Applied Public Policy Research
APPRISE
Institute for Study and Evaluation

Connecticut

C11: Barriers to Commercial and Industrial Program Participation with a Focus on Financing and Cancellations

Final Report – April 15, 2015

Table of Contents

Executive Summary

The Connecticut Energy Efficiency Fund (CEEF) supports programs and initiatives to advance energy efficiency. Connecticut Light & Power and United Illuminating administer and fund the electric programs. Connecticut Natural Gas, Southern Connecticut Gas, and Yankee Gas fund gas programs from conservation charges on the natural gas bills. The programs provide financial incentives and/or financing mechanisms, information, technical assistance, tools, and educational services to encourage businesses to undertake energy efficiency investments. Utilities and state programs around the country have often fallen short of their participation goals for these programs because numerous challenges and barriers are faced in obtaining business sector participation. This report provides a summary of commercial and industrial (C&I) market research that was undertaken to better understand the specific barriers and challenges faced by program nonparticipants and program dropouts in Connecticut and to understand the potential opportunities for increasing participation.

Study Design

The population of interest was segmented into several groups to meet the goal of understanding the characteristics and issues faced by the various market segments. Program nonparticipants in the following market segments were sampled for the study, where small was defined as average demand of 10 to 200 kW and large was defined as average demand greater than 200 kW.[1]

- Small nonparticipating manufacturing businesses
- Large nonparticipating manufacturing businesses
- Small nonparticipating general market businesses
- Large nonparticipating general market businesses

Program dropouts were divided into two groups for the study.

- Small dropout businesses
- Large dropout businesses

The surveys focused on the following research areas.

- Business Characteristics – business type and building ownership issues
- Decision Making – process and responsibilities for investment decisions
- Information and Awareness – how respondents learn about energy efficiency and knowledge of CT's energy efficiency programs
- Investments – criteria for energy efficiency investment decisions
- Financing – importance of financing and interest in potential financing vehicles
- Barriers and Opportunities – barriers to undertaking efficiency investments and offerings that may increase the likelihood of participation

[1] Commercial and industrial customers with over 750 kW in demand were also excluded as being extremely large C&I customers and likely unique. These are less than 1 percent (1%) of customers or demand.

Dropouts were not asked about their investment criteria, financing, or their decision process, but they were asked about the rest of the issues listed above as well as additional issues related to the projects dropped from program participation.

- Dropout Reasons and Follow-up Actions
- Interactions with the Utility and Contractor

Because of the low response rates and small sample sizes, this study does not provide definitive conclusions, but rather provides a range of options and a qualitative understanding of the barriers and opportunities faced in these market segments.

Key Findings

One of the key goals of this research study was to identify the barriers to participating in the C&I energy efficiency programs and the factors that may enable customers to participate. Program nonparticipants and dropouts (for potential future projects) were asked to rate the barriers on a scale of 1 to 5 where 1 represents "not a barrier at all" and 5 means "a very significant barrier". The research found that most nonparticipants and dropouts (ranging from 65 percent to 85 percent of the six groups) rated two or more of the following issues as a 4 or a 5 on the scale indicating that it was a significant or very significant barrier. A significant finding was that most nonparticipants had more than one barrier that would have to be overcome to invest in energy efficiency. The potential barriers investigated were as follows.

- Lack of awareness of opportunities for efficiency
- Lack of credible information on efficient alternatives
- Lack of staff resources (*e.g.,* time) for implementation
- Lack of capital for investment
- Absence of acceptable financing mechanisms
- Lack of confidence in energy/cost savings claims
- Lack of availability or longer-delivery times for efficiency measures
- Perception that efficiency delivers less on other values, (*e.g.*, production, comfort)
- Competing priorities taking precedence
- Lack of credit quality
- Do not plan on staying long enough in the property
- Inability to share capital costs of energy improvements with tenants
- Other specified by respondent

Program nonparticipants (and dropouts) were most likely to face logistical barriers including a lack of staff resources, a lack of availability of efficiency measures, not planning to stay in the property, and competing priorities taking precedence. Over 75 percent of most of the groups rated at least one of these barriers as significant or very significant.

This is a challenge for the program because these barriers are more difficult for the program to address. However, additional information and technical assistance may be a potential means to help overcome such barriers for some of these businesses. For example, lack of staff resources may be addressed by providing a turnkey solution. Not planning to stay in the current location may potentially be addressed if the program provides specific information on the expected payback time for the investment or providing broader information and offering of Connecticut's Commercial Property Assessed Clean Energy (C-PACE). The C-PACE program allows building owners to finance qualifying energy efficiency and clean energy improvements through a voluntary assessment on their property tax bill. Property owners pay for the improvements over time through this additional charge on their property tax bill and the repayment obligation transfers to the next owner if the property is sold. A third potential option for some of the businesses with competing priorities is to reassess the relative value of energy efficiency with greater information on non-energy impacts for their type of business, information on project financials that might be better than they had assumed, or information on other potential combinations of program services.

When asked about factors that would encourage the company to consider an energy efficiency project in the future, both nonparticipants and dropouts were most likely to report factors that could potentially be addressed with information on the project financials, including the reduced energy bills, reduced maintenance cost, and the return on the investment. The majority of these customers identified at least one of these factors as something that would encourage the investment.

Nonparticipants and dropouts were also asked about specific program offerings that would make them significantly more likely to take future energy efficiency actions. Most of the respondents identified at least two programmatic opportunities that would make them significantly more likely to take action.

However, many of those who stated that they would be very likely to take action on energy efficiency if one of these offerings were available had barriers that the energy efficiency programs are unlikely to address. These significant barriers were as follows.

- Lack of staff resources (*e.g.*, time) for implementation
- Competing priorities taking precedence
- Do not plan on staying long enough in the property
- Inability to share capital costs of energy improvements with tenants

A much lower percentage of customers stated they would be likely to improve energy efficiency but did not have one or more of the four barriers listed. For example, while 57 percent of small manufacturing customers stated that zero or low-interest loans would make them more likely to take on energy efficiency improvements, only three percent stated this and did not have any of those four barriers. In other words, if financing were offered to small manufacturing customers without other program interventions or the firm did not solve their reported logistical barriers, only three percent of these customers could use financing to overcome all of their barriers to adopting energy efficiency. The best case for financing to overcome all of the barriers was for the small general C&I market and that could reach less than 30 percent of the market.

In general, financing did not appear to be a key solution for the barriers. The majority of nonparticipants stated that financing was only of moderate or lower importance in their decision to move forward with an energy efficiency project. At least one quarter of each nonparticipant group except small manufacturing (13 percent) stated that they were not interested in outside financing.

Key findings from this analysis were that most nonparticipants and dropouts have more than one barrier preventing them from undertaking energy efficiency projects. This means that analyses across questions are required to understand how complicated the mix of problems are that need to be addressed to increase adoption of energy efficiency. The barriers were most likely to be logistical, which make it difficult for the utility to provide assistance to help customers.

There were several opportunities to encourage participation. Most nonparticipants and dropouts named at least one factor that would encourage the company to consider an energy efficiency project in the future, and most nonparticipants and dropouts selected two or more of the programmatic options that would make it significantly more likely for the business to take action on energy efficiency opportunities. The most important factors were information on investment payback and programmatic financial and informational support. However, it is important to understand that these businesses may still face significant challenges to energy efficiency.

The most important finding from this study is that there is a complex mix of barriers and opportunities facing C&I customers regarding energy efficient investment. The incredible challenge for program planners and policy makers is to make the tools available to mix and match to solve customers' different barriers, how to match customers to the best package to solve their barriers and use their opportunities, and when packages or tools are not cost-effective to undertake. Planners and policy makers would then need to adjust estimates of potential, goals, and program resources (staff, skills, methods and incentives) to be realistic to the vast mix of barriers and opportunities actually facing CT C&I nonparticipants.

Business Characteristics

The majority of the businesses own the facility in which they are located, are the single tenant in the building, are owner managed, and are master metered. These are characteristics that can make it easier to participate in the energy efficiency program. However, the respondents are much less likely to have all four of these characteristics, especially small manufacturing nonparticipants and small dropouts. Most respondents had been in their current location for ten years or more. This stability is also a positive factor for program participation.

Challenges and Barriers

Respondents who stated that they had heard about Connecticut's energy efficiency programs for businesses and who recalled that the program offered incentives or financing, were asked what prevented them from taking advantage of the program offerings. Most of the nonparticipants except larger general market nonparticipants were not asked this question because they were not aware of the assistance. Therefore, the greatest barrier to participation appears to be program knowledge. Nonparticipants who did know about the program and the benefits reported that they did not take advantage of the program offerings because it was not a priority, they did not want to take on debt, the financing was not attractive, or they did not have an opportunity.

When asked about specific barriers to energy efficiency improvements, respondents were most likely to report that competing priorities taking precedence was a significant barrier. Other common barriers that were ranked as important by most groups were the lack of capital[2] and the absence of acceptable financing mechanisms.

Information Sources

Respondents were most likely to report that they use online sources to stay informed about energy efficiency and related topics, followed by newspapers and magazines, word of mouth, trade associations, and vendors.

While most of the nonparticipants reported that they were aware of Connecticut's energy efficiency programs for businesses, most did not know that the programs offered incentives or financing. The nonparticipants who recalled that the programs offered incentives and/or financing were asked whether they considered taking advantage of those offerings. While the manufacturing customers were equally likely to report that they did and did not consider taking advantage of those offerings, all general market customers who were aware said that they did considering taking advantage of those offerings.

Respondents felt that the best way for the Connecticut energy efficiency program to reach firms was to use online sources or social media, have the utility call or email the customer, direct mail, or a face-to-face meeting.

Opportunities

Respondents were most likely to state that the following would make them more likely to take energy efficiency actions to improve their business.

- Analysis that shows that the energy saving project will reduce energy bills enough to yield a rapid payback.
- A cash rebate for a purchase of an energy-saving measure.
- A turn-key package from the utility with a contractor to do the work and financing to make it possible.
- A discount on the purchase of an energy-saving measures.
- Zero or low-interest loans.

However, many of those who stated that they would be very likely to take action on energy efficiency if one of these offerings were available had barriers that the energy efficiency programs are unlikely to address.

[2] The research suggests that "lack of capital" may mean lack of internal corporate capital or lack of capital through outside financing. These two interpretations have very different meanings regarding the opportunities for program offerings to make a difference.

Most respondents felt that the utility was a very or somewhat credible source of information on energy efficiency and stated that they were very or somewhat likely to consult their utility in the next two years about ways to save energy.

Investments and Financing

Nonparticipants were asked about their criteria for investing in energy efficiency. The most common criteria used by respondents to make decisions about investing in energy efficiency was the return on investment, followed by the simple payback period and the cost of capital.

The majority of respondents stated that financing was only of moderate or lower importance in their decision to move forward with an energy efficiency project. At least one quarter of each group except small manufacturing (13 percent) stated that they were not interested in outside financing.

Program Dropouts

Most of the small program dropouts had begun participation in the SBEA and most large dropouts had begun participation in the Energy Opportunities program. Most of the dropouts decided to defer the project or dropped the project at a stage that they did not define.

Small dropouts had various reasons for deferring the project. Large dropouts were most likely to defer because they did not have the funds. However additional analysis shows that these dropouts had other barriers to the project. Of those who did not have the funds, 86 percent did not want to take on debt, had a lack of credit quality, or had other higher priorities.

Dropouts reported various actions the program could have taken to help them complete participation, including larger incentives, program management assistance, better financing, and providing more information on contractors or measures. However, the vast majority stated that there was nothing more that the program could have done.

Program dropouts were likely to report that they had been very or somewhat satisfied with the program contractor and most dropouts stated that they were very or somewhat satisfied with the utility representatives if they remembered the interaction.

Additional Research

The research found that the following opportunities for additional study may provide important information for the program managers. We would recommend that additional research be conducted through in-person focus groups rather than through surveys because of the difficulty of locating knowledgeable respondents and the low study participation rate by nonparticipants and dropouts. If a broader survey effort is pursued in the future, it should use significant incentives to encourage participation in the survey and explore other methods to obtain response from this challenging population.

Focus groups could potentially provide valuable information in the following areas.

- Exploration of which aspects of project financials are most important to customers.
- What, if anything, programs can do to help drop-outs move forward with their projects.
- Financing features that would be most attractive.
- Importance of internal versus external capital.
- How responses about C-PACE offerings relate to knowledge of this new concept.
- Packages of program interventions needed to overcome the multiple barriers to adopting energy efficiency.
- Additional probing on market barriers.
- Importance of non-energy benefits.

Information from this market research suggests that future process evaluation of the C&I programs should assess the program in view of the complicated mix of barriers and opportunities found. Some of the likely researchable process evaluation questions could include the following.

- What elements in the C&I program are available for each of the barriers expressed by non-participants? What resources are available to be packaged to meet each customer's mix of needs?
- How do the initial interaction with the customers, or outreach activities, allow for identification of the multiple barriers that the customer is facing?
- Is the program sufficiently staffed with the right skill sets to identify and package efforts to address multiple barriers found with most C&I customers?
- What level of effort for designing different packages of education, targeted technical assistance or analysis, cash incentives, financing assistance in contracting, quality assurance and other services can achieve near maximum cost-effective energy savings?

I. Introduction

The Connecticut Energy Efficiency Fund (CEEF) supports programs and initiatives to advance energy efficiency. Connecticut Light & Power[3] and United Illuminating administer and fund the electric programs. Connecticut Natural Gas, Southern Connecticut Gas, and Yankee Gas fund gas programs from conservation charges on the natural gas bills. The programs provide financial incentives and/or financing mechanisms, information, technical assistance, tools, and educational services to encourage businesses to undertake energy efficiency investments. Utilities and state programs around the country have often fallen short of their participation goals for these programs because numerous challenges and barriers are faced in obtaining business sector participation. This report provides a summary of commercial and industrial (C&I) market research that was undertaken to better understand the specific barriers and challenges faced by program nonparticipants and program dropouts in Connecticut and to understand the potential opportunities for increasing participation.

The population of interest was segmented into several groups to meet the goal of understanding the characteristics and issues faced by the various market segments. Program nonparticipants in the following market segments were sampled for the study, where small was defined as average demand of 10 to 200 kW[4] and large was defined as average demand greater than 200 kW[5].

- Small nonparticipating manufacturing businesses
- Large nonparticipating manufacturing businesses
- Small nonparticipating general market businesses
- Large nonparticipating general market businesses

Program dropouts were divided into two groups for the study.

- Small dropout businesses
- Large dropout businesses

As the program has faced challenges when working to increase participation in the energy efficiency programs, the researchers had difficulty obtaining participation in the survey. A tested and successful method was used to maximize participation. Rather than having the telephone survey center cold call the respondents, an APPRISE researcher with an understanding of the programs and the overall research goals made initial calls to the targeted nonparticipants and dropouts. APPRISE was able to identify the correct contact at the business and obtain participation agreement from approximately one fourth of the sample. However, the telephone center was only able to obtain completed interviews from one fourth of the sample that APPRISE successfully screened and recruited.

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3 At the time of this report, Connecticut Light & Power and Yankee Gas became part of the merged utility called Eversource, Inc.

4 This kW definition matches that for the Small Business Energy Advantage (SBEA) program, so the results for the groups of this size can be interpreted as the SBEA-eligible population.

5 Commercial and industrial customers with over 750 kW in demand were also excluded as being extremely large C&I customers and likely unique. These are less than 1 percent (1%) of customers or demand.

The surveys focused on the following research areas.
- Business Characteristics – business type and building ownership issues
- Decision Making – process and responsibilities for investment decisions
- Information and Awareness – how respondents learn about energy efficiency and knowledge of CT's energy efficiency programs
- Investments – criteria for energy efficiency investment decisions
- Financing – importance of financing and interest in potential financing vehicles
- Barriers and Opportunities – barriers to undertaking efficiency investments and offerings that may increase the likelihood of participation

Dropouts were not asked about their investment criteria, financing, or their decision process, but they were asked about these issues in addition to the others listed above.
- Dropout Reasons and Follow-up Actions
- Interactions with Utility and Contractor

This report provides a description of the research methodology and a summary of the findings from the surveys that were conducted. Because of the low response rates and small sample sizes, this study does not provide definitive conclusions, but rather provides a range of options and a qualitative understanding of the barriers and opportunities faced in these market segments.

This report provides the following information in six sections following this introduction.

- Section II – Overview: Provides a high level summary of the key study findings.
- Section III – Methodology: Discusses the study methodology, including response rates.
- Section IV – Business Characteristics and Decision Making: Describes characteristics of the businesses and the buildings, as well as how investment decisions are made.
- Section V – Challenges and Barriers: Discusses challenges and barriers to energy efficiency projects.
- Section VI – Opportunities: Describes information sources, factors for encouraging energy efficiency and program participation, and business' investment criteria and financing interests.
- Section VII – Program Dropouts: Assesses why businesses dropped out from the program and their satisfaction with the program and the contractors.

The first appendix provides additional more detailed tables and the second appendix provides the survey instrument that was used for this study.

APPRISE prepared this report under subcontract to DNV KEMA. The utilities facilitated this research by furnishing program and customer data to APPRISE. Any errors or omissions in this report are the responsibility of APPRISE. Further, the statements, findings, conclusions, and recommendations are solely those of analysts from APPRISE and do not necessarily reflect the views of the utilities.

II. Overview

One of the key goals of this research study was to identify the barriers to participating in the C&I energy efficiency programs and the factors that may enable customers to participate. This section provides an analysis of those key issues for program nonparticipants and dropouts.

Program nonparticipants and dropouts were asked a series of questions to understand the key barriers that they faced for potential future energy efficiency projects.[6] Specifically, they were asked, "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."

The specific barriers asked about were as follows.

- Lack of awareness of opportunities for efficiency
- Lack of credible information on efficient alternatives
- Lack of staff resources (*e.g.*, time) for implementation
- Lack of capital for investment
- Absence of acceptable financing mechanisms
- Lack of confidence in energy/cost savings claims
- Lack of availability or longer-delivery times for efficiency measures
- Efficiency delivers less on other items, (*e.g.*, production, comfort)
- Competing priorities taking precedence
- Lack of credit quality
- Do not plan on staying long enough in the property
- Inability to share capital costs of energy improvements with tenants
- Other specified by respondent

Chart II-1 displays the number of barriers identified by the program nonparticipants. The chart shows that the majority of nonparticipants in each of the four groups rated at least two of these barriers as very significant or significant, with a score of 4 or 5 on the five point scale.

- 85 percent of small manufacturing rated at least two factors as very significant or significant.
- 75 percent of large manufacturing rated at least two factors as very significant or significant.
- 65 percent of small general market rated at least two factors as very significant or significant.
- 72 percent of large general market rated at least two factors as very significant or significant.

Chart II-2 shows that 80 percent of small dropouts and 83 percent of large dropouts rated at least two of the barriers as very significant or significant, with a score of 4 or 5 on the five point scale.

[6]The barrier and opportunity questions were asked with respect to future energy efficiency projects.

