



# PROCESS EVALUATION FOR CON EDISON'S COMMERCIAL AND INDUSTRIAL INCENTIVE PROGRAMS 2009-2011

Prepared for:  
Con Edison



Sponsoring Agency:  
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## Glossary

Active Project – Includes projects with active status codes: Initiation, Study, Offered, Committed, Installed, Payment Pending, and Paid.

C&I – Commercial and Industrial

DPS - Department of Public Service

DSM – Demand Side Management

EEPS - Energy Efficiency Portfolio Standard

EMS – Energy Management System

HID – High Intensity Discharge

HVAC – Heating, Ventilation and Air Conditioning

Inactive Project – Includes projects that will not complete participation: Discontinued and On Hold.

LED – Light Emitting Diode

LM-CAPTURES – an acronym for Lockheed Martin Customer, Project Tracking and Utility Reporting Enterprise System

M&V – Measurement and Verification

MAP - Maximum Achievable Potential

NYSERDA – New York State Energy Research and Development Authority

ODP – Open, Drip Proof

PIP – Program Implementation Plan

PSC – Public Service Commission

RAP – Realistic Achievable Potential

ROI – Return on Investment

SBC – System Benefit Charge

SBDI – Small Business Direct Installation

TEFC – Totally Enclosed, Fan Cooled

TRC – Total Resource Cost

VFD – Variable Frequency Drive

xACT - acronym for Excel-based Application and Calculation Tool

## Abstract

In May 2007, the New York Public Service Commission (PSC) initiated a proceeding to design an electric and natural gas energy efficiency portfolio standard (EEPS). This order was in response to then-Governor Eliot Spitzer's goal of reducing energy usage by 15 percent by 2015. The Con Edison Commercial and Industrial Incentive (C&I) Programs are delivered as part of their (EEPS) Utility Administered programs. The 2009-2011 C&I programs promote the purchase and installation of specific high-efficiency equipment by C&I customers in existing facilities. These programs provide customers with financial incentives to offset the higher purchase cost of specific energy efficient equipment and information on the features and benefits of energy efficient equipment. Qualifying equipment includes lighting and HVAC equipment and controls, motors, variable frequency drives, and custom measures. This report is a process evaluation for the gas and electric Commercial and Industrial Incentive (C&I) Programs administered by Con Edison. The overall objective of the C&I Programs process evaluations is to assess the effectiveness and efficiency of program design, delivery, and implementation processes. More specifically, Con Edison is seeking recommendations that can help to improve the program processes for the participating customers and to inform and improve the program in future program cycles.

**Keywords:** Consolidated Edison, commercial, industrial, energy efficiency, process evaluation

## Executive Summary

Navigant Consulting, Inc. (Navigant) is leading a series of process evaluations for energy efficiency programs that Consolidated Edison (Con Edison) is delivering as part of their Energy Efficiency Portfolio Standard (EEPS) Utility Administered programs, as ordered by the New York Public Service Commission (NYPSC). Navigant and its team (KEMA, Inc., APPRISE Inc., and SERA) were selected to complete process evaluations for all of the Con Edison's EEPS programs through a competitive bid process.

Con Edison is committed to independent and transparent program evaluations. Con Edison's Section Manager for Measurement, Verification & Evaluation is administering the process evaluation for both companies. This Section Manager reports directly to the Director of Energy Efficiency Programs to maintain internal independence.

This report is a process evaluation for the gas and electric Commercial and Industrial Incentive (C&I) Programs administered by Con Edison.

The overall objective of the C&I Program process evaluations is to assess the effectiveness and efficiency of program design, delivery, and implementation processes. More specifically, Con Edison is seeking recommendations that can help to improve the program processes for the participating customers and to inform and improve the program in future program cycles.

The process evaluation addresses the following six program processes:

- Program planning;
- Infrastructure development;
- Marketing and customer acquisition;
- Program delivery;
- Satisfaction with the program; and
- Interactions with other programs.

Specific research questions have been identified within each process area. These research questions are provided in Appendix A.

The research and the findings expressed in this report are based upon the following evaluation activities:

- Review of regulatory filings and reports;
- Review of program and marketing materials;
- Review and analysis of program tracking system and other data;

- Focus groups with lighting, electric-HVAC, and gas Trade Allies<sup>1</sup>;
- In-depth interviews with:
  - Con Edison staff
  - Lockheed Martin staff delivering the Con Edison C&I programs
  - Participating trade allies
  - Non-participating trade allies
- Customer telephone surveys with:
  - 149 Electric program participants (out of 621 total)
  - 21 Gas program participants (out of 47 total)
  - 39 program participants who did not complete the process (out of 176 total)
  - 146 program non-participants in Manhattan
  - 140 program non-participants outside of Manhattan
- Benchmarking of utility marketing and outreach programs
- Review of Potential Study findings

## ***Findings and Recommendations***

### **Program Planning and Design**

Trade Allies highlighted two main benefits of the Con Edison program: its program services and co-branding.

