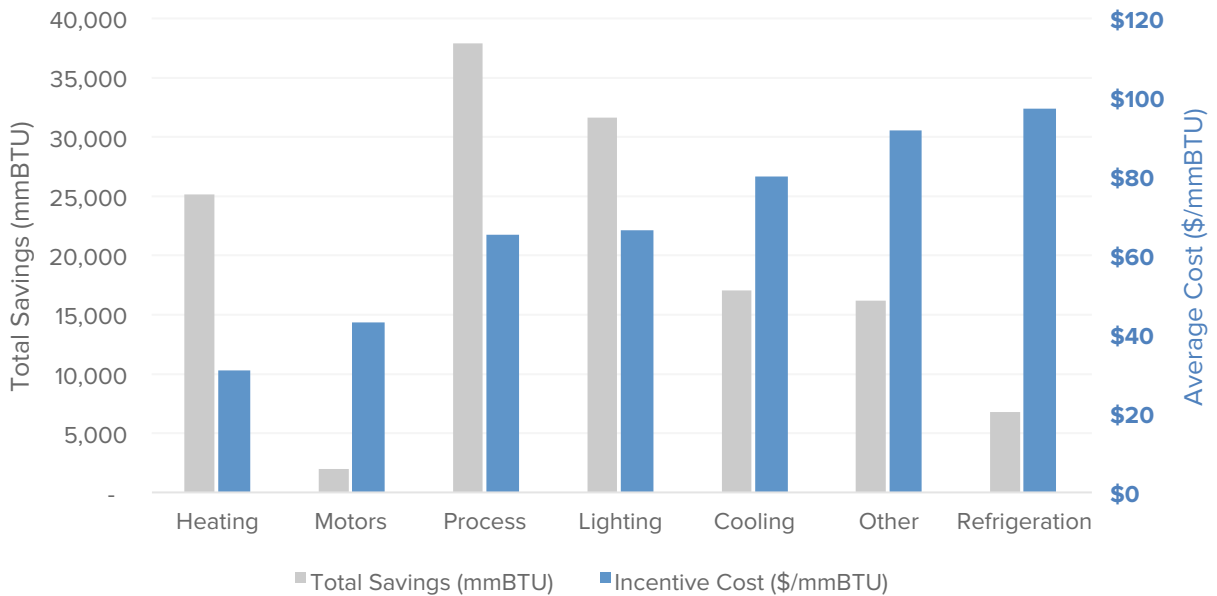
Figure 1-2. On a per-measure basis, heating measures result in the greatest energy savings, closely followed by process and lighting measures.



Note: Savings values reported in this figure do not include measures with zero or negative savings values for administrative adjustments and incentive caps.

In the population of projects, relatively few projects accounted for the majority of ECB program savings. The top 10% of measures (75 measures) accounted for over 65% of all tracking (*i.e.*, ex-ante or claimed) savings. Figure 1-3 illustrates the volumetric incentive costs for each measure category. At \$31/mmBTU (11 cents/kWh), heating measures in the tracking data had the lowest incentive cost per mmBTU while also providing substantial energy savings. Motors were also one of the lowest cost measures in the tracking data, but contributed less energy savings to the overall program.

Figure 1-3: On average, heating measures have the lowest incentive cost while providing substantial energy savings.



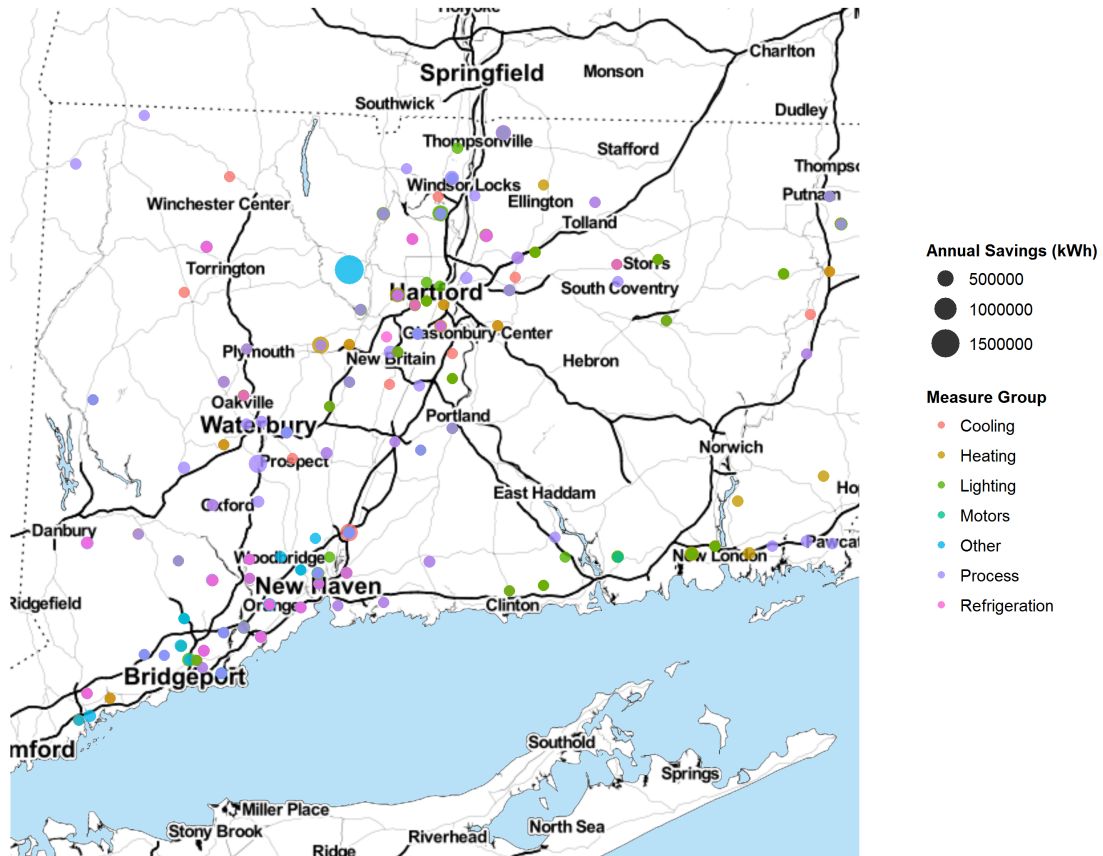
Note: Savings values reported in this figure do not include measures with zero or negative savings values for administrative adjustments and incentive caps.

Overall, new construction measures represented a quarter of all measures and 37% of energy savings.⁵ We were unable to assess the distribution of new construction projects between the whole building and prescriptive tracks, as they were not identified in the program tracking data.

Geographically, projects were clustered in the Hartford, New Haven, and Bridgeport metropolitan areas. Figure 1-5 illustrates projects in Connecticut, where the color of the circle corresponds to measure category and size represents annual energy savings.

⁵ New construction measures are not identified in UI data.

Figure 1-4: Map of projects in Connecticut showing measure category (color) and energy savings (size of circle.)



2. METHODOLOGY

The evaluation team identified five separate data collection activities needed to answer the four evaluation questions from Section 1.3 and listed below.

- A. How well is the program reaching the target market?
- B. How satisfied are participants with the program?
- C. How satisfied are vendors with the program?
- D. What barriers or issues could inhibit the program from achieving its goals?

These research questions were addressed through three surveys, one set of interviews, one-on-one web usability studies, and secondary data, as shown in Table 2-1. In addition, the evaluation team interviewed two program staff that lead the ECB program and four program engineers.

Table 2-1: Process Research Questions and Data Collection/Analysis Activities

Research Question	Participant Surveys	Participating Vendor Surveys	Drop Out Surveys	Rejecter Interviews	Web Usability Study
A	+	+	+	+	
B	+	+	+	+	+
C		+			+
D	+	+	+	+	+

This section documents the detailed methodology for each data collection activity, including information about the population, research type, and sample.⁶ The survey and interview instruments are contained in Appendix A.

2.1 Participant Survey

We conducted a telephone survey with 70 program participants from August 5, 2014 to August 8, 2014. The evaluation team identified program participants from the program tracking data for those projects with a check date or a status code of “Paid Phase,” or “CLO.” We sought to reach 70 program participants. This size was determined based on a five-point continuous response satisfaction question ranging from “Very Dissatisfied” to “Very Satisfied.” The evaluation team sought to achieve 80 percent certainty with a 5 percent margin of error across a continuous program satisfaction question with five possible responses. First, the required response sample (n_0) is calculated based on the five responses, the confidence and the margin allowed, as shown in Equation 1.⁷

⁶ The method for determining the appropriate sample size for the data collection activities is based on Cochran (1977). [Cochran, W. G. (1977). Sampling techniques (3rd ed.). New York: John Wiley & Sons]

⁷ Where “ t ” is the z-score for the desired level of confidence (1.28 for 80%); “ s ” is the number of points on the scale over the number of deviations (5/4); and “ d ” is the number of points on primary scale times the acceptable margin of error (5 X 0.05).

$$n_0 = \frac{t^2 \times s^2}{d^2} = \frac{1.28^2 \times (5/4)^2}{(5 \times 0.05)^2} = 41 \quad (1)$$

This size exceeds 5% of the size of the program participant population (N) for both utilities. Therefore, we applied a population correction factor to determine sample targets, as shown in Equation 2 and Table 2-2.

$$n_1 = \frac{n_0}{1 + n_0/N} \quad (2)$$

Table 2-2: Adjusted Sample Size based on 5-Point Satisfaction by Utility

Utility ^a	Total unique accounts (N)	Adjusted sample size (n)
NU	308	38
UI	112	32
Total	420	70

a. NU includes both CL&P and YGS. UI includes UI, CNG, and SCG. Accounts are unique for electric and gas. However, a single customer or site may have both a unique electric and a unique gas account.

We also sought to understand both the new construction/major renovation and the equipment replacement experience. To that end, we split the sample targets to specific quotas for these two groups, resulting in the sample design shown in Table 2-3.

Table 2-3: Overall Participant Sample Design

	New construction ^a	Equipment replacement	Total sample
NU	14	24	38
UI	5	27	32
Total	19	51	70

a. New construction projects are flagged “NC” in CL&P electric and gas program tracking data. An estimate of 30 new construction types was made for UI accounts based on proportions in the other tracking data. Screening questions were used for quotas.

The participant survey achieved a response rate of 20% with no incentive provided to respondents. The full dispositions from this research are shown in Table 2-4.

Table 2-4: Dispositions from Participant Survey

Disposition	Count	Percent
Callback	153	44%
Answering Machine	107	31%
Complete	70	20%
Disconnected	10	3%
Do not call	5	1%
No Answer	2	1%
Total	347	100%

2.2 Dropout Survey

A senior researcher familiar with the projects conducted telephone surveys with 13 customers with cancelled projects from September 2, 2014 to September 11, 2014. The evaluation team identified a population of 74 dropouts from the program tracking data from January 2013 to March 2014.⁸ CL&P dropout customers had a status code of “Cancelled;” UI dropout customers had a status code of “CLS.” The team sought to complete surveys with 27 (38%) of these customers to understand their experience and achieved 13 completes after calling the entire list, resulting in an 18% completion rate, as shown in Table 2-5. The evaluation team offered customers a \$50 gift card in order to complete the survey.

Table 2-5: Disposition of Dropout Survey

Disposition	Count	Percent
Left Message	47	64%
Complete	13	18%
Invalid Number	10	14%
No Message Left *	4	5%
Total	74	100%

* In some cases, messages could not be left. We reached a full mailbox or no mailbox at all.

2.3 New Construction Rejecter Interviews

A researcher familiar with the program conducted telephone interviews with 7 building owners or representatives of new construction projects from September 11, 2014 to October 7, 2014.

The evaluation team identified a population of 571 projects from the Reed Construction database likely completed between 2012 and 2014.⁹ The Reed Construction database contains listings of construction projects and can be filtered by geographic area and date. This is the same database

⁸ This time was extended backwards to January 2013 to identify additional customers to reach about their cancelled projects. There were only 41 cancelled projects identified in the tracking data from April 2013 to March 2014.

⁹ Filters applied to Reed database: Project Location = Connecticut; Stage = Post Bid, Low Bids Announced, General Contractor Award, Construction Underway, or Closed; Work Type = Addition, Addition/Alteration, or New.

used by the program since the end of 2012 to identify new construction leads. The team sought to reach 10 of these customers to understand their experience. The evaluation team called 158 customers and completed interviews with 7 for a 5% completion rate, as shown in Table 2-6. One contributing factor to the low completion rate was the fact that 76, almost half, of the listed organizations did not include a contact name, making it difficult to reach decision-makers for these organizations.

Table 2-6: Dispositions for Rejecter Interviews

Disposition	Count	Percent
Left Message	145	92%
Complete	7	5%
Invalid Number	12	8%
Total	158	100%

2.4 Participating Vendor Survey

We conducted a telephone survey with 41 participating vendors from September 5, 2014 to September 13, 2014. The evaluation team defined participating vendors as those vendors who supported projects completed through the program. They included many different kinds of vendors, such as: architects on new construction projects, lighting contractors, or compressed air manufacturing representatives. Because the program tracking data did not have sufficient information on project vendors, we went through project documentation for each project included in the impact evaluation sample and backup sites and identified vendors and their contact information.¹⁰ From this data, we identified 170 unique participating vendors. As shown in Table 2-7, the research team called 148 vendors and achieved 41 completes for a completion rate of 28%.

The key question for participating vendors is their overall satisfaction with the program. For satisfaction, there is a five point continuous response from “Very Dissatisfied” to “Very Satisfied.” The evaluation team wanted to achieve 80 percent certainty with a 5 percent margin of error across a continuous program satisfaction question with five possible responses. First, the required response sample (n_0) was calculated based on the five responses, the confidence and the margin allowed to identify the sample target for an infinite population

$$n_0 = \frac{t^2 \times s^2}{d^2} = \frac{1.28^2 \times (5/4)^2}{(5 \times 0.05)^2} = 41$$

A population correction factor was not applied because the total vendor population is not known.

¹⁰ Program tracking data included 12 participating vendors; these were all in the UI data, and no vendors were identified in the CL&P data. In conversation with program staff, the evaluation team learned that the program did not track or maintain vendor data for most types of projects.

Table 2-7: Disposition of Participating Vendor Survey

Disposition	Count	Percent
Callback	55	37%
Left Message	41	28%
Complete	41	28%
Disconnected	6	4%
Do Not Call	3	2%
Refused	2	1%
Total	148	100%

2.5 Web Usability Studies

The evaluation team conducted web usability sessions with 18 customers and vendors from September 17, 2014 to October 15, 2014. The objective of conducting usability testing was to understand both C&I customer and vendor experiences using the CL&P and UI websites as well as the *Energy Conscious Blueprint* web pages. On average, each study took 20 to 30 minutes and participants were provided with a \$75 gift card for his or her time and feedback.

We used the list of 171 unique participating vendors from our work with the vendor data as a recruiting tool. The list was then filtered to include only vendors from CL&P and UI, excluding vendors completing projects from other utilities. We called a total of 75 vendors, achieving 9 completes for a completion rate of 12%, with a total of 6 CL&P and 3 UI respondents.

For the customer sample, we used a list of participating customers who took part in the participant survey for this project as a recruiting tool. We called 92 customers, achieving 9 completes for a completion rate of 10%, with a total of 4 CL&P and 5 UI respondents.

In our initial round of calls the evaluation team focused on the vendors and participants who had indicated in the participating vendor survey that they had previously used the website, but due to low levels of interest among this group we expanded our recruiting efforts to the entire lists. The evaluation team conducted each study session individually with one study participant at a time via web conferencing software. Sessions were recorded remotely using screen-recording software to capture respondents' audio comments and on-the-screen actions.

3. SUMMARY RESULTS

This section provides a summary of the overall results of the process evaluation. An overview is included, followed by detailed results by research question. Following this section, Section 4 provides the detailed findings from the five data collection activities, which were combined to answer the research questions.

3.1 Overview of Results

Results from the process evaluation indicated that the ECB program is functioning smoothly for participants and vendors. Participants in particular demonstrated high satisfaction with the program. Vendors partnering with the program appear to drive most equipment replacement projects through their marketing efforts, while utility and program staff appear to be the impetus behind many new construction and major renovation projects. Customers rely on utility and program staff to learn how to participate, and vendors rely on utility and program staff to answer questions.

Participating vendors, participating customers, and dropout customers all identified financial factors as potential barriers to completing projects. Participating vendors cited customers' lack of capital, customers' unwillingness to take on debt, and an absence of acceptable financing option most frequently as barriers to participation. Participating customers also mentioned these three factors as potential factors that would cause them to select the standard efficiency option over the energy efficient option in a hypothetical project. These results suggest some vendors and customers are not aware of available financing options for equipment replacement project or believe they are inadequate.

3.2 Results by Research Question

This section provides a summary of results by research question.

A. How well is the program reaching the target market?

A lack of complete data for building types and project types made it difficult to assess the penetration of the ECB program, although we noted some trends that may indicate opportunities in the new construction market. Unlike retrofit programs where lighting accounts for the majority of savings, the ECB program tracking data show that projects and savings are distributed across measure types. Process, lighting, and heating measures comprised the majority of ECB program savings, while cooling measures comprised the greatest number of measures. Process improvements came almost exclusively from equipment replacement projects, and lighting measures came predominantly from new construction projects. In the sample period, projects were concentrated around Hartford, New Haven, and Bridgeport.

Overall, new construction measures represented a quarter of all measures and 37% of energy savings. We were unable to assess the distribution of new construction projects between the whole building and prescriptive tracks, as they were not identified in the program tracking data. Program staff indicated that more new construction projects appeared to come online towards the end of 2013 and in 2014 than in previous years; however, the data that we received on

completed projects do not show these projects. New construction projects can take longer than equipment replacement projects to move forward which provides some explanation for why we did not see more new construction completions. In addition, new construction projects are not consistently identified in the data, as noted previously.

Based on the random sample of program participants, equipment replacement projects appear to occur most frequently in industrial and manufacturing facilities, explaining the frequency of process improvement measures. New construction projects appear to be well distributed across many facility types. However, calls made to identify program rejecters listed in the Reed database suggested that some new building owners are not aware of the ECB program.

Respondents varied in size but many were smaller businesses that owned and occupied their building. Slightly more than half of respondents said they owned and occupied their building, with 21% renting or leasing their space and 21% managing the space and leasing to others—with this holding true for equipment replacement projects as well as new construction. The program's success reaching individuals leasing space to tenants—typically considered a difficult group to access—suggests outreach by vendors and program staff has been effective.

Utility and program staff drive many new construction projects while equipment vendors and contractors drive equipment replacement projects. While equipment replacement and remodel respondents frequently learned about the program from vendors and contractors, new construction respondents mostly learned about the program from utility or program staff. We did not observe any notable differences in sources of program awareness between CL&P and UI respondents.

Participants in the ECB program are not always aware of the Energy Opportunities retrofit program. Findings suggested many participants are only aware of the program they were notified about. Of the 43 equipment replacement respondents, less than half (44%) were aware of the Energy Opportunities Program for early replacement of equipment.

B. How satisfied are participants with the program?

As shown in Table 3-1, participants overall were very satisfied with their experience with the ECB Program, rating their satisfaction a 4.8 out of 5. Only one respondent rated their overall satisfaction a three or less. This respondent described that they received a smaller rebate than they had applied for. Respondents were also satisfied with the energy performance of their new building (4.6) or the energy bill savings from their new equipment (4.4). They were slightly less satisfied with the amount of the rebate (4.2). These scores were consistent across project types. Respondents were also generally satisfied with support received from program staff and the amount of paperwork required to receive an incentive, although six of the 70 respondents rated this area a 3 or less.

Table 3-1: Participant Satisfaction with Program Aspects

Program Aspect	Avg. Rating (1 to 5)
Support received from program staff and engineers (New Construction only)	4.9
The performance of the energy efficient equipment	4.8
Support received from program staff (Replacement)	4.8
Overall experience with the ECB program	4.8
Contractor or vendor	4.7
The energy use of the new building	4.6
Amount of time to receive incentive or rebate	4.5
Paperwork required to obtain an incentive	4.4
Energy bill savings	4.4
Architect or engineer	4.3
Amount of incentive or rebate	4.2

Participants were highly satisfied with the performance of the equipment, with an average satisfaction score of 4.8 out of 5. Only one respondent rated their satisfaction less than a 4, explaining that his/her tenants have reported the new system does not heat well.

Program staff and vendors played a key role in participants' experience. After learning about the program, most respondents either talked to a vendor or called or emailed their utility to learn about the steps to take to participate in the ECB program. Participants were more likely to take those actions than to visit the Energize Connecticut or utility website. Participants generally did not find the process of enrolling in the ECB program to be complex. On a five-point scale where one was "not at all complicated" and five was "very complicated," respondents averaged a 1.6.

Although they did not use the website to learn about next steps to take, many participants said they did use the website to find more information about the ECB Program. Slightly more than one-quarter of survey respondents reported visiting the program website before or during the project. The vast majority of these 18 respondents said that they visited the website to research the ECB program.

C. How satisfied are vendors with the program?

Participating vendors were generally satisfied with their experience with the ECB program, rating their satisfaction a 4.1 out of 5 on average. Vendors most frequently cited increased customer satisfaction as the benefit they received from working with the program, and almost half of vendors relied on the ECB program for a quarter or more of their work. Program staff played a major role in helping vendors learn about the program and were frequently consulted as a resource during projects. Program staff indicated that the vendors are not tracked or endorsed by the program or utilities; no formal vendor program exists. Respondents were generally satisfied with the level of support offered by program staff, but were interested in more information about incentives. Program staff indicated that the vast majority of information about the program is delivered via quarterly training sessions that cover all programs.

D. What barriers or issues could inhibit the program from achieving its goals?

Participants most frequently cited the lack of corporate capital to cover the additional cost of energy efficient equipment as a barrier that might cause them to select a standard efficiency option (a non-incentivized, non-efficient option) over the energy efficient choice (incentivized by energy efficiency programs)—although, being participants, they all chose the efficient option in their recent project. An unwillingness to take on debt was the second most frequent response, followed by an absence of acceptable financing options and a lack of knowledge of what improvements would save energy.

These barriers were mirrored in findings from the dropout and participating vendor surveys. Two out of the eight true dropouts identified (25%) reported that the expense of the equipment was the primary reason they stopped pursuing the project. Nearly all vendors reported that customers' lack of access to capital represented a barrier to participation, and most also thought that customers' unwillingness to take on debt and the absence of acceptable financing options were other factors limiting participation. Program staff indicated that the utilities do not provide financing for new construction projects. Other sources of financing are available for certain projects through other programs, such as the C-PACE program.

The most notable difference between participants of different project types was doubts about energy and cost savings claims. No new construction respondents (out of 12) and only one remodel (out of 15) respondent reported this as a barrier, whereas 18 (42%) equipment replacement respondents reported doubts about energy and costs and savings claims. This may be related to funding structure of retrofit projects, which often have payback requirements, as opposed to new construction projects, where the financial benefits of energy efficiency may be experienced by tenants and not necessarily the building owner or developer.

Few participants reported that the one-year project completion deadline was a concern when they decided to participate. Only eight respondents (12%) said it was a concern; the remaining 61 (88%) said it was not a concern.

4. DETAILED FINDINGS

This section contains the detailed results from the process data collection activities. These results are first presented in summary—a selection of the findings that stood out—and then in detail for each data collection activity. The data collection activities included: (1) a survey of program participants, (2) a survey of program dropouts, (3) interviews with new construction rejecters, and (4) a survey of participating vendors.

4.1 Participant Survey Findings

This section presents results from the 2014 telephone survey of ECB participants that recently completed program projects, between April 2013 and March 2014. This survey was designed to capture participation motivations, experiences, and satisfaction with the ECB program. This section first describes respondent characteristics and then summarizes motivations, avenues of awareness, satisfaction, barriers, and other process results.

This research indicated that while participants with new construction or remodel projects and participants with equipment replacement projects represented different businesses types and learned about the program through different means, they both reported high satisfaction with the program. New construction participants often learned about the program from utility or program representatives, while equipment replacement participants often learned about it from contractors and vendors. After learning about the program, both groups relied heavily on calls and emails with utility or program representatives to learn about next steps to participate. Respondents cited financial considerations, such as a lack of capital (internal corporate capital alongside unwillingness to take on debt) or financing options (third), most frequently as potential barriers to energy efficiency projects.

Program Participants

The evaluation team surveyed 70 participating customers about their experiences with the program (Table 4-1). As described in Chapter 2, the sample was drawn from the population of customers participating in the program between April 2013 and March 2014. The sample was stratified by project type and utility as depicted in table. This stratification ensured that different project types were adequately represented in the sample. The evaluation team did not weigh the results, as records of project type in the population were incomplete.