Chart II-1

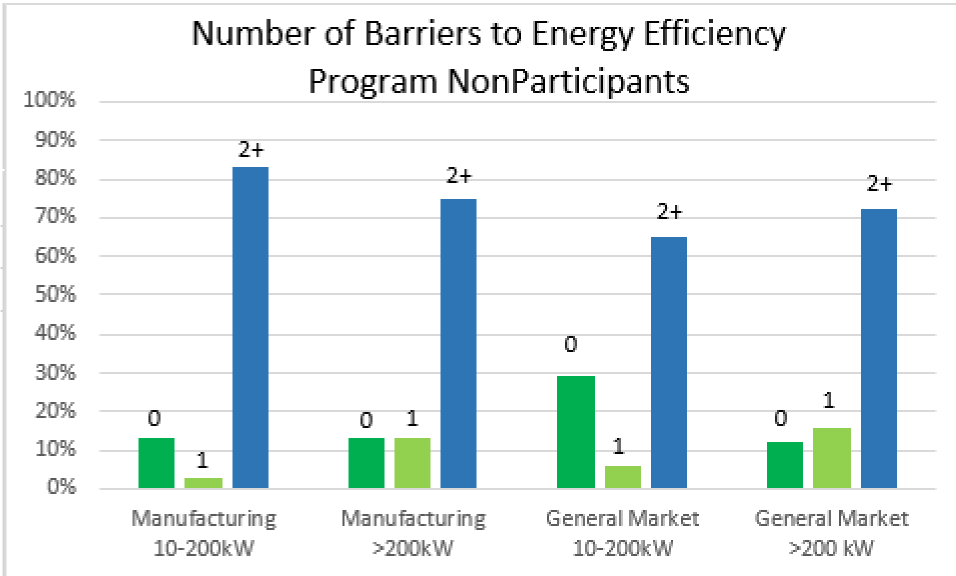
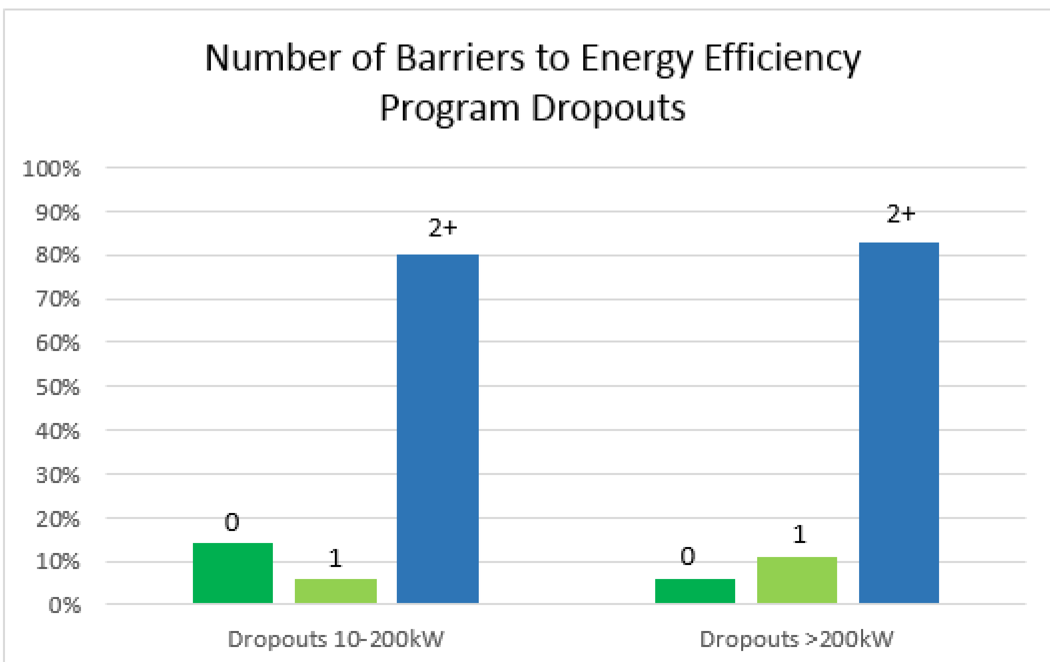


Chart II-2



The barriers that were discussed can be broken down into three different types – financial, information, and logistical. We grouped the barriers in the following way.

Financial barriers

- Absence of Acceptable Financing Mechanisms
- Lack of Capital for Investment

- Lack of Credit Quality
- Inability to Share Capital Costs with Tenants

Informational barriers
- Lack of Credible Information on Efficient Alternatives
- Lack of Awareness of Opportunities for Efficiency
- Lack of Confidence in Energy/Cost Savings Claims
- Efficiency Delivers Less on Other (Production, Comfort)

Logistical barriers
- Lack of Staff Resources (*e.g.*, Time) for Implementation
- Lack of Availability or Longer-Delivery Times
- Do Not Plan on Staying Long Enough in the Property
- Competing Priorities Taking Precedence

Chart II-3 shows that program nonparticipants were most likely to face logistical barriers. Over 75 percent of the small and large manufacturing and the large general market nonparticipants rated one or more of the logistical barriers as a 4 or a 5 on the 5-point scale. About 45 to 60 percent of the nonparticipants rated at least one of the financial or informational barriers as a 4 or a 5 on the 5-point scale.

Chart II-4 shows that large program dropouts were also most likely to face barriers for any future project that were classified as logistical. This is a challenge for the program because these barriers are more difficult for the program to address. However, additional information and technical assistance may be a potential means to help overcome such barriers for some of these businesses. For example, lack of staff resources may be addressed by providing a turnkey solution. Not planning to stay in the current location may potentially be addressed if the program provides specific information on the expected payback time for the investment or providing broader information and offering of Connecticut's Commercial Property Assessed Clean Energy (C-PACE). The C-PACE program allows building owners to finance qualifying energy efficiency and clean energy improvements through a voluntary assessment on their property tax bill. Property owners pay for the improvements over time through this additional charge on their property tax bill and the repayment obligation transfers to the next owner if the property is sold. A third potential option for some of the businesses with competing priorities is to reassess the relative value of energy efficiency with greater information on non-energy impacts for their type of business, information on project financials that might be better than they had assumed, or information on other potential combinations of program services.

Chart II-3

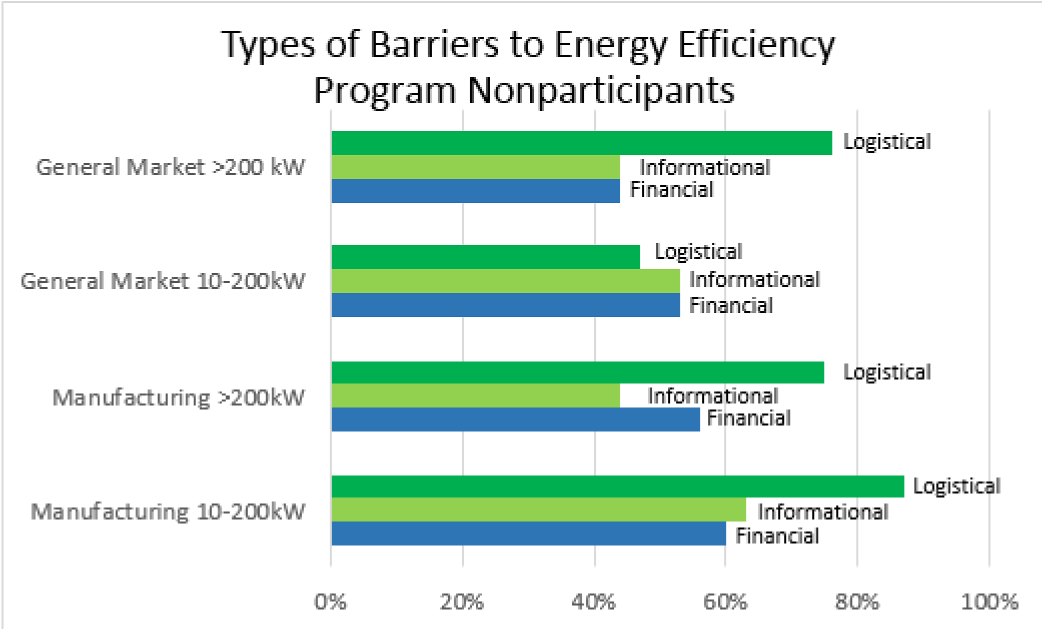
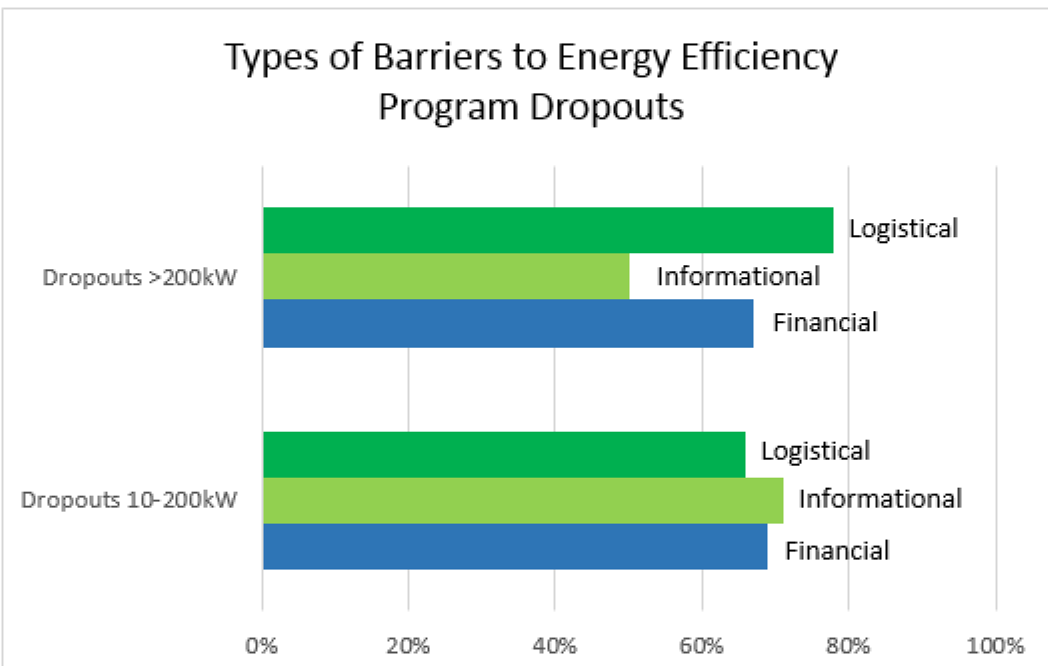


Chart II-4



Respondents were asked questions to assess the assistance needed to help them move forward with energy efficiency projects. They were asked, "What factors or considerations, if any, would encourage your company to consider an energy efficiency project in the future?" Respondents were asked this open-ended question and their responses were categorized into the following factors.

- Reduced maintenance cost
- Program incentive(s)
- Technical assistance/audits
- Reduced energy bills/ Saving money
- Saving energy
- Installer/designer/contractor advice
- Replace non-working equipment
- Past experience
- Franchise or corporate recommendation
- New Strategic Energy Plan
- Available internal funds
- Available attractive financing
- Return on investment
- Other

Chart II-5 shows that the majority of nonparticipant respondents identified one of these as an opportunity to allow the adoption of energy efficiency investment(s). However, a small percentage did not identify any or identified two or more factors. Chart II-6 shows that most of the dropouts also identified one of these factors as offering an opportunity to invest in future energy efficiency projects. However, the large dropouts were also likely to identify two or more of these factors that could provide an opportunity to aid energy efficiency investment.

Chart II-5

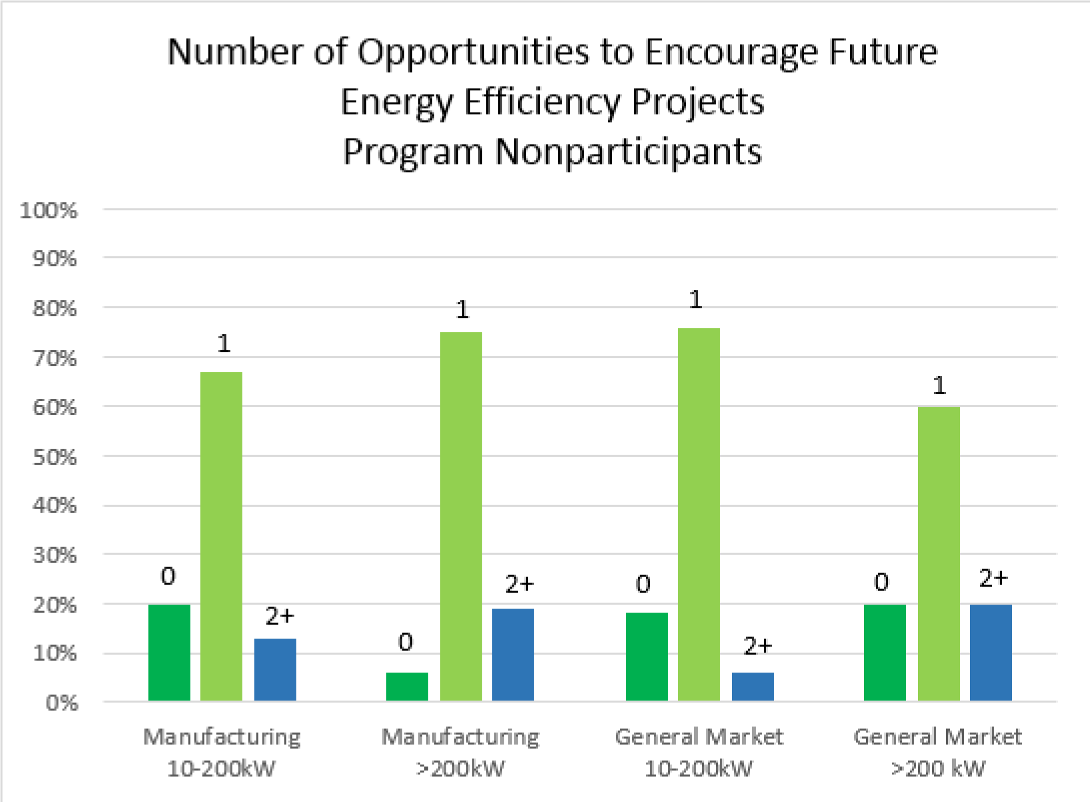
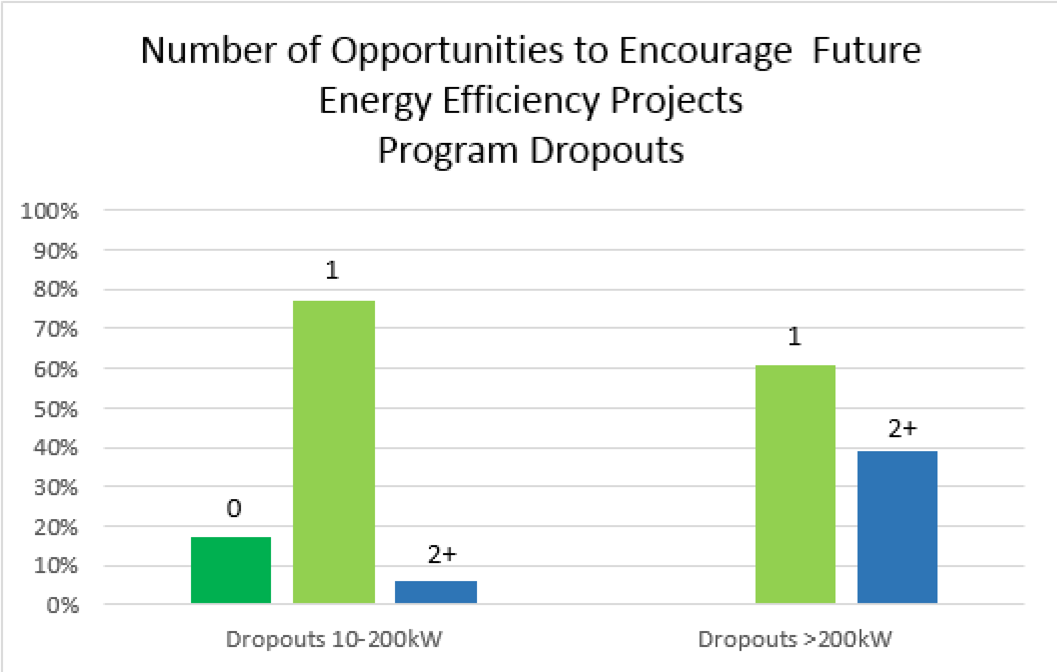


Chart II-6



The factors that could encourage a company to consider an energy efficiency project in the future can be broken down into three different types – information on project financials, program financing opportunities, technical information, and internal company issues. We grouped the types of opportunities in the following way.

Project Financials Information Opportunities

- Reduced Energy Bills/Saving Money
- Reduced Maintenance Cost
- Return on Investment

Programmatic Financial Opportunities

- Program Incentive(s)
- Available Attractive Financing

Technical Informational Opportunities

- Technical Assistance/Audits
- Installer/Designer/Contractor Advice

Internal Company Issues

- Replace Non-Working Equipment
- New Strategic Energy Plan
- Available Internal Funds
- Franchise or Corporate Recommendation

Chart II-7 shows that nonparticipants were most likely to identify factors that could potentially be addressed with information on the project financials, such as the fact that reduced energy bills, reduced maintenance cost, and return on investment would encourage the company to consider an energy efficiency project in the future. Chart II-8 shows that project financial information was also most important for the dropouts.

Chart II-7

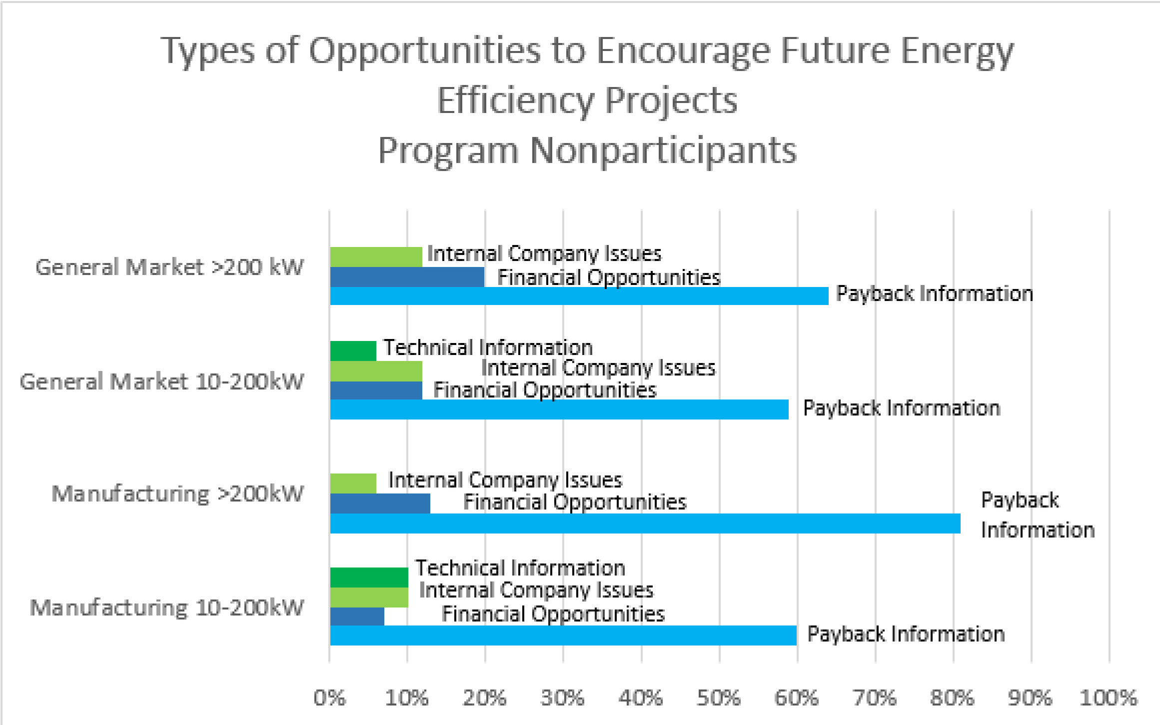
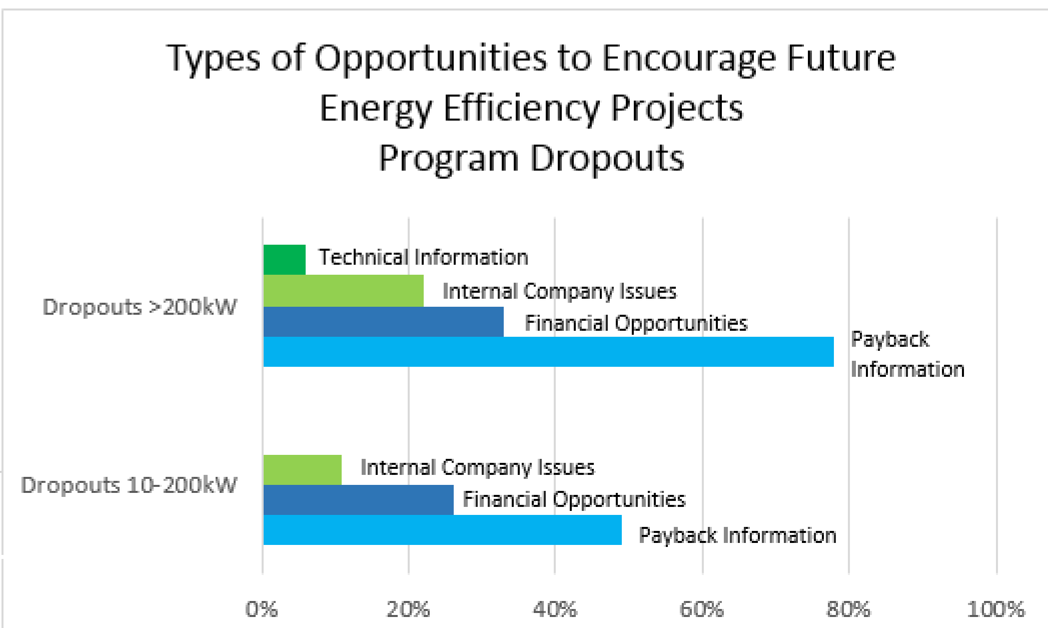


Chart II-8



Respondents were also asked about program offerings that would make them more likely to take energy efficiency actions. The question asked was, "Suppose you were considering improving the energy efficiency of your business. Would any of the following make you more likely to take action? Here we'll use a 5-point scale, where 1 means "no more likely" and 5 means "significantly more likely to take energy efficiency actions."