Trade Allies noted that compared to NYSERDA's program, Con Edison's program is faster, has less complicated paperwork and the incentive is less uncertain. NYSERDA's program has a one-year measurement and verification requirement, paying only half of the rebate upon installation. Con Edison requires an engineering analysis to estimate energy savings and pays the full incentive upon verification of installation. However, NYSERDA often has higher incentives.

If rebates are equal, Trade Allies reported they select Con Edison's program over that of NYSERDA.

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<sup>1</sup> For purposes of this summary, Trade Ally can be used interchangeably with Market Partner. Market Partners are contractors whose participation is sought to bolster program implementation, but also operate in the marketplace outside of the EEPS Program infrastructure.

Focus Group Trade Ally participants reported that Lockheed Martin provides valuable program services, including estimating tools, support filling out xACT<sup>2</sup>, and staff attending client and contractor meetings. However, some Trade Allies were unaware of these services.

Focus Group Trade Ally participants reported that they benefit from being associated with the Con Edison and Lockheed Martin “brands” that are linked to the program, because these brands bring additional credibility to the Trade Allies’ offers to customers.

Rebates appear to be a bit more important for gas customers participating in the program than for electric customers, although the primary benefit to participation reported by both customer types is saving energy.

Custom gas rebate levels may not be meeting participant needs, especially for projects with smaller savings levels.

Trade Allies reported that the ability to offer financing options through the program would benefit their customers, to assist in lowering up-front costs.

Offices have been the most active market segment, but there is opportunity for savings in other sectors, especially restaurants.

### Recommendations for Program Planning and Design

- Increase promotion and awareness of Lockheed Martin's support of Trade Allies.
  - Several trade allies reported that these are beneficial services (estimating tools, Lockheed Martin attendance at client and contractor meetings, etc.), but others were unaware that these were services available to them.
  - Promoting the Con Edison and Lockheed Martin brands as well as Lockheed Martin’s standard program support services could attract more Market Partners, and encourage more trade allies to recommend the program to their customers.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Develop marketing elements to highlight the Con Edison and Lockheed Martin brands that are associated with the program as well as Lockheed Martin’s specific program services, including estimating tools and attending client and contractor meetings.
  2. Market these services through brochures, direct outreach, and on the program website.
- Develop specific efforts around restaurants for additional energy savings.

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<sup>2</sup> xACT (acronym for Excel-based Application and Calculation Tool) is an Excel-based tool, developed by LM, used to facilitate the program application process by providing a common methodology for calculating energy-savings generated by various energy efficiency measures.

- The recent Con Edison DSM potential study suggests that the restaurant sector has the potential for a significant amount of gas and electricity savings, but program participation in this sector is quite low.
- Attending relevant trade shows or making presentations to industry associations or vendors could bring in Market Partners who serve restaurants.
- Consider adding prescriptive measures specific to this sector, such as efficient commercial cooking equipment.
- These actions could result in greater program participation in the targeted sector.

Responsible Party: Con Edison, with DPS approval

Steps to Implementation:

1. Attend trade shows or make presentations to industry associations or vendors to bring in Market Partners who serve restaurants.
  2. Identify prescriptive measures specific to this sector, such as efficient commercial cooking equipment.
  3. Obtain DPS approval for adding prescriptive measures.
- Identify sources of third-party financing.
    - Financing resources should be identified on the program website; Market Partners that offer financing should be identified in Market Partners database.
    - All trade allies in the Focus Groups reported that some form of financing would benefit customers. However, non-participating customers did not specifically identify the need for financing as a barrier to participation. Research exploring the value of financing with this population is needed, to determine the extent to which it would make a difference in their program participation decision.
    - This could lead to greater program participation, because first cost was often cited by drop-outs and non-participants as a barrier to installing high efficiency equipment.

Forty-six percent of drop-outs cited as their reasons for not completing their participation that equipment costs are too high or that they did not have sufficient funding to complete their project.

Responsible Party: Con Edison

Steps to Implementation:

1. Create task force to research potential financing options, and conduct research with non-participating customers to determine the extent to which a financing offering is likely to make a difference for customers.
2. Determine feasibility of implementing third-party financing.
3. Obtain approval from program managers to offer third-party financing, if deemed beneficial.

## Infrastructure Development

Lockheed Martin's LM-CAPTURES system is a robust tracking system with visibility down to the measure-level. The information collected and recorded in the tracking system is adequate for program management, reporting, and evaluation.

The program process appears to move quickly. The average time between receiving an application and performing a pre-installation inspection is only 1.5 weeks. Scheduling a post-installation inspection takes longer, with an average time of three weeks from receiving a completion certificate to the post-installation inspection.

The staffing of the C&I program is sufficient for program delivery. Program applications are available on the program website, but must be submitted through other channels.

## Recommendations for Infrastructure Development

- Consider allowing customers to submit applications online.
  - Customers requested that applications be available to submit through the program website, rather than downloading a form, filling it out, and emailing it to Lockheed Martin.
  - This could streamline the program participation process for customers, as well as Lockheed Martin. An online application could check that all necessary data fields are captured in the application, which streamlines the Quality Control process.
  - Invoices could still be submitted through mail at a later date for proof of payment.