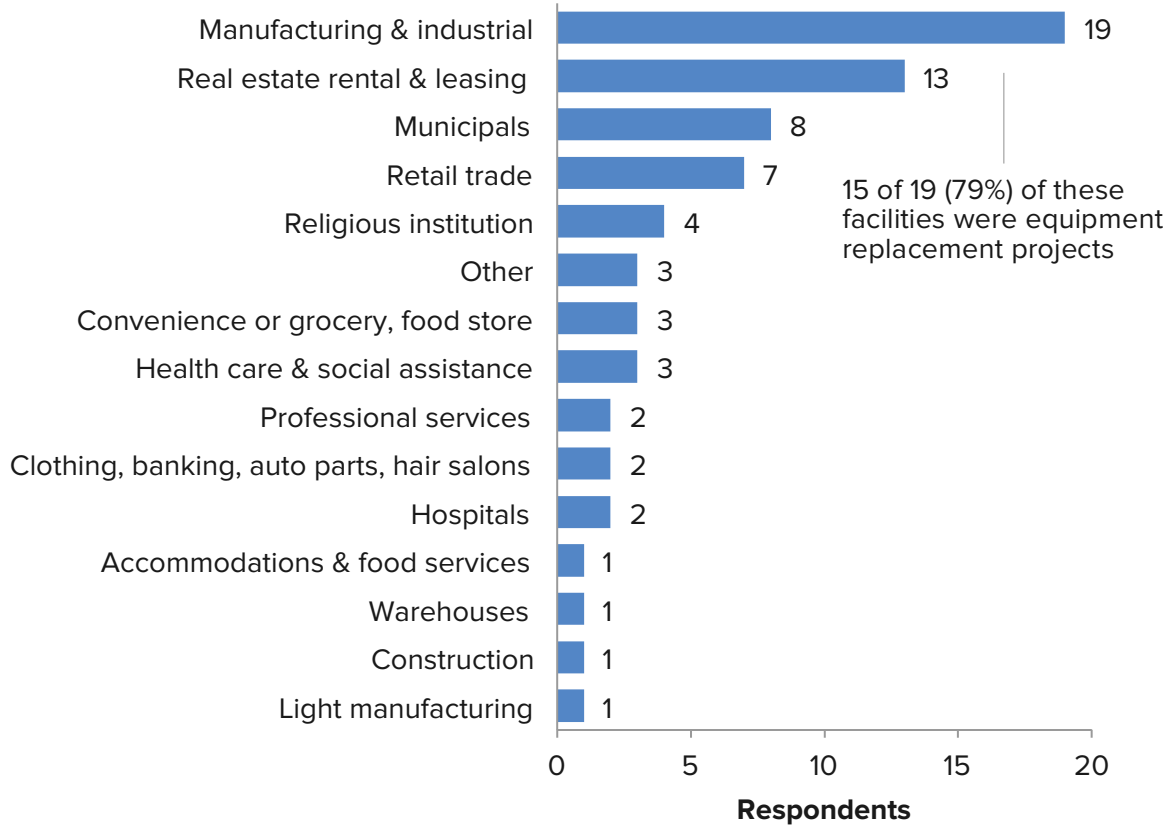
Table 4-1: Respondents by Project Type and Utility

Project Type	CL&P	UI	Total
Equipment Replacement	23	20	43
New Construction or Facility Expansion	6	6	12
Remodel	9	6	15
Total	38	32	70

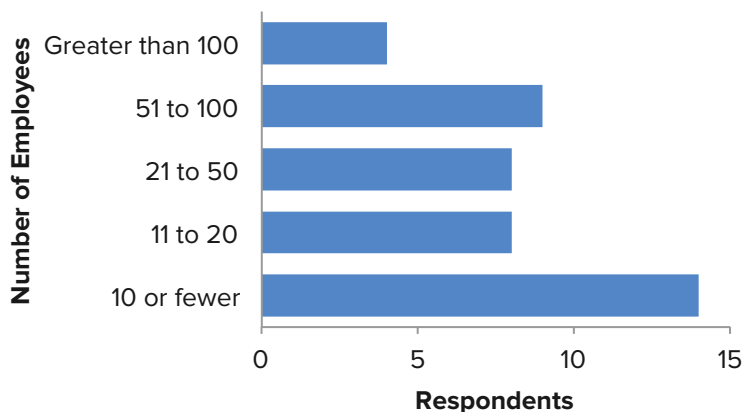
Business Characteristics

Participating customers represented a variety of different commercial and industrial facility types (Figure 4-1). Equipment replacement projects have been common in manufacturing and industrial facilities during the evaluated time period, while new construction projects occurred for a diversity of facility types. Overall, the most common facility type was manufacturing and industrial facilities (19, or 27%), followed by real estate rental and leasing properties (13, or 19%) and municipal facilities (8, or 11%). The majority of the manufacturing and industrial facilities were equipment replacement projects (79%), with the remainder being remodel projects (21%). The number of manufacturing and industrial projects likely reflects the large loads and eligible end-uses of these facilities, such as compressed air, HVAC systems, and motors. Among new construction projects, municipals were the most common facility type (4, or 33%), followed by retail trade (2, or 17%).

Figure 4-1: Participants were most often manufacturing & industrial facilities (n=70)



As shown in Figure 4-2, respondents varied in size but many were smaller businesses that owned and occupied their building. The size of participant respondents varied from a single employee to 5,000 employees, with a median of 17.5. Distributions were similar across project types. Slightly more than half of respondents said they owned and occupied their building, with 21% renting or leasing their space and 21% managing the space and leasing to others—with this holding true for equipment replacement projects as well as new construction. Two respondents were involved with the construction of the building and neither owned or occupied the space. The program’s success reaching individuals leasing space to tenants—typically considered a difficult group to access—suggests outreach by vendors and program staff has been effective.

Figure 4-2: Participants were most frequently firms with 10 or fewer employees (n=70)

Project Partners

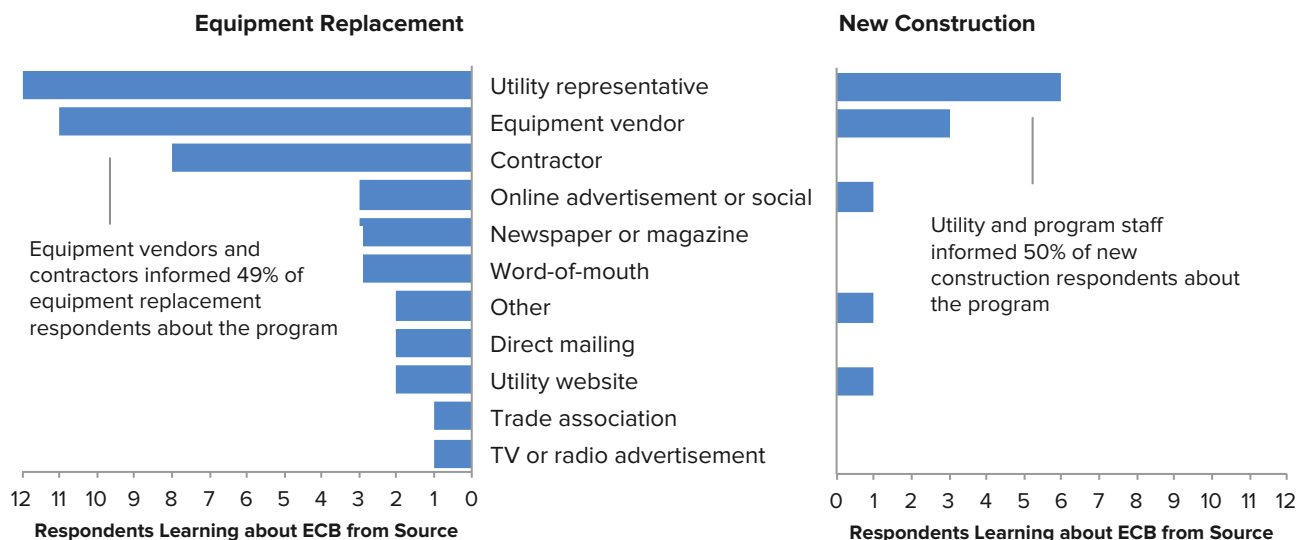
The majority of equipment replacement respondents and remodel respondents and *all* new construction respondents reported working with more than one partner for the ECB project. Most equipment replacement participants reported working with an equipment vendor (84%) and most new construction participants reported working with an engineering consultant (83%) and/or architect or building designer (75%).

In addition to engineering consultants and architects, new construction respondents also frequently reported working with equipment vendors (67%), mechanical or electrical engineers (67%), general contractors (58%), and green building consultants (42%).

Awareness

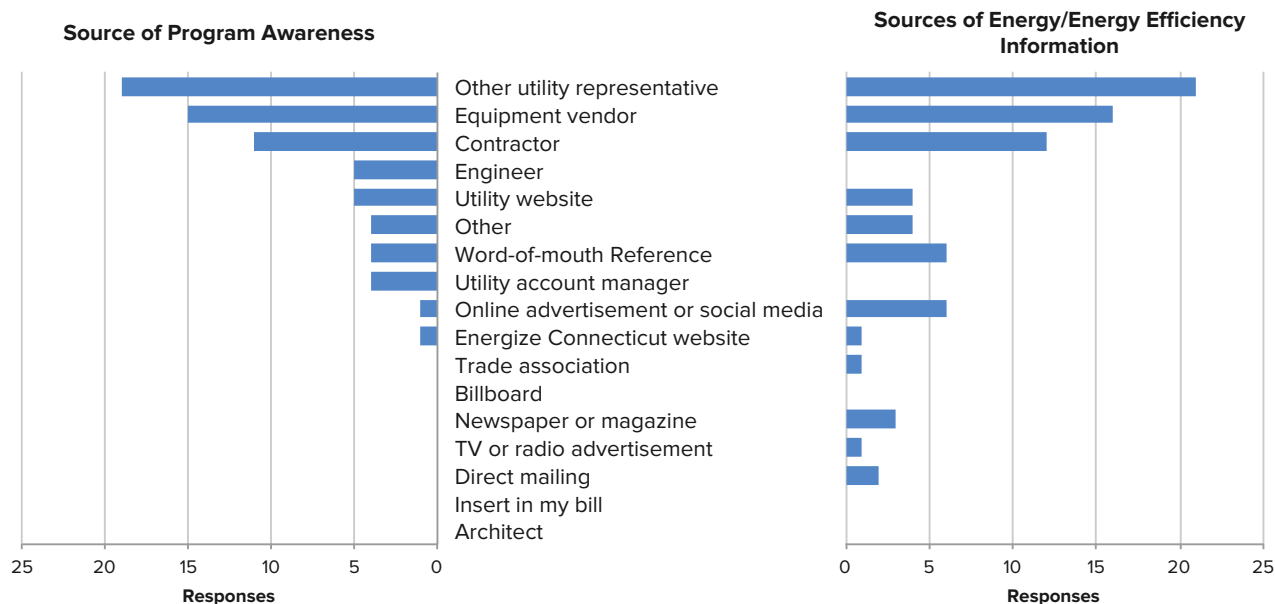
As shown in Figure 4-3, utility and program staff appear to drive program awareness for many new construction participants while equipment vendors and contractors drive awareness for participants with equipment replacement projects. While equipment replacement and remodel respondents frequently learned about program from vendors and contractors (21 out of 43, or 49%, when combined), new construction respondents mostly learned about the program from utility representatives (presumably includes program staff) (6 of 12, 50%). Utility representatives were also a frequent source of awareness for equipment replacement projects (12 of 43, 21%). We did not observe any notable differences in sources of program awareness between CL&P and UI respondents.

Figure 4-3: Equipment vendors and contractors informed most equipment replacement respondents about the program, while utility and program staff informed half of new construction respondents (n=70)



While utility representatives, equipment vendors, contractors, utility websites, and word-of-mouth were all sources of program awareness and general information on energy/energy efficiency, media and direct marketing sources were rarely sources of program awareness (Figure 4-4). These direct marketing sources include newspapers, TV or radio advertisements, online advertisements, and direct mailings. Conversely, engineers and utility account managers were sources of program awareness but never general sources of energy/energy efficiency information. Utility representatives were a common source of information across groups. Half of new construction respondents said they typically hear about energy efficiency opportunities from utility representatives. The sources of program awareness are generally consistent with what we heard from program staff. Staff indicated that vendors are driving many projects and that customers also gain information from the website or other broader marketing efforts.

Figure 4-4: Media and direct marketing sources were occasionally sources of general energy efficiency information, but never a source of program awareness



While most equipment replacement respondents began working with the program during the project planning process, some (12%) reported that their program involvement began after the equipment had been selected and others (19%) reported that it began after the equipment had been purchased and installed. While this evaluation was not intended to assess free-ridership and respondents' interpretation of when they began working with the program could vary,¹¹ this result suggests the incentive may not factor into equipment purchasing decisions for some participants. Additional research is needed to determine the degree to which this is an issue.

The vast majority of new construction and remodel respondents (80%) reported that they began working with the ECB program during the planning or design phase. While 20% reported their involvement began during construction, this does not necessarily indicate free-ridership as some equipment may not be specified or selected until construction. In keeping with this, the program staff indicated continuous efforts to get involved in new construction projects earlier in the design phase. From their perspective, this depends on building relationships with architects and remaining diligent on contacting potential new construction building owners.

Participants and the ECB Program Process

The following section details participants' experiences with the program process and factors affecting their experience with the process, such as motivations, and decision-making.

Enrollment

After learning about the program, most respondents either talked to a vendor (including contractors, architects, and engineers - 48%) or called or emailed their utility (42%) to learn about

¹¹ For example, a respondent may consider filling out the incentive application to mark when they began working with the program, even though the incentive figured into their decision to select the equipment.

the steps to take to participate in the ECB program. Participants were less likely to visit the Energize Connecticut website (only one respondent – 2%) or utility websites (four – 6%).

Participants generally did not find the process of enrolling in the ECB program to be complex. On a five-point scale where one was “not at all complicated” and five was “very complicated,” respondents averaged a 1.6. Only two respondents (3%) rated the difficulty of enrollment a four or greater.

Participants appeared to use the utility website primarily to find more information about the ECB Program. Slightly more than one-quarter (26%) of survey respondents reported visiting the program website before or during the project. The vast majority of these 18 respondents (88%) said that they visited the website to research the ECB program. Only two respondents (12% of those who visited the website) said they visited the website to learn about new programs, and one said they were looking to find ways to save on their energy bill.

While most participants felt it was easy to find information on the website, others did not. On a scale from one (“not easy”) to five (“very easy”), 4 out of 14 respondents (29%) provided a rating of 3 or less. For more information on customer experiences with the program website, see the separate web usability study presentation.

Slightly less than a third (31%) of the participants visiting the website used the incentive calculation table on the website and all of these respondents felt it was easy to use. All 5 respondents provided a rating of 4 or 5 on a scale from one (“not easy”) to five (“very easy”).

More participants using the website recalled seeing case studies on the website (39%) than used the incentive table. These seven participants were split on the usefulness of the case studies in providing relevant information. On a scale where 5 was “very useful” and 1 was “not useful,” four respondents provided a rating of 4 or 5, indicating they felt the case studies were useful, but two provided a rating of 3 and one provided a rating of 1. These responses averaged to 3.5 out of 5.

Motivations

When asked to choose from a list of reasons for participating, respondents most frequently mentioned interest in receiving rebates or incentives as a motivation for participating in the program (66% total). More than half of respondents mentioned saving money on energy bills (54% total).

Among equipment replacement and remodel respondents, there was an interest in acquiring new technology (53% and 40% respectively) but no new construction respondents mentioned this. Some new construction respondents mentioned goals around LEED standards (17%) and achieving a “green” building (17%) as additional motivations for participation.

Of the 43 equipment replacement respondents, less than half (44%) were aware of the Energy Opportunities Program for early replacement of equipment.

Decision-Making & Barriers

Respondents most frequently cited the lack of corporate capital to cover the additional cost of energy efficient equipment as a barrier (44%) that might cause them to select a standard efficiency option over the energy efficient choice. An unwillingness to take on debt was the

second most frequent response (33%), followed by an absence of acceptable financing options (31%), and a lack of knowledge of what improvements would save energy (29%).

The most notable difference between respondents of different project types was doubts about energy and cost savings claims. No new construction respondents (out of 12) and only one remodel (out of 15) respondent reported this as a barrier, whereas 18 (42%) equipment replacement respondents reported doubts about energy and costs and savings claims.

Few respondents reported that the one-year project completion deadline was a concern when they decided to participate. Only eight respondents (12%)—four equipment replacement and four new construction—said it was a concern; the remaining 61 (88%) said it was not a concern. According to program staff, the timeline was not expected to be a concern because of the way that projects are developed.

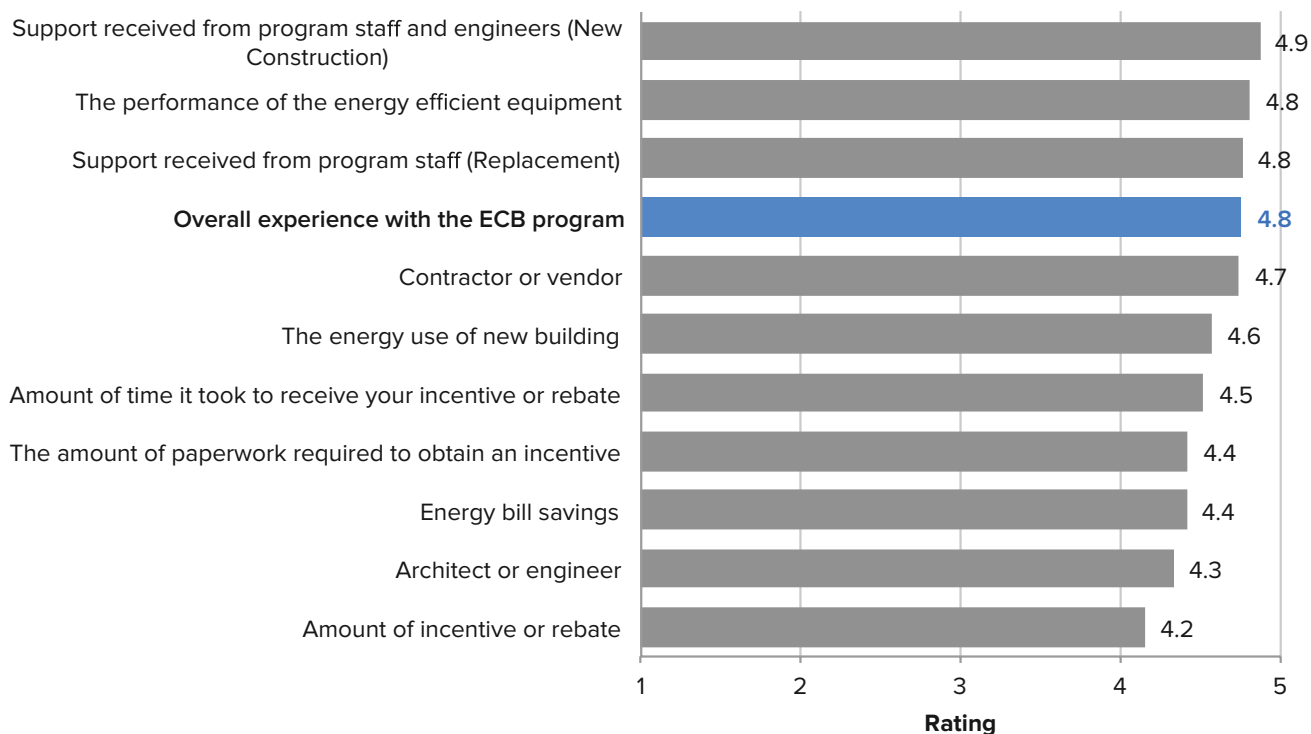
Satisfaction

Overall participants were very satisfied with their experience with the ECB Program, rating their satisfaction a 4.8 out of 5 (Figure 4-5). Only one respondent rated their overall satisfaction a three or less. This respondent described that they received a smaller rebate than they had applied for.

Respondents were also satisfied with the energy performance of their new building (4.6) or the energy bill savings from their new equipment (4.4). They were slightly less satisfied with the amount of the rebate (4.2).¹² These scores were consistent across project types.

¹² In evaluation research, participating customers frequently suggest higher incentives as a program improvement. However, the purpose of the incentive is to motivate energy efficient choices and not to maximize customer satisfaction by providing the maximum incentive. Thus this suggestion is seldom seen as reflective of the program's performance, particularly when it comes from participants who did participate at the current level of incentive.

Figure 4-5: Participants were generally satisfied with their overall experience and specific aspects of their experience



Respondents were also satisfied with support received from program staff and the amount of paperwork required to receive an incentive, although six respondents rated this area a 3 or less. Many provided a comment similar to “too much to fill out.” One respondent mentioned a lot of back and forth on getting the proper data for lighting levels, and another singled out the schematic requirement for a burner and additional information he needed to collect from his HVAC engineers.

Participants were highly satisfied with the performance of the equipment, with an average satisfaction score of 4.8 out of 5. Only one respondent rated their satisfaction less than a 4, explaining that his/her tenants have reported the new system does not heat well.

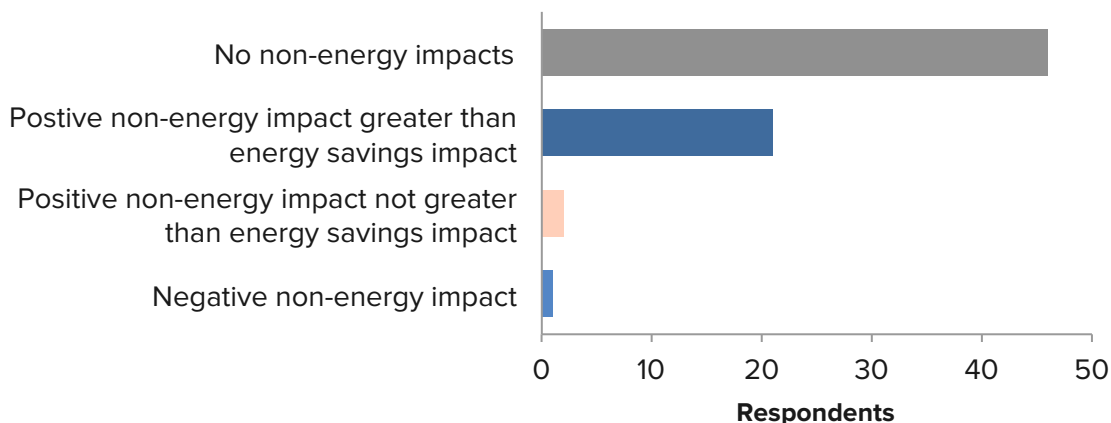
Participants appeared to be satisfied with their experience working with trade allies. Respondents with a new construction or remodel project reported an average satisfaction score of 4.3, with 4 out of 21 providing a rating of 3 or less.

Respondents working with a contractor or vendor on an equipment replacement project reported an average score of 4.7 out of 5. More than 80% of respondents were “very satisfied” with their contractor or vendor.

Non-Energy Impacts

As shown in Figure 4-6, 24 respondents (34%) mentioned at least one non-energy impact to participating in the program.¹³ Almost of these respondents (21 of 24, or 88%) reported that the non-energy impact was positive and had a greater effect on their facility than the energy savings impact of the project.

Figure 4-6: Almost one-third of respondents reported a positive non-energy impact that had a greater effect on their facility than the energy savings impact

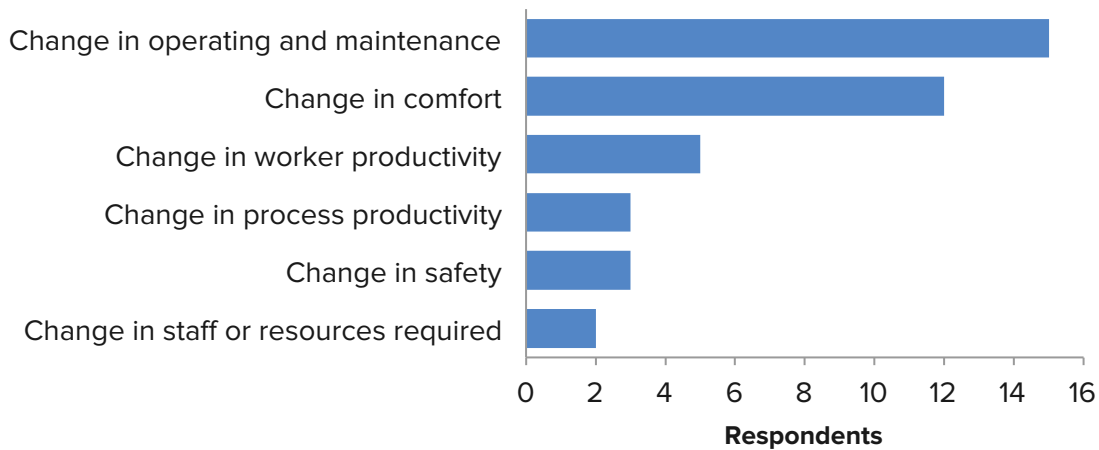


The most frequently reported impact was changes to operations and maintenance practices, followed by changes in comfort (Figure 4-7). Other non-energy impacts included changes in worker productivity, changes in process productivity, changes in safety, and changes in staff or resources required.