- A discount on your purchase of an energy-saving measure.
- A cash rebate for a purchase of an energy-saving measure.
- Analysis that shows that the energy-saving project will cut your energy bills enough to yield a rapid payback.
- Loans for energy-saving equipment at low- or zero interest.
- Contractor- matching service – to contractors approved by the utility to perform the work.
- Inspection and verification of quality installation by an independent third-party.
- A "turn-key package" from the utility with both a contractor to do the work and financing to make it possible.
- On-bill financing – Repayment of the costs of the efficiency project through utility bills
- Repayment through property tax bills – voluntary assessment added to property tax so paid for over time and repayment obligation transfers with the property when sold if amount has not been paid off.

Charts II-9 and II-10 show that most of the nonparticipants and dropouts rated two or more of these offerings a 4 or 5 on a 5-point scale, indicating that the offerings would make the respondent significantly more likely to take energy efficiency actions.

Chart II-9

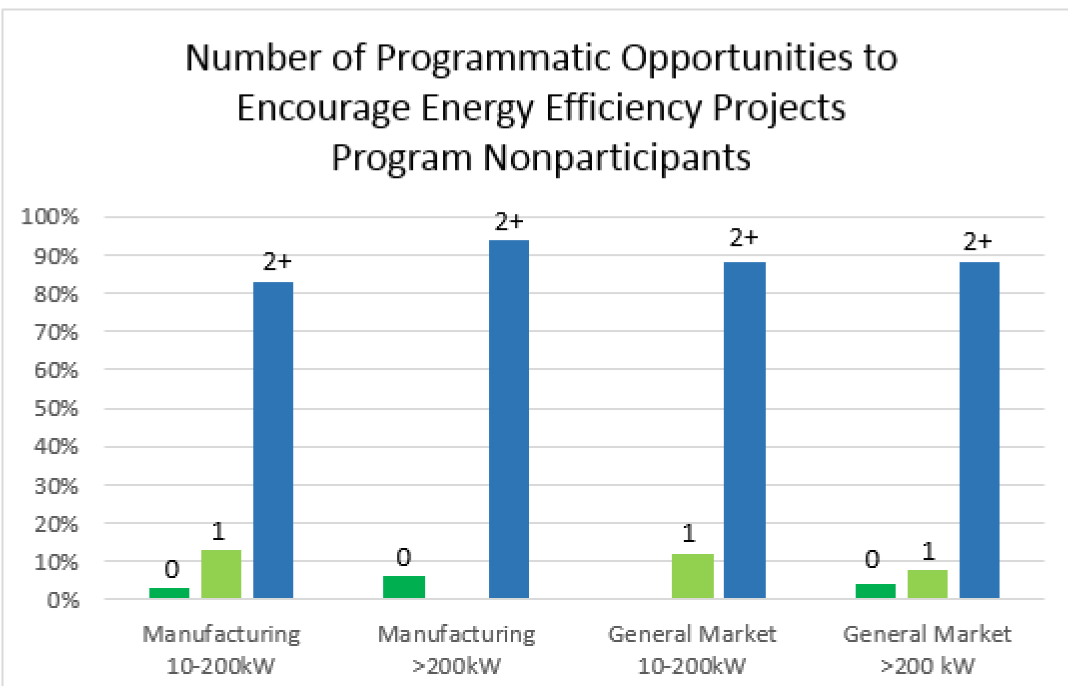
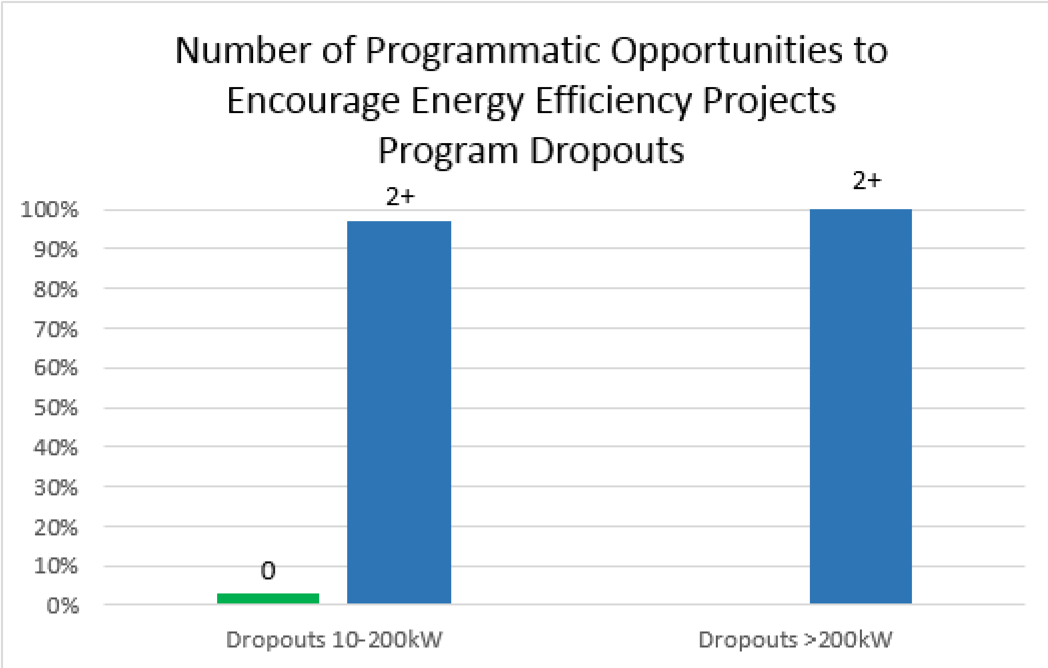


Chart II-10



The types of assistance that could make a company more likely to undertake an energy efficiency project can be broken down into three different types – financial, information, and logistical. We grouped the program offering opportunities in the following way.

Program Financial Assistance

- A Cash Rebate for a Purchase of an Energy-Saving Measure.
- A Discount on Your Purchase of an Energy-Saving Measure.
- On-Bill Financing – Repayment of the Costs of the Efficiency Project through Utility Bills
- Loans for Energy-Saving Equipment at Low- or Zero Interest.
- Repayment Through Property Tax Bills – Voluntary Assessment Added to Property Tax So Paid for Over Time and Repayment Obligation Transfers With the Property When Sold If Amount Has Not Been Paid Off

Program Information Assistance

- Analysis that Shows that the Energy-Saving Project Will Cut Your Energy Bills Enough to Yield A Rapid Payback.
- Contractor- Matching Service – to Contractors Approved by the Utility to Perform the Work.

Program Logistical Assistance

- A "Turn-Key Package" From the Utility with Both a Contractor to Do the Work and Financing to Make It Possible.
- Inspection and Verification of Quality Installation by an Independent Third-Party.

Charts II-11 and II-12 show that manufacturing nonparticipants and dropouts were about equally likely to cite offerings in each of the three categories, but general market nonparticipants were least likely to cite program logistical assistance.

Chart II-11

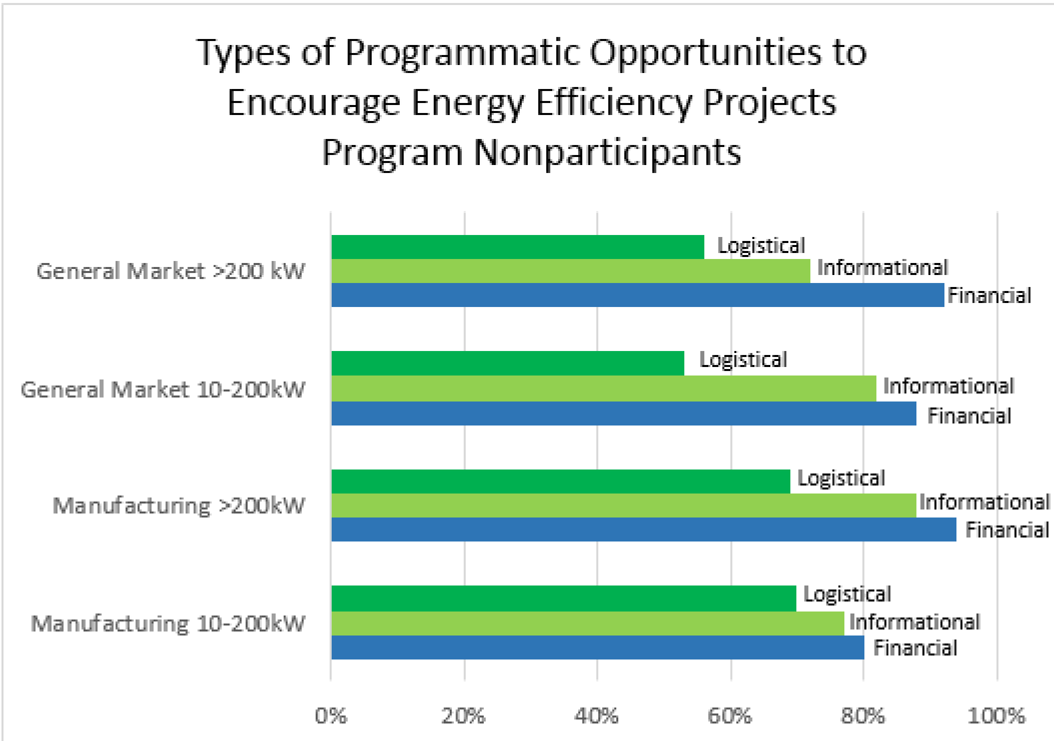
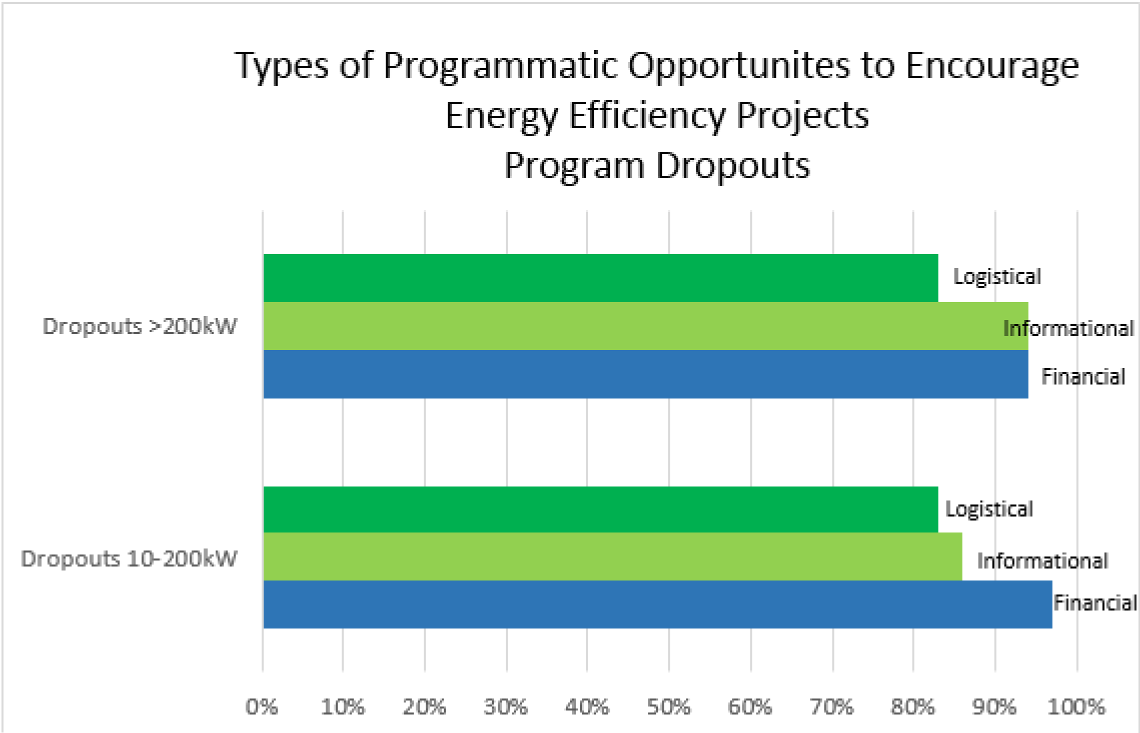


Chart II-12



The next set of charts explores some of the specific programmatic opportunities that were found. Many respondents stated that they would be very likely to take action on energy efficiency if specific programmatic offerings were available. However, many of those who stated that they would be very likely to take action on energy efficiency if one of these offerings were available had barriers that the energy efficiency programs are unlikely to address. These significant barriers that were analyzed and included in the charts below were as follows.

- Lack of staff resources (*e.g.*, time) for implementation
- Competing priorities taking precedence
- Do not plan on staying long enough in the property
- Inability to share capital costs of energy improvements with tenants

Charts II-13 and II-14 show the percentage of respondents who stated that they would be significantly more likely to take action to improve energy efficiency if they were provided with an analysis that shows a rapid payback from an energy saving project. However, a much lower percentage said this was important and did not have one or more of those four barriers listed.

Chart II-13

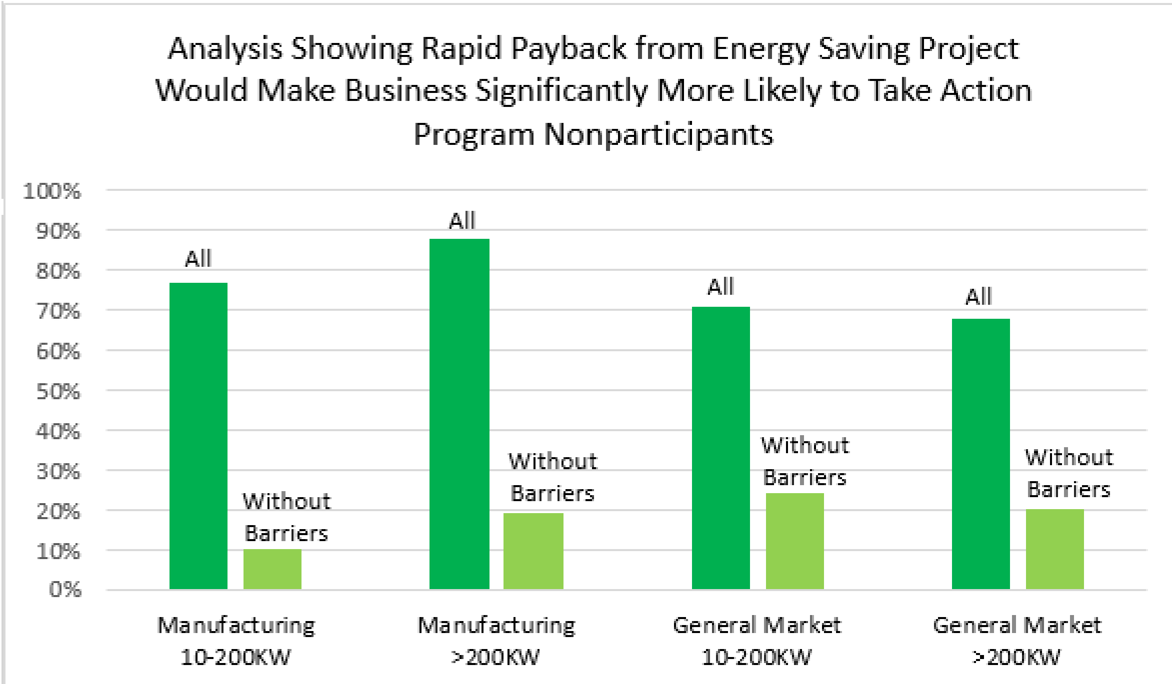
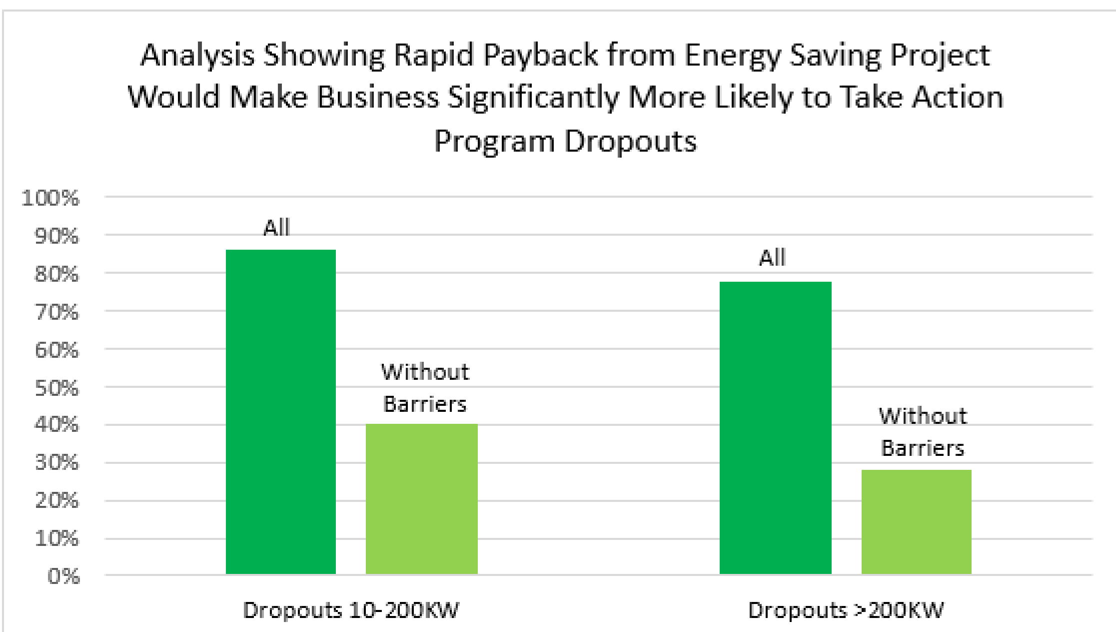


Chart II-14



Charts II-15 and II-16 show the percentage of respondents who stated that they would be significantly more likely to take action to improve energy efficiency if they were provided with a cash rebate for the purchase of an energy efficiency measure. However, a much lower percentage said this was important and did not have one or more of those four barriers listed.

Chart II-15

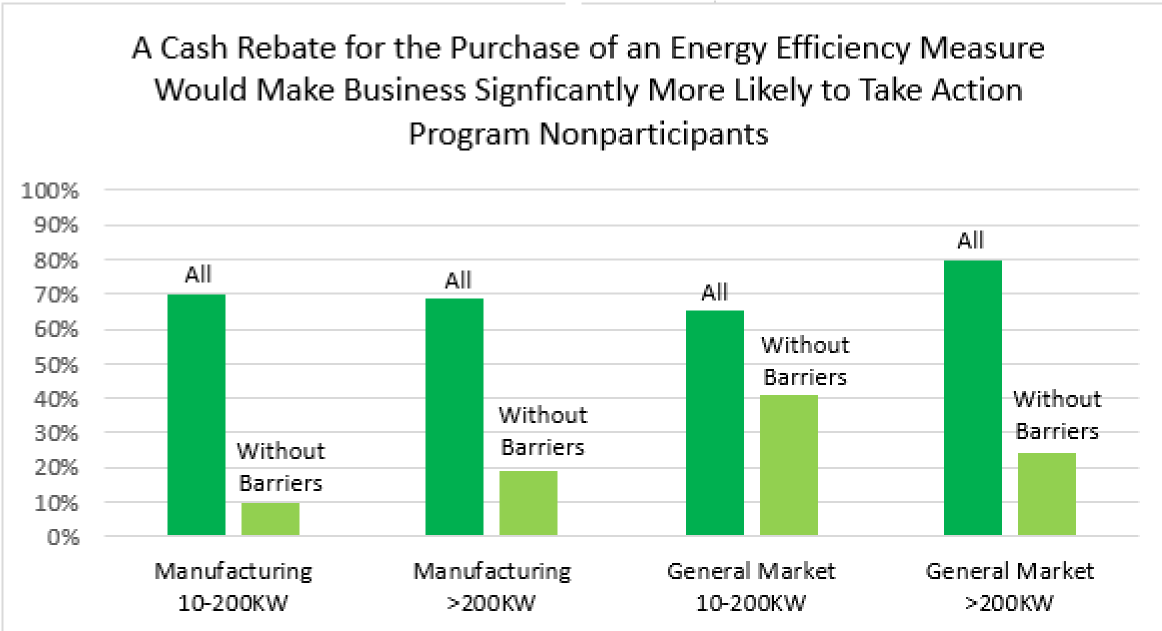
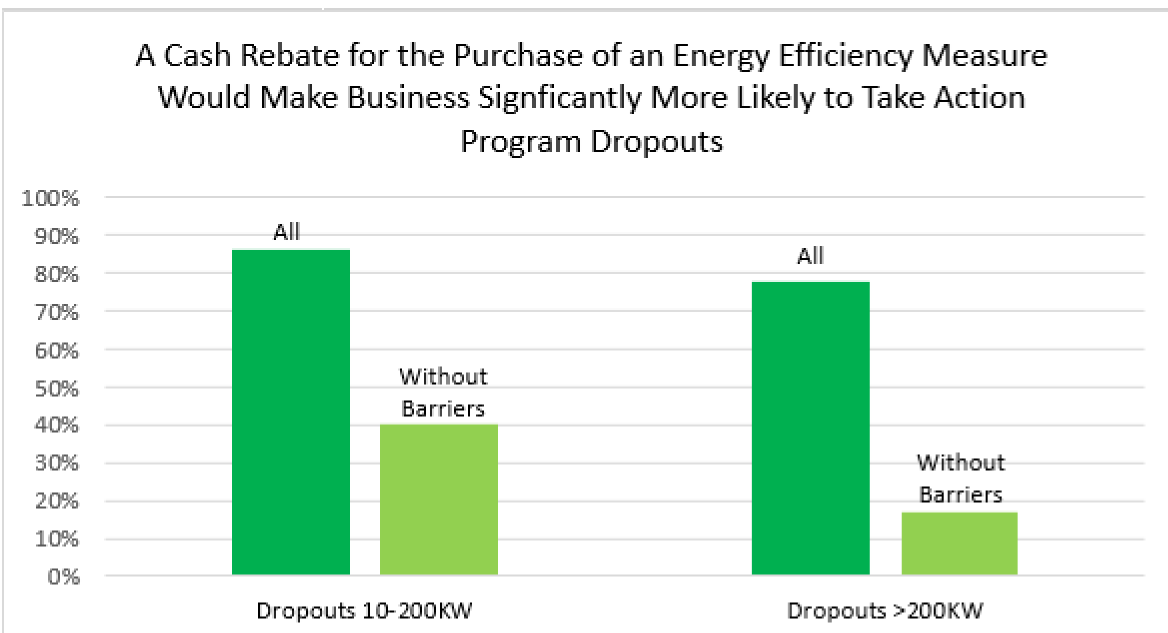


Chart II-16



Charts II-17 and II-18 show the percentage of respondents who stated that they would be significantly more likely to take action to improve energy efficiency if they were provided with a zero or low-interest loan for energy saving equipment. However, a much lower percentage said this was important and did not have one or more of those four barriers listed.

Chart II-17

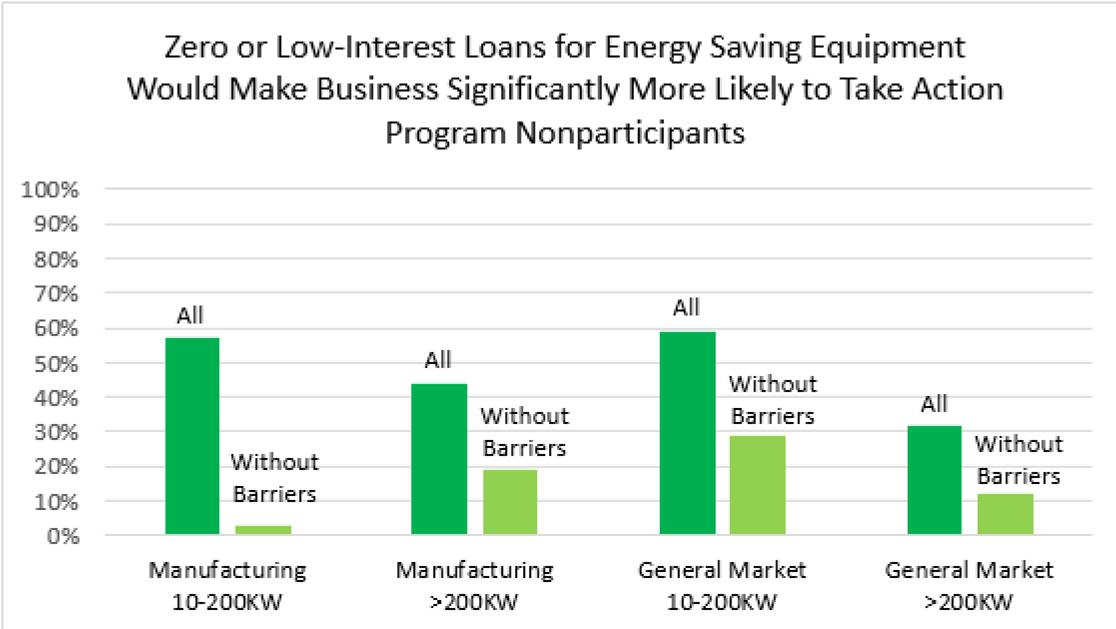
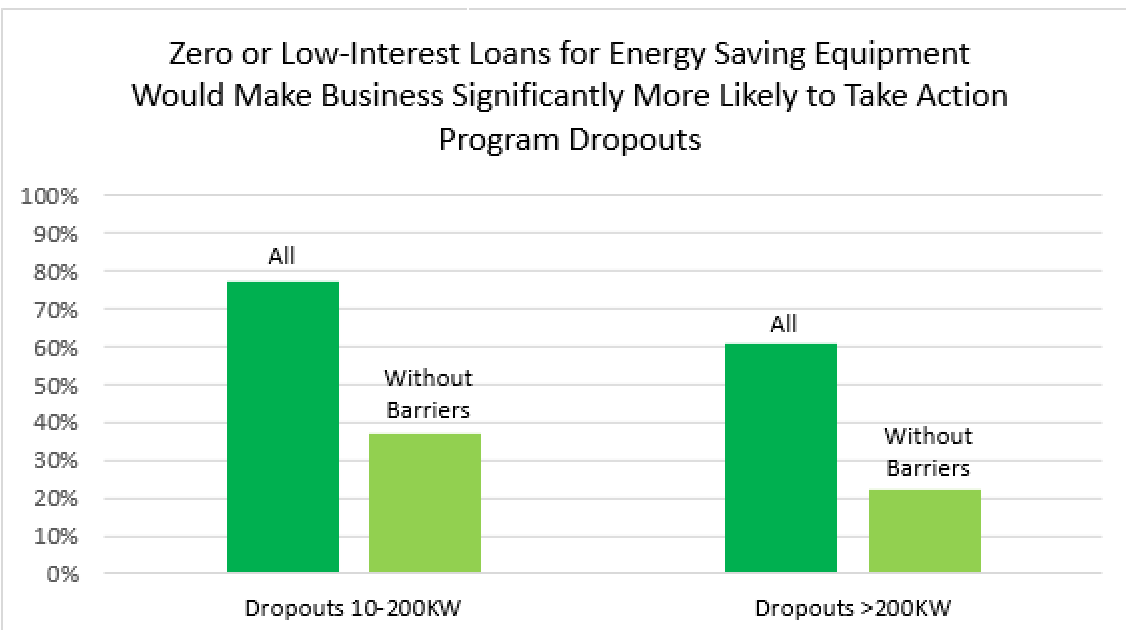


Chart II-18



Key findings from this analysis were that most nonparticipants and dropouts have more than one barrier preventing them from undertaking energy efficiency projects. The barriers were most likely to be logistical, which make it difficult for the utility to provide assistance to help customers. However, there were also several opportunities to encourage participation. Most nonparticipants and dropouts named at least one factor that would encourage the company to consider an energy efficiency project in the future, and most nonparticipants and dropouts rated two or more of the programmatic options as significantly more likely for the business to take action on energy efficiency opportunities. The most important factors were information on investment payback and programmatic financial and informational support.

III. Methodology

This section describes the methodology for the survey research, including the sample frame data, the sample selection, screening and advance letters, interviews conducted by the telephone center, and the response rates.

A. Sample Frame

APPRISE requested and received data from CL&P and UI for their C&I customers and their program participants. These data were used to segment customers into nonparticipants and program dropouts, customer size based on average kW demand, and manufacturing or general market customers.[7]

The data were provided and manipulated in the following manner.

- Program Nonparticipants
  - CL&P provided spreadsheets for 2011, 2012, and 2013 SBEA participants and for 2011, 2012, and 2013 Custom Tracking Projects Measures for non-program participants. They also provided a list of all accounts and all program participants were excluded to develop the nonparticipant sample frame.
  - UI provided a dataset for 2000 through 2013 program participants and for all customers. The participants were removed from the customer list to develop the nonparticipant sample frame.
- Program Dropouts
  - The data files for participants included participants with a status of “Project Cancelled” or “Cancelled”. ECB participants were removed from the file. These customers were then included in the program dropout sample frame.
  - UI provided additional datasets with measures, with average kW, and a crosswalk. Customers with project status of closed, on hold, cold, or warm were included in the program dropout sample frame.

Table III-1 displays the number of customers in each of the market segments. The table shows that there were a small number of high kW demand customers in the dropout and manufacturing segments.

[7] Commercial and industrial customers with over 750 kW in demand were also excluded as being extremely large C&I customers and likely unique. These are less than 1 percent (1%) of customers or demand.

Table III-1
Dropout and Nonparticipant Sample Frame

	Manufacturing		General Market		Dropout	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
All	2,282	289	37,196	1,081	4,858	289
With Phone Number	2,114	269	33,129	929	4,795	259
Final Sample Frame - Duplicates Removed	1,525	204	20,678	602	3,106	189

B. Sample Selection

Customers were selected in replicates because there was uncertainty as to how many of each group would be needed to reach the goal of 50 completed interviews in each of the six categories. Additional samples were selected as the field period progressed in an effort to reach the reduced target of 25 completes per group. In the end, all large dropouts and all large manufacturing companies were released. Table III-2 shows that the data were released in six replicates over the survey field period.

Table III-2
Dropout and Nonparticipant Sample Selected

	Manufacturing		General Market		Dropout	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Sample Frame	3,106	189	20,678	602	1,525	204
Selected 1	125	125	125	125	125	125
Replicate 1	50	50	50	50	50	50
Replicate 2	50	14	50	50	50	29
Replicate 3	100	0	50	50	50	0
Replicate 4	100	0	50	50	50	0
Replicate 5	100	0	50	50	50	0
Replicate 6	100	0	50	150	50	0
Total Sample	625	189	425	525	425	204

C. Screening and Advance Letters

Identification of decision-makers for energy efficiency measures at customer facilities is a recurrent research challenge when speaking with businesses that have not participated in a program and where no program specific contact information is available. The interviewer must be skilled, informed, and professional to get beyond the gatekeeper and speak with the knowledgeable respondent. A previously tested and successful method was used to identify the correct respondent and maximize participation in the survey by the selected sample of C&I customers. Rather than having the telephone survey center cold call the respondents, an APPRISE researcher with an understanding of the program and the overall research goals made initial calls to the targeted nonparticipants and dropouts.

The nonparticipant screener asked to speak with the facility manager or decision-maker for building improvements "such as roof replacement, lighting, heating, and cooling". The screener then confirmed that the business had not participated in State of Connecticut energy efficiency programs since 2011.

The dropout screener reminded the person at the business that they had submitted an application for a specific program and that they did not complete the project. The screener then asked for the individual who would be most familiar with the proposed project and the company's application.

If possible, APPRISE scheduled an appointment with the respondent at the time of the screening call and sent the appointment time and respondent information to the telephone center. APPRISE also sent an advance letter (with the appointment time if applicable) via email or mail to the respondent. The advance letter provided general information about the survey and provided the respondent with the opportunity to call into the phone center at a convenient time.

Screening began in mid-May 2014 and continued through mid-July. APPRISE was able to identify the correct contact at the business and obtain participation agreement from approximately one fourth of the sample.

D. Telephone Center

The telephone center programmed the paper survey instrument into a Computer Assisted Telephone Instrument (CATI) that automatically skips follow-up questions as applicable based on responses to previous questions.

APPRISE trained phone center interviews to implement the survey instrument. All phone center interviewers were required to attend this training prior to conducting surveys. The training included a description of the survey purpose and design, a review of the survey, and detailed instructions on key questions. Following the formal training, interviewers practiced conducting the survey with one another.

Following successful identification of the respondent, the screened sample (with the appointment time if applicable) was sent daily to the telephone center to complete the 15-minute CATI interview. The phone center began surveying respondents at the beginning of June following receipt and incorporation of EEB comments into the survey instrument.

APPRISE staff monitored the telephone center by listening to live calls and by listening to recorded calls while reviewing the survey data file. The purpose of the monitoring was to ensure that the interviewers were reading the instrument slowly and clearly, to ensure that they were following instructions, and to check that the responses were correctly coded and recorded in the data file.

Calls were made to respondents from 9am through 6pm on weekdays. The survey calls were made over a 7-week period, through the end of July.

E. Response Rates

Table III-3 displays the response to the screening attempts. The table shows that 23 percent of cases were successfully screened. However, a large part of the low completion rate was the fact that many potential respondents were not eligible and only 38 percent of the full sample was eligible for the survey. Nonparticipants were not eligible if they reported that they had participated in a C&I program since 2011 and dropouts were not eligible if they reported that they did complete the project within the program. As expected, the response rate was generally higher for the dropouts than for the nonparticipants.

Table III-3
Screening Disposition Summary and Response Rates

	All Respondents		Nonparticipants								Program Dropouts			
			Manufacturing				General Market							
			10-200KW		>200KW		10-200KW		>200KW		10-200KW		>200KW	
Selected	2393		425		204		425		525		625		189	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Unusable	898	38%	123	29%	60	29%	157	37%	235	45%	221	35%	102	54%
Unknown Eligibility	943	39%	198	47%	91	45%	182	43%	181	35%	253	41%	38	20%
Completed Interviews	552	23%	104	25%	53	26%	86	20%	109	21%	151	24%	49	26%
Eligibility Rate	38%		46%		47%		35%		32%		41%		32%	
Response Rate	61%		53%		55%		57%		66%		60%		80%	

The telephone center attempted to complete the survey with respondent that had been identified. Table III-4 displays the call center response rates ranged from 20 to 42 percent across the six groups.

Table III-4
Call Center Disposition Summary and Response Rates

	All Respondents		Nonparticipants								Program Dropouts			
			Manufacturing				General Market							
			10-200KW		>200KW		10-200KW		>200KW		10-200KW		>200KW	
Selected	552		104		53		86		109		151		49	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%

	All Respondents		Nonparticipants								Program Dropouts			
			Manufacturing				General Market							
			10-200KW		>200KW		10-200KW		>200KW		10-200KW		>200KW	
Unusable	30	5%	7	7%	1	2%	1	1%	2	2%	13	9%	6	12%
Unknown Eligibility	381	69%	67	64%	36	68%	68	79%	82	75%	103	68%	25	51%
Completed Interviews	141	26%	30	29%	16	30%	17	20%	25	23%	35	23%	18	37%
Eligibility Rate	50%		48%		49%		41%		52%		47%		72%	
Response Rate	27%		31%		31%		20%		23%		25%		42%	

Table III-5 shows that the overall response rate was 16 percent.

Table III-5
Response Rate Summary

	All Respondents	Nonparticipants				Program Dropouts	
		Manufacturing		General Market			
		10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Selected	2393	425	204	425	525	625	189
Screening Response Rate	61%	53%	55%	57%	66%	60%	80%
Phone Center Response Rate	27%	31%	31%	20%	23%	25%	42%
Overall Response Rate	16%	16%	17%	11%	15%	15%	34%

IV. Business Characteristics and Decision Making

This section examines the business characteristics and decision making processes of the program nonparticipants and dropouts.

A. Business Characteristics

Table IV-1 shows that most manufacturing respondents were classified as Manufacturing and Industrial or Light Manufacturing. Most Small General Market were classified as Municipals, Health Care, Professional Services, or Accommodations and Food Services. The dropouts were in a wide range of businesses, and were most likely to be in Manufacturing and Industrial, Municipals, Retail Trade, Accommodations and Food Service, and Recreational Facilities.

Table IV-1
Business Type

What type of business or facility do you operate at this location?						
	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25	35	18
	Percent of Respondents					
Manufacturing and Industrial	53%	81%	0%	8%	17%	33%
Light Manufacturing	23%	13%	6%	4%	3%	0%
Professional Services	7%	6%	12%	0%	6%	6%
Metals	7%	0%	6%	0%	3%	6%
Warehouses	3%	0%	6%	4%	0%	0%
Retail Trade	3%	0%	6%	4%	11%	6%
Convenience/Grocery/Food Store	3%	0%	0%	4%	9%	6%
Municipals	0%	0%	24%	4%	11%	6%
Health Care and Social Assistance	0%	0%	18%	16%	3%	0%
Accommodations and Food Services	0%	0%	12%	12%	11%	6%
Real Estate Rental and Leasing	0%	0%	6%	12%	3%	0%
Recreational Facility	0%	0%	0%	16%	6%	11%
Office for another type of industry	0%	0%	0%	8%	0%	6%
Clothing, Banking, Auto Parts, Salons	0%	0%	0%	4%	9%	0%
Education	0%	0%	0%	0%	6%	6%
Printing	0%	0%	0%	0%	3%	0%
Schools	0%	0%	0%	0%	0%	11%

What type of business or facility do you operate at this location?						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Other	0%	0%	6%	4%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The majority of the businesses own the facility in which they are located, are the single tenant in the building, are owner managed, and are master metered. These are characteristics that can make it easier to participate in the energy efficiency program. (However, differences were not seen between owners and renters in responses to key questions about barriers and opportunities.) The respondents are much less likely to have all four of these characteristics, especially small manufacturing nonparticipants and small dropouts.

Table IV-2
Facility Ownership and Number of Tenants, Management Type, and Master Metered

Does your business own or rent your facility? Are you the building's only tenant or are there multiple tenants in the building? Do you manage the building or is it managed by a third party? How is your building metered?						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25	35	18
	Percent of Respondents					
Own	57%	69%	82%	76%	51%	78%
Single Tenant	63%	81%	71%	68%	71%	83%
Owner Managed	53%	69%	76%	72%	49%	72%
Master Metered	37%	69%	65%	72%	57%	72%
All Four Characteristics	23%	38%	47%	40%	20%	56%

More than half of the small manufacturing and general market customers reported that this location is their only location. Large manufacturing and general market customers were likely to have other locations as well. Most of the small program dropouts were in a facility that was their only location. The large dropouts were most likely to be a branch location or the only location.

Table IV-3
Facility Type

Is this facility…						
	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25	35	18
	Percent of Respondents					
Your Only Location	80%	50%	76%	32%	60%	33%
A Branch Location	7%	44%	0%	36%	20%	44%
A Franchise Location	0%	0%	0%	4%	3%	0%
Headquarters of Firm with Multiple Locations	13%	6%	24%	28%	14%	17%
Don't Know	0%	0%	0%	0%	3%	6%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table IV-4 shows that most respondents had been in their current location for ten years or more. This stability is also a positive factor for program participation.

Table IV-4
Years at Location

How many years has your organization been operating at this location?						
	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25	35	18
	Percent of Respondents					
Less than 5 Years	6%	0%	12%	8%	9%	6%
5 to Less than 10 Years	3%	19%	18%	20%	11%	17%
10 or More Years	90%	81%	71%	68%	80%	78%
Don't Know	0%	0%	0%	4%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

B. Decision Making Processes

This section explores the decision making processes used by the nonparticipating customers. Table IV-5 shows that the individuals typically involved in making decisions about capital investments were the business owner, the facility manager, the president or vice president, and the management team. However, several other individuals were also mentioned, and more detail on these responses is provided in the Appendix.

Table IV-5
Decision Maker for Capital Investments
Program Nonparticipants

When it comes to capital investments for your building who is typically involved in making the decision? Building investments may include systems like lighting, heating ventilation and cooling, renewable energy, and windows & doors?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Business or Franchise Owner	43%	31%	29%	20%
President/CEO	20%	13%	24%	8%
Vice President	13%	6%	0%	4%
Management Team	13%	25%	24%	32%

Table IV-6 shows that respondents were likely to report that the decision process for capital investments was done as a consultative group process with one or a few people making the decision. However, respondents were also likely to report that the decision was made as a group process reaching consensus.

Table IV-6
Decision Process for Capital Investments
Program Nonparticipants

Which of the following best describes the decision process for capital investments in your building? Is it…?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
A Consultative Group Process with One Person Making the Decision	43%	25%	24%	28%
A Consultative Group Process with a Few People Making the Decision	30%	31%	29%	48%
A Group Process Reaching Consensus	13%	38%	24%	16%
A Group Process Reaching a Decision by Majority Vote	7%	6%	12%	8%
Don't Know	7%	0%	6%	0%
Other	0%	0%	6%	0%
Total	**100%**	**100%**	**100%**	**100%**

The individuals who were most likely to be the final decision-maker for investments in the building were the business owner, a group decision, or the President. Additional detail on other final decision makers is provided in the Appendix.

Table IV-7
Final Decision Maker for Capital Investments
Program Nonparticipants

Who is generally the final decision-maker for investments in the building?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
Business or Franchise Owner	30%	19%	24%	16%
Group Decision	20%	44%	35%	24%
President/CEO	17%	13%	12%	8%

V. Challenges and Barriers

Section II of this report provided an overview of the findings with respect to barriers and opportunities. The analysis showed that most of the nonparticipants and dropouts had two or more barriers to energy efficiency. This section explores the barriers in additional detail.