All respondents viewed the impacts as positive changes except one respondent, who thought the project consisting of lighting upgrades would entail much larger maintenance and operating costs.

¹³ ECB cost-effectiveness screening includes changes in O&M practices but none of the other non-energy benefits investigated in this study are included. These include comfort, worker productivity, process productivity, and safety.

Figure 4-7: Non-Energy Impacts of ECB Projects

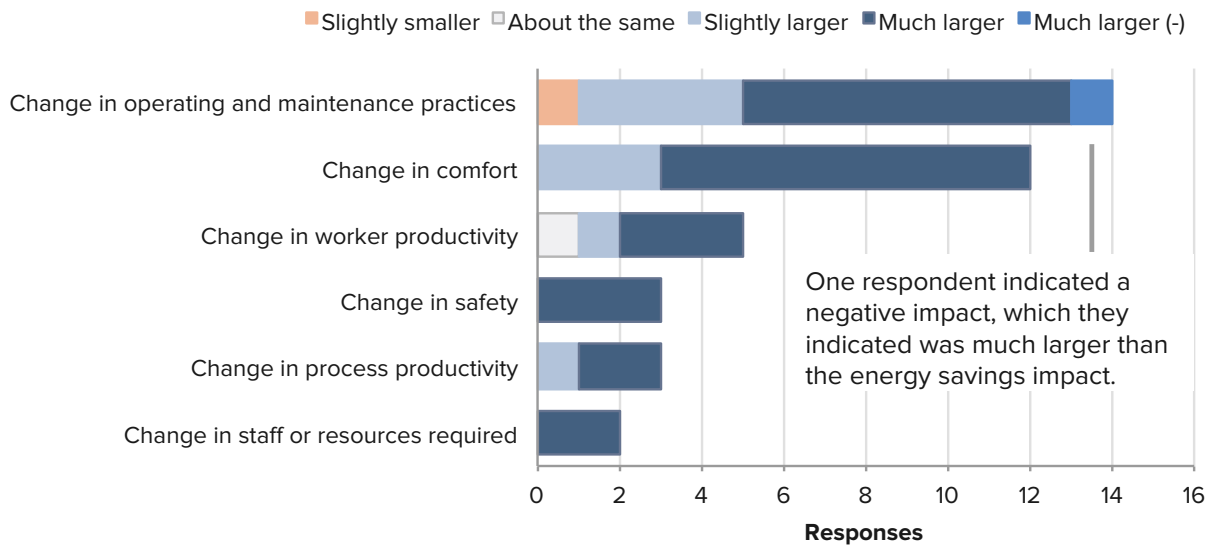


Nine of the 24 respondents (38%) who experienced a non-energy impact had not expected or planned on non-energy impacts. Among the 16 that did expect a non-energy impact, the most common expected impacts were changes in operations and maintenance (75%) and changes in comfort (38%).

Most of these reported the non-energy impact to be positive and of greater impact on their facility than the energy savings. Most respondents experiencing non-energy impact (22 of 24 - 92%) reported the non-energy impacts had a larger effect on their facility than the energy savings.

As shown in Figure 4-8, respondents reported the majority of non-energy impacts (69%) were “much larger” than the impact of energy savings. As previously noted, only one respondent reported a negative impact, and this respondent felt the negative impact on operating and maintenance practices was “much larger” than the energy savings impacts. This response is indicated by the “much larger (-)” caption in the figure.

Figure 4-8: Magnitude of Non-Energy Impacts Relative to Energy Savings Impacts



Responses suggested that changes to comfort were often the most important impact. Three out of four reporting a change in comfort and another impact said comfort was the most important change they experienced. Only three out of seven reporting a change in operations and maintenance practices and another impact said that the O&M impact was the most important they experienced.

4.2 Participating Vendor Survey Findings

This section presents results from the 2014 telephone survey of Energy Conscious Blueprint participating vendors. The evaluation team designed this survey to better understand participating vendors’ experience as a part of the ECB program, and the ways in which their experience could be improved. This section first describes respondent characteristics and then summarizes avenues of awareness, motivations, marketing, satisfaction, sources of support, and other process evaluation results.

The results of our research suggest that participating vendors are generally satisfied with their experience with the program and many rely on the program for a substantial portion of their business. Almost half of participating vendors relied on the ECB program for a quarter or more of their work and customers approached by participating vendors usually chose to participate in the program. Program staff played a major role in participating vendors learning of the program and were frequently looked to as a resource during projects. Respondents were generally satisfied with the level of support offered by program staff, but were interested in more information about incentives. Participating vendors described financial constraints as the most significant barrier they see to customer participation in the program.

Program Participating Vendors

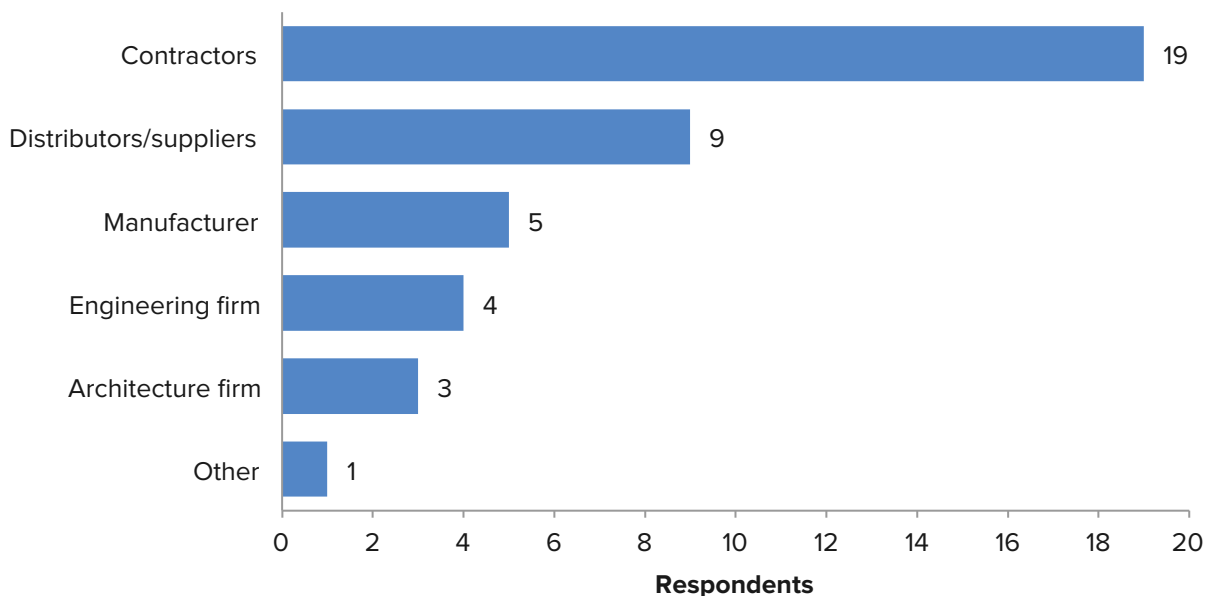
The evaluation team surveyed 41 participating vendors about their experiences with the program. The sample was drawn from the population of vendors participating in the program between

April 2013 and March 2014. Further details about the sampling process can be found in Chapter 2 of this report.

Business Characteristics

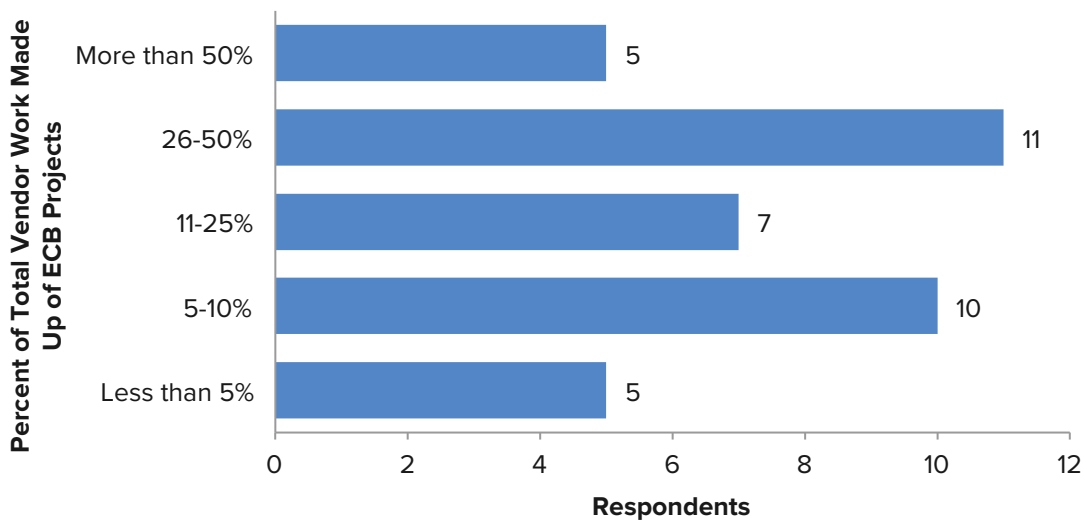
Participating vendors in the sample were most frequently contractors, distributors, or manufacturers rather than architecture or engineering firms.¹⁴ As shown in Figure 4-9, 19 out of 41 respondents (46%) described themselves as contractors, nine respondents described themselves as distributors (22%) and five described themselves as manufacturers (12%). Only 7 total respondents represented architecture or engineering firms, with these businesses together making up 17% of respondents (4 engineering firms and 3 architecture firms). None of the respondents described their business as green building consulting firms.

Figure 4-9: Majority of participating vendors worked as contractors, distributors/suppliers, and manufacturers



While almost 40% of respondents (15 of 38) reported that 10% or less of their work was accounted for by ECB projects, many respondents reported high rates of involvement in ECB projects. Sixteen out of 38 (42%) participating vendors reported that at least a quarter of their business was accounted for by ECB projects, and 5 out of 38 (13%) respondents reported that more than 50% of their business was accounted for by these types of projects, as shown in Figure 4-10. Program staff anticipated this level of involvement even though they do not track vendors or maintain a formal vendor alliance.

¹⁴ The CL&P program-tracking database more clearly identified new construction projects. About one-quarter of measures in the program are new construction measures while one-in-six of the participating vendor interviews were with design firms (architects or engineering firms).

Figure 4-10: Many respondents reported high rates of involvement in program

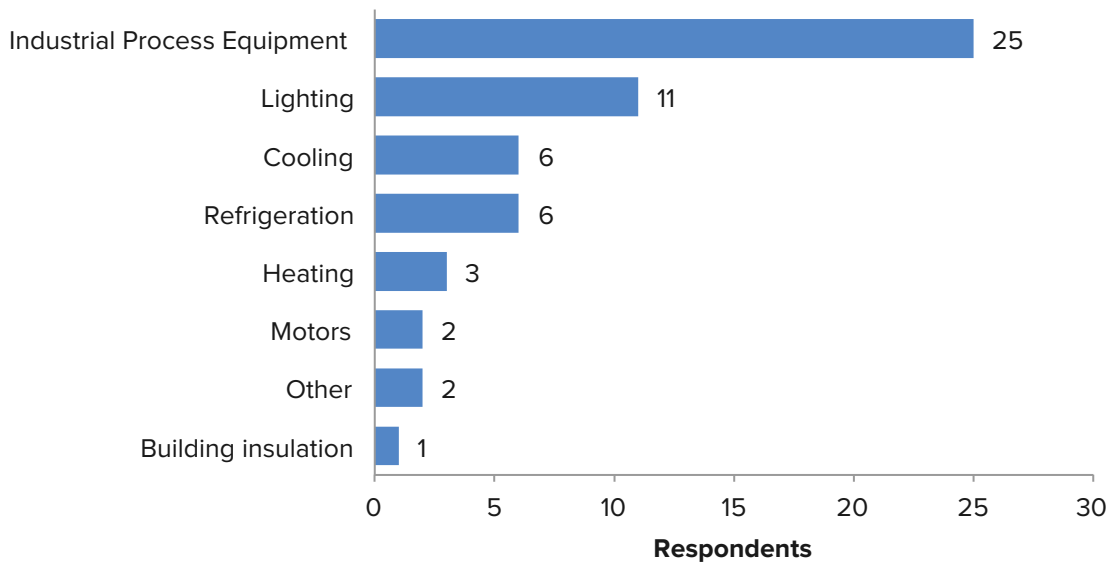
The projects that participating vendors take on as part of the ECB program generally come from a mix of new and existing customers. Almost 80%, 30 out of 38 vendors, reported that ECB projects originated with both new and existing customers. Some vendors reported that projects they took on as part of the ECB program typically originated only with new customers (5 out of 38 respondents) and a smaller number of participating vendors did ECB programs only with existing customers (3 out of 38 respondents).

Vendor Role and Type of Project

Almost all vendors (90% of respondents) were involved with equipment specification. Other services performed by nearly all respondents included design (88% of respondents) and selling/providing equipment services (81%). Equipment installation was performed less frequently by respondents (71%).

Participating vendors most frequently sold or distributed industrial process equipment (e.g., air compressors) for ECB projects. As shown in Figure 4-11, nearly half (45%) of respondents reported selling/distributing industrial equipment, more than twice as many as the 20% who reported selling/distributing lighting equipment, the second most frequent respondent choice. Other equipment sold/distributed in ECB projects included cooling and refrigeration equipment (reported by 11% of respondents), heating equipment (5%), motors (4%), building insulation (2%), and other equipment (2%, described by respondents as electrical and plumbing equipment, which could indicate HVAC equipment).

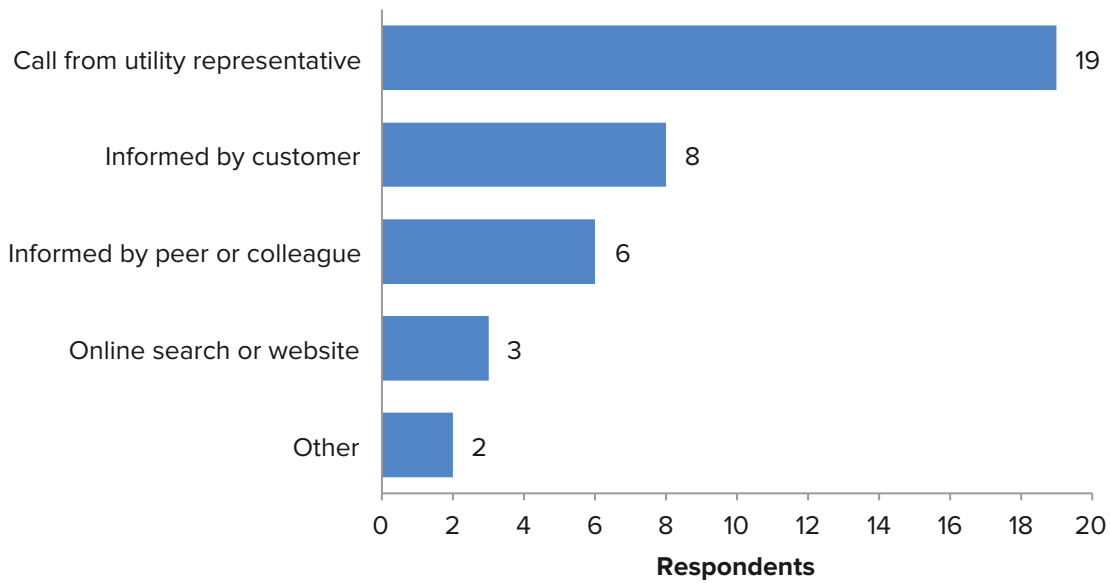
Figure 4-11: Surveyed participating vendors most frequently offered industrial process equipment



Awareness

Participating vendors most frequently learned about the program through a call from their utility representative. As demonstrated in Figure 4-12 below, more participating vendors learn about the program through a utility representative (19 out of 38 respondents) than from any other source. However, many respondents reported learning about the program through word-of-mouth whether through a customer (8 out of 38) or a colleague or peer (6 out of 38). Only three respondents reported learning about the program through an online search. Program staff believes that most vendors learn about programs through quarterly training sessions where information on all projects is delivered, including eligibility requirements and incentives available.

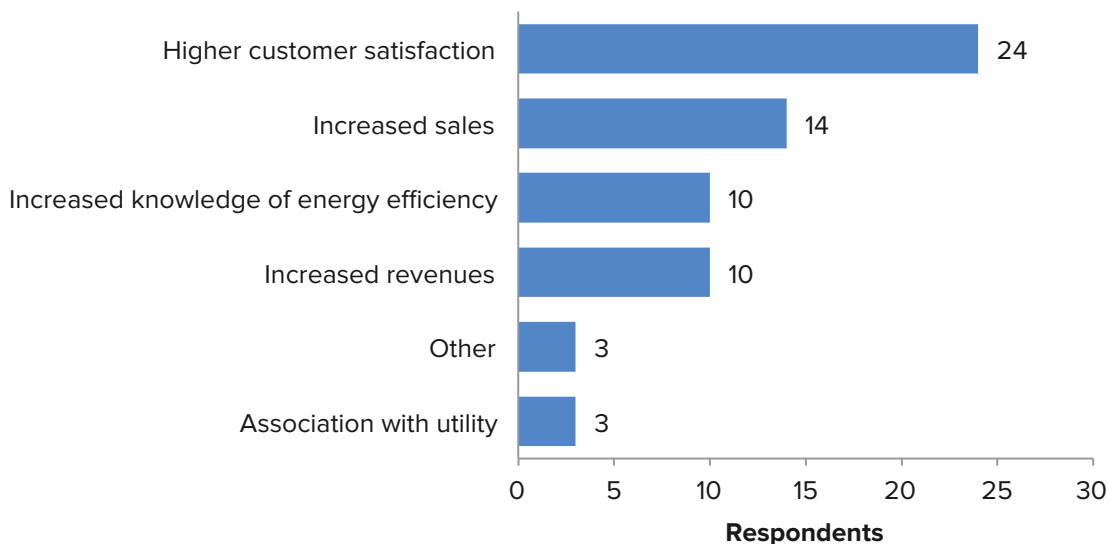
Figure 4-12: Participating vendors most frequently heard of program from utility representatives



When asked to select how their business uses the program, most participating vendors said they used the ECB program in order to sell energy efficient equipment to customers who would otherwise choose the standard efficiency option. While 8 out of 41 participating vendors reported that their business uses the program in order to sell their services to prospective customers or provide better pricing for customers already interested in energy efficiency (8 out of 41) the majority of vendors (25 out of 41) use the program to motivate customers to select the energy efficient option.

Participating vendors most frequently reported higher customer satisfaction as a benefit of partnering with the ECB program (Figure 4-13). Almost 60% of respondents (24 out of 41) reported higher customer satisfaction as a benefit of the program, while others identified increased sales (14 out of 41), increased revenues (10 out of 41), and increased knowledge of energy efficient products (10 out of 41) as major program benefits.

Figure 4-13: Participating vendors most often cited customer satisfaction as a benefit of partnering with the program

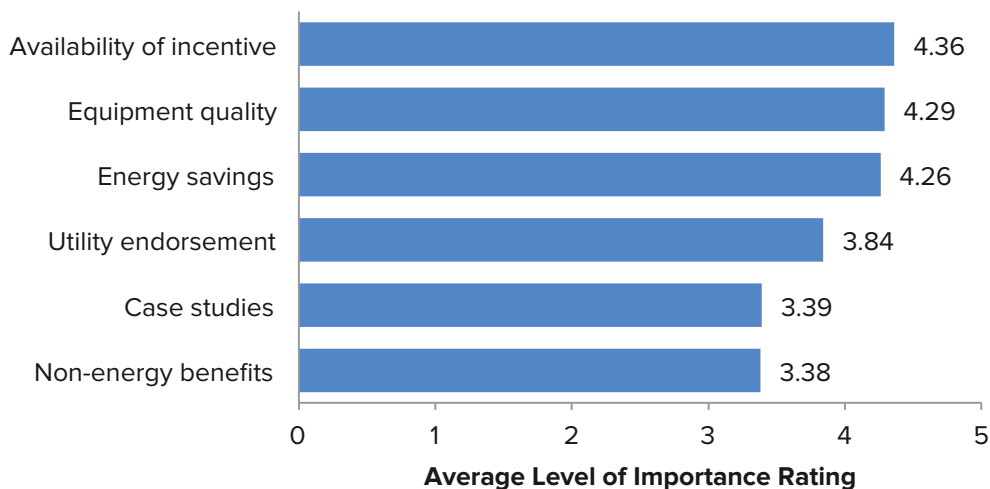


Marketing

Most participating vendors actively market the program to their customers. The vast majority of participating vendors (36 out of 41 respondents) brought the program to customers’ attention, although some vendors (5 out of 41) reported that customers brought the program to their attention. This active marketing may be why program staff indicated that vendors drive participation in this program.

Respondents identified energy savings and availability of incentives as the most important factors in recruiting customers to participate in the ECB program (Figure 4-14). When rating factors that influenced customers’ decisions to participate in the ECB program on a scale from 1-5 (1 meaning not at all important, 5 meaning very important) most respondents (63%) reported that incentives were “very important” to their ability to recruit customers. Nearly as many (56%) described energy savings as “very important” to recruiting customers to the ECB program. Respondents also rated utility endorsement as a meaningful element of the program, with 46% describing it as “very important.” Meanwhile, on average participating vendors rated non-energy benefits and case studies as “somewhat important.”

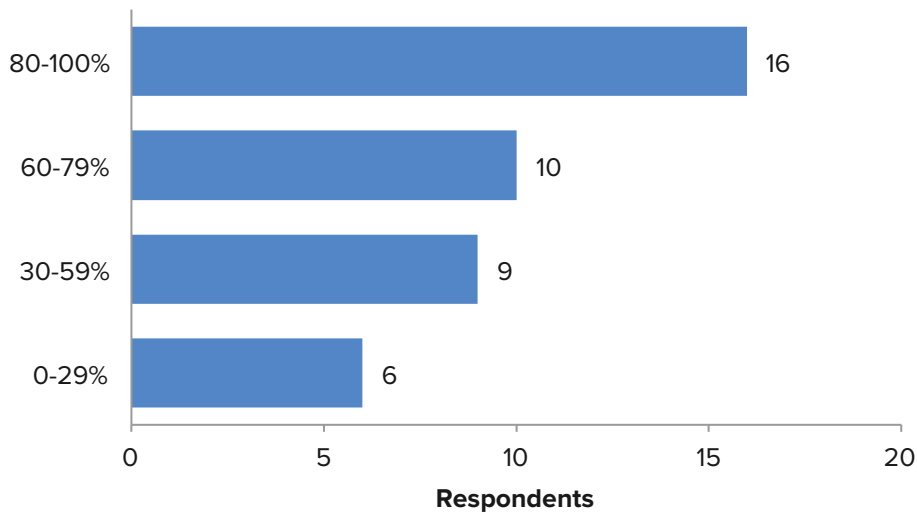
Figure 4-14: Surveyed participating vendors emphasized importance of incentives, equipment quality, and energy savings



According to the participating vendors surveyed, customers who were informed about the ECB program frequently chose to participate in the program. For 16 out of the 41 participating vendors surveyed, more than 80% of their customers chose to participate once informed about the ECB program. As shown in Figure 4-15, this was the most frequent response, followed by 10 vendors reporting that 60-79% or more of their customers chose to participate and 9 respondents reported that 30-59% chose to participate. Only 6 out of 41 respondents reported that fewer than 30% of customers chose to participate after being informed about the ECB program.¹⁵

¹⁵ These findings are for participating vendors who often have a business model that includes using/selling the program, as reported above. So it would be expected for their answers to customer response to program awareness would be significantly higher than that for the general population of customers or among the general population of vendors.