Prior to questions about barriers to participation, respondents were asked whether they had heard about any of Connecticut's energy efficiency programs for businesses. Table V-1A shows that 57 to 76 percent of the respondents had heard about these programs.

Table V-1A
Awareness of Connecticut's Energy Efficiency Programs

Have you heard about any of Connecticut's energy efficiency programs for businesses?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Yes	57%	75%	76%	68%
No	40%	25%	24%	28%
Don't Know	3%	0%	0%	4%

Table V1-B shows that respondents were less familiar with the types of assistance provided by these programs. When asked to report the types of assistance they were aware that these programs provided, about 25 percent (except 52 percent for large general market participants) reported that there were incentives and six to 13 percent reported that there was financing provided.

Table V-1B
Awareness of Assistance Provided by Connecticut's Energy Efficiency Programs

Please tell me what you recall about the types of help or assistance that the Connecticut energy efficiency programs offer businesses like yours.				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Technical Advice	20%	25%	41%	8%
Incentives for Energy Efficiency Equipment	23%	25%	24%	52%
Financing and Loans for Equipment	10%	13%	6%	8%

Please tell me what you recall about the types of help or assistance that the Connecticut energy efficiency programs offer businesses like yours.				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Energy Efficiency Project Management	3%	25%	6%	12%
Contractor	7%	6%	0%	0%
Other	0%	13%	12%	0%
Don’t Know	13%	6%	6%	8%
Has Not Heard of CT Energy Efficiency	43%	25%	24%	32%

Respondents who stated that they had heard about Connecticut’s energy efficiency programs for businesses and who recalled that the program offered incentives or financing, were asked what prevented them from taking advantage of the program offerings. Table V-1 shows that most of the nonparticipants except larger general market nonparticipants were not asked this question because they were not aware of the assistance. Therefore, the greatest barrier to participation appears to be program knowledge. Nonparticipants who did know about the program and the benefits reported that they did not take advantage of the program offerings because it was not a priority, they did not want to take on debt, the financing was not attractive, and they did not have an opportunity.

Table V-1C
Barriers to Participation in Connecticut’s Energy Efficiency Programs

What prevented your company from taking advantage of the program offering?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
Was Not Aware of Programs or Did Not Recall This Type of Assistance	60%	56%	71%	36%
Did Not Consider Participating	7%	13%	0%	0%
Not a Priority	7%	6%	0%	4%
Don’t Want to Take on Debt	0%	13%	0%	0%
Financing Not Attractive	0%	6%	0%	4%
No Suitable Project	0%	0%	6%	4%
No Opportunity	0%	0%	6%	4%
Don’t Have Funds	0%	0%	0%	4%
Other Factors	3%	6%	6%	0%
Don’t Know	20%	13%	6%	16%
Not Asked Due to Recoding	10%	6%	6%	32%

Table V-2 displays the percent of nonparticipants and dropouts who rated each potential barrier as a 4 or a 5 on the 5-point scale, indicating that the issue was a significant or a very significant barrier to improving the energy efficiency of the business. The table shows that respondents were most likely to report that many of these were significant or very significant barriers. Competing priorities taking precedence was the most common significant barrier for most of the groups. Other common barriers that were ranked as important by most groups were the lack of capital[8] and the absence of acceptable financing mechanisms.

Table V-2
Very Significant and Significant Barriers to Energy Efficiency Improvements

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.						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25	35	18
	Percent of Respondents					
Competing Priorities Taking Precedence	57%	75%	24%	52%	43%	56%
Lack of Capital for Investment	43%	38%	53%	28%	57%	56%
Absence of Acceptable Financing Mechanisms	43%	25%	35%	12%	43%	44%
Lack of Credible Information on Efficient Alternatives	43%	13%	29%	32%	49%	22%
Lack of Awareness of Opportunities for Efficiency	40%	38%	18%	32%	43%	28%
Lack of Staff Resources (*e.g.,* Time) for Implementation	37%	38%	29%	32%	34%	39%
Efficiency Delivers Less Other (Production, Comfort)	33%	25%	12%	12%	29%	6%
Lack of Confidence in Energy/Cost Savings Claims	30%	13%	35%	28%	49%	22%
Lack of Availability or Longer-Delivery Times	27%	6%	18%	24%	26%	28%
Lack of Credit Quality	20%	19%	18%	16%	17%	22%
Do Not Plan on Staying Long Enough in the Property	17%	6%	12%	12%	23%	11%
Inability to Share Capital Costs with Tenants	10%	13%	12%	4%	17%	11%
Other	7%	6%	0%	4%	11%	6%

[8] The research suggests that "lack of capital" may mean lack of internal corporate capital or lack of capital through outside financing. These two interpretations have very different meanings regarding the opportunities for program offerings to make a difference.

VI. Opportunities

Section II of this report provided a summary of the number and types of opportunities to encourage energy efficiency investments. The analysis showed that there was at least one opportunity to encourage future energy efficiency projects for nonparticipants and dropouts, and that the most important one was to provide information on project financials. The analysis also showed that there were two or more programmatic opportunities to encourage energy efficiency projects among nonparticipants and dropouts. This section explores the opportunities in additional detail.

A. Information Sources and Knowledge of CT Programs

Respondents were most likely to report that they use online sources to stay informed about energy efficiency and related topics, followed by newspapers and magazines, word of mouth, trade associations, and vendors. Additional detail on other sources mentioned is included in the appendix.

Table VI-1
Source of Information about Energy and Energy Efficiency Related Topics

How does your business stay informed about energy, energy efficiency and related topics and opportunities?						
	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25	35	18
	Percent of Respondents					
New Media – Online/Social Media	47%	38%	29%	32%	31%	11%
Newspapers/Magazines	13%	19%	6%	20%	26%	22%
Word of Mouth – Friends, Peers	7%	13%	12%	4%	14%	17%
Trade Association	7%	13%	0%	12%	9%	28%
Vendor	0%	25%	14%	20%	11%	6%

While most of the nonparticipants reported that they were aware of Connecticut's energy efficiency programs for businesses, most did not know that the programs offered incentives or financing.

Table VI-2
Knowledge of Connecticut's Energy Efficiency Programs
Program Nonparticipants

Have you heard about any of Connecticut's energy efficiency programs for businesses?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Yes	57%	75%	76%	68%
Please tell me what you recall about the types of help or assistance that the Connecticut energy efficiency programs offer businesses like yours.				
Incentives for Energy Efficient Equipment	23%	25%	24%	52%
Technical Advice	20%	25%	41%	8%
Financing or Loans for Energy Efficient Equipment	10%	13%	6%	8%
Contractor Referrals	7%	6%	0%	0%
Energy Efficiency Project Management	3%	25%	6%	12%

The nonparticipants who recalled that the programs offered incentives and/or financing were asked whether they considered taking advantage of those offerings. Table VI-3 shows that the manufacturing customers were equally likely to report that they did and did not consider taking advantage of those offerings, but that all general market customers who were aware said that they did considering taking advantage of those offerings.

Table VI-3
Consideration for Participating in Connecticut's Energy Efficiency Programs
Program Nonparticipants

Did your business consider taking advantage of the incentives and/or financing offered by the programs?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Yes	7%	19%	18%	20%
No	7%	13%	0%	0%
Not Aware of Programs or Incentives/Financing	60%	56%	71%	36%
Don't Know	17%	6%	6%	12%
Not Asked Due to Recoding	10%	6%	6%	32%
Total	**100%**	**100%**	**100%**	**100%**

Respondents reported five different methods as the best way for the Connecticut energy efficiency program to reach firms. These were to use online sources or social media, have the utility call or email the customer, direct mail, or a face-to-face meeting.

Table VI-4
Recommendation for Future Outreach

In your opinion, what would be the best way for the Connecticut energy efficiency program to reach firms like yours?						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25	35	18
	Percent of Respondents					
New Media – Online/Social Media	27%	25%	12%	28%	11%	17%
Phone Call from Utility	27%	13%	18%	8%	6%	17%
Email from Utility	17%	6%	6%	28%	11%	11%
Direct Mail	13%	0%	29%	16%	11%	6%
Face-to-Face Meeting	7%	13%	12%	8%	11%	22%
Utility	7%	13%	6%	16%	11%	6%
Vendor	7%	0%	6%	12%	6%	6%
Visit to My Company	3%	13%	6%	4%	17%	6%
Newspapers/Magazines	3%	0%	6%	0%	3%	6%
Trade Association	0%	6%	6%	0%	3%	11%
Energy Professionals/Auditors	0%	0%	6%	0%	0%	0%
Old Media – TV/Radio	0%	0%	0%	0%	3%	6%
Contractor	0%	0%	0%	0%	0%	6%
Other	10%	19%	18%	4%	11%	17%

Most respondents felt that the utility was a very or somewhat credible source of information on energy efficiency.

Table VI-5
Credibility of Utility as Information Source

How do you rate the credibility of [your utility] as a source of information on energy efficiency? Would you say they are…						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25	35	18
	Percent of Respondents					
Very Credible/Utility is Best Way to Reach customer	37%	44%	65%	72%	65%	67%

How do you rate the credibility of [your utility] as a source of information on energy efficiency? Would you say they are…						
	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Somewhat Credible	27%	44%	29%	16%	20%	28%
Neutral	23%	0%	0%	4%	9%	6%
Not Very Credible	3%	6%	6%	0%	3%	0%
Not Credible at All	0%	6%	0%	0%	3%	0%
Refused	0%	0%	0%	4%	0%	0%
Don't Know	10%	0%	0%	4%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

B. Factors for Encouraging Energy Efficiency and Program Participation

Respondents were asked what factors or considerations would encourage the company to consider an energy efficiency project in the future. Table VI-6 shows that the most common response was the reduced energy bills and saving money. Other common responses were reduced maintenance cost, return on investment, and program incentives.

Table VI-6
Factors for Future Participation

What factors or considerations, if any, would encourage your company to consider an energy efficiency project in the future?						
	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25	35	18
	Percent of Respondents					
Reduced Energy Bills/Saving Money	47%	63%	29%	36%	46%	67%
Reduced Maintenance Cost	10%	19%	12%	12%	3%	11%
Return on Investment	10%	13%	18%	20%	3%	6%
Program Incentive(s)	7%	13%	6%	20%	23%	28%
Technical Assistance/Audits	7%	0%	6%	0%	0%	6%
Replace Non-Working Equipment	7%	0%	0%	8%	6%	0%
Installer/Designer/Contractor Advice	3%	0%	0%	0%	0%	0%
New Strategic Energy Plan	3%	0%	0%	0%	3%	0%
Available Internal Funds	0%	6%	12%	0%	3%	11%
Available Attractive Financing	0%	0%	6%	0%	3%	6%
Franchise or Corporate Recommendation	0%	0%	0%	4%	0%	0%
Past Experience	0%	0%	0%	0%	0%	11%

What factors or considerations, if any, would encourage your company to consider an energy efficiency project in the future?	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Other	20%	13%	6%	20%	17%	6%
Don't Know	10%	0%	12%	12%	6%	0%

Table VI-7A shows the percent of respondents that rated the assistance type a 4 or a 5 on a 5-point scale where 5 means they would be significantly more likely to take energy efficiency action if that type of assistance was offered. Respondents were most likely to state that the following would make them more likely to take energy efficiency actions to improve their business.

- Analysis that shows that the energy saving project will reduce energy bills enough to yield a rapid payback.
- A cash rebate for a purchase of an energy-saving measure.
- A turn-key package from the utility with a contractor to do the work and financing to make it possible.
- A discount on the purchase of an energy-saving measures.
- Zero or low-interest loans.

Table VI-7A
Likely and Significantly More Likely to Take Action on Energy Efficiency Improvements

Suppose you were considering improving the energy efficiency of your business. Would any of the following make you more likely to take action? Here we'll use a 5-point scale, where 1 means "no more likely" and 5 means "significantly more likely to take energy efficiency actions."	Manufacturing		General Market		Dropouts	
	10-200KW	>200KW	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25	35	18
	Percent of Respondents					
Analysis Showing A Rapid Payback	77%	88%	71%	68%	86%	78%
Cash Rebate for a Purchase of Measure	70%	69%	65%	80%	86%	78%
"Turn-Key Package" - Contractor + Financing	67%	69%	47%	48%	77%	78%
Discount on Purchase of Measure	63%	56%	59%	72%	83%	78%
On-Bill Financing	57%	50%	41%	48%	66%	61%
Zero or Low-Interest Loans	57%	44%	59%	32%	77%	61%
Inspection & Verification by Independent 3rd Party	53%	13%	24%	28%	57%	61%
Contractor- Matching Service	37%	19%	24%	28%	63%	61%
Repayment Through Property Tax Bills	17%	13%	18%	12%	43%	6%

However, many of those who stated that they would be very likely to take action on energy efficiency if one of these offerings were available had barriers that the energy efficiency programs are unlikely to address. These significant barriers that were analyzed and included in the table below were as follows.

- Lack of staff resources (*e.g.*, time) for implementation
- Competing priorities taking precedence
- Do not plan on staying long enough in the property
- Inability to share capital costs of energy improvements with tenants

Table VI-7B shows that a much lower percentage of customers stated they would be likely to improve energy efficiency but did not have one or more of the four barriers listed.

Table VI-7B
Likely and Significantly More Likely to Take Action on Energy Efficiency Improvements

Suppose you were considering improving the energy efficiency of your business. Would any of the following make you more likely to take action? Here we'll use a 5-point scale, where 1 means "no more likely" and 5 means "significantly more likely to take energy efficiency actions."						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25	35	18
	Percent of Respondents					
Analysis Showing A Rapid Payback	77%	88%	71%	68%	86%	78%
Percent without any of 4 barriers listed	10%	19%	24%	20%	40%	28%
Cash Rebate for a Purchase of Measure	70%	69%	65%	80%	86%	78%
Percent without any of 4 barriers listed	10%	19%	41%	24%	40%	17%
Zero or Low-Interest Loans	57%	44%	59%	32%	77%	61%
Percent without any of 4 barriers listed	3%	19%	29%	12%	37%	22%

Most of the respondents stated that they were very or somewhat likely to consult their utility in the next two years about ways to save energy.

Table VI-8
Likelihood of Consulting Utility in Next Two Years

What is the likelihood that you will consult [Utility] for information on ways to save energy in the next 2 years? Would you say that it is…						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25	35	18
	Percent of Respondents					
Very Likely	30%	44%	24%	36%	57%	61%

What is the likelihood that you will consult [Utility] for information on ways to save energy in the next 2 years? Would you say that it is…						
	Manufacturing		**General Market**		**Dropouts**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**	**10-200KW**	**>200KW**
Somewhat Likely	37%	31%	53%	44%	14%	39%
Somewhat Unlikely	23%	19%	24%	16%	9%	0%
Very Unlikely	10%	6%	0%	4%	20%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

C. Investment Criteria and Financing

Nonparticipants were asked about their criteria for investing in energy efficiency. The most common criteria used by respondents to make decisions about investing in energy efficiency was the return on investment, followed by the simple payback period and the cost of capital.

Table VI-9
Criteria for Energy Efficiency Investments
Program Nonparticipants

What criteria does your firm use when considering energy efficiency investments?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Return on Investment (ROI)	47%	50%	35%	60%
Simple Payback Period	17%	19%	6%	16%
Cost of Capital	13%	19%	24%	28%
Cash Flow Analysis (Positive Cash Flow)	7%	25%	0%	8%
Internal Rate of Return (IRR) or Economic Rate of Return (ERR)	3%	0%	6%	0%
Discounted Payback Period	0%	6%	0%	0%
Modified Internal Rate of Return (MIRR)	0%	0%	6%	0%
Other	17%	6%	18%	12%
Don't Know	10%	19%	30%	4%

The majority of respondents stated that financing was only of moderate or lower importance in their decision to move forward with an energy efficiency project.

Table VI-10
Importance of Financing for Energy Efficiency Projects
Program Nonparticipants

On a scale of 1 to 5 where 1 means "not important at all" and 5 means "very important", how important would outside financing be in your decision to move forward with an energy efficiency project?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Very Important	23%	25%	12%	16%
More than Moderately, But Not Very Important	3%	19%	29%	16%
Moderate Importance	43%	6%	18%	20%
Slight Importance	13%	19%	18%	8%
Not Important at All	13%	25%	24%	36%
Don't Know	3%	6%	0%	4%
Total	**100%**	**100%**	**100%**	**100%**

When asked about potential interest in various types of financing, respondents were most likely to state that they would be very interested or interested in a simplified and expedited loan process and zero interest loans, on-bill financing, and low interest loans below the market rate. However, at least one quarter of each group, except small manufacturing, stated that they were not interested in outside financing.

Table VI-11
Very Interested or Interested in Financing Options for Energy Efficiency Projects
Program Nonparticipants

Now, I am going to list some of the ways businesses might finance energy efficient investments. Please tell me what you think your business' level of interest in them would be on a scale of 1 to 5 where 1 means 'not interested at all' and 5 means 'very interested'.				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Simplified and Expedited Loan Application Processes Coupled With Zero Interest Loans	70%	63%	41%	36%
Zero Interest Loans	70%	56%	47%	48%
On-Bill Financing	60%	63%	59%	40%
Low Interest (Below Market Rate) Loans	53%	31%	35%	40%
Simplified and Expedited Loan Application Process Coupled with Low Interest (Below Market Rate) Loans	40%	31%	29%	36%

Now, I am going to list some of the ways businesses might finance energy efficient investments. Please tell me what you think your business' level of interest in them would be on a scale of 1 to 5 where 1 means 'not interested at all' and 5 means 'very interested'.				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Performance Contracting	37%	44%	35%	28%
Simplified and Expedited Loan Application Process	27%	25%	29%	36%
Tax Bill Financing	13%	19%	6%	12%
Not interested in Outside Financing	13%	25%	24%	36%

Respondents were most likely to report that their top choice for improved financing options over standard bank financing was zero interest loans. However, the next most common response was that they were not interested in outside financing.

Table VI-12
Top Choice for Improved Financing Options
Program Nonparticipants

Next I am going to read a list of possible improvements over standard (*e.g.*, bank) financing. After I have read them, I would like you to tell me which would be your most critical first, second, and third choices.				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
Zero Interest Loans	57%	44%	41%	40%
Low Interest (Below Market Rate) Loans	13%	6%	12%	4%
On-Bill Financing	7%	0%	18%	8%
Tax Bill Financing	3%	0%	0%	0%
Performance Contracting	0%	6%	6%	4%
Not Interested in Outside Financing	13%	25%	24%	36%
Don't Know	7%	19%	0%	8%
Total	**100%**	**100%**	**100%**	**100%**

Small manufacturing and small general market respondents were more likely to report that they preferred to repay investment financing out of the operating budget than out of the capital budget. This suggests that an energy efficient investment may have a higher investment threshold than other capital investments (*e.g.,* equipment and building improvements).

Table VI-13
Budget Used for Investment Financing
Program Nonparticipants

Does your business typically prefer to repay investment financing out of the operating budget or the capital budget?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Operating Budget	50%	25%	53%	24%
Capital Budget	23%	25%	6%	28%
Not Interested in Outside Financing	13%	25%	24%	36%
Don't Know	13%	19%	12%	12%
Refused	0%	6%	6%	0%
Total	**100%**	**100%**	**100%**	**100%**

VII. Program Dropouts

This section focuses on the reasons that customers dropped out of the program and their interaction with program representatives. Table VII-1 shows that most of the small program dropouts had begun participation in the SBEA and most large dropouts had begun participation in the Energy Opportunities program.

Table VII-1
Program Application
Program Dropouts

	10-200KW	>200KW
Completes	35	18
	Percent of Respondents	
Small Business Energy Advantage (SBEA)	94%	17%
Energy Opportunities (EO)	6%	78%
Operations and Maintenance (OM)	0%	6%
Total	**100%**	**100%**

A. Dropout Reasons

Most of the dropouts decided to defer the project or dropped the project at a stage that they did not define. This suggests that the program may have little opportunity to influence energy efficiency for these projects at that time. It was the project that was deferred or dropped and not just the level of energy efficiency contained in the project.

Table VII-2
What Occurred After Application Submission
Program Dropouts

First, please tell me what happened after the application was submitted?		
	10-200KW	>200KW
Completes	35	18
	Percent of Respondents	
Project Deferred	40%	56%
Dropped at an Undefined Stage	37%	22%
Dropped Before Approval	6%	6%
Started the Project But Dropped it Before Complete	6%	6%
Application was Denied	3%	0%
Don’t Know	9%	11%

First, please tell me what happened after the application was submitted?		
	10-200KW	**>200KW**
Total	**100%**	**100%**

Most small and large dropouts were unlikely to report that they completed the work outside the program or noted complete project deferral. Again, this does not show a lack of investment in the energy efficiency of the project, but little opportunity for the program to influence energy efficiency for the project at that time.

Table VII-3
Project Completed Outside of Program
Program Dropouts

Did you complete the work on your own outside of the program?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Yes	11%	17%
No	43%	22%
Project Deferred	40%	56%
Application was Denied	3%	0%
Don't Know	3%	6%
Total	**100%**	**100%**

Small dropouts had various reasons for deferring the project. Large dropouts were most likely to defer because they did not have the funds. However additional analysis shows that these dropouts had other barriers to the project. Of those who did not have the funds, 86 percent did not want to take on debt, had a lack of credit quality, or had other higher priorities.

Table VII-4
Decision to Defer the Project
Program Dropouts

Why did your company decide to defer the project?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Don't Have Funds	9%	39%
Made Other Investments	9%	0%
Business or Economic Conditions	9%	0%

Why did your company decide to defer the project?		
	10-200KW	**>200KW**
Don't Want to Take on Debt	3%	11%
Return Too Low	3%	0%
No Time/Not Enough Staff Resources	0%	11%
Other	9%	0%
Did Not Defer Project	60%	44%

Respondents abandoned projects for a variety of reasons including business or economic conditions and that the return was too low.

Table VII-5
Reason Project Abandoned
Program Dropouts

Why did your company decide to abandon the project?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Business or Economic Conditions	17%	0%
Return Too Low	6%	0%
Don't Have Funds	3%	0%
Made Other Investments	3%	0%
Business Interruption is a Problem	3%	0%
No Time/Not Enough Staff Resources	0%	6%
Did Not Abandon Project	57%	78%
Other	14%	17%
Don't Know	3%	0%

Dropouts reported various actions the program could have taken to help them complete participation, including larger incentives, program management assistance, better financing, and providing more information on contractors or measures. However, the vast majority stated that there was nothing more that the program could have done.

Table VII-6
What Program Could Have Done to Assist Participation
Program Dropouts

What could they have done?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Larger Incentives	6%	11%
Program Management Assistance	6%	6%
Better Financing	6%	0%
More Information on Contractors	6%	0%
More Information on Measures	3%	0%
Other	0%	6%
Nothing More the Program Could Have Done	74%	83%
Don't Know	3%	0%

B. Interaction with Program Representatives

Program dropouts were likely to report that they had been very or somewhat satisfied with the contractor they worked with on the project.

Table VII-7
Satisfaction with Program Contractor
Program Dropouts

Overall, on a scale of 1 to 5, where 1 means "not at all satisfied" and 5 means "very satisfied", how satisfied were you with the contractor you used during this process?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Very Satisfied	37%	44%
Somewhat Satisfied	14%	11%
Neither Satisfied nor Dissatisfied	17%	11%
Somewhat Dissatisfied	0%	6%
Very Dissatisfied	17%	6%
Other	3%	6%
Don't Know	11%	17%
Total	**100%**	**100%**

Most small dropouts reported that the application process was very or somewhat easy, but large respondents sometimes stated that the process was somewhat hard.

Table VII-8
Ease of Application Process
Program Dropouts

Would you describe the application process as….		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Very Easy	31%	11%
Somewhat Easy	6%	28%
Neutral	9%	0%
Somewhat Hard	3%	22%
Very Hard	3%	0%
Does Not Remember Application Process	49%	39%
Total	**100%**	**100%**

Most dropouts stated that they were very or somewhat satisfied with the utility representatives if they remembered the interaction.

Table VII-9
Satisfaction with Utility Representatives in Application Process
Program Dropouts

Overall, on a scale of 1 to 5, where 1 means "not at all satisfied" and 5 means "very satisfied,", how satisfied were you with your contact with [your utility] program representatives during this process?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Very Satisfied	34%	56%
Somewhat Satisfied	14%	17%
Somewhat Dissatisfied	0%	6%
Does Not Remember Utility Representative Interaction	49%	22%
Total	**100%**	**100%**

APPENDIX A – Additional Tables

This appendix provides additional data from the nonparticipant and dropout surveys.

A. Nonparticipant Business Characteristics

Other than small manufacturing, the majority of the nonparticipants are master metered. However, some respondents did not provide this information.

Table A-1
Building Meters
Program Nonparticipants

How is your building metered?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Master Metered	37%	69%	65%	72%
Sub Metered	13%	13%	6%	12%
Individual Tenant Meters and Separate Common Area Meters	27%	6%	12%	8%
Don't Know	23%	13%	18%	8%
Total	**100%**	**100%**	**100%**	**100%**

Most, or at least half, of the non-participant respondents did not rent their building. Renters are most likely to have triple net leases.

Table A-2
Lease Type
Program Nonparticipants

What type of lease do you have?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Gross Lease	3%	6%	0%	4%
Modified Gross Lease	7%	0%	0%	0%
Triple Net Lease	30%	6%	18%	8%
Building Not Rented	57%	69%	82%	80%

What type of lease do you have?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Don’t Know	3%	13%	0%	8%
Refused	0%	6%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**

The screening process and the survey sought to interview those that made decisions about the facility, equipment, the building, and energy efficiency. Respondents were asked to report their job title.

- Small manufacturing respondents were most likely to be the owner, President, Vice President, or Facility Manager.
- Large manufacturing respondents were most likely to be the Facility Manager, Vice President, or CFO,
- Small general market respondents were most likely to be the Accounting/Finance Manager, Business Owner, or President.
- Large general market respondents were most likely to be the Facility Manager or General Manager.

Table A-3
Job Title/Role
Program Nonparticipants

What is your job title or role?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
Business Owner	27%	6%	18%	8%
President/CEO/Executive Director	23%	0%	18%	4%
Vice President	17%	13%	6%	4%
Facility Manager	10%	44%	6%	48%
Accounting/Finance Manager	7%	6%	24%	8%
General Manager	7%	6%	6%	12%
Front Office Personnel/Receptionist	7%	0%	6%	0%
Operations/Production Manager	3%	0%	0%	4%
Chief Financial Officer	0%	13%	0%	0%
Plant Manager	0%	6%	0%	4%
Engineer/Energy Manager	0%	6%	0%	4%

What is your job title or role?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Other	0%	0%	18%	4%
Total	**100%**	**100%**	**100%**	**100%**

B. Nonparticipant Information Sources

Nonparticipants were asked to report how they get information about equipment, controls, and facility fixtures. Table A-4 shows that the most common sources were as follows.

- Small manufacturing customers were most likely to get information about equipment from online sources or newspapers and magazines.
- Large manufacturing customers were most likely to get information about equipment from vendors and online resources.
- Small and large general market customers were most likely to get information about equipment from online sources and vendors.

Table A-4
Information Sources for Equipment, Controls and Facility Fixtures
Program Nonparticipants

Where does your business get information about equipment, controls & facility fixtures?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
New Media – Online/Social Media	60%	31%	59%	52%
Newspapers/Magazines	30%	13%	12%	8%
Contractor	13%	6%	12%	32%
Vendor	10%	38%	47%	40%
Trade Association	7%	13%	0%	4%
Word of Mouth – Friends, Peers	3%	6%	12%	4%
Old Media – TV/Radio	3%	0%	0%	0%
Someone From My Company	0%	25%	0%	8%
Utility Representative	0%	13%	0%	4%
Utility Website	0%	6%	0%	4%
Utility Direct Mailing	0%	6%	0%	0%
Energy Professionals/Auditors	0%	0%	0%	4%
Utility – Other	0%	0%	0%	4%

Where does your business get information about equipment, controls & facility fixtures?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Don't Know	10%	0%	12%	4%
Refused	0%	6%	0%	0%

Respondents generally agreed that their businesses made efforts to be informed about energy efficiency opportunities.

Table A-5
Effort to be Informed about Energy Efficiency
Program Nonparticipants

Does your business make an effort to be informed about energy, energy efficiency and related topics and opportunities?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Yes	80%	94%	59%	80%
No	20%	6%	41%	20%
Total	**100%**	**100%**	**100%**	**100%**

Almost all respondents who said that their businesses made efforts to be informed about energy efficiency opportunities reported that they had one individual or group of individuals responsible for being informed about energy efficiency and related topics. This likely means that "selling" energy efficiency needs to be agreed upon or through these individuals and not accidentally by-passing them. Finding them in each firm may be difficult but a key for success.

Table A-6
Specific Individual Responsible for Energy Efficiency Knowledge
Program Nonparticipants

Is there one individual or group of individuals who is responsible for being informed about energy efficiency and related topics?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Yes	77%	88%	53%	72%
No	3%	0%	6%	8%

Is there one individual or group of individuals who is responsible for being informed about energy efficiency and related topics?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Don't Know	0%	6%	0%	0%
Does Not Make an Effort	20%	6%	41%	20%
Total	**100%**	**100%**	**100%**	**100%**

The individual responsible for energy knowledge was classified as having the following role.

- Small Manufacturing – most were the business owner, president, vice-president, or facility manager.
- Large Manufacturing – most were the facility manager, a group or the business owner.
- Small General Market – most were the owner, a group, or the accounting/finance manager.
- Large General Market – most were the facility manager or the general manager.

Table A-7
Role of Individual Responsible for Energy Knowledge
Program Nonparticipants

Who is responsible for being informed about energy efficiency and related topics?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
The Business or Franchise Owner	23%	19%	12%	4%
President/CEO/Executive Director	17%	0%	6%	0%
Vice President	13%	13%	0%	4%
Facility Manager	10%	31%	6%	32%
Manager/General Manager	7%	13%	6%	12%
Operations Manager	3%	6%	0%	4%
The Property Manager	3%	6%	0%	4%
Chief Financial Officer	3%	0%	0%	0%
A Group	0%	25%	12%	0%
A Staff Member	0%	13%	0%	0%
Someone from Corporate Headquarters	0%	0%	0%	8%
Accounting/Finance Manager	0%	7%	6%	4%
Engineer/Energy Manager	0%	6%	0%	4%

Who is responsible for being informed about energy efficiency and related topics?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Someone Else	3%	13%	12%	0%
No Specific Individual Responsible	3%	0%	6%	8%
Does Not Make an Effort to Be Informed	20%	6%	41%	20%
Don't Know	3%	0%	0%	4%

Respondents were most likely to use online sources to stay informed about energy efficiency and related topics, followed by newspapers and magazines, word of mouth, and trade associations.

Table A-8
Source of Information about Energy and Energy Efficiency Related Topics
Program Nonparticipants

How does your business stay informed about energy, energy efficiency and related topics and opportunities?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
New Media – Online/Social Media	47%	38%	29%	32%
Newspapers/Magazines	13%	19%	6%	20%
Word of Mouth – Friends, Peers	7%	13%	12%	4%
Trade Association	7%	13%	0%	12%
Utility Representative	3%	13%	0%	4%
Old Media – TV/Radio	3%	6%	12%	4%
Contractor	3%	6%	0%	8%
Utility Bill Inserts	3%	0%	6%	0%
Vendor	0%	25%	14%	20%
Utility Website	0%	6%	6%	0%
Utility Direct Mailing	0%	6%	0%	4%
Energy Professionals/Auditors	0%	0%	0%	16%
Utility – Other	0%	0%	0%	4%
Other	7%	13%	6%	0%
Does Not Make an Effort to Be Informed	20%	6%	41%	20%

C. Nonparticipant Decision Process

This section provides additional data on the decision processes used by nonparticipants. Nonparticipants were asked whether they identified needs, researched options, performed analysis, made recommendations, participated in the decision process, or were the ultimate decision maker. The respondents were likely to report that they participated in the decision process for capital investments, identified needs, researched options, and performed analysis. Some reported that they were the ultimate decision maker.

Table A-9
Role in Decision Process for Capital Investments
Program Nonparticipants

Which of the following describes your role or roles in the decision process for capital investments in your building?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
Participate in the Decision Process	73%	88%	65%	80%
Identify Needs	73%	75%	71%	88%
Research Options	70%	88%	65%	80%
Make Recommendations	70%	81%	71%	88%
Perform Analysis	70%	75%	59%	76%
Ultimate Decision Maker	50%	31%	35%	32%
None	10%	0%	6%	0%
Other	3%	0%	0%	0%

Respondents were unlikely to state that there was a different process for investment decisions in the production line or equipment as compared to other types of investment decisions.[9] This is an important finding indicating that a program does not need to operate somewhat differently to get to the decision-makers for production line opportunities versus other efficiency investments.

[9] There are few studies that examine this issue. One of those for small manufacturing in Wisconsin did find (over 10 years ago) a different process and different final decision-makers for energy efficiency investments related to production lines. See Megdal, Lori, Darren Schauf, and Ingo Bensch. 2002. "Decision-Making Among Small & Medium Manufacturers, & Indications of What Is Needed to Reach These Customers", *Proceedings from the 2002 ACEEE Summer Study, American Council for an Energy-Efficient Economy*, Asilomar: CA, pp. 8.181-8.192. Also accepted for presentation at the 2003 ACEEE Industry Summer Study.

Table A-10
Decision Making Process for Production Line or Equipment
Program Nonparticipants

Is there a different process for investment decisions in the production line or equipment?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Yes	3%	19%	6%	8%
No	63%	75%	6%	8%
No Production Line or Equipment	33%	6%	88%	84%
Total	**100%**	**100%**	**100%**	**100%**

Table A-11 shows that the individuals typically involved in making decisions about capital investments were the business owner, the facility manager, the president, vice president, or the management team. However, several other individuals were also mentioned, and these responses are shown in the table below.

Table A-11
Decision Maker for Capital Investments
Program Nonparticipants

When it comes to capital investments for your building who is typically involved in making the decision? Building investments may include systems like lighting, heating ventilation and cooling, renewable energy, and windows & doors?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Business or Franchise Owner	43%	31%	29%	20%
President/CEO	20%	13%	24%	8%
Vice President	13%	6%	0%	4%
Management Team	13%	25%	24%	32%
General Manager	7%	6%	12%	16%
Landlord	7%	0%	0%	0%
Facility Manager	7%	38%	12%	28%
Someone from Corporate Headquarters	3%	13%	0%	12%
Operations/Production Manager	3%	13%	0%	8%
Front Office Personnel	3%	0%	0%	0%

When it comes to capital investments for your building who is typically involved in making the decision? Building investments may include systems like lighting, heating ventilation and cooling, renewable energy, and windows & doors?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Chief Financial Officer	0%	13%	6%	8%
Board of Directors	0%	0%	12%	4%
Accounting/Finance Manager	0%	0%	12%	0%
Engineer/Energy Manager	0%	6%	0%	0%
Other	3%	13%	18%	0%

The individuals most like to be the final decision maker for investing in production line or equipment was the business owner, the President, and someone from corporate headquarters.

Table A-12
Final Decision Maker for Capital Investments
Program Nonparticipants

Who is generally the final decision-maker for investing in production line or equipment in the building?				
	Manufacturing		General Market	
	10-200KW	>200KW	10-200KW	>200KW
Completes	30	16	17	25
	Percent of Respondents			
Business or Franchise Owner	20%	19%	0%	4%
President/CEO	13%	13%	0%	4%
Landlord	3%	0%	0%	0%
Someone from Corporate Headquarters	3%	13%	6%	0%
Manager	0%	6%	0%	0%
Chief Financial Officer	0%	6%	0%	0%
Operations Manager	3%	0%	0%	0%
Vice President	3%	0%	0%	0%
Front Office Personnel/Receptionist	3%	0%	0%	0%
Group Process	17%	44%	0%	8%
Other	3%	6%	6%	0%
Not Asked Due to Recoding	20%	0%	6%	0%
Don’t Know	3%	0%	0%	0%
No Production Line or Equipment	13%	6%	82%	84%

D. Nonparticipant Investment Criteria

Data on nonparticipants' investment criteria for other capital investments outside of energy efficiency are discussed in this section. The most common criteria used by respondents to make decisions about other capital investments was the return on investment, followed by the need for new equipment, the simple payback period, and the cost of capital.

Table A-13
Criteria for Other Capital Investments
Program Nonparticipants

What criteria does your firm use when considering other capital investments?				
	Manufacturing		**General Market**	
	10-200KW	**>200KW**	**10-200KW**	**>200KW**
Completes	30	16	17	25
	Percent of Respondents			
Return on Investment (ROI)	40%	63%	18%	48%
Need for New Equipment	17%	19%	6%	12%
Simple Payback Period	13%	19%	6%	8%
Cost of Capital	13%	6%	24%	28%
Internal Rate of Return (IRR) or Economic Rate of Return (ERR)	10%	13%	0%	0%
Cash Flow Analysis (Positive Cash Flow)	3%	25%	6%	8%
Modified Internal Rate of Return (MIRR)	3%	0%	0%	0%
Discounted Payback Period	3%	0%	0%	0%
Other	17%	0%	24%	4%
Don't Know	10%	13%	35%	16%

E. Dropout Business Characteristics

This section provides additional information on the characteristics of the program dropouts. Businesses that owned the building were, for the most part, owner managed.

Table A-14
Building Management
Program Dropouts

Do you manage the building or is it managed by a third party?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Owner Managed	49%	72%

Do you manage the building or is it managed by a third party?		
	10-200KW	**>200KW**
Third Party Managed	3%	6%
Not Building Owner	49%	22%
Total	**100%**	**100%**

The dropout businesses that rented their facility had triple net leases, modified gross leases, and gross leases.

Table A-15
Lease Type
Program Dropouts

What type of lease do you have?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Gross Lease	9%	0%
Modified Gross Lease	9%	6%
Triple Net Lease	20%	17%
Building Not Rented	54%	78%
Don't Know	9%	0%
Total	**100%**	**100%**

The contact for the dropout projects were asked to report their job title.

- Small dropout respondents were most likely to be the business owner, facility manager, president, or general manager.
- Large dropout respondents were most likely to be the facility manager, energy manager, business owner, President, or CFO.

Table A-16
Job Title/Role
Program Dropouts

What is your job title or role?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Business Owner	20%	11%

What is your job title or role?		
	10-200KW	**>200KW**
Facility Manager	17%	33%
President/CEO/Executive Director	17%	11%
General Manager	17%	6%
Chief Financial Officer	6%	11%
Operations/Production Manager	3%	6%
Front Office Personnel/Receptionist	3%	0%
Vice President	3%	0%
Engineer/Energy Manager	0%	17%
Other	14%	6%
Total	**100%**	**100%**

F. Dropouts - Reasons for Dropping Out

This section provides additional information on the dropout decision. Table A-17 shows that all respondents who reported that they completed the project stated that they installed high efficiency equipment.

Table A-17
Project Completed With High Efficiency Equipment
Program Dropouts

Did you complete the project with high efficiency or standard efficiency equipment?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
High Efficiency	11%	17%
Did Not Complete Project	89%	83%
Total	**100%**	**100%**

While some dropouts who deferred their projects stated that they anticipated they would implement the project within the next year or two, some stated that they would not implement, and some stated they did not know.

Table A-18
Date Project Will Be Implemented
Program Dropouts

When do you anticipate you will implement this project?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Next Fiscal Year	3%	11%
Next Calendar Year	0%	6%
Within 1-2 Years	3%	6%
Never	14%	6%
Other	3%	0%
Don't Know	17%	28%
Did Not Defer Project	60%	44%
Total	**100%**	**100%**

The business owner, facility manager, corporate headquarters, and the operations manager were most likely to be involved in the decision to defer the project.

Table A-19
Individuals Involved in Decision to Defer Project
Program Dropouts

Who was involved in the decision to defer the project?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
The Business or Franchise Owner	23%	22%
Facility Manager	9%	11%
President/CEO	9%	0%
General Manager	6%	6%
Someone From Corporate Headquarters	0%	17%
Operations/Production Manager	0%	17%
Plant Manager	0%	6%
Engineer/Energy Manager	0%	6%
Other	3%	0%
Did Not Defer Project	60%	44%

The general manager, owner, and CEO were most likely to be involved in the decision to abandon the project.

Table A-20
Individuals Involved in Decision to Abandon Project
Program Dropouts

Who was involved in the decision to abandon the project?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
General Manager	11%	0%
The Business or Franchise Owner	6%	0%
Chief Financial Officer	6%	6%
Facility Manager	3%	0%
Someone From Corporate Headquarters	3%	0%
President/CEO	3%	0%
Front Office Personnel/Receptionist	3%	0%
Other	9%	6%
Did Not Abandon Project	57%	78%
Don’t Know	6%	17%

The majority of the dropouts reported that the program could not have done something to help them overcome the barriers they faced in moving forward with their project.

Table A-21
Could the Program Have Done Anything to Overcome Barriers
Program Dropouts

Could the program have done anything to help you overcome the barriers your company faced and assisted you in moving forward with your participation in the program?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Yes	26%	17%
No	54%	67%
Refused	3%	0%
Don’t Know	17%	17%
Total	**100%**	**100%**

G. Dropouts – Interactions with Program Representatives

As discussed in the report above, almost all dropouts were satisfied with their contractors. The dropouts who were not satisfied with the contractor reported that they contractor was not responsive, too expensive, not professional, or misled them about the program benefits.