Figure 4-15: A high percentage of customers chose to participate after being informed about the program¹⁶



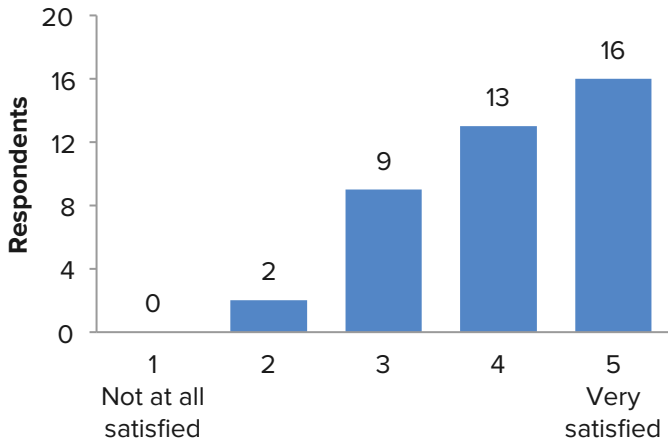
Satisfaction

Overall, participating vendors were satisfied with the program, rating their satisfaction a 4.1 out of 5 on average (Figure 4-16). Although many respondents rated their satisfaction as a 4 (32%) or a 5 (39%) a number of respondents (27%) rated their satisfaction as a 2 or a 3. The participating vendors who rated their satisfaction as a 4 or 5 frequently mentioned positive customer feedback and the helpfulness of program staff as the reasons they rated the program highly. Participating vendors who rated the program as a 2 or 3 mentioned an overly complex application process and excessive paperwork, offering the following comments to explain why they were not satisfied with the program:

- “It’s too complicated, too hard to understand.”
- “The equipment and paperwork [are] cumbersome to figure out.”
- “It takes a lot of engineering time to deal with paperwork.”
- “Program needs to be quicker and simple[r] with the application process and paperwork.”

¹⁶ Ibid.

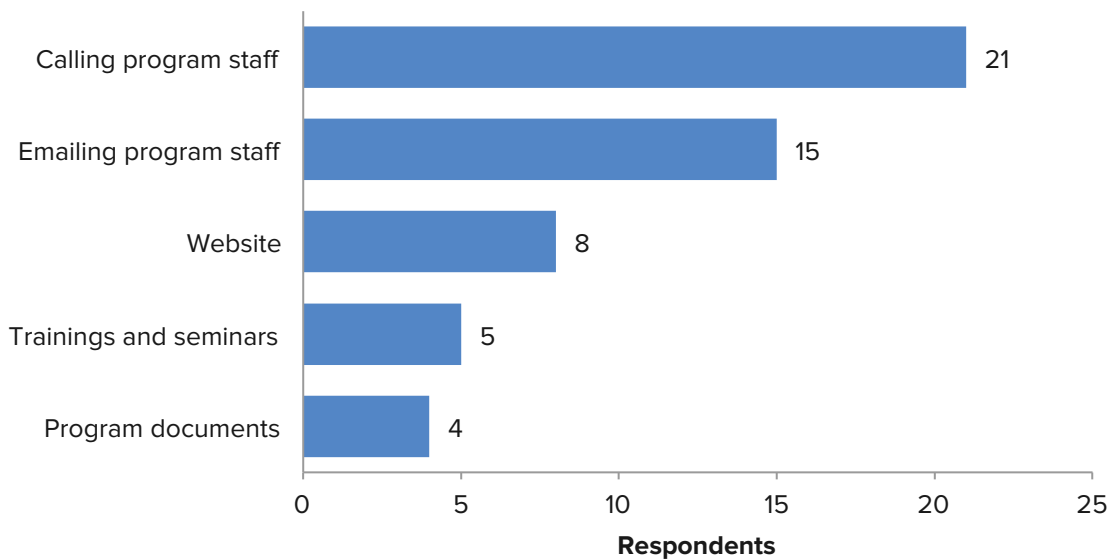
Figure 4-16: Participating vendors were generally satisfied, but many were less than satisfied



Support & Resources

Results suggested program staff were the most useful resource in vendors’ work for the ECB program (Figure 4-17). More than half of respondents (21 out of 41) cited calling program staff as the most useful resource; while more than a third of respondents (15 out of 41) reported emailing program staff as a useful resource. Altogether, more than two-thirds of respondents (36 out of 41) reported directly contacting program staff as an important resource, far outweighing the number of respondents citing the utility website (8 out of 41), trainings and seminars (5 out of 41), or program documents (4 out of 41).

Figure 4-17: Participating vendors overwhelmingly reported contacting program staff as a useful resource



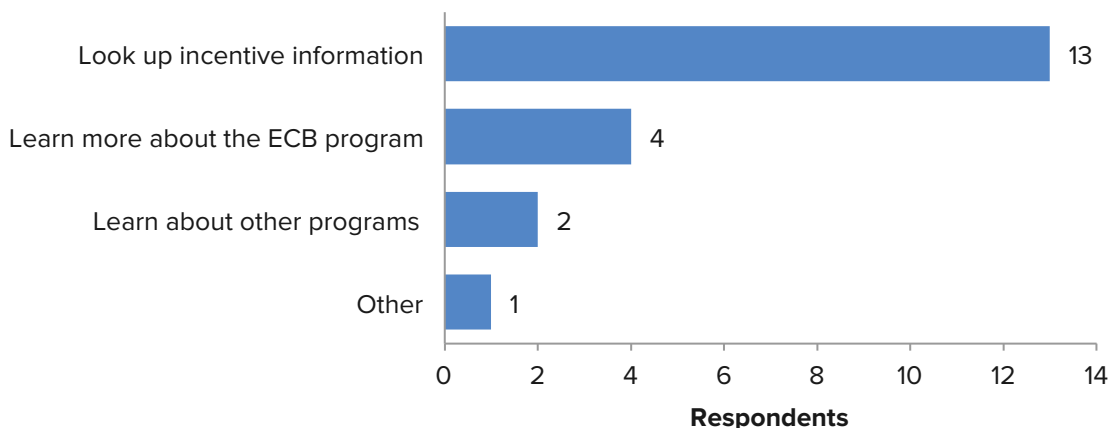
Accordingly, most participating vendors have contacted program staff in the past. More than two-thirds (28 out of 40) of respondents said that they have contacted program staff with questions. Participating vendors were somewhat satisfied with how easy it is to reach program staff, on average rating their satisfaction as 4.1 out of 5.

Respondents expressed interest in several resources the program could provide in order to make participation easier. The most commonly mentioned resources were: more information on incentives (10 respondents) and a way to determine the incentive amounts for customers (4 respondents), as well as increasing program staff’s engagement and responsiveness during projects (5 respondents).

The majority (26 out of 41) of respondents said they did not visit the website, while 15 out of 41 said they had visited the website during their ECB project. Of those 15 participating vendors who visited the website, very few were regular users. Most (9 out of 15) of the respondents reported visiting the website a few times per year, while only a few (4 out of 15) visited on a monthly basis and just two respondents reported visiting on a weekly basis.

Respondents rated the usability of the website fairly low, at 3.4 out of 5. Respondents described using the website primarily in order to look up incentive information (13 out of 15) rather than to learn more about the ECB program (4 out of 15) or to learn about other energy efficiency programs (2 out of 15), with one respondent reporting that they used the website to look up their customer’s account information (Figure 4-18). A more extensive discussion of web usability is presented in Section 4.5 Web Usability Study Findings.

Figure 4-18: Participating vendors who use the website typically look up incentive information



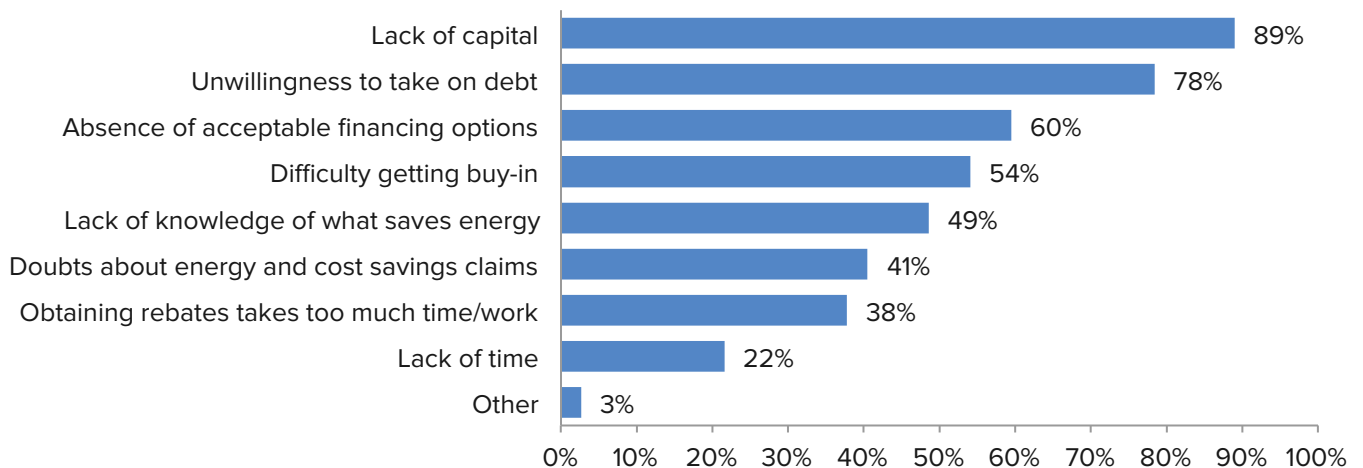
Most participating vendors have not used the tools available on the website. The majority (10 out of 15 respondents who have used the website) have not used the incentive calculation tool on the website, meaning that only about a third (5 out of 15) of participating vendors have used the incentive calculation tool. On average, those who used this tool rated its ease of use as 3.8 out of 5. While over half of respondents (8 out of 15) recalled seeing case studies on the website, their overall rating of usefulness of those case studies was just 2.9 out of 5.

Barriers to Customer and Vendor Participation

Participating vendors described financial barriers most often as the factor that keeps customers from participating in the ECB program (Figure 4-19). Nearly all vendors (89%) reported that customers' lack of capital to purchase energy efficient equipment represented a barrier to participation, while 78% of participating vendors cited customers' unwillingness to take on debt, and 60% mentioned an absence of acceptable financing option. The majority (85%) of vendors reporting lack of capital as a barrier also reported customers' unwillingness to take on debt as a barrier, suggesting that the two barriers are linked.

Factors mentioned with less frequency included the difficulty in getting buy-in from decision makers (54%) and a lack of knowledge about the cost and energy savings that would be generated by the equipment (49%). While financing is typically available through the utility for retrofit projects, financing is not available through the utility for new construction projects. There are alternative sources of financing, such as the C-PACE program, also offered by Energize CT.¹⁷ The C-PACE program guidelines suggest that new construction projects can qualify, but their financing may be more attractive if included in the overall project financing. The C-PACE program is also available for some equipment replacement projects; perhaps customers see the extra program application as a barrier to seeking this financing mechanism. We did not ask customers specifically about their experience with C-PACE.

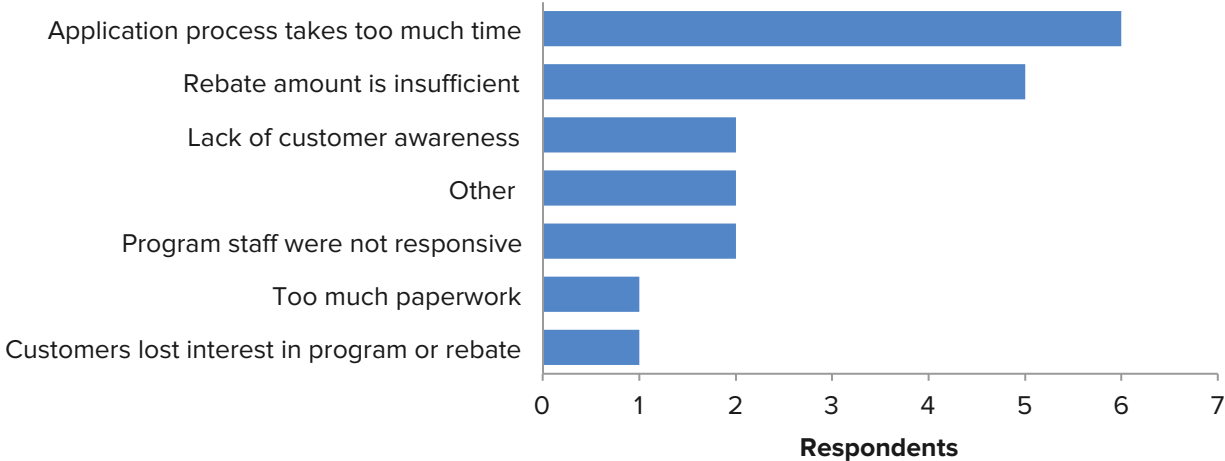
Figure 4-19: Participating vendors reported largest barriers to customer participation are financial



When asked about their own barriers to participation, participating vendors cited barriers similar to vendors' explanations of dissatisfaction with the program (Figure 4-20). As shown in the figure below, the most frequently cited barrier to participation was that the application process takes too much time (6 out of 19 respondents) followed by dissatisfaction with the amount of the rebate (5 out of 19). Only two vendors identified program staff's lack of responsiveness as a barrier.

¹⁷ The C-PACE program guidelines can be found here: <http://www.c-pace.com/site/page/view/resources>

Figure 4-20: Participating vendors perceived lengthy application process and low rebate amount as barriers to working with the program



4.3 Dropout Survey Findings

This section presents results from the 2014 telephone survey of ECB dropouts. Dropouts are customers who enrolled in the ECB program but cancelled or indefinitely suspended their project. This survey was designed to identify barriers to participation for dropouts and their experiences with the ECB program. The dropout survey was a census attempt (i.e., attempts were made to survey all drop-outs for the evaluation time period) but the number of dropouts is relatively small and the final sample is quite small. Results are reported but readers should use caution and not assume general applicability.

Results from the dropout survey suggested that there is a variety of explanations for cancelled projects and no single most prevalent explanation. A few respondents reported difficulty getting information they needed to participate. The research also indicated that many cancelled projects in the utility database are resumed and completed within the ECB program and listed as a separate project. This is consistent with program staff allowing participating to occur whenever project is being done and survey respondents reporting that there was no issue with a program requirement that said that projects had to be completed in one year.

Program Participants

The evaluation team surveyed 13 dropout customers about their experiences with the program. As described in Chapter 2, the sample was drawn from the database of project applications from January 2013 to March 2014. Dropout customers were identified from cancelled or suspended projects and predominantly came from the Connecticut Light & Power database. All completes were Connecticut Light & Power customers. As shown in Table 4-2, the majority of dropout customers pursued equipment replacement projects. Analysis of characteristics of dropout customers such as facility type and size of business did not reveal any notable differences distinguishing dropouts from participating customers.

Table 4-2: Dropout Respondents and Population in Tracking Data by Project Type

Project Type	Sample	Population	Percent Sampled
Equipment Replacement	8	51	16%
New Construction or Facility Expansion ^a	4	20	20%
Remodel ^a	1		
Unknown	0	2	0%
Total	13	73	18%

^a New construction and remodel not distinguished from each other in program data

Project Outcomes

Overall, five of the thirteen customers said that they completed the project through the ECB program (Figure 4-21). The evaluation team was able to confirm that a different project was completed for three of the five customers,¹⁸ but for the other two projects the evaluation team was unable to identify another project at the given business or address in the tracking data.

Three of the thirteen customers ended up completing the project without participating in the ECB program. All three said they included high efficiency equipment in the project. One of the three received a rebate from an unknown source, but only for the lighting portion of the project. None of the surveyed dropouts said they received a rebate from the Energy Opportunities program.

These three customers forwent the ECB program for the following reasons:

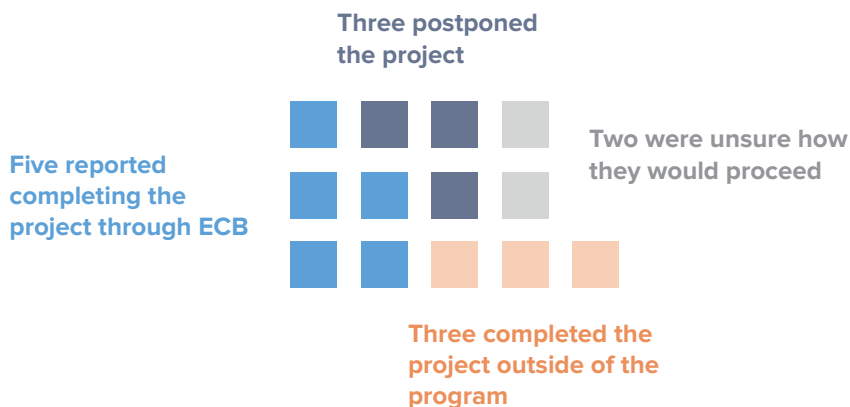
- One respondent described being told he was not eligible incentives through the ECB Program, but believed he should have been eligible.
- The second respondent thought the rebates were too insignificant to prompt any action on their part to participate in the ECB program. We did not probe for specifics on what equipment was included in their project, but the response suggested the incentive was not sufficient to motivate this respondent to select the energy efficient option and apply to the program for an incentive.
- The third respondent was pursuing a chiller project but realized it was not going to be cost-effective and a much larger upgrade was needed. They suspended the original project, hence the dropout from the ECB program. When they started the project back up again with a bigger overhaul of equipment, they forgot about ECB, but expressed interest in working with the program again in the future.

Three customers postponed the project until a later date and two respondents did not know how they would proceed with the project. All three who postponed planned to resume the project at a later date. One respondent's project expired because the customer could not finance and afford to purchase the equipment at that time. Another simply noted it was "too expensive," and the third explained their business was downsized, eliminating the need for a large compressor at the time, although they planned to install it at a later date.

¹⁸ Due to differences in project names, addresses, and phone numbers, these projects were not screened out during development of the dropout sample.

Among the customers who were unsure how they would proceed, one noted they chose not to purchase the equipment, but provided little additional information. The other did not recall what happened to the project.

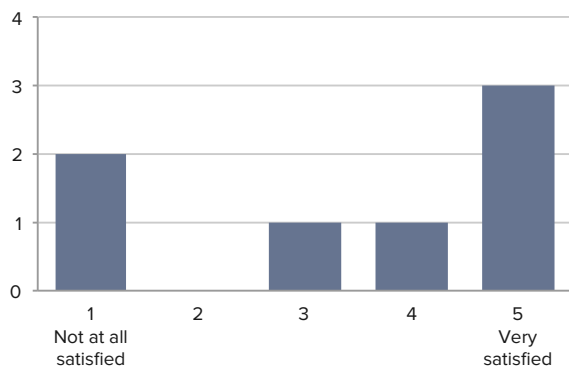
Figure 4-21: Outcomes of the Thirteen Dropouts with Cancelled Projects



Project Experience

While most dropouts did not have a negative experience with the program, a few customers described difficulties getting the information they needed. Dropout customers were mixed in their satisfaction with support provided by program staff. As shown in (Figure 4-22), two of the seven dropouts providing a rating for their satisfaction with support from program staff were not at all satisfied. As previously noted, one of these dropouts noted difficulties receiving help as their primary reason for dropping their project, stating that he had a “hard time getting the help needed to submit the information at the right time.” Recognize, however, that this small sample size does not allow for generalization to all dropouts or the program as a whole.

Figure 4-22: Dropout Satisfaction with Support from Program Staff



Similarly, two of seven respondents to a question about the complexity of the application process rated the process to be “complicated” or “very complicated,” but the other five did not find it to be complicated.

Projects did not appear to consistently be cancelled in a particular phase. Among equipment replacement projects, three projects reached the equipment selection phase. The remaining

respondents did not know what phase their project reached. For the new construction and remodel projects, one project ended in the initial planning phase, one reached the bid, application, and permitting phase, and two reached the construction phase. These latter two projects were completed outside of the program.

Barriers

All dropout respondents were asked whether there was anything the program could have done to help them complete their project within the program. Three out of seven respondents—all with new construction projects—provided suggestions and the remaining four had no suggestions or did not know. One respondent who postponed their project thought larger incentives and better financing options would have helped them overcome barriers. This respondent identified the ability to finance the full cost of the project as a feature that would have made it more likely that they participated. Another who completed the project outside the program wanted more information on programs and contractors. A third respondent, who also completed the project outside the program, suggested learning about the program sooner and better information would have helped. While the utilities do not provide financing for new construction projects, these measures may be considered part of the overall design. The program staff seek to reach customers early in their projects; if this effort is successful, the customer has more options for including the measures within their other financing as well as seeking additional sources.

4.4 New Construction Rejecter Interview Findings

This section presents results from the 2014 interviews of Energy Conscious Blueprint rejecters. Rejecters are defined as organizations and vendors in Connecticut that have recently undertaken or completed new construction and major renovation projects and did not participate in the ECB program. The interview guide was designed in order to determine why these organizations and vendors chose not to participate in the program, and how to increase awareness of the ECB program among this population.

New Construction Customers

The evaluation team surveyed 7 rejecters about their experiences with considering the program. As described in Chapter 2, the sample was drawn from the Reed construction database of new construction projects likely completed between 2012 and 2014. As shown in Table 4-3 below, respondents represented a number of different business types: two schools, two non-profit organizations, one architect, and two developers were interviewed for this study.

Table 4-3: Respondents by Business Type

Business Type	Total
Developer	2
Architect	1
School	2
Non-profit	2
Total	7

Awareness of Opportunities

Of the 7 rejecters interviewed, somewhat less than half expressed awareness of the ECB program. Three respondents reported having previous awareness of the ECB program and two of these three described being informed of the program and making the decision not to take part. One respondent reported, “The required equipment was cost prohibitive.” Four of the seven respondents reported having no previous awareness of the program.

Despite their lack of knowledge regarding the ECB program, respondents generally reported high levels of interest in incorporating energy efficient design and equipment into their projects, with one exception. One of the developers interviewed noted that pursuing energy efficiency beyond current standards is not a priority for his business, and that “energy efficiency is supposedly the current code, whatever the current code is that’s what we build to for new construction.” Otherwise, respondents were enthusiastic about energy efficiency options, and described energy efficiency as a consideration in their projects. Again, recognize that these are very small numbers of interviews and cannot provide a basis for generalization.

Most of the respondents reported learning about energy efficiency options through media sources, online research or a vendor working on their project. The respondents’ self-described levels of motivation in seeking out information on energy efficiency varied widely.

One respondent who works as a director for an environmental charter school described seeking out information via the Clean Energy Investment Finance Authority and Connecticut Energy Efficiency Fund, neither of which were mentioned by any other respondent. This individual had received incentives from UI for a recent retrofit but did not know the program name (likely the Energy Opportunities Program). He was not aware of the ECB program when described to him, although he expressed interest in learning more information about the ECB program. The four respondents who worked for non-profits and schools reported learning about energy efficiency options via independent research as well as through their contractors, architects, and engineers, while the developers and architect reported gaining information through trade publications and “newspapers and other media.”

Equipment and Design Measures

All of the rejecters reported incorporating energy efficient equipment and design into their final projects, despite not participating in the Energy Conscious Blueprint program. The amount of energy efficient equipment and design they reported to be incorporated into each project varied depending on the respondent. Three of the respondents emphasized how energy efficient

measures were incorporated into the building envelope of their projects. But not only was the sample size extremely small but interviewees' definitions of energy efficiency can vary and does not imply it is consistent with the program definition. In fact we know from additional commentary that one rejecter defined energy efficiency as what the Energy Code requires.

There was also, however, clear evidence from some of the small number of interviewees that the energy efficiency being reported would meet program definitions. One respondent reported that her organization "usually purchases equipment that is Energy Star rated," but that the organization does not take any other energy efficiency measures. Several other respondents mentioned utilizing LED lighting in their projects, while another mentioned purchasing renewable energy sources, such as solar panels.

Resources

Although over half of the rejecters had not heard of the ECB program, nearly all of them expressed an interest in energy efficient equipment and design. One respondent mentioned that his business would be more likely to participate if the requirements were easier to understand and the levels of incentives made the option more cost effective than currently provided.

Two respondents—one working for a school, the other working for a non-profit low-income housing group—mentioned that construction projects are often required to be energy efficient in order to qualify for certain grants. Both respondents said that it might be useful to position the ECB program as a resource to organizations during the grant application process as these organizations are seeking out energy efficient equipment and design options.

4.5 Web Usability Study Findings

The web usability sessions for customers and vendors presented each group with different scenarios and the findings for each group are presented below. Both the UI and CL&P websites were in the process of being redesigned during the evaluation; these findings are presented with the intention that they may be useful to the redesign effort.

Customers

The evaluation team conducted 9 usability sessions with commercial and industrial customers across Connecticut—4 sessions with Connecticut Light & Power C&I customers and 5 sessions with United Illuminating customers. The evaluation team conducted each study session individually with one study participant at a time via web conferencing software. Sessions were recorded remotely using screen-recording software to capture respondents' audio comments and on-the-screen actions. The customers in this research represented a wide array of business types and job titles. Two distinct moderator guides were created in order to guide the customers from each utility through potential scenarios in which they would use the CL&P and UI websites as a source of information and guidance.

CL&P Customers

Customers encountered challenges early in the web usability sessions, experiencing difficulty in the seemingly simple task of navigating to the Energy Conscious Blueprint page of the

Connecticut Light & Power website. The first page of the website was seen as confusing and busy, without clear signposts to where customers should go to learn more about the Energy Conscious Blueprint program. The site is very text-heavy, and the large amounts of text make the process of navigating the website difficult because being able to determine whether or not a page within the site has valuable information takes a great deal of cognitive effort.

However, once the customers were able to navigate the relevant pages within the website they found the Energy Conscious Blueprint pages more useful, and easier to understand than other parts of the site. Respondents reacted positively to the “Retrocommissioning” page, shown in Figure 4-23 below.

Figure 4-23: Respondents reacted positively to organized text

Who’s Eligible?

- Customers with commercial buildings, municipal offices and schools
- Buildings must be:
 - Prescreened
 - Over 100,000 square feet
 - Have building energy management system with trending capability
 - Have a current ENERGY STAR® benchmark
- CL&P customers on a commercial or industrial rate can participate in electric energy-efficiency measures.
- CNG, SCG or Yankee Gas customers on a firm commercial or industrial rate can participate in natural gas energy-saving measures.

How Does the Program Work?

- To deliver results, CL&P’s energy engineers will collaborate with you and a prequalified RCx engineering firm who will use targeted functional tests and BMS trend analysis to survey, investigate and provide recommendations for energy-efficiency (electric, gas and oil) improvements at your facility. [Read more about the process.](#) (PDF)
- The program uses a financial incentive strategy. After the investigation is complete, the RCx engineering firm will provide a detailed implementation plan. The CL&P program administrator will then prepare an up-front, contractual commitment to be signed prior to implementing your RCx plan. The Letter of Agreement (LOA) will detail all the energy-efficiency measures, the estimated energy savings, and the estimated incentive amount. The LOA must be signed by both parties prior to

While this page is fairly text-heavy, one important distinction between this page and many of the other pages on the site is that the text is presented in a clear and structured format, which makes this page easier to navigate and comprehend. Another popular resource was the informational PDFs available on the ECB program pages. However, these PDFs are fairly difficult to find with hyperlinks buried in long paragraphs, and nothing to indicate that they contain such important information.

Most of the respondents regarded the information provided on the Energy Conscious Blueprint page as helpful in the decision-making process. But respondents also expressed a desire for more clarity about how to sign up for the program, reporting that they were more likely to call the

utility for more information than fill-out and submit the interest form available on the website and wait for someone in the program to contact them.

UI Customers

The United Illuminating customers we spoke with had difficulty navigating the UI website as well, although they experienced a different set of challenges. One of the most significant issues customers experienced with the CL&P site was that finding useful information involved reading a considerable amount of text. Although the UI website uses less text than the CL&P website, it may unintentionally confuse customers with misleading signposts.

On the first page of the site the Customer and Business tabs confused some customers. The Business tab is red, as are many of the other graphics on the home page, which led customers to believe that the red Business tab was the default selection. Once customers were able to navigate to the Business tab, they were faced with a new set of challenges: the large amount of potentially applicable links within this tab, each of which takes the customer to a different page, which meant that during the sessions customers spent valuable time clicking back and forth, trying to find the correct page for them.

None of the customers simply found and clicked on the Energy Conscious Blueprint link on the Business tab, and most were discouraged by their experiences clicking through other pages on the site. Customers attempting to find the ECB program page frequently clicked the UI Products & Services link. Although this page showed links that could have led customers to their destination, customers could only see these links by scrolling to the bottom half of the page—and rather than scrolling through the entire page the customers frequently clicked on the links at the top of the page to the Connecticut Energy Efficiency Fund page and Energize Connecticut site, which customers found confusing and frustrating.

One important difference between the UI and CL&P customer experiences was that the CL&P customers described the informational PDFs as useful but difficult to find. Meanwhile, the UI customers described the informational PDFs on the UI website as too technically detailed to be useful. The UI customers expressed interest in learning more about the process, rather than being given so much detail into how the incentives worked.

Vendors

The evaluation team conducted 9 usability sessions with vendors across Connecticut. We conducted these sessions with 6 Connecticut Light & Power vendors, and 3 United Illuminating vendors. About half of the vendors we spoke to worked in sales for the vendor with most of the remainder working in a management capacity, and one engineering consultant. Two distinct moderator guides were created in order to guide the customers from each utility through potential scenarios in which they would use the CL&P and UI websites as a source of information and guidance.

CL&P Vendors

The customer and vendor experiences of the website were very similar for the most part. The features of the site that were unpopular with customers, such as the text-heavy pages and lack of signposts for important documents, were also unpopular with most of the vendors. However,

customers' and vendors' different priorities shaped what they wanted and how they experienced the CL&P website.

Although a number of the customers who used the website expressed frustration with the confusing interface and their inability to find the information they needed, vendors expressed this frustration more frequently. Vendors were also far more likely to discuss the time constraints of their work, and that it was unlikely they would spend more than a few minutes on the website if they were unable to find the information they needed. One participant navigated through the website using his iPad—which is likely how many other busy vendors conduct program research while on a job site—and said, “if I can’t find something within four or five clicks on my iPad or iPhone, I’m done with it.”

Much like the CL&P customers, the vendors we conducted sessions with found the informational PDFs useful, but difficult to locate. Several of the vendors had actually saved or printed out copies of the information PDFs to use as a reference with customers. The detailed information regarding program incentive described on the incentive PDFs were described by vendors as the main reason they would want to go to the website. However, the site’s organization made these pages challenging to find or to help customers find.

UI Vendors

The UI vendors also found it challenging to navigate the United Illuminating website. Although in general the vendors had slightly more experience with the website than the customers, several of the vendors mistook graphic cues on the site, which led them to pages on the site that they were not interested in. The vendors became frustrated because many of the pages looked very similar, there was a lack of clear guidance through the site, and much of the program-related pages were devoted to basic information about the program they already knew.

The vendors’ goals on the website were different from the customers, which made their experiences slightly different. While most of the customers we spoke with wanted more information about eligibility and the process of applying for an incentive, the vendors were primarily concerned with information about the incentives. Thus, while the UI customers described the informational PDFs on the website as too technically complex the vendors described the same PDFs as useful for their work.

5. RECOMMENDATIONS

Process evaluations serve a variety of purposes, including measuring key performance indicators such as satisfaction, documenting program logic and developments, and providing recommendations for program process improvements. The last of these may be the most important. It is increasingly accepted in the evaluation community that an evaluation should be judged on its usefulness, and recommendations encapsulate how findings from the evaluation can be used.¹⁹

The evaluation team assembles recommendations based on the available primary and secondary data sources but in some cases, particularly in energy efficiency program evaluation, the team may have limited access to information necessary to assess the feasibility and cost-effectiveness of recommendations. The independent nature of these evaluations often means the evaluation activities occur separately from implementation and planning. In these circumstances, the evaluation recommendations should be considered potential program improvements that must be assessed by program planners to determine feasibility and cost. To be most useful to program managers, the evaluation typically provides a number of these suggestions, allowing program managers to select and prioritize among the suggestions. The details of how a recommendation would be implemented then become the responsibility of program planning.

The recommendations from this process evaluation are provided below. It is not yet known whether they are feasible or cost-effective to undertake:

1. Promote awareness of financing sources for equipment replacement projects.

Dropout customers, participating customers, and vendors consistently identified financial factors as potential barriers to program participation. Nearly all vendors (89%) reported that customers' lack of capital to purchase energy efficient equipment represented a barrier to participation, while 78% of participating vendors cited customers' unwillingness to take on debt, and 60% mentioned an absence of acceptable financing options. The majority (85%) of vendors reporting lack of capital as a barrier also reported customers' unwillingness to take on debt as a barrier, suggesting that the two barriers are linked. Participating customers also cited these as potential barriers in future projects, with 33% reporting an unwillingness to take on debt and 31% reporting the absence of acceptable financing options to be a potential barrier. The disparity between vendor and customer responses may be related to the fact that *participating* customers were asked about barriers to future projects; their barriers may be different and less substantial than non-participants'.

These results suggest that some vendors and customers are not aware of or knowledgeable about current financing options or believe they are inadequate. Connecticut utilities do offer financing for some replacement projects, but do not provide funding for new construction. Customers may also qualify for other financing, such as through the C-PACE program, but they must apply for that separately from the ECB program. Communicating existing financing options and expanding these options could help reduce barriers to participation for a significant group of customers.

¹⁹ Patton, M. (2008). *Utilization-Focused Evaluation*. Los Angeles, CA: Sage Publications.

2. Dedicate additional resources and/or develop tools to support vendors.

Vendors play a key role in marketing the program to customers for both new construction and equipment replacement projects. While most vendors were satisfied with their experience working with the program and many rely heavily on the program, a number requested additional support in the form of more information on incentives, easier ways to determine incentive amounts, and increased engagement and responsiveness of program staff. These requests should be balanced with consideration of the existing vendor satisfaction and cost-effectiveness. Program staff indicated that a formal vendor alliance is not in existence; should one be created by the utilities, it could include resources and tools for vendor support. This initiative could also include an effort to simplify the complexity and amount of paperwork.

One example of support is vendors could be given more information on how to market the non-energy benefits of the energy efficient equipment. While neither the program nor vendors can claim non-energy benefits, non-energy benefits can help vendors to sell more work by creating a more favorable value proposition. Vendors did not cite non-energy impacts as important to gaining participation. This agrees with the 2/3 of participating customers who did not report a non-energy impact. But one-third (24) did report an important non-energy impact and 22 (92%) of these stated that non-energy impacts created a greater impact for them than energy savings. A larger study with participants claiming non-energy impacts may be able to identify the type of customers where this is the case and could provide useful information to vendors on which market segments and measures generate positive non-energy impacts.

3. Increase outreach efforts to individuals involved with new construction projects.

Our calls to identify potential program rejecters suggested that some building owners, project managers, architects, and developers involved with new construction projects are not aware of the ECB program. Our analysis of the program tracking data, while limited by incomplete data, indicated that the majority of projects and energy savings come from the equipment replacement track. Direct outreach appears to be an effective way of engaging building owners, developers, and vendors in the program.

Program staff indicated that they are working to bring in new construction projects early when the program can influence design; however, there has been limited construction in recent years and it is very time intensive to reach out to potential new construction participants. This effort to reach new construction decision makers early in the process will continue to be labor intensive for program staff.

It is possible that engaging with major financiers for new construction in Connecticut may offer another avenue to reach new construction projects earlier in their planning. The program may ascertain if such partnerships are feasible.

4. Verify that website changes have improved signposting to enable more effective webpage scanning.

Both utilities have new websites and the design of the energy efficiency webpages has changed considerably. The web usability sessions on the prior websites provided insight into how vendors and participating customers engage with the websites and the type of information they find most valuable. In general, vendors seek out detailed program incentive structure documentation, while customers desire a high-level overview of program processes and eligibility requirements. Both

vendors and customers requested a more intuitive organizational structure that used common program description titles. Other specific recommendations regarding the prior websites, which should be assessed for the new websites, include:

- Encourage customers to contact the utilities.
- Clarify information on how to sign up for the program.
- Tailor information to emphasize next steps rather than incentive information.

5. Create synergies with Energy Opportunities (EO) Program.

The majority of equipment replacement participant respondents were not aware of the Energy Opportunities Program. Although a lack of recall of the program name (and description) does not always correspond to a lack of awareness of the opportunity, this suggests there is room to improve awareness of the EO program for ECB participants. The EO program and ECB program can be complementary and awareness of both programs should be promoted to customers and vendors.

6. Provide data indicators to improve program evaluability.

Due to a bundling process during the data request, the evaluation team did not receive a number of key indicators that would improve evaluability of the program. The evaluation team asks that the following specific indicators from the program tracking database be provided in future data requests to facilitate the tracking of performance indicators and to improve evaluability. In the event that any of these fields do not exist in the program tracking data, the evaluation team recommends that they be added.²⁰

- Indicator identifying new construction, major renovation, and equipment replacement projects (UI)
- Indicator identifying if a new construction project followed the whole building or prescriptive track
- Indicator for custom and prescriptive projects
- A note or indicator if a cancelled project was subsequently resumed
- Addition of measure or end-use categories (allowing for identification of multiple measures/end-uses and custom projects)
- Street address and account numbers (electric and gas accounts) for the project
- Addition of vendor associated with a project²¹

Developing a vendor database would also be very useful for generating meaningful evaluations. It is the understanding of the evaluation team that this is already being undertaken and a recommendation for this is not needed.

²⁰ We understand that the utilities are currently revising the program tracking database.

²¹ Based on the implementation manual, which is not public, vendor data are to be captured and recorded in the newer program tracking data.

APPENDIX A: ENERGY CONSCIOUS BLUEPRINT PROGRAM PARTICIPANT SURVEY INSTRUMENT

Introduction

Per the 2012 Conservation and Load Management Plan, the objective of the ECB program is “to maximize electric and natural gas energy savings for ‘lost opportunity’ projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added.” This survey is for the participant perspective.

Research Questions or Objectives

This list is for the process evaluation. To be clear, the evaluation questions not addressed in some way by this survey are lined out. They are still research questions for the overall evaluation but will be addressed in other research components of the evaluation.

- E. How well is the program reaching the target market?
 - a. What targeted markets or market segments has the program been most effective/least effective in reaching and why, in terms of end use, customer size, and industry sector?
 - ~~b. How are project types and completions changing over time? Are more Whole Building performance projects, those that are incented based on the building performance rather than individual measures, occurring later in the evaluation period? What explains this shift?~~
 - c. How are participants learning about the ECB program specifically as distinct from a general awareness of energy efficiency offerings in CT and those offered by CT utilities? Are there differences between utilities? (We will differentiate between the utility website and the EnergizeCT website.)
 - d. Why do customers participate in ECB rather than the retrofit program? Do customers understand the different program requirements? [customer and vendor perspective]
- F. How satisfied are participants with the program?
 - a. How does the timeframe for project completion affect program marketing and the customer decision to participate?
 - b. How well do the website(s) used by participants (utility website, EnergizeCT or both, as was used) meet their needs? Is the level of info appropriate? Is the organization intuitive? Is the experience different for participants and vendors? Are incentive calculations clear? Are the case studies helpful?
 - c. What keeps customers from making energy efficiency improvements without the program (improvement barriers)?
 - d. How do customers learn about the steps to complete their participation in the program? How do they resolve questions while their projects are in progress?
 - e. Are customers satisfied with the program overall? With the enrollment process and paperwork? With the incentive, especially when incentive caps are

triggered? With the equipment and actual vs. expected energy savings? With the vendor?

- ~~G. How satisfied are vendors with the program?~~
- ~~a. Why do vendors refer customers to the program?~~
- ~~b. From the vendor perspective, what is the most important support or information that they need from the program? How well is that provided?~~
- ~~c. Where do vendors turn with questions about the programs?~~
- H. What barriers or issues could inhibit the program from achieving its goals?
- a. How might identified barriers be overcome to improve program performance?

Sample Variables

Code	Description
<&CONTACT>	First and last name of respondent
<&APPOINT>	Date and time you arrange with respondent to call back if they are busy at time of first call
<INTERVIEWER NAME>	Name of interviewer
<SURVEY COMPANY>	Name of survey company
<UTILITY>	Name of respondent's utility company
<&ADDRESS>	Respondent's address
<&CITY>	Respondent's city
<MEASURE>	Primary equipment in project
<REPORTEDEQUIPMENT>	Corrected equipment from respondent
<TRACKEDDATE>	Project date in utility tracking data
<REPORTEDDATE>	Corrected date from respondent

Fielding Instructions

This section details fielding instructions:

- Attempt each record six times on different days of the week and at different times.
- Leave messages on the first and fourth attempt.
- Experienced interviewers should attempt to convert "soft" refusals (e.g., "I'm not interested", immediate hang-ups) at least once.
- The entire survey will be completed when possible. If the survey terminates early, the survey is considered complete and in the completed survey dataset when NE5 is answered.
- After completing 10 interviews, hold calling and output a preliminary SPSS dataset and recordings of the pretest interviews. Resume calling after EMI Consulting checks the data (usually with 1-2 working days).
- Monitor at least 10 percent of the interviews to ensure proper interview protocols (e.g., reading questions verbatim, proper probing, accurate data entry).
- Calling hours are 9 AM to 5 PM EDT.

Interview Instructions

Respondents to this survey will be individuals at commercial and industrial facilities in Connecticut who coordinated or served as the contact person for a project in which the facility received incentives (or rebates) from their utility for using energy efficient equipment in their project. The Energy Conscious Blueprint Program provided these incentives and the facility's involvement is referred to as "participation" in the program.

Survey/Interview

Section I: Introduction

Hello, this is <INTERVIEWER NAME> calling from <SURVEY COMPANY> on behalf of <UTILITY>. This is not a sales call.

We are calling <UTILITY> customers who participated in the Energy Conscious Blueprint Energy Efficiency Program.

[IF &CONTACT IS BLANK, SKIP TO I4]

- I1.** May I speak with <&CONTACT>?
1. No, that person is not available right now.
 2. Unable to refer someone who can help [TERMINATE]
 3. Yes, that would be me [SKIP TO I5]
 4. Yes, let me transfer you to _____ [SKIP TO I5]
 - 8. DON'T KNOW
 - 9. REFUSED [TERMINATE]

[IF MORE INFORMATION REQUESTED: As I mentioned, we are calling <UTILITY> customers who participated in the Energy Conscious Blueprint Energy Efficiency Program. Your input will allow <UTILITY> to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will be kept confidential and not linked to your organization in any way.

- I2.** [IF I1=1 OR -8] When would be a good day and time for us to call back?
1. Record day of the week, time of day, and date to call, as <&APPOINT>
 - 8. DON'T KNOW [SKIP TO COMMENT 1]
 - 9. REFUSED [SKIP TO COMMENT 2]

- I3.** [IF I1=1 OR -8] Is there a phone extension or phone number you recommend we use when we call back?
1. Record extension or phone number, as &PHONE [TERMINATE]
 - 8. DON'T KNOW [TERMINATE]
 - 9. REFUSED [TERMINATE]

COMMENT 1. Okay, we'll try calling in a week to see if that is a better time. Thank you.
[TERMINATE]

COMMENT 2. Thank you for your time. Those are all of the questions I have for you today.
[TERMINATE]

14. We are interested in speaking with the person most knowledgeable about your organization's participation in the Energize Connecticut Energy Conscious Blueprint Program, in which your organization received a rebate from <UTILITY> for installing energy efficient equipment. Can you refer me to that individual?

- 1. No, that person is not available right now. **[SKIP TO I2]**
- 2. Unable to refer someone who can help **[TERMINATE]**
- 3. Yes, that would be me **[SKIP TO I5]**
- 4. Yes, let me transfer you to _____ **[SKIP TO I5]**
- 8. DON'T KNOW **[SKIP TO I2]**
- 9. REFUSED **[TERMINATE]**

15. **[IF TRANSFERRED]** Hello, this is <INTERVIEWER NAME>, calling from <SURVEY COMPANY>, on behalf of <UTILITY>. This is not a sales call.

[IF NOT TRANSFERRED] We are interested in speaking with the person most knowledgeable about your organization's participation in the Energize Connecticut Energy Conscious Blueprint, or ECB, energy efficiency program. I was told that would be you. Is this correct?

- 1. Yes
- 2. No, there is someone else **[REPEAT I5 AFTER BEING TRANSFERRED]**
- 3. No, and I have no one to refer you to **[SKIP TO COMMENT 2]**

16. Great. We have a short survey to collect feedback on your experience. Your input will allow <UTILITY> to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will be kept confidential and not linked to your organization in any way. Do you have a few minutes to take a short survey? It should take about 15 minutes.

- 1. Yes
- 2. Not now [Record day of the week, time of day, and date to call, as <&APPOINT>] **[TERMINATE]**
- 3. Not at all interested **[TERMINATE]**

17. First, I'd like to ask you a few questions about your organization and facility. Our records show your organization is located at <&ADDRESS> in <&CITY>. Is that correct?

[CONTINUE IF ADDRESS REPORTED BY RESPONDENT IS SIMILAR ENOUGH]

1. Yes [**SKIP TO I10**]
2. No [**SKIP TO I8**]
- 8. DON'T KNOW [**READ COMMENT 3**]
- 9. REFUSED [**READ COMMENT 3**]

COMMENT 3. We were attempting to reach the <UTILITY> customer at &ADDRESS and since you cannot confirm this address, those are all the questions that we have for you today. On behalf of <UTILITY>, thank you for your time.

I8. May I have your correct address?

1. Yes [Record corrected address as <&CORRECT>]
2. No [**READ COMMENT 4**]

I9. [Are these addresses similar or totally different?

Computer address - <&ADDRESS>

Corrected address - <&CORRECT>]

1. Similar [**SKIP TO F1**]
2. Totally different [**READ COMMENT 4**]

COMMENT 4. We were attempting to reach the <UTILITY> customer at <&ADDRESS> in <&CITY> and since that does not match your address, then we must have misdialed the telephone number. Those are all the questions that we have for you today. On behalf of <UTILITY>, thank you for your time and cooperation. [**TERMINATE**]

I10. According to our records, your project included <MEASURE> and was completed in <TRACKEDDATE>. **Is this correct?**

1. Yes, - that is correct.
2. No – that equipment was not a part of the project [**RECORD CORRECT EQUIPMENT AS <REPORTEDEQUIPMENT>**]
3. No – that date is incorrect [**RECORD CORRECT DATE AS <REPORTEDDATE>**]

Section F: Firmographics

F1. First, what is your position or job title? [**DO NOT READ; CODE RESPONSE**]

1. Proprietor/Owner/President
2. General manager
3. Financial Manager
4. Other Financial Position
5. Facilities Manager
6. Plant manager
7. Administrator/receptionist
8. Other Facilities Position
9. Other Type of Manager
10. Other [**RECORD VERBATIM**]

-9. REFUSED

F2. What business or organization type best describes the facility that participated in the ECB program? [DO NOT READ; CODE RESPONSES]

- 1. Municipals
- 2. Education
- 3. Universities
- 4. Schools
- 5. Hospitals
- 6. Health care & social assistance
- 7. Water & waste water
- 8. Manufacturing & industrial
- 9. Light manufacturing
- 10. Construction
- 11. Transportation
- 12. Information technology
- 13. Printing
- 14. Metals
- 15. Plastics
- 16. Warehouses
- 17. Retail trade
- 18. Clothing, banking, auto parts, hair salons
- 19. Convenience/grocery/food store
- 20. Accommodations & food services
- 21. Real estate rental & leasing
- 22. Professional services
- 23. Office or headquarters for another type of industry
- 24. Other (specify: _____)
- 8. DON'T KNOW
- 9. REFUSED

F3. Approximately how many full-time employees work at this location of your business?

[NUMERIC OPEN-END 1-9999 in employees]

- 8. DON'T KNOW
- 9. REFUSED

F4. Does your organization...[read list. Record one response]

- 1. Own, and occupy all the space at this location.
- 2. Own, but not occupy the space [e.g. you rent the space to somebody else, or your organization manages the property.]
- 3. Rent the space
- 4. Some other arrangement [specify]
- 8. DON'T KNOW
- 9. REFUSED

F6. Which of the following best describes the type of project you used the rebate for?
[READ ALL]

1. Equipment Replacement [DESCRIPTION IF NECESSARY: Your organization received an incentive to replace equipment that was either broken or near the end of its usable life.]
2. New construction or facility expansion [DESCRIPTION IF NECESSARY: Your organization received design assistance and incentives to incorporate energy efficient equipment in a new construction or facility expansion project.]
3. Remodel [DESCRIPTION IF NECESSARY: Your organization received design assistance and incentives to incorporate energy efficient equipment in a major renovation or remodel project.]

F6a. [IF F6 = 2 OR F6 = 3] Did your project use an energy model to determine whole building performance?

1. Yes
2. No
- 8. DON'T KNOW
- 9. REFUSED

F7. Did your organization work with any of the following professionals during this project? [ALLOW MULTIPLE RESPONSES]

1. Did not work with professional
2. Architect or building designer
3. Green Building consultant
4. Energy modeler
5. Engineering consultant
6. Equipment vendor
7. General contractor
8. Mechanical or electrical engineer
9. Other [record verbatim]
- 8. DON'T KNOW
- 9. REFUSED

Section A: Awareness

A1. [IF F6 = 1] When during the project did you begin working with this program?

1. During project planning or design, before making equipment selection decisions
2. During equipment selection process
3. After some but not all of the equipment was selected
4. After the replacement equipment was selected, but not purchased or installed
5. After the equipment was purchased and installed.
6. Other [RECORD VERBATIM]
- 8. DON'T KNOW

-9. REFUSED

A2. [IF F6 = 2 OR F6 = 3] At which step of the project did you begin working with this program? [READ ALL]

1. Capital Program Planning
2. Conceptual design
3. Schematic development
4. Design development
5. Construction drawings and specification
6. Bidding and bid review
7. Construction
8. OTHER

A4. On a scale from 1 to 5 where 1 means “Not at all clear” and 5 means “Very clear,” how clear were the requirements for the ECB program?