Table A-22
Reasons for Dissatisfaction with Program Contractor
Program Dropouts

Why were you less than satisfied with the contractor's performance?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Not Responsive	9%	6%
Too Expensive	6%	0%
Not Professional	3%	0%
Mislead Us on Timing or Program Benefits	0%	6%
Was Not Dissatisfied with Contractor	83%	89%

H. Dropouts – Information Sources

Most small dropouts and all large dropouts reported that their business makes an effort to be informed about energy efficiency.

Table A-23
Effort to be Informed about Energy Efficiency
Program Dropouts

Does your business make an effort to be informed about energy, energy efficiency and related topics and opportunities?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
Yes	86%	100%
No	14%	0%
Total	**100%**	**100%**

Respondents were most likely to report that they got information about equipment from online sources and social media, vendors, and contractors.

Table A-24
Information about Equipment, Controls and Facility Fixtures
Program Dropouts

Where does your business get information about equipment, controls & facility fixtures?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
New Media – Online/Social Media	40%	50%
Vendor	23%	33%
Contractor	14%	28%
Newspapers/Magazines	14%	6%
Word of Mouth – Friends, Peers	9%	11%
Old Media – TV/Radio	3%	0%
Trade Association	0%	11%
Utility Website	0%	6%
Someone From My Company	0%	6%
Other	0%	6%
Do Not Pay Attention to Energy Issues	3%	0%
Don't Know	6%	17%

Dropouts were asked how they stay informed about energy efficiency.

- The most common sources of information for small dropouts was online sources and social media, newspapers and magazines, word of mouth, and vendors.
- The most common sources of information for large dropouts were trade associations, contractors, newspapers and magazines, word of mouth, and energy professionals.

Table A-25
Source of Information about Energy and Energy Efficiency Related Topics
Program Dropouts

How does your business stay informed about energy, energy efficiency and related topics and opportunities?		
	10-200KW	**>200KW**
Completes	35	18
	Percent of Respondents	
New Media – Online/Social Media	31%	11%
Newspapers/Magazines	26%	22%
Word of Mouth – Friends, Peers	14%	17%
Vendor	11%	6%

How does your business stay informed about energy, energy efficiency and related topics and opportunities?		
	10-200KW	**>200KW**
Trade Association	9%	28%
Contractor	9%	22%
Utility Representative	6%	0%
Energy Professionals/Auditors	3%	17%
Old Media – TV/Radio	3%	0%
Utility Direct Mailing	3%	6%
Utility Website	3%	6%
Utility Bill Inserts	3%	0%
Other	9%	11%
Does Not Make an Effort to be Informed	14%	0%
Don't Know	0%	11%

APPENDIX B – Survey Instrument

C11. Connecticut Commercial and Industrial Programs Dropout and Non-Participant Interview Guide

FINAL

INTRODUCTION

[IF GROUP = DO]

Hello, my name is ______________, and I'm with Issues and Answers calling on behalf of [LOAD IN FROM SAMPLE - *Utility*] and the State of Connecticut's energy efficiency programs. We understand that your company submitted an application to the [LOAD IN FROM SAMPLE – program] around [LOAD IN FROM SAMPLE – *Date Reference*] for a project at your facility. Our information also indicates that your company did not complete this project within this program. We are interested in learning more about your firm's decision.

[IF GROUP = NP]

Hello, my name is ______________, and I'm with Issues and Answers calling on behalf of [LOAD IN FROM SAMPLE - *Utility*] and the State of Connecticut's energy efficiency programs. We are collecting information that will help improve the energy efficiency programs offered to businesses. Our records show that your company did not participate in any State of Connecticut energy efficiency programs between 2011 and 2013. We would like to talk to you about your company's decision-making process for building energy efficiency improvements.

[BOTH GROUPS]

[IF NEEDED: This survey should take less than 15 minutes to complete.]

[IF PROGRAM-FAMILIAR OR ALTERNATIVE CONTACT AGREES TO INTERVIEW, PROCEED TO ID1]

[ID. IDENTIFICATION]

ID1. First, may I please have your name:
01 **[RECORD FULL NAME]** _____________

Next I have a few questions about your company/organization.

ID2. Please provide the name that your company is most commonly referred to as.
01 **[RECORD ORGANIZATION NAME]** _____________

ID2A. The record shows your organization's/company's address is [LOAD IN FROM SAMPLE - Address]. Is this correct?
01 Yes [SKIP TO ID3]
02 No

ID2B. What is your organization's/company's address?
01 **[RECORD ORGANIZATION ADDRESS]** _____________

ID3. What type of business or facility do you operate at this location? [DO NOT READ, SELECT MOST APPROPRIATE RESPONSE]
01 Municipals
02 Education
03 Universities
04 Schools
05 Hospitals
06 Health care & social assistance
07 Water & waste water
08 Manufacturing & industrial
09 Light manufacturing
10 Printing
11 Metals
12 Plastics
13 Warehouses
14 Retail trade
15 Clothing, banking, auto parts, hair salons
16 Convenience/grocery/food store
17 Accommodations & food services
18 Real estate rental & leasing
19 Professional services
20 Office or headquarters for another type of industry
21 Recreational Facility
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

ID4. Does your business own or rent your facility? [DO NOT READ, RECORD ONE RESPONSE]
01 Own
02 Rent or lease
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

ID4A. Are you the building's only tenant or are there multiple tenants in the building? [DO NOT READ, RECORD ONE RESPONSE]

01 Single tenant
02 Multiple tenant
96 Refused
97 Don't know / not sure / can't remember

[ASK ID4B IF ID4 = 01]

ID4B. Do you manage the building or is it managed by a third party? [DO NOT READ, RECORD ONE RESPONSE]

01 Owner managed
02 Third party managed
96 Refused
97 Don't know / not sure / can't remember

[ASK ID4C IF ID4 = 02]

ID4C. What type of lease do you have? [READ OPTIONS, RECORD ONE RESPONSE] IF NECESSARY, A GROSS LEASE IS WHERE THE TENANT PAYS A FLAT SUM FOR RENT AND THE LANDLORD PAYS ALL EXPENSES SUCH AS TAXES, INSURANCE, UTILITIES, ETC. A MODIFIED GROSS LEASE IS WHERE THE TENANT PAYS FOR UTILITIES, PROPERTY TAXES AND INSURANCE, AND THE LANDLORD PAYS FOR MAINTENANCE AND REPAIRS. A TRIPLE NET LEASE IS A LEASE IN WHICH THE TENANT PAYS COSTS IN ADDITION TO RENT WHICH MAY INCLUDE PROPERTY TAXES, INSURANCE PREMIUMS, REPAIRS, ETC.]

01 Gross lease
02 Modified gross lease
03 Triple net lease
96 Refused
97 Don't know / not sure / can't remember

ID4D. How is your building metered? [READ OPTIONS, RECORD ONE RESPONSE]

01 Master metered
02 Submetered
03 Individual tenant meters and separate common area meters
96 Refused
97 Don't know / not sure / can't remember

ID5. How many years has your organization been operating at this location? [READ OPTIONS, RECORD ONE RESPONSE]

- 01 Less than 2 years
- 02 2 to less than 5 years
- 03 5 to less than 10 years
- 04 10 or more years
- 96 Refused
- 97 Don't know / not sure / can't remember

ID6. Is this facility… [READ OPTIONS, RECORD ONE RESPONSE]

- 01 Your only location
- 02 A branch location
- 03 A franchise location
- 04 The headquarters of a firm with multiple locations
- 95 Other (Specify: ___________________________)
- 96 Refused
- 97 Don't know / not sure / can't remember

ID7. What is your job title or role? [DO NOT READ, RECORD ONE RESPONSE]

- 01 Business owner
- 02 General Manager
- 03 Chief financial officer
- 04 Facility manager
- 05 Plant manager
- 06 Operations/production manager
- 07 Front office personnel/receptionist
- 08 President/CEO/Executive Director
- 09 Accounting/Finance Manager
- 10 Vice President
- 11 Engineer/Energy Manager
- 95. Other (specify: ___________________________)
- 96. Refused
- 97. Don't know / not sure / can't remember

[DO. DROPOUT]

[ASK DO1-DO16 IF GROUP=DO]

As I mentioned, our records show that your company submitted an application for a project to the [LOAD IN FROM SAMPLE - program] program. The next few questions are about what happened afterwards.

DO1. First, please tell me what happened after the application was submitted? [READ OPTIONS. PROBE FOR CLOSEST FIT.]

01 We dropped the project before we were approved
02 We started the project but dropped it before it was complete
03 Our application was denied [SKIP TO QUESTION DO8]
04 We determined to defer the project [SKIP TO QUESTION D02]
05 We dropped the project at an undefined stage
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DO1A. Did you complete the work on your own outside of the program?

01 Yes
02 No [SKIP TO DO4]
96 Refused [SKIP TO DO14]
97 Don't know / not sure / can't remember [SKIP TO DO14]

DO1B. Did you complete the project with high efficiency or standard efficiency equipment?

01 High Efficiency [SKIP TO QUESTION DO6]
02 Standard Efficiency [SKIP TO QUESTION DO6]
97 Don't know/ not sure/ can't remember [SKIP TO QUESTION DO6]

[DEFER]

[ASK DO2 IF DO1 = 04]

DO2. Why did your company decide to defer the project? [DO NOT READ, RECORD ALL RESPONSES, PROMPT IF NECESSARY]

01 INTENTIONALLY BLANK
02 No time / Not enough staff resources
03 Don't have funds
04 Don't want to take on debt
05 Return too low
06 Made other investments
07 Business or economic conditions
08 Business interruption is a problem
09 INTENTIONALLY BLANK
10 We have the funds in the next budget / fiscal year.
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DO2A. When do you anticipate you will implement this project? [PROMPT IF NECESSARY "For example, in the next fiscal year?" DO NOT READ, RECORD BEST RESPONSE

01 Next fiscal year
02 Next calendar year
03 Within 1- 2 years
04 Within 2- 3 years
05 Over three years
06 Never
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DO3. Who was involved in the decision to defer the project? [DO NOT READ, RECORD ALL RESPONSES. PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 General Manager
06 Chief financial officer
07 Facility manager
08 Plant manager
09 Operations/production manager
10 Someone from corporate headquarters
11 Someone else? (Specify: ___________________________)
96. Refused
97 Don't know / not sure / can't remember

[SKIP TO DO13]

[ASK DO4 IF DO1A = O2]

DO4. Why did your company decide to abandon the project? [DO NOT READ, RECORD ALL RESPONSES, PROMPT IF NECESSARY]

01 Already energy efficient
02 No time / Not enough staff resources
03 Don't have funds
04 Don't want to take on debt
05 Return too low
06 Made other investments
07 Business or economic conditions
08 Business interruption is a problem
09 Landlord is responsible
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DO5. Who was involved in the decision to abandon the project? [DO NOT READ, RECORD ALL RESPONSES. PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 General Manager
06 Chief financial officer
07 Facility manager
08 Plant manager
09 Operations/production manager
10 Someone from corporate headquarters
11 Someone else? (Specify: ___________________________)
96. Refused
97 Don't know / not sure / can't remember

[SKIP TO DO13]

[OUT OF PROGRAM]

DO6. What were your company's/organization's reasons for going ahead with the project without [LOAD IN FROM SAMPLE – *Program*] program support? [DO NOT READ, RECORD ALL RESPONSES, PROMPT IF NECESSARY]

01 Incentives too low
02 Corporate policy
03 Contractor recommendations
04 Installed lower efficiency equipment
05. Program processes were too complex
95. Other (specify: ___________________________)
96. Refused
97. Don't know / not sure / can't remember

DO7. Who was involved in the decision to proceed without [LOAD IN FROM SAMPLE – *Utility*] support? [DO NOT READ, RECORD ALL RESPONSES, PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 General Manager
06 Chief financial officer
07 Facility manager
08 Plant manager
09 Operations/production manager
10 Someone from corporate headquarters
11 Someone else? (Specify: ___________________________)
96. Refused
97. Don't know / not sure / can't remember

[SKIP TO DO13]

[DENIED]

DO8. Did you or your company take any further action on the project under consideration after the application was denied?

01 Yes
02 No [SKIP TO DO12]
96 Refused [SKIP TO DO14]
97 Don't know / not sure / can't remember [SKIP TO DO14]

DO9. What action did you take? [READ OPTIONS, RECORD ALL RESPONSES]
01 Contacted program/utility to discuss
02 Reapplied
03 Spoke to contractor
04 Contractor spoke to program
95 Other (specify: ___________________________)
96 Refused [SKIP TO DO11]
97 Don't know / not sure / can't remember [SKIP TO DO11]

DO10. How satisfied were you after this/these efforts? Would you say you were… [READ OPTIONS; RECORD ONE RESPONSE]
01 Very satisfied
02 Somewhat satisfied
03 Neutral
04 Somewhat dissatisfied
05 Very dissatisfied
96 Refused
97 Don't know / not sure / can't remember

DO11. Did you complete the work on your own outside of the program?
01 Yes
02 No [SKIP TO DO12]
96 Refused [SKIP TO DO14]
97 Don't know / not sure / can't remember [SKIP TO DO14]

[ASK DO11A IF DO11 = 01]

DO11A. Did you complete the project with high efficiency or standard efficiency equipment?
01 High Efficiency
02 Standard Efficiency
97 Don't know/ not sure/ can't remember

DO12. Who was involved in the decision to [IF DO08 = 02 or DO11 = 02, drop the project/ IF D11 = 01, proceed with the project] after the application was denied? [DO NOT READ, RECORD ALL RESPONSES, PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 General Manager
06 Chief financial officer
07 Facility manager
08 Plant manager
09 Operations/production manager
10 Someone from corporate headquarters
11 Someone else? (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK DO13 IF DO3, DO5, DO7 or DO12 = Multiple Responses]

DO13. Who was the final decision-maker on this project? [DO NOT READ, RECORD ONE RESPONSE, PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 Manager
06 Chief financial officer
07 Operations manager
08 Someone from corporate headquarters
09 Someone else? (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DO14. Could the [LOAD IN FROM SAMPLE – *Program*] program have done anything to help you overcome the barriers your company faced and assisted you in moving forward with your participation in the program?

01 Yes
02 No [SKIP TO QUESTION PI1]
96 Refused [SKIP TO QUESTION PI1]
97 Don't know / not sure / can't remember [SKIP TO QUESTION PI1]

[ASK DO15 IF DO14 = 01]

DO15. What could they have done? [DO NOT READ, RECORD ALL RESPONSES]

01 Larger incentives
02 Better financing
03 More information on measures
04 More information on contractors
05 Program management assistance
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK DO15A IF DO15 = 01]

DO15A. Is there anything else they could have done?

01 Yes
02 No [SKIP TO QUESTION PI1]
96 Refused [SKIP TO QUESTION PI1]
97 Don't know / not sure / can't remember [SKIP TO QUESTION PI1]

[ASK DO15B IF DO15A = 01]

DO15B. What else could they have done? [DO NOT READ, RECORD ALL RESPONSES]

02 Better financing
03 More information on measures
04 More information on contractors
05 Program management assistance
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK DO16 IF DO15 or DO15B = 02]

DO16. What financing features would have made you more likely to move forward? [READ OPTIONS, RECORD ALL RESPONSES]

01 Simple loan application process
02 Positive cash flow
03 Zero interest loans
04 Very low interest loans (Greater than zero but less than 2%)
05 Low interest loans (Greater than 2% but less than program offer)
06 Low monthly payment
07 Ability to finance 100% of costs
08 Longer term loans
09 On bill financing
10 Property accessed clean energy, or tax-bill linked repayment (C-PACE)
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[PI- PROGRAM INTERACTION]

[ASK PI1-PI17 IF GROUP=DO]

The next few questions are about your experience with the program.

PI1. Overall, on a scale of 1 to 5, where 1 means "not at all satisfied" and 5 means "very satisfied", how satisfied were you with the contractor you used during this process?

01 Very dissatisfied
02 Somewhat dissatisfied
03 Neither satisfied nor dissatisfied [SKIP TO PI3]
04 Somewhat satisfied [SKIP TO PI3]
05 Very satisfied [SKIP TO PI3]
95 Other (specify: ___________________________) [SKIP TO PI3]
96 Refused [SKIP TO PI3]
97 Don't know / not sure / can't remember [SKIP TO PI3]

[ASK PI2 IF PI1 = 01 or 02]

PI2. Why were you less than satisfied with the contractor's performance? [DO NOT READ, RECORD ALL RESPONSES]

01 Lack of program knowledge
02 Lack of technical knowledge
03 Not responsive
04 Not timely
05 Not professional
06 Too expensive
07 Didn't explain options for equipment
08 Didn't understand our requirements
09 Mislead us on timing or program benefits
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

PI3. Do you recall the application process?

01 Yes
02 No [SKIP TO PI5]
96 Refused [SKIP TO PI5]
97 Don't know / not sure / can't remember [SKIP TO PI5]

PI4. Would you describe the application process as….[READ OPTIONS; RECORD ONE RESPONSE]

01 Very easy
02 Somewhat easy
03 Neutral
04 Somewhat hard
05 Very hard
96 Refused
97 Don't know / not sure / can't remember

PI5. Do you recall involvement of representatives of [LOAD IN FROM SAMPLE - *Utility*] in the energy efficiency project we have been discussing?

01 Yes
02 No [SKIP TO IS1]
95 Other (specify: ___________________________) [SKIP TO IS1]
96 Refused [SKIP TO IS1]
97 Don't know / not sure / can't remember [SKIP TO IS1]

PI6. Overall, on a scale of 1 to 5, where 1 means "not at all satisfied" and 5 means "very satisfied,", how satisfied were you with your contact with [LOAD IN FROM SAMPLE - *Utility*] program representatives during this process?

01 Very dissatisfied
02 Somewhat dissatisfied
03 Neither satisfied nor dissatisfied
04 Somewhat satisfied
05 Very satisfied
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK PI7 IF PI6 = 01 or 02]

PI7. What made you less than satisfied?

01 [RECORD RESPONSE] _____________

[IS.INFORMATION SOURCES]

[IF GROUP = DO] Next, I'd like to ask a few questions about your information sources.
[IF GROUP = NP] The rest of the questions I have today are designed to help us understand the information sources, decision making processes, and attitudes prevalent among business customers. First, I'd like to ask a few questions about your information sources.

IS1. Where does your business get information about equipment, controls & facility fixtures? [DO NOT READ, RECORD ALL RESPONSES]

01 Trade association
02 Contractor
03 Vendor
04 "Old Media" - TV/ radio
05 "New Media" - Online/ social media
06 Newspapers/Magazines
07 Energy professionals/auditors
08 Utility
09 Energize Connecticut website
10 Word of mouth – friends, peers
11 Billboards
12 Do not pay attention to energy issues
13 Someone from my company
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IS1A IF IS1 = 08]

IS1A. If your business gets information about equipment, controls & facility fixtures from the utility, was it from the utility…? [READ OPTIONS, RECORD ALL RESPONSES]

01 Representative
02 Bill Insert
03 Direct Mailing
04 Website
95 Other (Specify:_________________)
96 Refused
97 Don't know/ not sure/ can't remember

IS2. Does your business make an effort to be informed about energy, energy efficiency and related topics and opportunities?

01 Yes.
02 No [SKIP TO IS5]
96 Refused [SKIP TO IS5]
97 Don't know / not sure / can't remember [SKIP TO IS5]

[ASK IS2A IF IS2 = 01 AND GROUP = NP]

IS2A Is there one individual or group of individuals who is responsible for being informed about energy efficiency and related topics?

01 Yes.
02 No [SKIP TO IS3]
96 Refused [SKIP TO IS3]
97 Don't know / not sure / can't remember [SKIP TO IS3]

[ASK IF IS2A = 01 AND GROUP = NP]

IS2B Who is responsible for being informed about energy efficiency and related topics? [DO NOT READ, RECORD ALL RESPONSES]

01 You
02 The property manager
03 The business or franchise owner
04 Manager
05 Chief financial officer
06 Operations manager
07 Someone from corporate headquarters
08 A staff member
09 A group
10 Someone else? (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IS2C IF IS2B = 08 AND GROUP = NP]

IS2C What department is that staff member in or who do they report to?
01 [RECORD RESPONSE] _____________

[ASK IS2D IF IS2B = 09 AND GROUP = NP]

IS2D Who is in this group?
01 [RECORD RESPONSE] _____________

IS3. How does your business stay informed about energy, energy efficiency and related topics and opportunities? [DO NOT READ, RECORD ALL RESPONSES]
01 Trade association
02 Contractor
03 Vendor
04 "Old Media" - TV/ radio
05 "New Media" - Online/ social media
06 Newspapers/Magazines
07 Energy professionals/auditors
08 Utility
09 Energize Connecticut website
10 Word of mouth – friends, peers
11 Billboards
12 Do not pay attention to energy issues
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IS3A IF IS3 = 08]

IS3A. If your business gets information about energy, energy efficiency and related topics and opportunities from the utility, was it from the utility…? [READ OPTIONS, RECORD ALL RESPONSES]
01 Representative
02 Bill Insert
03 Direct Mailing
04 Website
95 Other (Specify:_________________)
97 Don't know/ not sure/ can't remember

IS4. Do you trust the information you receive from: [READ "Trust means that you have a firm belief in the reliability and truth of this source and are likely to take action based on information provided by this source."]