1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW
- 9. REFUSED

A5. How did you first hear about the ECB Program? [DO NOT READ; ACCEPT MULTIPLE RESPONSES]

1. Energize Connecticut website
2. <UTILITY> website
3. Contractor
4. Equipment vendor
5. Architect
6. Engineer
7. Utility account manager
8. Other utility representative
9. Insert in my bill
10. Direct mailing
11. Reference from family, co-workers, or friends
12. TV or radio advertisement
13. Newspaper or magazine
14. Billboard
15. Online advertisement or social media
16. Trade association
17. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A6. How do you typically hear about energy and energy efficiency topics and opportunities? [DO NOT READ; ACCEPT MULTIPLE RESPONSES]

1. Energize Connecticut website
2. <UTILITY> website
3. Contractor

4. Equipment vendor
5. Utility representative
6. Insert in my bill
7. Direct mailing
8. Reference from family, co-workers, or friends
9. TV or radio advertisement
10. Newspaper or magazine
11. Billboard
12. Online advertisement or social media
13. Trade association
14. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A7. What were the main reasons you chose to participate in this program [DO NOT READ; CODE RESPONSES; ACCEPT MULTIPLE RESPONSES]

1. To save money on energy bills or to discover new ways to save energy
2. To acquire new technology
3. Interested in receiving rebates or incentives
4. [SHOW IF F6 = 2 OR F6 = 3] In order to comply with LEED standards
5. To meet company or corporate energy goals
6. To meet state mandated energy goals
7. [SHOW IF F6 = 2 OR F6 = 3] To have a “green,” energy efficient building
8. To help protect the environment
9. Positive experiences with other energy efficiency programs
10. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A8. After you first learned about the program, how did you learn about the steps to take to participate in the program? [DO NOT READ; CODE RESPONSE]

1. Called or emailed <UTILITY>
2. Visited Energize Connecticut website
3. Visited <UTILITY> website for more information
4. Used internet search engine (such as Google, Yahoo) to learn more information
5. Talked to contractor or vendor
6. Talked to architect or engineer
7. Talked to another business
8. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A9. On a scale from 1 to 5 where 1 is “Not at all complicated” and 5 is “Very complicated,” how complicated do you think the process was for enrolling in the ECB program?

1. [NUMERIC OPEN-END. RANGE 1-5]

- 8. DON'T KNOW
- 9. REFUSED

A10. [SHOW IF F6 = 1] Are you aware of the Energy Opportunities Program for retrofits, which provides rebates for early replacement of *working* equipment?

- 1. Yes
- 2. No
- 8. DON'T KNOW
- 9. REFUSED

Section D: Decision-making

D1. Overall for other projects, which of the following factors might cause you to select the standard efficiency option over the energy efficient option? [READ LIST; ACCEPT MULTIPLE RESPONSES]

- 1. Lack of corporate capital to cover the cost of more efficient equipment
- 2. Unwillingness to take on debt
- 3. Absence of acceptable financing options
- 4. Lack of time to identify and make energy efficiency improvements
- 5. Difficulty getting buy-in from decision makers
- 6. Lack of knowledge of what improvements will save energy
- 7. Doubts about energy and cost savings claims
- 8. Obtaining rebates takes too much time or work.
- 9. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

D2. When you decided to participate, were you concerned about the one-year project completion deadline?

- 1. Yes
- 2. No
- 3. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

Section S: Satisfaction

S1. On a scale from 1 to 5 where 1 means “Not at all satisfied” and 5 means “Very satisfied,” how satisfied were you with your overall experience with the ECB program?

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW [SKIP TO S3]
- 9. REFUSED [SKIP TO S3]

- S2.** Why did you give the program that rating?
1. [RECORD VERBATIM]
 - 8. DON'T KNOW
 - 9. REFUSED
- S3.** Using the same 1 to 5 scale, where 1 means “Not all satisfied” and 5 means “Very satisfied,” how would you rate your satisfaction with the following aspects of your experience? [NUMERIC OPEN-END. RANGE 1-5; -8 DON'T KNOW, -9 REFUSED, -10 N/A]
1. [IF F6 = 2 OR F6 = 3] The energy use of your new building
 2. [IF F6 = 1] Energy bill savings
 3. Amount of the incentive or rebate
 4. Amount of time it took for you to receive your incentive or rebate
- S4.** [IF S3_1 < 4 OR S3_2 < 4 OR S3_3 < 4 OR S3_4 < 4] Your ratings indicate you were less than satisfied with one or more aspects of your experience. Why were you less than satisfied?
- [RECORD VERBATIM]
- S5.** Using the same 1 to 5 scale, how would you rate your satisfaction with the following aspects of your experience? [NUMERIC OPEN-END. RANGE 1-5; -8 DON'T KNOW, -9 REFUSED, -10 N/A]
1. [IF F6 = 1] Support received from program staff
 2. [IF F6 = 2 OR F6 = 3] Support received from program staff and engineers
 3. The amount of paperwork required to obtain an incentive
 4. The performance of the energy efficient equipment
- S6.** [IF S5_1 < 4 OR S5_2 < 4 OR S5_3 < 4 OR S5_4 < 4] Your ratings indicate you were less than satisfied with one or more of these aspects of your experience. Why were you less than satisfied?
- [RECORD VERBATIM]

Section NE: Non-Energy Impacts

- NE1.** Did you experience any changes, besides to energy use, at your facility because of this project? [READ ALL; SELECT ALL THAT APPLY]
1. Change in comfort
 2. Change in operating and maintenance
 3. Change in worker productivity
 4. Change in safety
 5. Change in staff or resources required
 6. Change in process productivity
 7. Something else [**SPECIFY**]
 8. NO

- 8. DON'T KNOW
- 9. REFUSED

NE2. When you were planning this project, did you expect or plan on any of these kinds of changes?

- 1. Yes
- 2. No [**SKIP TO NE4**]
- 8. DON'T KNOW [**SKIP TO NE4**]
- 9. REFUSED [**SKIP TO NE4**]

NE3. Which ones? [READ ALL; SELECT ALL THAT APPLY]

- 1. Change in comfort
- 2. Change in operating and maintenance
- 3. Change in worker productivity
- 4. Change in safety
- 5. Change in staff or resources required
- 6. Change in process productivity
- 7. Something else [**SPECIFY**]
- 8. DON'T KNOW
- 9. REFUSED

[IF NE1==8, -8, or -9, SKIP TO NEXT SECTION]
 [REPEAT NE4 and NE5 for each response to NE1]

NE4. Was the [**PIPE IN NE1 RESPONSES**] you experienced positive (a benefit) or negative (a drawback)?

- 1. Positive
- 2. Negative
- 8. DON'T KNOW
- 9. REFUSED

NE5. Relative to the energy savings from this project, how large is the impact of the [**PIPE IN NE1 RESPONSES**] on your facility? [READ Until RESPONDENT SELECTS ONE]

- 1. Much larger
- 2. Slightly larger
- 3. About the same
- 4. Slightly smaller
- 5. Much smaller
- 8. DON'T KNOW
- 9. REFUSED

[IF ONLY ONE NE1 SELECTION, SET TEXT FROM NE1 RESPONSE AS 1STNEI]

NE6. [IF >=2 SELECTED IN NE1] What was the most important change you experienced? What was the second most change you experienced?

1. Most important change: [SET TEXT FROM NE1 RESPONSE AS 1STNEI]
2. Second most important change: [SET TEXT FROM NE1 RESPONSE AS 2NDNEI]

NE7. What about [1STNEI] makes it the most important to you?

1. [RECORD RESPONSE]
- 8. DON'T KNOW
- 9. REFUSED

Section W: Program Website

W1. Did you visit the <UTILITY> website before or during this project?

1. Yes
2. No
- 8. DON'T KNOW
- 9. REFUSED

[IF W1 !=1 SKIP TO NEXT SECTION]

W2. What did you use the website for? [DO NOT READ; CODE RESPONSES; ALLOW MULTIPLE RESPONSES]

1. To learn about new programs
2. To find contact information
3. To research this program
4. To pay my utility bills
5. To find ways to save on my energy bill
6. To find utility-approved vendors
7. TO CALCULATE INCENTIVES
8. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

W3. Using a 1 to 5 scale, where 1 means "Not easy" and 5 means "Very easy," how easy was it to find information on the <UTILITY> website?

1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW/NOT SURE
- 9. REFUSED

W4. Did you use the incentive calculation table on the website?

- 1. Yes
- 2. No
- 8. DON'T KNOW
- 9. REFUSED

[IF W4 != 1 SKIP TO W6]

W5. On a scale from 1 to 5 where 1 means “Not easy to use” and 5 means “Very easy to use,” how easy was it to use the incentive calculation table on the website?

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW
- 9. REFUSED

W6. Do you remember seeing case studies on the website?

- 1. Yes
- 2. No
- 8. DON'T KNOW
- 9. REFUSED

[IF W6 != 1 SKIP TO T1]

W7. On a scale from 1 to 5 where 1 means “Not useful” and 5 means “Very useful,” how useful were these case studies in providing relevant information?

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW
- 9. REFUSED

Section T: Trade Allies

[IF F7 = 1 SKIP TO B1]

Earlier in the survey, you mentioned you worked with [SHOW IF F6 = 2 OR F6 = 3] an architect or engineer [SHOW IF F6 = 1] a contractor or vendor. The following questions relate to your experience working with that professional/ those professionals.

T1. [IF F6 = 2 OR F6 = 3] On a scale from 1 to 5 where 1 means “not at all satisfied” and 5 means “very satisfied,” how would rate your satisfaction with your overall experience with your architect or engineer?

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW
- 9. REFUSED

T2. [IF F6 = 1] On a scale from 1 to 5 where 1 means “not at all satisfied” and 5 means “very satisfied,” how would rate your satisfaction with your overall experience with your contractor or vendor?

- 1. [NUMERIC OPEN-END. RANGE 1-5]

- 8. DON'T KNOW
- 9. REFUSED

Section B: Closing

B1. Do you have any additional feedback on your experience with the Program that you would like us to pass along to <UTILITY>?

- 1. Yes [**RECORD VERBATIM**]
- 2. No
- 8. Don't know
- 9. Refused

CLOSE1. These are all the questions I have today. On behalf of <UTILITY> I want to thank you for your input and feedback. Have a great day.

[**TERMINATE**]

APPENDIX B: ENERGY CONSCIOUS BLUEPRINT PROGRAM PARTICIPATING VENDOR SURVEY INSTRUMENT

Introduction

Per the 2012 Conservation and Load Management Plan, the objective of the ECB program is “to maximize electric and natural gas energy savings for ‘lost opportunity’ projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added.” This survey is for the participating vendor perspective.

Research Questions or Objectives

- I. How well is the program reaching the target market?
 - ~~a. What targeted markets or market segments has the program been most effective/least effective in reaching and why, in terms of end use, customer size, and industry sector?~~
 - ~~b. How are project types and completions changing over time? Are more Whole Building performance projects, those that are incented based on the building performance rather than individual measures, occurring later in the evaluation period? What explains this shift?~~
 - ~~c. How are participants learning about the ECB program specifically as distinct from a general awareness of energy efficiency offerings from CT utilities? Are there differences between utilities?~~
 - d. Why do customers participate in ECB rather than the retrofit program? Do customers understand the different program requirements? [customer and vendor perspective]
- J. How satisfied are participants with the program?
 - a. How does the timeframe for project completion affect program marketing and the customer decision to participate?
 - b. How well does the program website(s) meet the needs of participants and vendors? Is the level of info appropriate? Is the organization intuitive? Is the experience different for participants and vendors? Are incentive calculations clear? Are the case studies helpful?
 - c. What keeps customers from participating (program barriers)? What keeps customers from making energy efficiency improvements without the program (improvement barriers)?
 - d. How do customers learn about the steps to complete as part of the program? How do they resolve questions while their projects are in progress?
 - ~~e. Are customers satisfied with the program overall? With the enrollment process and paperwork? With the incentive, especially when incentive caps are triggered? With the equipment and actual vs. expected energy savings? With the vendor?~~

- K. How satisfied are vendors with the program?
- Why do vendors refer customers to the program?
 - From the vendor perspective, what is the most important support or information that they need from the program? How well is that provided?
 - Where do vendors turn with questions about the programs?
- L. What barriers or issues could inhibit the program from achieving its goals?
- How might identified barriers be overcome to improve program performance?

Sample Variables

Code	Description
<&CONTACT>	First and last name of respondent
<&APPOINT>	Date and time you arrange with respondent to call back if they are busy at time of first call
<INTERVIEWER NAME>	Name of interviewer
<SURVEY COMPANY>	Name of survey company
<UTILITY>	Name of respondent's utility company

Fielding Instructions

This section details fielding instructions:

- Attempt each record six times on different days of the week and at different times.
- Leave messages on the first and fourth attempt.
- Experienced interviewers should attempt to convert "soft" refusals (e.g., "I'm not interested", immediate hang-ups) at least once.
- For surveys that were not completed in their entirety, the survey data can be included with and considered complete when the survey is answered through S5.
- After completing 10 interviews, hold calling and output a preliminary dataset and recordings of the pretest interviews. Resume calling after EMI Consulting checks the data (usually with 1-2 working days).
- Monitor at least 10 percent of the interviews to ensure proper interview protocols (e.g., reading questions verbatim, proper probing, accurate data entry).
- Calling hours are 7 AM to 6 PM EST.

Interview Instructions

Respondents to this survey will be electric or mechanical contractors, equipment distributors and suppliers, and equipment retailers providing energy efficiency equipment and services that are incentivized by the Energy Conscious Blueprint Program. In addition, there are architects and engineers from design teams for new construction and major renovations under this program. The Energy Conscious Blueprint Program provides rebates ("incentives) for energy efficient equipment in new construction or major renovations projects or in projects where the existing equipment is at the end of its usable life.

Survey/Interview

Section I: Introduction

Hello, this is <INTERVIEWER NAME> calling from <SURVEY COMPANY> on behalf of < UTILITY>. This is not a sales call.

We are collecting feedback from companies who worked with the <UTILITY> Energy Conscious Blueprint Energy Efficiency Program.

[IF <&CONTACT> IS BLANK, SKIP TO I4]

- I1. May I speak with <&CONTACT>?
 - 1. No, that person is not available right now.
 - 2. Unable to refer someone who can help [TERMINATE]
 - 3. Yes, that would be me [SKIP TO I5]
 - 4. Yes, let me transfer you to _____ [SKIP TO I5]
 - 8. DON'T KNOW
 - 9. REFUSED [TERMINATE]

- I2. [IF I1=1 OR -8] When would be a good day and time for us to call back?
 - 1. Record day of the week, time of day, and date to call, as <&APPOINT>
 - 8. DON'T KNOW [SKIP TO COMMENT 1]
 - 9. REFUSED [SKIP TO COMMENT 1]

- I3. [IF I1=1 OR -8] Is there a phone extension or phone number you recommend we use when we call back?
 - 1. Record extension or phone number, as <&PHONE> [TERMINATE]
 - 8. DON'T KNOW [TERMINATE]
 - 9. REFUSED [TERMINATE]

COMMENT 1. Thank you for your time. Those are all of the questions I have for you today. [TERMINATE]

- I4. We are interested in speaking with the person most knowledgeable about your company's work with the Energize Connecticut Energy Conscious Blueprint Program. Can you refer me to that individual?
 - 1. No, that person is not available right now. [SKIP TO I2]
 - 2. Unable to refer someone who can help [TERMINATE]
 - 3. Yes, that would be me [SKIP TO I6]
 - 4. Yes, let me transfer you to _____ [SKIP TO I5]
 - 8. DON'T KNOW [SKIP TO I2]
 - 9. REFUSED [TERMINATE]

15. [IF TRANSFERRED READ] Hello, this is <INTERVIEWER NAME>, calling from <SURVEY COMPANY>, on behalf of <UTILITY>. We are collecting feedback from companies who worked with the <UTILITY> Energy Conscious Blueprint Energy Efficiency Program. Your input will allow <UTILITY> to continue to build and maintain better energy savings programs

[IF NOT TRANSFERRED, BEGIN HERE] We are interested in speaking with the person most knowledgeable about your company's work with the Energize Connecticut Energy Conscious Blueprint energy efficiency program. I was told that would be you. Is this correct?

- 4. Yes
- 5. No, there is someone else [REPEAT 15 AFTER BEING TRANSFERRED]
- 6. No, and I have no one to refer you to [SKIP TO COMMENT 1]

16. Great. As I mentioned, we are calling companies who worked with the <UTILITY> Energy Conscious Blueprint Energy Efficiency Program. Your input will allow <UTILITY> to continue to build and maintain better energy savings programs. Do you have a few minutes to take a short survey? It should take about 15 minutes.

- 4. Yes
- 5. Not now [Record day of the week, time of day, and date to call, as <&APPOINT>] [TERMINATE]
- 6. Not at all interested [TERMINATE]

17. Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor.

To refresh your memory, the Energy Conscious Blueprint Program (or ECB) provides rebates to customers for purchasing energy efficient equipment in new construction, major renovation, and end-of-life equipment replacement projects. The ECB Program does not provide rebates for early replacement of working equipment. Our records show that your firm has provided equipment and/or services related to the ECB Program.

Section F: Firmographics

F1. First, what is your position or job title?

- 11. Owner/President
- 12. Manager
- 13. Engineer
- 14. Salesperson or sales engineer
- 15. Administrator/receptionist
- 16. Other [RECORD VERBATIM]
- 9. REFUSED

- F2. Is your company primarily...?
 - 1. An equipment installation and repair company (i.e., a contractor)
 - 2. A distributor or supplier
 - 3. An architecture firm
 - 4. An engineering firm
 - 5. A green building consultant
 - 6. Other [RECORD VERBATIM]
 - 8. DON'T KNOW
 - 9. REFUSED

- F3. Approximately how many full-time employees work at your business? [IF NECESSARY, SPECIFY "AT YOUR LOCATION OR BRANCH"]

[NUMERIC OPEN-END 1-9999 in employees]

- F4. What types of services have you provided in connection with ECB projects? [READ LIST; ALLOW MULTIPLE RESPONSES]
 - 1. Design
 - 2. Equipment specification
 - 3. Energy modeling
 - 4. Sold or provided equipment
 - 5. Installed equipment
 - 6. Other (specify)

- F4A. (IF F4 = 2, 4 or 5) What type of equipment did you specifically install and/or distribute? [READ LIST; ALLOW MULTIPLE RESPONSES]
 - 1. Lighting
 - 2. Heating
 - 3. Cooling
 - 4. Motors
 - 5. Industrial Process Equipment (for example, air compressors)
 - 6. Refrigeration
 - 7. Building insulation
 - 8. Other [Record Verbatim]
 - 8. DON'T KNOW
 - 9. REFUSED

- F5. (IF F4 = 2, 4 or 5) Does your company install or supply equipment in the following situations? [READ ALL] [1. Yes, 2. No, -9. DON'T KNOW, -9. REFUSED]
 - 4. Early Replacement [DESCRIPTION IF NECESSARY: Replacing equipment before the end of its usable life.]
 - 5. End-of-Life Replacement [DESCRIPTION IF NECESSARY: Replacing equipment that is either broken or near the end of its usable life.]
 - 6. New construction or facility expansion [DESCRIPTION IF NECESSARY: Incorporating energy efficient equipment in new construction or facility expansion projects.]

7. Remodel [DESCRIPTION IF NECESSARY: Incorporating energy efficient equipment in major renovation or remodel projects.]

F6. About what percentage of your business is accounted for by projects that participate in the ECB program? Would you say:

1. Less than 5%
2. 5-10%
3. 11-25%
4. 26-50%
5. More than 50%
- 8. DON'T KNOW
- 9. REFUSED

Section A: Awareness

A1. How did you originally learn about the ECB program? [DO NOT READ; CODE RESPONSES]

1. Mailing from [UTILITY]
2. Event held by [UTILITY]
3. Online search or [UTILITY] website
4. Call from utility representative
5. Informed by customer
6. Informed by coworker/peer/colleague
7. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A2. What are the benefits you have experienced from working with the ECB program? [DO NOT READ; CODE RESPONSES; MULTIPLE RESPONSES ALLOWED]

1. Increased revenues
2. Increased sales
3. Increased knowledge of energy efficient products
4. Training received from program
5. Association with utility
6. Higher customer satisfaction
7. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A3. Have you attended any trainings or seminars related to the program put on by <UTILITY>?

1. Yes
2. No
3. Attended other utility event [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A3b. [IF A3 = 1] On a scale from 1 to 5, with 1 meaning “Not helpful” and 5 meaning “very helpful,” how helpful was the training or seminar?

[NUMERIC OPEN-END. RANGE 1-5, -8 DON'T KNOW, -9 REFUSED]

A4. How do you typically refer customers to the program? [DO NOT READ, CODE RESPONSE]

1. Customers ask about program
2. We tell customers about the program
3. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A4a. Which of the following scenarios best describes how your business uses the program?

1. We use the program to help sell our services to potential customers.
2. We use the program to help sell energy efficient equipment to customers who otherwise would choose the standard option.
3. We use the program to provide better pricing to customers already interested in putting in energy efficient equipment.
4. OTHER [SPECIFY]

A4b. Approximately what percentage of customers you work with install energy efficient equipment but do not participate in a program?
[NUMERIC OPEN-END, 0-100]

A5. Are the customers you recruit for the program typically... [READ RESPONSES 1, 2, and 3; SELECT ONLY ONE]

1. Existing customers that you've worked with before
2. New customers
3. A mix of both
- 8. DON'T KNOW
- 9. REFUSED

A6. How important is each of the following in your ability to recruit customers to participate in the ECB program, using a 1 to 5 scale where 1 is not at all important and 5 is very important:

1. Energy savings provided by qualifying equipment or design
2. Overall quality of qualifying equipment or design
3. Availability of incentive
4. Utility endorsement/approval of equipment by offering incentive
5. Non-energy benefits of the equipment or design, such as comfort, warranty or reliability
6. Case studies or success stories of customers using similar equipment or design

- A7.** Approximately what percentage of the customers you talk to about the program end up participating in the program?
[NUMERIC OPEN-END, 0-100]
- A8.** Which of the following would prevent customers from choosing the energy efficient option when doing projects? [READ LIST; ACCEPT MULTIPLE RESPONSES]
- 10. Lack of corporate capital to cover the cost of more efficient equipment
 - 11. Unwillingness to take on debt
 - 12. Absence of acceptable financing options
 - 13. Lack of time to identify and make energy efficiency improvements
 - 14. Difficulty getting buy-in from decision makers
 - 15. Lack of knowledge of what improvements will save energy
 - 16. Doubts about energy and cost savings claims
 - 17. Obtaining rebates takes too much time or work.
 - 18. Other [RECORD VERBATIM]
 - 8. DON'T KNOW
 - 9. REFUSED

Section W: Program Website

- W1.** Do you visit the <UTILITY> website while working on Energy Conscious Blueprint projects?
- 3. Yes
 - 4. No
 - 8. DON'T KNOW
 - 9. REFUSED

[IF W1 = 2/-8/-9 SKIP TO S1]

- W2.** How often do you use the <UTILITY> website?
- 1. Not at all
 - 2. A few times per year
 - 3. Monthly
 - 4. Weekly
 - 5. Daily
 - 8. DON'T KNOW
 - 9. REFUSED

- W2a.** [IF W1 = 1] Would you be willing to participate in a study testing the website? It would occur in a few weeks and we would provide a \$75 gift card.
- 1. Yes
 - 2. No

[IF W2 = 1 SKIP TO S1]

- W3.** What do you usually use the website for? [DO NOT READ LIST]

- 9. To learn more about the ECB program
- 10. To learn about other energy efficiency programs
- 11. To find contact information
- 12. To look up incentive information
- 13. To pay my personal or company utility bill
- 14. To learn more about my energy usage
- 15. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

W4. Using a 1 to 5 scale, where 1 means “Not easy” and 5 means “Very easy,” how easy is it to find information on <UTILITY> website? [ACCEPT DON'T KNOW AND N/A RESPONSES AS WELL]

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW/NOT SURE
- 9. REFUSED

W5. Have you used the incentive calculation table on the website?

- 3. Yes
- 4. No
- 8. DON'T KNOW
- 9. REFUSED

[IF W5 ≠ 1 SKIP TO S1]

W6. On a scale from 1 to 5 where 1 means “Not easy to use” and 5 means “Very easy to use,” how easy was it to use the incentive calculations on the website?

- [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW
- 9. REFUSED

W7. Do you remember seeing case studies on the website?

- 3. Yes
- 4. No
- 8. DON'T KNOW
- 9. REFUSED

[IF W7 ≠ 1 SKIP TO S1]

W8. On a scale from 1 to 5 where 1 means “Not useful” and 5 means “Very useful,” how useful were these case studies in providing information relevant to your customers?

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW

-9. REFUSED

Section S: Satisfaction

- S1.** On a scale from 1 to 5 where 1 means “not at all satisfied” and 5 means “very satisfied,” how satisfied are you with your overall experience with the Energy Conscious Blueprint program?
- 1. [NUMERIC OPEN-END. RANGE 1-5]
 - 8. DON'T KNOW [SKIP TO S3]
 - 9. REFUSED [SKIP TO S3]
- S2.** Why did you give the program that rating?
- 1. [RECORD VERBATIM]
 - 8. DON'T KNOW
 - 9. REFUSED
- S3.** What resources have been most useful in your work with the ECB program?
[MULTIPLE RESPONSES ALLOWED]
- 5. Website
 - 6. Calling program staff
 - 7. Emailing program staff
 - 8. Trainings and seminars
 - 9. Program documents and manuals
 - 8. DON'T KNOW [DNR]
 - 9. REFUSED [DNR]
 - 10. N/A [DNR]
- S4.** Have you contacted program staff or engineers with questions?
- 1. **Yes**
 - 2. **No**
 - 8. DON'T KNOW
 - 9. REFUSED
- S5.** Using the same 1 to 5 scale where 1 means “not at all satisfied” and 5 means “very satisfied,” how would rate your satisfaction with.... [NUMERIC OPEN-END. RANGE 1-5, -8 DON'T KNOW, -9 REFUSED, -10 N/A]
- 1. [IF S4 = 1] How easy it is to reach program staff
 - 2. [IF S4 = 1] The ability of program staff to answer your questions
 - 3. [IF S4 = 1] The timeliness of their responses
 - 4. The process for calculating rebate amounts
 - 5. Rebate amounts
 - 6. Variety of equipment eligible for rebates
- S6.** What support/resources do you wish the program had provided?

[RECORD VERBATIM]

S7. What are the most significant barriers you have experienced in pursuing projects through the Energy Conscious Blueprint program? [DO NOT READ; CODE RESPONSES; ALLOW MULTIPLE RESPONSES]

1. Program staff were not responsive
2. Customers lost interest in program or rebate
3. Rebate amount is insufficient
4. Efficient equipment too costly
5. Too much paperwork
6. Application process takes too much time
7. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED
- 10. N/A

Section B: Closing

B1. [IF F2 = 3/4/5] We are interested in speaking with customers who you told about the program and who were not interested in participating, in order to learn more about their motivations—can you share with us contact information for any customers who did not participate? [MAXIMUM 5 CONTACTS]

1. Yes – Information is on hand [RECORD CONTACT INFO AS <&REJECTOR>]
2. Yes – but would need to look up information or ask for permission
3. No
- 8. DON'T KNOW
- 9. REFUSED
- 10. N/A

B1a. [IF B1 = 2] Great, could we contact you in a few weeks once you have the customer's contact information [or permission]?

1. Yes
2. No

[IF W2a=1]

B2. Because you expressed interest in participating in a study regarding [UTILITY] website we will pass your telephone number and email address along to our research team. Someone will contact you again about this study in the next few weeks. What is the best email address and telephone number to reach you?

[RECORD VERBATIM]

B3. Do you have any additional feedback on your experience with the Program that you would like us to pass along to <UTILITY>?

3. Yes [RECORD VERBATIM]
4. No

- 8. Don't know
- 9. Refused

CLOSE1. These are all the questions I have today. On behalf of <UTILITY> I want to thank you for your input and feedback. Have a great day.

[TERMINATE]

APPENDIX C: ENERGY CONSCIOUS BLUEPRINT PROGRAM REJECTER SURVEY INSTRUMENT

Introduction

Per the 2012 Conservation and Load Management Plan, the objective of the Energy Conscious Blueprint (ECB) program is “to maximize electric and natural gas energy savings for ‘lost opportunity’ projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added.” This survey is for customers who recently completed a new construction project and did not participate in the ECB program.

Research Questions or Objectives

This list is for the process evaluation. To be clear, the questions not addressed in some way by this survey are lined out. They are still research questions, but they will not be answered by this survey.

- A. How well is the program reaching the target market?
 - a. What targeted markets or market segments has the program been most effective/least effective in reaching and why, in terms of end use, customer size, and industry sector?
 - ~~b. How are project types and completions changing over time? Are more Whole Building performance projects, those that are incented based on the building performance rather than individual measures, occurring later in the evaluation period? What explains this shift?~~
 - ~~c. How are participants learning about the ECB program specifically as distinct from a general awareness of energy efficiency offerings from CT utilities? Are there differences between utilities?~~
 - ~~d. Why do customers participate in ECB rather than the retrofit program? Do customers understand the different program requirements? [customer and vendor perspective]~~
- B. How satisfied are participants with the program?
 - ~~a. How does the timeframe for project completion affect program marketing and the customer decision to participate?~~
 - b. How well does the program website(s) meet the needs of ~~participants and vendors~~? Is the level of info appropriate? Is the organization intuitive? Is the experience different for participants ~~and vendors~~? Are incentive calculations clear? Are the case studies helpful?
 - c. What keeps customers from participating (program barriers)? What keeps customers from making energy efficiency improvements without the program (improvement barriers)?
 - d. How do customers learn about the steps to complete as part of the program? How do they resolve questions while their projects are in progress?

- e. Are customers satisfied with the program overall? With the enrollment process and paperwork? With the incentive, especially when incentive caps are triggered? ~~With the equipment and actual vs. expected energy savings?~~ With the vendor?
- ~~C. How satisfied are vendors with the program?~~
- ~~a. Why do vendors refer customers to the program?~~
- ~~b. From the vendor perspective, what is the most important support or information that they need from the program? How well is that provided?~~
- ~~c. Where do vendors turn with questions about the programs?~~
- ~~D. What barriers or issues could inhibit the program from achieving its goals?~~
- a. How might identified barriers be overcome to improve program performance?

Sample Variables

Code	Description
<&CONTACT>	First and last name of respondent
<&APPOINT>	Date and time you arrange with respondent to call back if they are busy at time of first call
<INTERVIEWER NAME>	Name of interviewer
<SURVEY COMPANY>	Name of survey company
<&ADDRESS>	Respondent's address
<&CITY>	Respondent's city

Fielding Instructions

This section details fielding instructions:

- Attempt each record six times on different days of the week and at different times.
- Leave messages on the first and fourth attempt.
- Calling hours are 9 AM to 5 PM EST.

Interview Instructions

Respondents to this survey will be individuals involved in a new construction or major renovation project in Connecticut that did not participate in the Energy Conscious Blueprint Program. These respondents may be building owners, developers, or project managers.

These questions serve as a basic guide for experienced EMI Consulting staff during one-on-one phone interviews. These questions will not necessarily be asked verbatim, but rather serve as a framework for collecting structure information in the interview.

Instrument

Section I: Introduction

Hello, this is <INTERVIEWER NAME> calling from <SURVEY COMPANY> on behalf of CT energy utilities. This is not a sales call.

[IF NECESSARY] We are conducting brief interviews with key personnel and will provide a \$50 Amazon.com gift card as a token of appreciation to those who qualify and complete the survey.

[IF &CONTACT IS BLANK, SKIP TO I4]

I1. May I speak with <&CONTACT>?

1. No, that person is not available right now.
2. Unable to refer someone who can help [TERMINATE]
3. Yes, that would be me [SKIP TO I5]
4. Yes, let me transfer you to _____ [SKIP TO I5]
- 8. DON'T KNOW
- 9. REFUSED [TERMINATE]

[IF MORE INFORMATION REQUESTED: We are interested in talking to people involved in a recently completed new construction or renovation project in order to understand how CT energy utilities could encourage energy efficiency in these projects. This input will to be used to build and maintain better energy savings programs for new construction projects. If you meet our participation criteria and complete this survey, you will receive a \$50 Amazon.com gift card as a token of appreciation. And we would like to remind you that your responses will be kept confidential and not linked to your organization in any way.]

I2. [IF I1=1 OR -8] When would be a good day and time for us to call back?

1. Record day of the week, time of day, and date to call, as <&APPOINT>
- 8. DON'T KNOW [SKIP TO COMMENT 1]
- 9. REFUSED [SKIP TO COMMENT 1]

I3. [IF I1=1 OR -8] Is there a phone extension or phone number you recommend we use when we call back?

1. Record extension or phone number, as &PHONE [TERMINATE]
- 8. DON'T KNOW [TERMINATE]
- 9. REFUSED [TERMINATE]

COMMENT 1. Thank you for your time. Those are all of the questions I have for you today. [TERMINATE]

14. We are interested in speaking with the person who was responsible for decisions regarding the energy efficiency of the building design or equipment selection for your recent new building or remodeling projects. Can you refer me to that individual?

1. No, that person is not available right now. [SKIP TO I2]
2. Unable to refer someone who can help [TERMINATE]
3. Yes, that would be me [SKIP TO I6]
4. Yes, let me transfer you to _____ [SKIP TO I5]
- 8. DON'T KNOW [SKIP TO I2]
- 9. REFUSED [TERMINATE]

15. [AFTER BEING TRANSFERRED TO THE CORRECT PERSON] Hello, this is <INTERVIEWER NAME>, calling from <SURVEY COMPANY> on behalf of CT energy utilities. This is not a sales call. We are interested in speaking with the person who was most responsible for decisions regarding the energy efficiency of the building design or equipment selection for your recent new building or remodeling project. I was told that would be you. Is this correct?

7. Yes
8. No, there is someone else [REPEAT I5 AFTER BEING TRANSFERRED]
9. No, and I have no one to refer you to [SKIP TO COMMENT 1]

16. Great. We are conducting 15 minute interviews in order to understand how CT energy utilities could encourage energy efficiency in new construction projects. This input will to be used to build and maintain better energy savings programs for new construction projects. For completing this survey, you will receive a \$50 Amazon.com gift card as a token of appreciation. Do you have a few minutes to take the survey?

7. Yes
8. Not now [Record day of the week, time of day, and date to call, as <&APPOINT>] [TERMINATE]
9. Not at all interested [TERMINATE]

Thank you! We would like to remind you that your responses will be kept confidential and not linked to your organization in any way.

Section A: Awareness

A1. First, are you aware of the Energy Conscious Blueprint program offered by utilities in Connecticut?

[IF NECESSARY: Utilities in CT run the Energy Conscious Blueprint Program, which provides rebates to encourage energy efficient building design in New Construction and Major Renovation projects. The types of equipment eligible for rebates include lighting, HVAC, and compressed air.

1. Yes
2. No [SKIP TO TERMINATE1]
- 8. DON'T KNOW [SKIP TO TERMINATE1]
- 9. REFUSED [SKIP TO TERMINATE1]

TERMINATE1. Thank you for your time; for this study, we are interviewing only individuals who were aware of the Energy Conscious Blueprint program and chose not to participate.

A2. When did you first learn about the Energy Conscious Blueprint program?
Month_____ Year

(IF MONTH AND YEAR ARE BEFORE PROJECT DATE) So you were aware of the Energy Conscious Blueprint program at the time you undertook your recent new construction or major renovation project? Yes or No; IF NO, CLARIFY TIME OF AWARENESS AND PROJECT

A3. And how did you learn about the program?
[OPEN END, RECORD ANSWER]

A4. For this recent new construction or major renovation project, who made the decision not to participate in the ECB program? If it was a group decision, who else besides yourself was involved?
[OPEN END, RECORD ANSWER]

A5. What were the primary reasons that your organization chose not to participate (DO NOT READ; CHECK ALL THAT APPLY. ASK FOR CLARIFICATION/ELABORATION FOR EACH RESPONSE; e.g., How far along was the project? How much more do you think it would have cost for a more efficient project? What aspects of participation would have been a hassle, etc.)

- a. The project was already too far along
- b. We had a fixed budget and could not spend the extra money for a more efficient project
- c. Participation would have been a hassle
- d. Our architect/contractor was not interested
- e. Our senior management was not interested
- f. Rebates and incentives were not enough to offset the added cost of efficient equipment
- g. Rebates and incentives were not enough to offset the added cost of efficient design

- h. New equipment needed to be compatible with existing equipment
- i. Other (specify)

A6. Did this project (as built) incorporate energy efficient design?

- 1. Yes
- 2. No

A7. How do you typically hear about energy efficient equipment design and options?
[OPEN END, RECORD ANSWER]

Section P: Participation

P1. Have you pursued financial incentives through the Energy Conscious Blueprint program for any of your other new construction or major renovation projects?

- 1. Yes [SKIP TO P5]
- 2. No

P2. [IF P1 = No] Why not?

[OPEN END, RECORD ANSWER]

P3 [IF P1 = No] Would you consider pursuing incentives with the Energy Conscious Blueprint Program for future new building or major renovation projects? If not, why not?

[OPEN END, RECORD ANSWER]

P4. [IF P1 = No] And would you consider pursuing incentives with the Energy Conscious Blueprint Program for replacing worn out lighting, HVAC, or compressed air equipment? If not, why not?

[OPEN END, RECORD ANSWER]

P5. [IF P1 = YES] Why did you pursue incentives through the program for some projects but not others?

[OPEN END, RECORD ANSWER]

Section F: Firm Information

Next I'd like to ask you a few questions about your work.

F1. First, about how many new construction and/or major renovation projects does your firm work on every year?

New Construction: [NUMERIC OPEN-END]

Major Renovation: [NUMERIC OPEN-END]

And about what percentage of your business does this new construction/major renovation work represent? [ENTER PERCENTAGE OR RANGE]

F2. On approximately what percentage of those projects do you incorporate energy efficient building design and equipment?

New Construction projects : [PERCENTAGE OPEN END]

Major Renovation: [PERCENTAGE OPEN END]

F2a. [IF F2 = >10%] What kinds of energy efficient design and equipment?

F2b. [IF F2 = Yes] Have you explored or received any energy efficiency rebates from CT energy utilities or other organizations? If not, why not?

F2c. [IF F2 = NO OR <25%] What factors prevent you from including energy efficient building design and equipment in your projects?

Section E: Encouraging Energy Efficiency

E1. What else could CT energy utilities do to promote energy efficiency in new buildings?

[OPEN END, RECORD ANSWER]

Section B: Closing

CLOSE1. These are all the questions I have. On behalf of Energize CT I want to thank you for your input with this important study. We would like to send you a \$50 gift card to thank you for your participation.

B2. Can you please tell me the e-mail address you would like us to send your \$50 Amazon.com gift card?

[RECORD EMAIL ADDRESS] [SKIP TO CLOSE2]

-8. Don't know

-9. Refused

B3. Do you have a mailing address where we can send you your \$50 Amazon.com gift card?

CLOSE2. Thank you again for your input. Have a good day!

[TERMINATE]

APPENDIX D: ENERGY CONSCIOUS BLUEPRINT PROGRAM DROPOUT SURVEY INSTRUMENT

Introduction

Per the 2012 Conservation and Load Management Plan, the objective of the ECB program is “to maximize electric and natural gas energy savings for ‘lost opportunity’ projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added.” This survey is for customers that enrolled and subsequently withdrew from the ECB program.

Research Questions or Objectives

This list is for the process evaluation. To be clear, the questions not addressed in some way by this survey are lined out. They are still research questions, but they will not be answered by this survey.

- A. How well is the program reaching the target market?
 - a. What targeted markets or market segments has the program been most effective/least effective in reaching and why, in terms of end use, customer size, and industry sector?
 - ~~b. How are project types and completions changing over time? Are more Whole Building performance projects, those that are incented based on the building performance rather than individual measures, occurring later in the evaluation period? What explains this shift?~~
 - c. How are participants learning about the ECB program specifically as distinct from a general awareness of energy efficiency offerings from CT utilities? Are there differences between utilities?
 - d. Why do customers participate in ECB rather than the retrofit program? Do customers understand the different program requirements? [customer and vendor perspective]
- B. How satisfied are participants with the program?
 - a. How does the timeframe for project completion affect program marketing and the customer decision to participate?
 - b. How well does the program website(s) meet the needs of participants and vendors? Is the level of info appropriate? Is the organization intuitive? Is the experience different for participants and vendors? Are incentive calculations clear? Are the case studies helpful?
 - c. What keeps customers from participating (program barriers)? What keeps customers from making energy efficiency improvements without the program (improvement barriers)?
 - d. How do customers learn about the steps to complete as part of the program? How do they resolve questions while their projects are in progress?
 - e. Are customers satisfied with the program overall? With the enrollment process and paperwork? With the incentive, especially when incentive caps are

triggered? ~~With the equipment and actual vs. expected energy savings?~~ With the vendor?

~~C. How satisfied are vendors with the program?~~

~~a. Why do vendors refer customers to the program?~~

~~b. From the vendor perspective, what is the most important support or information that they need from the program? How well is that provided?~~

~~c. Where do vendors turn with questions about the programs?~~

D. What barriers or issues could inhibit the program from achieving its goals?

a. How might identified barriers be overcome to improve program performance?

Sample Variables

Code	Description
<&CONTACT>	First and last name of respondent
<&APPOINT>	Date and time you arrange with respondent to call back if they are busy at time of first call
<INTERVIEWER NAME>	Name of interviewer
<SURVEY COMPANY>	Name of survey company
<UTILITY>	Name of respondent's utility company
<&ADDRESS>	Respondent's address
<&CITY>	Respondent's city
<DROPOUTDATE>	Dropout date in utility tracking data
<REPORTEDDROPOUTDATE>	Corrected dropout date from respondent

Fielding Instructions

This section details fielding instructions:

- Attempt each record six times on different days of the week and at different times.
- Leave messages on the first and fourth attempt.
- Experienced interviewers should attempt to convert "soft" refusals (e.g., "I'm not interested", immediate hang-ups) at least once.
- A survey can be included in the complete group as long as O10 is answered.
- After completing 10 interviews, hold calling and output a preliminary dataset and recordings of the pretest interviews. Resume calling after EMI Consulting checks the data (usually with 1-2 working days).
- Monitor at least 10 percent of the interviews to ensure proper interview protocols (e.g., reading questions verbatim, proper probing, and accurate data entry).
- Calling hours are 9 AM to 5 PM EST.

Interview Instructions

Respondents to this survey will be individuals at commercial and industrial facilities in Connecticut who coordinated or served as the contact person for a proposed project in which the facility would have received incentives (or rebates) from their utility for using energy efficient equipment in their project. The Energy Conscious Blueprint Program would have provided these incentives and the facility's involvement is referred to as "participation" in the program.

Survey/Interview

Section I: Introduction

Hello, this is <INTERVIEWER NAME> calling from <SURVEY COMPANY> on behalf of < UTILITY>. This is not a sales call.

We are calling <UTILITY> customers who enrolled in the Energy Conscious Blueprint Energy Efficiency Program but withdrew from the program before receiving a rebate. We have a short survey to collect feedback on your experience and will provide a \$50 Amazon.com gift card as a token of appreciation.

[IF &CONTACT IS BLANK, SKIP TO I4]

- I1.** May I speak with <&CONTACT>?
1. No, that person is not available right now.
 2. Unable to refer someone who can help [TERMINATE]
 3. Yes, that would be me [SKIP TO I5]
 4. Yes, let me transfer you to _____ [SKIP TO I5]
 - 8. DON'T KNOW
 - 9. REFUSED [TERMINATE]

[IF MORE INFORMATION REQUESTED: As I mentioned, we are calling <UTILITY> customers who enrolled in the Energy Conscious Blueprint Energy Efficiency Program but withdrew from the program before receiving a rebate. Your input will allow <UTILITY> to continue to build and maintain better energy savings programs for customers like you. For completing this survey, you will receive a \$50 Amazon.com gift card as a token of appreciation. And we would like to remind you that your responses will be kept confidential and not linked to your organization in any way.]

- I2.** [IF I1=1 OR -8] When would be a good day and time for us to call back?
1. Record day of the week, time of day, and date to call, as <&APPOINT>
 - 8. DON'T KNOW [SKIP TO COMMENT 1]
 - 9. REFUSED [SKIP TO COMMENT 1]

- I3.** [IF I1=1 OR -8] Is there a phone extension or phone number you recommend we use when we call back?

1. Record extension or phone number, as &PHONE [TERMINATE]
- 8. DON'T KNOW [TERMINATE]
- 9. REFUSED [TERMINATE]

COMMENT 1. Thank you for your time. Those are all of the questions I have for you today.
[TERMINATE]

14. We are interested in speaking with the person most knowledgeable about your organization's experience with the Energize Connecticut Energy Conscious Blueprint Program, which your organization enrolled in but withdrew from before receiving a rebate. Can you refer me to that individual?

1. No, that person is not available right now. [SKIP TO I2]
2. Unable to refer someone who can help [TERMINATE]
3. Yes, that would be me [SKIP TO I6]
4. Yes, let me transfer you to _____ [SKIP TO I5]
- 8. DON'T KNOW [SKIP TO I2]
- 9. REFUSED [TERMINATE]

15. **[AFTER BEING TRANSFERRED TO THE CORRECT PERSON]** Hello, this is <INTERVIEWER NAME>, calling from <SURVEY COMPANY>, on behalf of <UTILITY>. This is not a sales call. We are interested in speaking with the person most knowledgeable about your organization's experience with the Energize Connecticut Energy Conscious Blueprint, or ECB, energy efficiency program, which your organization enrolled in but withdrew from before receiving a rebate. I was told that would be you. Is this correct?

10. Yes
11. No, there is someone else **[REPEAT I5 AFTER BEING TRANSFERRED]**
12. No, and I have no one to refer you to **[SKIP TO COMMENT 1]**

16. Great. We have a short survey to collect feedback on your experience. Your input will allow <UTILITY> to continue to build and maintain better energy savings programs for customers like you. For completing this survey, you will receive a \$50 Amazon.com gift card as a token of appreciation. And we would like to remind you that your responses will be kept confidential and not linked to your organization in any way. Do you have a few minutes to take the survey?

10. Yes
11. Not now [Record day of the week, time of day, and date to call, as <&APPOINT>] [TERMINATE]
12. Not at all interested [TERMINATE]

17. First, I'd like to ask you a few questions about your organization and facility. Our records show your organization is located at <&ADDRESS> in <&CITY>. Is that correct?

[CONTINUE IF ADDRESS REPORTED BY RESPONDENT IS SIMILAR ENOUGH]

- 3. Yes [SKIP TO F1]
- 4. No [SKIP TO I8]
- 8. DON'T KNOW [READ COMMENT 2]
- 9. REFUSED [READ COMMENT 2]

COMMENT 2. We were attempting to reach the <UTILITY> customer at &ADDRESS and since you cannot confirm this address, those are all the questions that we have for you today. On behalf of <UTILITY>, thank you for your time.

I8. May I have your correct address?

- 3. Yes [Record corrected address as <&CORRECT>]
- 4. No [READ COMMENT 3]

[IF I8=1]

I9. [Are these addresses similar or totally different?
Computer address - <&ADDRESS>
Corrected address - <&CORRECT>]

- 3. Similar [SKIP TO F1]
- 4. Totally different [READ COMMENT 3]

COMMENT 3. We were attempting to reach the <UTILITY> customer at <&ADDRESS> in <&CITY> and since that does not match your address, then we must have misdialed the telephone number. Those are all the questions that we have for you today. On behalf of <UTILITY>, thank you for your time and cooperation. [TERMINATE]

I10. According to our records, you enrolled in the program and dropped out in <DROPOUT DATE>. Is this correct?

- 4. Yes, - that is correct.
- 5. No – the dropout date is incorrect [RECORD CORRECT DATE AS <REPORTEDDROPOUTDATE>]
- 6. No – we never enrolled in the program [READ COMMENT 1]

Section O: Drop-Out

Next are a few questions about your experience with the program and reasons you chose to withdraw from the program. As I mentioned, our records show that your organization submitted an application for a project to the program.

O1. First, what kind of project did you consider enrolling in the Energy Conscious Blueprint Program? [READ ALL]

8. Equipment Replacement [DESCRIPTION IF NECESSARY: Your organization intended to replace equipment that was either broken or near the end of its usable life.]
9. New construction [DESCRIPTION IF NECESSARY: Your organization was exploring design assistance and incentives to incorporate energy efficient equipment in a new construction project.]
10. Remodel [DESCRIPTION IF NECESSARY: Your organization was exploring design assistance and incentives to incorporate energy efficient equipment in a major renovation or remodel project.]

O2. Did your organization complete the project on your own?

1. Yes
2. No [SKIP TO O2e]
- 8. DON'T KNOW
- 9. REFUSED

O2a. [IF O2 = 1] When was it completed?

[RECORD DATE]

O2b. Did the completed project include high efficiency or standard efficiency equipment?