IF MENTIONED IN IS3 or IS3A	a. Trust source	[If a. = yes,] Do you trust this source ALL, MOST, or SOME of the time?	IS4c. [DO NOT READ] DID THEY MENTION THEIR SPECIFIC CONTRACT OR OR GAVE A NAME OF A CONTRACT OR OR VENDOR THEY TRUST?
1. Trade association	Y N R DK	A M S R DK	
2. Contractor	Y N R DK	A M S R DK	Y
3. Vendor	Y N R DK	A M S R DK	Y
4. "Old Media" - TV/ radio	Y N R DK	A M S R DK	
5. "New Media" - Online/ social media	Y N R DK	A M S R DK	
6. Newspapers/Magazines	Y N R DK	A M S R DK	
7. Energy professionals/auditors	Y N R DK	A M S R DK	
8. Utility representative	Y N R DK	A M S R DK	
9. Utility bill insert	Y N R DK	A M S R DK	
10. Utility direct mailing	Y N R DK	A M S R DK	

11. Utility website	Y N R DK	A M S R DK	
12. Energize Connecticut website	Y N R DK	A M S R DK	
13. Word of mouth – friends, peers	Y N R DK	A M S R DK	
14. Billboards	Y N R DK	A M S R DK	
95. Other (Specify: ____________________________)	Y N R DK	A M S R DK	

[ASK IS5 IF GROUP = NP]

IS5. Have you heard about any of Connecticut's energy efficiency programs for businesses?
- 01 Yes
- 02 No [SKIP TO IS7]
- 96 Refused [SKIP TO IS7]
- 97 Don't know / not sure / can't remember [SKIP TO IS7]

[ASK IS5A IF IS5=01 AND GROUP = NP]

IS5A. Please tell me what you recall about the types of help or assistance that the Connecticut energy efficiency programs offer businesses like yours. [DO NOT READ, RECORD ALL RESPONSES]
- 01 Technical advice
- 02 Incentives for energy efficient equipment
- 03 Financing or loans for energy efficient equipment
- 04 Energy efficiency project management
- 05 Contractor referrals
- 95 Other (specify: ____________________________)
- 96 Refused
- 97 Don't know / not sure / can't remember

[ASK IS6 IF IS5A = 02 or 03 AND GROUP = NP]

IS6. Did your business consider taking advantage of the ["incentives" IF IS5A=02 and/or "financing" if IS5A=03] offered by the programs?
- 01 Yes
- 02 No
- 96 Refused [SKIP TO IS7]
- 97 Don't know / not sure / can't remember [SKIP TO IS7]

[ASK IS6A IF IS6 = 01 or 02 AND GROUP = NP]

IS6A. What prevented your company from taking advantage of the program offering? [DO NOT READ, RECORD ALL RESPONSES, ASK ANYTHING ELSE UNTIL "No"]

01 No suitable project
02 Incentives too low
03 Financing not attractive
04 No time
05 No opportunity
06 Not a priority
07 Don't have funds
08 Economic uncertainty
09 Don't want to take on debt
10 Corporate policy
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IS6B IF IS6A = 07 AND GROUP = NP]

IS6B. What other priorities or projects compete with energy efficiency for funding in your business? [DO NOT READ, RECORD ALL RESPONSES, ASK ANYTHING ELSE UNTIL "No"]

01 Expanding operations – special (*e.g.*, additions, new or additional locations)
02 Expanding operations – product lines
03 Expanding operations - staff
04 Increasing cash flow
05 Reducing debt
06 Improving facility aesthetics
07 Improving facility comfort
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

IS7. In your opinion, what would be the best way for the Connecticut energy efficiency program to reach firms like yours? [DO NOT READ, RECORD ALL RESPONSES]

01 Trade association
02 Contractor
03 Vendor
04 "Old Media" - TV/ radio
05 "New Media" - Online/ social media
06 Newspapers/Magazines
07 Energy professionals/auditors
08 Utility
09 Energize Connecticut website

10 Word of mouth – friends, peers
11 Billboards
12 Do not pay attention to energy issues
13 Direct Mail
14 Email from Utility
15 Phone Call from Utility
16 Face to Face Meeting
17 Visit to My Company
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IS8 IF IS7 ≠ 08]

IS8. How do you rate the credibility of [LOAD IN FROM SAMPLE - *Utility*] as a source of information on energy efficiency? Would you say they are… [READ OPTIONS; RECORD ONE RESPONSE]
01 Very credible
02 Somewhat credible
03 Neutral
04 Not very credible
05 Not credible at all
96 Refused
97 Don't know/ Not sure / can't remember

[DM. DECISION MAKERS]

[ASK DM1-DM5 IF GROUP = NP]

Next I have a few questions about the decision processes at your firm.

DM1. When it comes to capital investments for your building who is typically involved in making the decision? Building investments may include systems like lighting, heating ventilation and cooling, renewable energy, and windows & doors? [DO NOT READ, RECORD ALL RESPONSES. PROMPT IF NECESSARY]
01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 General Manager
06 Chief financial officer
07 Facility manager
08 Plant manager
09 Operations/production manager
10 Someone from corporate headquarters

11 Someone else (Specify: ___________________________)
12 Board of Directors
13 Management Team
14 President/CEO
96. Refused
97 Don't know / not sure / can't remember

DM2. Which of the following describes your role or roles in the decision process for capital investments in your building? [READ OPTIONS, RECORD ALL RESPONSES]

01 Identify needs
02 Research options
03 Perform analysis
04 Make recommendations
05 Participate in the decision process
06 Ultimate decision maker
07 None
95 Other (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DM3. Which of the following best describes the decision process for capital investments in your building? Is it…[READ OPTIONS; RECORD ONE RESPONSE]

01 A group process reaching a decision by majority vote
02 A group process reaching consensus
03 A consultative group process with a few people making the decision
04 A consultative group process with one person making the decision
95 Other (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK DM4 IF DM3 = 03 or 04 AND GROUP = NP]

DM4. Who is generally the final decision-maker for investments in the building? [DO NOT READ, RECORD MULTIPLE RESPONSES IF DM3=03, ONE RESPONSE IF DM3=04. PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 Manager
06 Chief financial officer
07 Operations manager
08 Someone from corporate headquarters
09 Someone else? (Specify: ___________________________)
10 President/CEO

11 Senior Management
96 Refused
97 Don't know / not sure / can't remember

[ASK DM5 IF ID3 = 07 – 13 AND GROUP = NP]

DM5. Is there a different process for investment decisions in the production line or equipment?
01 Yes
02 No
96 Refused
97 Don't know / not sure / can't remember

[ASK DM6-DM9 IF DM5 = 01]

DM6. When it comes to investing in production line or equipment for your building who is typically involved in making the decision? [DO NOT READ, RECORD ALL RESPONSES. PROMPT IF NECESSARY]
01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 General Manager
06 Chief financial officer
07 Facility manager
08 Plant manager
09 Operations/production manager
10 Someone from corporate headquarters
11 Someone else (Specify: ___________________________)
96. Refused
98 Don't know / not sure / can't remember

DM7. Which of the following describes your role or roles in the decision process for investing in production line or equipment in your building? [READ OPTIONS, RECORD ALL RESPONSES]
01 Identify needs
02 Research options
03 Perform analysis
04 Make recommendations
05 Participate in the decision process
06 Ultimate decision maker
07 None
95 Other (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

DM8. Which of the following best describes the decision process for investing in production line or equipment in your building? Is it…[READ OPTIONS; RECORD ONE RESPONSE]

01 A group process reaching a decision by majority vote
02 A group process reaching consensus
03 A consultative group process with a few people making the decision
04 A consultative group process with one person making the decision
95 Other (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK DM9 IF DM8 = 03 or 04 AND GROUP = NP]

DM9. Who is generally the final decision-maker for investing in production line or equipment in the building? [DO NOT READ, RECORD MULTIPLE RESPONSES IF DM8=03, ONE RESPONSE IF DM8=04. PROMPT IF NECESSARY]

01 You
02 The landlord
03 The property manager
04 The business or franchise owner
05 Manager
06 Chief financial officer
07 Operations manager
08 Someone from corporate headquarters
09 Someone else? (Specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[IC. INVESTMENT CRITERIA]

[ASK IC1-IC9 IF GROUP = NP]

IC1A. What criteria does your firm use when considering energy efficiency investments: [RECORD ALL RESPONSES, READ LIST ONLY IF PROMPT IS NECESSARY]

01 Return on investment (ROI)
02 Internal rate of return (IRR) or economic rate of return (ERR)
03 Modified internal rate of return (MIRR)
04 Simple payback period
05 Discounted payback period
06 Cash flow analysis (positive cash flow)
07 Cost of capital
95 Other (Specify): _______________
96 Refused
97 Don't know / not sure / can't remember

IC1B. What criteria does your firm use when considering other capital investments: [RECORD ALL RESPONSES, READ LIST ONLY IF PROMPT IS NECESSARY]

01 Return on investment (ROI)
02 Internal rate of return (IRR) or economic rate of return (ERR)
03 Modified internal rate of return (MIRR)
04 Simple payback period
05 Discounted payback period
06 Cash flow analysis (positive cash flow)
07 Cost of capital
11 Need for new equipment
95 Other (Specify): ______________
96 Refused
97 Don't know / not sure / can't remember

[ASK IC2 IF IC1A or IC1B = 01]

IC2. What is your firm's targeted return on investment (ROI) for major capital investments? [DO NOT READ, PROBE IF NECESSARY]

01 Zero to 2%
02 >2% to 5%
03 >5% to 10%
04 >10% to 25%
05 >25% to 50%
06 >50%
07 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IC3 IF IC1A or IC1B = 02]

IC3. What is your firm's targeted internal rate of return for major capital investments? [DO NOT READ, PROBE IF NECESSARY]

01 Zero to 2%
02 >2% to 5%
03 >5% to 10%
04 >10% to 25%
05 >25% to 50%
06 >50%
07 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IC4 IF IC1A or IC1B = 03]

IC4. What is your firm's targeted modified internal rate of return for major capital investments? [DO NOT READ, PROBE IF NECESSARY]

01 Zero to 2%
02 >2% to 5%
03 >5% to 10%
04 >10% to 25%
05 >25% to 50%
06 >50%
07 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IC5 IF IC1A or IC1B = 04]

IC5. What is your firm's targeted simple payback period for major capital investments? [DO NOT READ, PROBE IF NECESSARY]

01 Less than 1 month
02 1 – 3 months
03 >3 to 6 months
04 >6 to 9 months
05 >9 months to one year
06 >1 year to 18 months
07 > 18 months to two years
09 > 2 years to 3 years
10 > 3 years to 4 years
11 > 4 years to 5 years
12 >5 years to 7.5 years
13 >7.5 years
14 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IC6 IF IC1A or IC1B = 05]

IC6. What is your firm's targeted discounted payback period for major capital investments? [DO NOT READ, PROBE IF NECESSARY]

01 Less than 1 month
02 1 – 3 months
03 >3 to 6 months
04 >6 to 9 months
05 >9 months to one year

06 >1 year to 18 months
07 > 18 months to two years
09 > 2 years to 3 years
10 > 3 years to 4 years
11 > 4 years to 5 years
12 >5 years to 7.5 years
13 >7.5 years
14 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IC7 IF IC1A or IC1B = 06]

IC7. What improvement in cash flow on a monthly basis would be worth your spending approximately 10 hours over the course of two months to participate in an energy efficiency project sponsored and supported by Connecticut's energy efficiency programs? Assume the positive cash flow will last for 3 years. [DO NOT READ, PROMPT IF NECESSARY "For example, $50 dollars per month"]

01 Less $100/ month
02 $101 to $250/ month
03 $251 to $500/month
04 $501 to $750/ month
05 $751 to $1000/month
06 $1,001 to $2,500/month
07 $2,501 to $5,000/month
08 More than $5,001/month
09 No amount would do it.
10 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[ASK IC8 IF IC1A or IC1B = 07]

IC8. What is your firm's targeted weighted average cost of capital for major capital investments? In other words, what is the interest rate your firm most commonly pays on the funds you borrow? [DO NOT READ, PROBE IF NECESSARY]

01 Zero to 1%
02 >1% to 2%
03 >2% to 3%
04 >3% to 4%
05 >4% to 7.5%
06 >7.5% to 10%
07 >10% to 15%

08 >15%
09 Defined on a project-specific basis
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

[FN. FINANCING]

[ASK FN0 IF GROUP = NP]

FN0. On a scale of 1 to 5 where 1 means "not important at all" and 5 means "very important", how important would outside financing be in your decision to move forward with an energy efficiency project?
01 Not important at all
02 Slight importance
03 Moderate importance
04 More than moderately, but not very important
05 Very important
96 Refused
97 Don't know / not sure / can't remember

[ASK FN1-FN11 IF GROUP = NP AND FN0 > 01]

Now, I am going to list some of the ways businesses might finance energy efficient investments. Please tell me what you think your business' level of interest in them would be on a scale of 1 to 5 where 1 means 'not interested at all' and 5 means 'very interested'.
[Note: Randomize order of FN1 – FN3, FN4 – FN5 and FN6 – FN8, keeping the groups of questions in the same order as listed.]

FN1. Simplified and expedited loan application processes.
01 No interest at all
02 Slight interest
03 Moderately interested
04 More than moderately, but not very interested
05 Very interested
96 Refused
97 Don't know / not sure / can't remember

FN2. Low interest (below market rate) loans

- 01 No interest at all
- 02 Slight interest
- 03 Moderately interested
- 04 More than moderately, but not very interested
- 05 Very interested
- 96 Refused
- 97 Don't know / not sure / can't remember

FN3. Zero interest loans

- 01 No interest at all
- 02 Slight interest
- 03 Moderately interested
- 04 More than moderately, but not very interested
- 05 Very interested
- 96 Refused
- 97 Don't know / not sure / can't remember

FN4. Simplified and expedited loan application processes coupled with low interest (below market rate) loans.

- 01 No interest at all
- 02 Slight interest
- 03 Moderately interested
- 04 More than moderately, but not very interested
- 05 Very interested
- 96 Refused
- 97 Don't know / not sure / can't remember

FN5. Simplified and expedited loan application processes coupled with zero interest loans.

- 01 No interest at all
- 02 Slight interest
- 03 Moderately interested
- 04 More than moderately, but not very interested
- 05 Very interested
- 96 Refused
- 97 Don't know / not sure / can't remember

FN6. On-bill financing, a mechanism which allows customers to make energy efficiency improvements to facilities without large upfront costs. Your utility or the Connecticut energy efficiency programs would finance the project up front, and you would repay that loan through your monthly utility bills. All other conditions being equal, your monthly utility bill would not increase, *e.g.*, the financing costs would be at least offset by the energy savings.

01 No interest at all
02 Slight interest
03 Moderately interested
04 More than moderately, but not very interested
05 Very interested
96 Refused
97 Don't know / not sure / can't remember

FN7. Performance contracting provided by an Energy Services Company or ESCO. An ESCO is a business that develops, installs, and finances energy efficiency projects. These services are bundled into the project's up front cost, which is paid by the ESCO, and are repaid through the dollar savings generated. The ESCO typically guarantees neutral or positive cash flow for the customer.

01 No interest at all
02 Slight interest
03 Moderately interested
04 More than moderately, but not very interested
05 Very interested
96 Refused
97 Don't know / not sure / can't remember

FN8. Repayment through property tax bills. For example, Connecticut's Commercial Property Assessed Clean Energy (C-PACE) program allows building owners to finance qualifying energy efficiency and clean energy improvements through placing a voluntary assessment on their property tax bill. Property owners pay for the improvements over time through this additional charge on their property tax bill and the repayment obligation transfers automatically to the next owner if the property is sold.

01 No interest at all
02 Slight interest
03 Moderately interested
04 More than moderately, but not very interested
05 Very interested
96 Refused
97 Don't know / not sure / can't remember

FN9. Next I am going to read a list of possible improvements over standard (*e.g.,* bank) financing. After I have read them, I would like you to tell me which would be your most critical first, second, and third choices. [READ LIST, AND REREAD AS NECESSARY UNTIL FIRST, SECOND, AND THIRD CHOICES ARE SELECTED OR RESPONDENT HAS NO FURTHER PREFERENCE]

01 Simplified and expedited loan application processes
02 Low interest (below market rate) loans
03 Zero interest loans
04 On bill financing
05 Performance contracting
06 Tax bill financing
96 Refused
97 Don't know / not sure / can't remember

FN10. Now, with the same list of options, which two if offered as a package would be your most critical first choice. [READ LIST, AND REREAD AS NECESSARY UNTIL TWO ARE SELECTED OR RESPONDENT STATES NO PREFERENCE]

01 Simplified and expedited loan application processes
02 Low interest (below market rate) loans
03 Zero interest loans
04 On bill financing
05 Performance contracting
06 Tax bill financing
96 Refused
97 Don't know / not sure / can't remember

FN11. Does your business typically prefer to repay investment financing out of the operating budget or the capital budget?

01 Operating budget
02 Capital budget
96 Refused
97 Don't know / not sure / can't remember

[LF – LOOKING FORWARD] – BOTH GROUPS

LF1. What factors or considerations, if any, would encourage your company to consider an energy efficiency project in the future? [DO NOT READ, RECORD ALL RESPONSES]

01 Reduced maintenance cost
02 Program incentive(s)
03 Technical assistance/audits
04 Reduced energy bills/ Saving money
05 Saving energy
06 Installer/designer/contractor advice
07 Replace non-working equipment
08 Past experience

09 Franchise or corporate recommendation
10 New Strategic Energy Plan
11 Available internal funds
12 Available attractive financing
13 Return on investment
95 Other (specify: ___________________________)
96 Refused
97 Don't know / not sure / can't remember

LF2. 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 EACH ANSWER, GET SCORE FOR EACH]

							96	97
		1	2	3	4	5	R	DK
LF2a	Lack of awareness of opportunities for efficiency							
LF2b	Lack of credible information on efficient alternatives							
LF2c	Lack of staff resources (*e.g.*, time) for implementation							
LF2d	Lack of capital for investment							
LF2e	Absence of acceptable financing mechanisms							
LF2f	Lack of confidence in energy/cost savings claims							
LF2g	Lack of availability or longer-delivery times for efficiency measures							
LF2h	Perception that efficiency delivers less on other values, (*e.g.*, production, comfort)							
LF2i	Competing priorities taking precedence							
LF2j	Lack of credit quality							
LF2k	Do not plan on staying long enough in the property							
LF2l	Inability to share capital costs of energy improvements with tenants							
LF2m	Anything else? (specify__________)							

LF3. Suppose you were considering improving the energy efficiency of your business. Would any of the following make you more likely to take action? Here we'll use a 5-point scale, where 1 means "no more likely" and 5 means "significantly more likely to take energy efficiency actions."

[READ EACH ANSWER, GET SCORE FOR EACH]

							96	97
		1	2	3	4	5	R	DK

LF3a	A discount on your purchase of an energy-saving measure.							
LF3b	A cash rebate for a purchase of an energy-saving measure.							
LF3c	Analysis that shows that the energy-saving project will cut your energy bills enough to yield a rapid payback.							
LF3d	Loans for energy-saving equipment at low- or zero interest.							
LF3e	Contractor- matching service – to contractors approved by the utility to perform the work.							
LF3f	Inspection and verification of quality installation by an independent third-party.							
LF3g	A "turn-key package" from the utility with both a contractor to do the work and financing to make it possible.							
LF3h	On-bill financing – Repayment of the costs of the efficiency project through utility bills							
LF3i	Repayment through property tax bills – voluntary assessment added to property tax so paid for over time and repayment obligation transfers with the property when sold if amount has not been paid off							

LF4. What is the likelihood that you will consult [LOAD IN FROM SAMPLE - *Utility*] for information on ways to save energy in the next 2 years? Would you say that it is…[READ OPTIONS]

01 Very Unlikely
02 Somewhat Unlikely
03 Somewhat Likely
04 Very Likely
95 Other (specify: ____________________________)
96 Refused
97 Don't know / not sure / can't remember

LF5. For this last question, please consider any and all options. In your opinion what is the most significant thing the energy efficiency program could do to encourage your business to participate and install efficient measures? [RECORD RESPONSE – IF ANSWER = "Increase the incentive amount." "Give me more money," or something comparable, PROMPT "What else?"]

01 **[RECORD RESPONSE]** _____________

We have completed the survey, and I appreciate your taking the time to answer our questions.

Thank you for your participation.