1. High efficiency
2. Standard efficiency
- 8. DON'T KNOW
- 9. REFUSED

O2c. [IF O2b = 2] Why did you choose not to include high efficiency equipment in your final project? [DO NOT READ, CODE RESPONSES]

1. High efficiency equipment was too expensive
2. Payback period was too long
3. Saving energy was not a priority
4. Too difficult to find affordable high efficiency options
5. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

O2d. Did you receive a rebate from another program? [DO NOT READ]

1. Yes, from the Energy Opportunities Program
2. Yes, from another program [RECORD VERBATIM]
3. No
- 8. DON'T KNOW
- 9. REFUSED

[SKIP TO O3]

O2e Was the project permanently cancelled or postponed until a later date?

1. Cancelled [
2. Postponed or delayed with plans to resume
3. Postponed or delayed indefinitely
4. Currently in progress [SKIP TO O3]
- 8. DON'T KNOW
- 9. REFUSED

O2f. [IF O2d = 2] Do you plan to enroll the project in the ECB once it starts up again?

1. Yes [SKIP TO O3]
2. No
- 8. DON'T KNOW
- 9. REFUSED

O2f. What specific aspects of the ECB program would cause you not to participate?
[RECORD VERBATIM]

O3. [IF O1 = 2 or 3] How far along in the project process did you get before deciding *not* to pursue a rebate with the Energy Conscious Blueprint Program? [READ LIST]

7. Initial planning conversations with a professional
8. Design development: creating project drafts with a professional
9. Bid, application, and permitting stage
10. During construction
11. During/after move in or return to space
- 8. DON'T KNOW
- 9. REFUSED

O4. [IF O1 = 1] How far along in the process did you get before deciding *not* to pursue a rebate with the Energy Conscious Blueprint Program? [READ LIST]

1. Initial planning conversations with contractor or professional
2. Choosing equipment
3. After application to Energy Conscious Blueprint Program
4. After work was completed
- 8. DON'T KNOW
- 9. REFUSED

O5. In your own words, can you explain what happened that prevented your organization from receiving a rebate from the ECB Program?

1. [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

O6. Could the program have done anything to help you overcome the barriers your organization faced and assisted you in moving forward with your participation in the program?

1. Yes
2. No [SKIP TO A1]
- 8. DON'T KNOW [SKIP TO A1]
- 9. REFUSED [SKIP TO A1]

O7. What could they have done? [READ ALL; ACCEPT MULTIPLE RESPONSES]

1. Larger incentives
2. Better financing options
3. More information on equipment options
4. More information on contractors
5. Program management assistance
6. Other (specify: _____)
- 8. DON'T KNOW [SKIP TO A1]
- 9. REFUSED [SKIP TO A1]

[IF O7=1 OR 2]

O9. What financing features would have made you more likely to move forward?
[READ ALL]

1. Simple loan application process
2. Positive cash flow
3. Zero interest loans
4. Very low interest loans (Greater than zero but less than 2%)
5. Low interest loans (Greater than 2% but less than program offer)
6. Low monthly payment
7. Ability to finance 100% of costs
8. Longer term loans
9. On bill financing
10. Property accessed clean energy, or tax-bill linked repayment (C-PACE)
11. Other (specify: _____)
12. None of the above
- 8. DON'T KNOW
- 9. REFUSED

O10. Suppose you were considering improving the energy efficiency of your business. Please tell me, on a scale of 1 to 5 where 1 means "not a barrier at all" and 5 means "a very significant barrier" how much of a barrier each of the following might be. [READ ALL]

1. Lack of awareness of opportunities for efficiency
2. Lack of credible information on efficient alternatives
3. Lack of staff resources (e.g. time) for implementation
4. Lack of capital for investment
5. Absence of acceptable financing mechanisms
6. Lack of confidence in energy/cost savings claims
7. Lack of availability or longer-delivery times for efficiency measures
8. Perception that efficiency delivers less on other values,(e.g. production, comfort)
9. Competing priorities taking precedence
10. Lack of credit quality
11. Do not plan on staying long enough in the property

- 12. Inability to share capital costs of energy improvements with tenants
- 13. Anything else? (specify_____)
- 8. DON'T KNOW
- 9. REFUSED

Section A: Awareness

A1. How did you first hear about the ECB Program? [DO NOT READ; CODE RESPONSES; ACCEPT MULTIPLE RESPONSES]

- 18. Energize Connecticut website
- 19. <UTILITY> website
- 20. Contractor
- 21. Equipment vendor
- 22. Architect
- 23. Engineer
- 24. Utility account manager
- 25. Other utility representative
- 26. Insert in my bill
- 27. Direct mailing
- 28. Reference from family, co-workers, or friends
- 29. TV or radio advertisement
- 30. Newspaper or magazine
- 31. Billboard
- 32. Online advertisement or social media
- 33. Trade association
- 34. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

A2. How do you typically hear about energy efficiency opportunities? [DO NOT READ; CODE RESPONSES; ACCEPT MULTIPLE RESPONSES]

- 15. Energize Connecticut website
- 16. <UTILITY> website
- 17. Contractor
- 18. Equipment vendor
- 19. Utility representative
- 20. Insert in my bill
- 21. Direct mailing
- 22. Reference from family, co-workers, or friends
- 23. TV or radio advertisement
- 24. Newspaper or magazine
- 25. Billboard
- 26. Online advertisement or social media
- 27. Trade association
- 28. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

- A3.** What were the main reasons you were interested in participating in the ECB program [DO NOT READ; CODE RESPONSES; ACCEPT MULTIPLE RESPONSES]
11. To save money on energy bills or to discover new ways to save energy
 12. To acquire new technology
 13. Interested in receiving rebates or incentives
 14. [SHOW IF O1 = 2 OR O1 = 3] In order to comply with LEED standards
 15. To meet organizational, corporate or state mandated energy goals
 16. [SHOW IF O1 = 2 OR O1 = 3] To have a “green,” energy efficient building
 17. To help protect the environment
 18. Positive experiences with other energy efficiency programs
 19. Recommendation of contractor
 20. Recommendation of utility account representative
 21. Other [RECORD VERBATIM]
 - 8. DON'T KNOW
 - 9. REFUSED
- A4.** After you first learned about the program, how did you learn about the steps to take to participate in the program? [DO NOT READ; CODE RESPONSE]
9. Called or emailed <UTILITY>
 10. Spoke with utility account manager
 11. Visited Energize Connecticut website
 12. Visited <UTILITY> website for more information
 13. Used internet search engine (such as Google, Yahoo) to learn more information
 14. Talked to contractor or vendor
 15. [SHOW IF O1 =2 OR O1 = 3] Talked to architect or engineer
 16. Talked to another business
 17. Other [RECORD VERBATIM]
 - 8. DON'T KNOW
 - 9. REFUSED
- A5.** On a scale from 1 to 5 where 1 is “Not at all complicated” and 5 is “Very complicated,” how complicated was the process of enrolling in the ECB program?
1. [NUMERIC OPEN-END. RANGE 1-5]
 - 8. DON'T KNOW
 - 9. REFUSED
 - 10. N/A
- A6.** Did you interact with program staff or engineers during your experience with the ECB Program?
1. Yes
 2. No [SKIP TO F1]
 - 8. DON'T KNOW [SKIP TO F1]
 - 9. REFUSED [SKIP TO F1]

- A7.** Using a 1 to 5 scale, where 1 means “Not at all satisfied” and 5 means “Very satisfied,” how would you rate your satisfaction with the support you received from program staff and engineers?
[NUMERIC OPEN-END. RANGE 1-5; -8 DON'T KNOW, -9 REFUSED, -10 N/A]
- A8.** [IF A7 < 4] Your rating indicates you were less than satisfied with the support you received. Why were you less than satisfied?

[RECORD VERBATIM]

Section F: Firmographics

- F1.** Next are a few questions about your organization. First, what is your position or job title? [DO NOT READ; CODE RESPONSE]

- 17. Proprietor/Owner/President
- 18. General manager
- 19. Financial Manager
- 20. Other Financial Position
- 21. Facilities Manager
- 22. Plant manager
- 23. Administrator/receptionist
- 24. Other Facilities Position
- 25. Other Type of Manager
- 26. Other [RECORD VERBATIM]**
- 9. REFUSED
- 10. N/A

- F2.** Which of the following categories best describes your organization? [CODE RESPONSES]

- 1. Municipals
- 2. Education
- 3. Universities
- 4. Schools
- 5. Hospitals
- 6. Health care & social assistance
- 7. Water & waste water
- 8. Manufacturing & industrial
- 9. Light manufacturing
- 10. Construction
- 11. Transportation
- 12. Information technology
- 13. Printing
- 14. Metals
- 15. Plastics
- 16. Warehouses
- 17. Retail trade

- 18. Clothing, banking, auto parts, hair salons
- 19. Convenience/grocery/food store
- 20. Accommodations & food services
- 21. Real estate rental & leasing
- 22. Professional services
- 23. Office or headquarters for another type of industry
- 24. Other (specify: _____)
- 8. DON'T KNOW
- 9. REFUSED

F3. Approximately how many full-time employees work at your organization?

[NUMERIC OPEN-END 1-9999 in employees]

F4. Does your organization...[read list. Record one response]

- 5. Own, and occupy all the space at this location.
- 6. Own, but not occupy the space [e.g. you rent the space to somebody else, or your organization manages the property.]
- 7. Rent the space
- 8. Some other arrangement [specify]
- 8. DON'T KNOW
- 9. REFUSED

F5. Does your organization pay the electric and/or gas utility bill?

- 1. Yes, both
- 2. Only the electric bill
- 3. Only the gas bill
- 4. No
- 8. DON'T KNOW
- 9. REFUSED

Section D: Decision-making

D1. Who makes the final decision within your organization about what equipment is purchased and installed? [DO NOT READ; CODE RESPONSE]

- 1. Owner/President/CEO
- 2. Vice President/VP of Operations
- 3. Facility, Operations, or Building Manager
- 4. Energy Manager or Engineer
- 5. Purchasing Manager
- 6. Other [PROMPT]
- 8. DON'T KNOW
- 9. REFUSED

D2. What kind of requirements, if any, must energy efficient equipment upgrades meet in order to be approved? [ACCEPT MULTIPLE RESPONSES]

1. Payback period
2. Return on Investment (ROI)
3. Other [RECORD VERBATIM]
4. None
- 8. DON'T KNOW
- 9. REFUSED

D2a. [IF D2 = 1] What is your organization's minimum payback requirement?

[NUMERIC OPEN-END 1-100 in years]

- 8. DON'T KNOW
- 9. REFUSED
- 10. N/A

D2b. [IF D2 = 2] What is your organization's minimum return on investment requirement?

[NUMERIC OPEN-END 0-100, Percent]

- 8. DON'T KNOW
- 9. REFUSED
- 10. N/A

Section W: Program Website

W1. Have you visited the <UTILITY> website?

5. Yes
6. No
- 8. DON'T KNOW
- 9. REFUSED

[IF W1 = 2 SKIP TO SECTION B]

W2. [If W1 = 1] What do you usually use the website for?

16. To learn about new energy efficiency programs and rebates
17. To find contact information
18. To research this program
19. To pay my utility bills
20. To find ways to save on my energy bill
21. To find utility-approved vendors
22. Other [RECORD VERBATIM]
- 8. DON'T KNOW
- 9. REFUSED

W3. Using a 1 to 5 scale, where 1 means "Not easy" and 5 means "Very easy," how easy was it to find information on the <UTILITY> website? [ACCEPT DON'T KNOW AND N/A RESPONSES AS WELL]

- 1. [NUMERIC OPEN-END. RANGE 1-5]
- 8. DON'T KNOW/NOT SURE
- 9. REFUSED

Section B: Closing

B1. Do you have any additional feedback on your experience with the Program that you would like us to pass along to <UTILITY>?

- 5. Yes [**RECORD VERBATIM**]
- 6. No
- 8. Don't know
- 9. Refused

CLOSE1. These are all the questions I have. On behalf of <UTILITY> I want to thank you for your input with this important study. In the next month you will receive a \$50 gift card to thank you for your participation.

B2. Can you please tell me the e-mail address you would like us to send your \$50 Amazon.com gift card?

[**RECORD EMAIL ADDRESS**] [**SKIP TO CLOSE2**]

- 8. Don't know
- 9. Refused

B3. Do you have a mailing address where we can send you your \$50 Amazon.com gift card?

CLOSE2. Thank you again for your input. Have a good day!

[**TERMINATE**]

APPENDIX E: VENDOR – MODERATOR GUIDE

Research Questions

1. How do vendors use the *Energy Conscious Blueprint* website to find information about the program?
2. What about the *Energy Conscious Blueprint* website do vendors find the most useful?
3. What aspects of the *Energy Conscious Blueprint* website do vendors find frustrating or challenging?
4. What are some possible solutions to challenges identified by vendors?

[If Remote: Start the go-to-meeting; once the vendor joins the meeting, read the Introduction.

Introduction (5 min.)

Hi, my name is [_____] and I'll be walking you through this session today. First I wanted to thank you for taking the time to meet with me today. Before we begin, I have some information for you, and I'm going to read it to make sure I cover everything.

You probably already have a good idea of why we scheduled this session, but I'll just go over it again briefly. We're asking Connecticut Light and Power (CL&P) vendors who have participated in at least one energy efficiency program to share feedback on the CL&P website in order to identify possible areas for improvement. The session today should take about 30 to 45 minutes. If you need to take a break at any point just let me know.

The first thing I want to make clear right away is that we're testing the website, not you. You can't do anything wrong here, in fact, this is probably the one place today where you don't have to worry about making mistakes.

I'm going to walk you through several scenarios, and as you use the website, I'm going to ask you, as much as possible, to try to think out loud—to say what you're looking at, and what you're trying to do, and what you're thinking. This information will be a big help to us.

Also, please don't worry that you're going to hurt my feelings—I'm doing this to understand how the website is used, so I need your honest reactions. Also, I don't work for CL&P— they've hired me to help them improve the website, so the more candid you are the better.

If you have any questions as you go along, I may not be able to answer them right away, since we're interested in how people interact with the website when they *don't* have someone sitting next to them, but if you still have any questions once we're done, I'll try to answer them at that point.

With your permission, I'm going to record what happens on the screen and our conversation as we go along. Your identity will be kept confidential. The recording is only going to be used to help us figure out how to improve the website, and it won't be seen by anyone except the people working on this project.

[CL&P contact information here]

[Make the vendor the presenter and ask them to share their screen; remind the vendor to first clear their screen so that they do not share any private information (emails, docs, etc.). Once that

is confirmed, and with permission provided, start the recording; begin asking the background questions.]

Background Questions (5-10 min.)

First, do you have any questions for me? Before we start, I have several questions:

- How would you classify the work that your company does?
- What is your role in the company?
- How would you rate your comfort with computers and using the internet (1 to 5 scale; 5 is very comfortable)?
- Have you visited the Energy Conscious Blueprint website before? When was the last time? How often do you visit the Energy Conscious Blueprint website?
- What is the best way for Connecticut Light & Power to communicate updates/changes to you (e.g., through the website/portal, quarterly newsletter, program coordinator)?

[Ask the vendor to open a web browser; read the scenarios below and use the follow-up questions as necessary.]

Usability Scenarios (25 min.)

1. Navigation to *Energy Conscious Blueprint* web pages
2. Overall impression of *Energy Conscious Blueprint* web pages
3. Functionality of the information forms available on the *Energy Conscious Blueprint* web pages
4. Usefulness of C&I energy efficiency interest form

Scenario 1: Navigation to *Energy Conscious Blueprint* web pages (10 min.)

You are interested in assisting a new client with a new construction or major renovation project that will require either new equipment purchases and/or replacement of existing equipment at their business. Please navigate to the UI website to learn more about what incentives may be available for your clients new project.

Probes and follow-up

- Is this the method you normally use to navigate to the website?
- Are there other methods you have tried? What were those like?
- How many times have you visited the website?

Scenario 2: Overall impression of *Energy Conscious Blueprint* website (5 min.)

I would like you to explore the site for useful information about the amount of the incentives available through this program, and how to participate in the program. As you do, talk me through what you are seeing, what stands out to you, and anything else that may come to mind.

Probes and follow-up

- What stands out most to you? Why?
- What is it that you look for first? Why?
- Is there enough information or too much information?
- What information is most valuable to you?
- What additional information do you wish was available?

- Is there anything that you really like about the different sections?
- Is there anything that makes using the portal difficult or confusing?
- Is there anything that would make the website easier to use?
- Did you notice any tools on the website that could help you find more information?

Scenario 3: Functionality of the information forms available on the *Energy Conscious Blueprint* web pages (15 min.)

Using the example of a customer interested in a major upgrade or replacement, how would you utilize the documents available on the website? As you use these tools, please talk me through what you are seeing, what stands out to you, and anything else that may come to mind.

- Are you able to open the PDF document?
- Can you find the section of the document with information on HVAC systems?
- Can you find information about whether or not the customer’s new system is eligible for an incentive?
- If you didn’t find the information you needed in this form, does the form have any information about what steps to take next?
- What questions do you have as you look for this information? What is not clear?

Scenario 4: Usefulness of C&I energy efficiency interest form (5 min.)

On the Connecticut Light and Power Energy Conscious Blueprint page, you’ll see a large button that says “Interested in more information? Tell us about your project...” I would like you imagine that you are interested in receiving an incentive for purchasing energy efficient lighting for a new construction project: click on the “Interested...” button and describe your experience on this page.

Probes and follow-up

- Before you click on the button, what are you expecting to see after you click?
- Do you experience any issues opening this web page?
- If you were trying to find information for a customer interested in this incentive, would you fill out this form on the customer’s behalf? Why or why not?
- Are there any sections of the form you would skip filling out? Why?
- Does the form contain useful information you need to move forward with your customer’s project?
- At what point during your project do you think it would be useful to submit this form?
- How do you prefer to proceed (i.e., call a contractor, call a program representative, complete documents and submit on your own)?
- Have you used the online information request forms before?
- Are there any tools that aren’t on the website now that you would find useful?

If we had any follow-up questions after completing the analysis, would you be willing to answer some clarifying questions?

Thank you for your feedback on the website, that was very helpful. Do you have any questions for me, now that we’re done? [Stop the screen recorder and save the file.]

APPENDIX F: C&I CUSTOMER WEB USABILITY – MODERATOR GUIDE

Research Questions

1. Are customers able to navigate to the *Energy Conscious Blueprint* web pages?
2. What aspects of the *Energy Conscious Blueprint* web pages do customers find the most useful?
3. Do the *Energy Conscious Blueprint* web pages meet the needs of customers?
4. What aspects of the *Energy Conscious Blueprint* web pages do customers find frustrating or challenging?
5. What improvements would help improve the participation rate among customers who view the *Energy Conscious Blueprint* web pages?

[**If Remote:** Start the go-to-meeting; once the customer joins the meeting, read the Introduction.]

Introduction (5 min.)

Hi, my name is [_____] and I'll be walking you through this session today. First I wanted to thank you for taking the time to meet with me today. Before we begin, I have some information for you, and I'm going to read it to make sure I cover everything.

You probably already have a good idea of why we scheduled this session, but I'll just go over it again briefly. We're asking Connecticut Light and Power (CL&P) C&I customers who have participated in at least one energy efficiency program to share feedback on the CL&P website. The purpose is to understand customer experiences using the website and to identify possible areas for improvement. The session today should take about 30 to 45 minutes. If you need to take a break at any point just let me know.

The first thing I want to make clear right away is that we're testing the website, not you. You can't do anything wrong here, in fact, this is probably the one place today where you don't have to worry about making mistakes.

I'm going to walk you through several scenarios, and as you use the website, I'm going to ask you, as much as possible, to try to think out loud—to say what you're looking at, and what you're trying to do, and what you're thinking. This information will be a big help to us.

Also, please don't worry that you're going to hurt my feelings—I'm doing this to understand how the website is used, so I need your honest reactions. Also, I don't work for CL&P — they've hired me to help them improve the website, so the more candid you are the better.

If you have any questions as you go along, I may not be able to answer them right away, since we're interested in how people interact with the website when they *don't* have someone sitting next to them, but if you still have any questions once we're done, I'll try to answer them at that point.

With your permission, I'm going to record what happens on the screen and our conversation as we go along. Your identity will be kept confidential. The recording is only going to be used to help us figure out how to improve the website, and it won't be seen by anyone except the people working on this project.

[CL&P contact information here]

[**If Remote:** Make the customer the presenter and ask them to share their screen; remind the customer to first clear their screen so that they do not share any private information (emails, docs, etc.). Once that is confirmed, and with permission provided, start the recording; begin asking the background questions.]

Background Questions (5 min.)

First, do you have any questions for me? Before we start, I have several questions:

- How would you classify the work that your company does?
- What is your role in the company?
- How would you rate your comfort with computers and using the internet (1 to 5 scale; 5 is very comfortable)?
- Do you recall if your company has completed a major renovation or replacement project?
- [If yes] Was that work completed as part of involvement with an energy efficiency program?
- What motivated you to participate in the program? Is there anything in particular that you can reference?
- How did you first become aware of the program? (I.e., contractor, website, word-of-mouth)

[Read the scenarios below and use the follow-up questions as necessary.]

Usability Scenarios (35 min.)

5. Navigation to *Energy Conscious Blueprint* web pages
6. Overall impression of *Energy Conscious Blueprint* web pages
7. Functionality of the *Energy Conscious Blueprint* web pages
8. Usefulness of C&I Energy Efficiency program interest form

Scenario 1: Navigation to *Energy Conscious Blueprint* web pages (10 min.)

You are interested in engaging in new construction or major renovations that will require either new equipment purchases and/or replacement of existing equipment at your business. After discussions with a trusted contractor, you became aware that Connecticut Light & Power may offer incentives that you may qualify for. Please navigate to the website to learn more about what incentives may be available for your business.

Probes and follow-up

- Is this the method you normally use to navigate to the website?
- Are there other methods you have tried? What were those like?
- How many times have you visited the website?
- What would make navigating to the business rebate pages easier?

Scenario 2: Overall impression of *Energy Conscious Blueprint* website (5 min.)

Now that you've navigated to the *Energy Conscious Blueprint* page, I would like you to explore the site for information that may help you better identify. As you do, talk me through what you are seeing, what stands out to you, and anything else that may come to mind.

Probes and follow-up

- What stands out most to you? Why?
- What is it that you look for first? Why?
- Is there enough information or too much information?
- What information is most valuable to you?
- What additional information do you wish was available?
- Is there anything that you really like about the different sections?
- Is there anything that makes using the portal difficult or confusing?
- Is there anything that would make the website easier to use?
- Did you notice any tools on the website that could help you find more information?

Scenario 3: Functionality of the information forms available on the *Energy Conscious Blueprint* website (15 min.)

Now that we've explored the site, I would like you to try to use several of the tools on the *Energy Conscious Blueprint* website. Imagine you are interested in receiving an incentive for replacing your old HVAC system with a new, efficient system. Walk me through how you would use these tools to get the information you need.

Eligible Equipment Probes and follow-up

- Are you able to open the PDF document?
- Can you find the section of the document with information on HVAC systems?
- Can you find information about whether or not your new system is eligible for an incentive?
- If you didn't find the information you needed in this form, does the form have any information about what steps to take next?
- What questions do you have as you look for this information? What is not clear?

Incentive Calculation Table Probes and follow-up

- Are you able to open the PDF document?
- Can you find the section of the document with information on HVAC systems?
- Can you find information regarding the size of the incentive for your new system?
- Is there any information you'd be interested in that you can't find in this form?
- If you didn't find the information you needed in this form, can you find the information about what steps to take next on the form?
- What questions do you have as you look for this information? What is not clear?

Scenario 4: Usefulness of C&I energy efficiency interest form (5 min.)

On the Connecticut Light and Power *Energy Conscious Blueprint* page, you'll see a large button that says "Interested in more information? Tell us about your project..." I would like you imagine that you are interested in receiving an incentive for purchasing energy efficient lighting for a new construction project: click on the "Interested..." button and describe your experience on this page.

Probes and follow-up

- Before you click on the button, what are you expecting to see after you click?
- Do you experience any issues opening this web page?
- Look at the questions the form is asking: do you have all the information you need to complete this form?
- Are there any sections of the form you would skip filling out? Why?

- Does the form contain useful information you need to move forward with your project?
- At what point during your project do you think it would be useful to submit this form?
- How do you prefer to proceed (i.e., call a contractor, call a program representative, complete documents and submit on your own)?
- Have you used the online information request forms before?
- Are there any tools that aren't on the website now that you would find useful?

If we had any follow-up questions after completing the analysis, would you be willing to answer some clarifying questions?

Thank you for your feedback on the website, that was very helpful. Do you have any questions for me, now that we're done?

[Stop the screen recorder and save the file.]