Responsible Party: Con Edison and Lockheed Martin.

Steps to Implementation:

1. Investigate the cost effectiveness and viability of using an online platform to allow for electronic submittal of applications.
2. Determine which information can be submitted online and which information must be received in paper form (customer signatures, invoices, proof of payment, etc.).
3. If approved, develop online platform.

## Marketing and Customer Acquisition

Awareness of the program is strong in the potential Trade Ally community, but not for potential participants.

- Overall, 94 percent of Trade Allies outside of the Market Partner Network were aware that Con Edison had a program offering rebates for C&I customers.

- Only 36 percent of Manhattan non-participant customers and 40 percent of Non-Manhattan non-participant customers were aware of the C&I program.

Direct contact with contractors is the top source of customer awareness of the program, while trade allies are informed in a variety of channels.

- Asked how they promote the programs, a third of participating Market Partners interviewed reported direct communication with customers is the primary marketing channel.
- Forty-two percent of surveyed participants and drop-outs reported direct contact with contractors and Con Edison or Lockheed Martin staff was responsible for their awareness of the program.
- Both participating and non-participating Trade Allies heard of the rebate program through a variety of channels (e.g., website, word of mouth, trade show).

Selection of high efficiency equipment and program participation comes down to money and performance.

- When asked about specific equipment types (e.g., HVAC, lighting, motors), customers who select high efficiency equipment tend to do so because of the equipment's reduced operating costs and improved system performance.
- The marketing message needs to highlight the available rebates. Although the program offers customers an opportunity to reduce energy use, energy costs, and improve the environment, customers most often enroll in the program for the available rebates.
- The Trade Allies understand customer needs. The customers want rebates, and the Trade Allies make sure customers know rebates are available.

Trade Allies and customers are generally satisfied with the website.

- All customers surveyed are satisfied with the website, while 72 percent are very satisfied.
- Three-fourths of the Trade Allies surveyed use the website, and two-thirds of those that use the website find it useful to find program information. Those who said the website was not useful reported it was difficult to navigate and find all of the information they needed.
- Trade Allies suggested improvements to the website, such as more detailed Market Partner company information and a method to track application progress.

Con Edison marketing efforts are on par with those of other utilities and with industry trends.

- Navigant benchmarked the program marketing and outreach activities to several other C&I utility programs and industry trends. Generally, the Con Edison program marketing and outreach strategy compares favorably to these benchmarks.

## Marketing and Customer Acquisition Recommendations

- Continue to provide marketing resources and support for Trade Allies to improve program satisfaction.
  - Trade Allies see an advantage in emphasizing their partnership with Con Edison. They believe the relationship will ultimately drive customer participation and installation of high-efficiency measures, because they believe customers appreciate the collaboration and backing of Con Edison.
  - Co-marketing will emphasize the collaboration between the Market Partner Network and Con Edison.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Obtain feedback from Trade Allies on types and message content of marketing materials that could emphasize the Con Edison and Lockheed Martin partnership with Trade Allies.
  2. Develop marketing materials emphasizing this partnership and distribute them to Trade Allies.
- Develop technical briefs for common equipment rebated through the programs, to increase participation.
    - Educating customers and providing examples of the participation successes of similar customers could nudge potential participants toward high efficiency equipment and selecting a Market Partner for the project.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Develop the technical briefs in phases. In the first phase, select high volume and other key measures. Should this prove successful, include less common measures in a second phase. A third phase could include emerging measures or specialty measures.
- Provide more detail about the Market Partners and more functionality in the network directory.
    - More information could lead customers to choose a firm from the Market Partner Network and enroll in the program.
    - For instance, indicate the different services that each Market Partner provides, including whether they offer financing.

Responsible Party: Con Edison

Steps to Implementation:

1. Develop the information and metrics for the directory.
  2. Include number of projects completed and company profile narratives.
  3. Enable users to sort and filter on results.
- Consolidate rebate information, documents, and links on the website.
    - The website has a great deal of information, but often the information is difficult to find.

- Con Edison could further increase program satisfaction by increasing the effectiveness of the website.

Responsible Party: Lockheed Martin

Steps to Implementation:

1. Bring the “Market Partner Tools” page up a level, rather than having to click through several pages to reach it.
  2. Consider developing a “library” page that contains relevant program documents for easier access.
- If the program is reaching its incentive budget limits, consider adding a rebate tracking mechanism on the website to increase overall application process satisfaction.
    - Enable customers and Trade Allies to track the total rebate budget available, the acquired rebate dollars, and the committed rebate dollars. These can be shown in pie or bar charts for Trade Allies to gauge available program funds.
    - This can encourage customers and Trade Allies to quickly submit incentive applications when funds are diminishing.

Responsible Party: Con Edison

Steps to Implementation:

1. Define which program metrics to show in the tracking mechanism.
  2. Design tracking mechanism (e.g., a simple gauge).
- Target customers with previous participation in Con Edison programs.
    - Marketing is more cost-effective when the customer has shown some interest in working with the utility.

Responsible Party: Con Edison

Steps to Implementation:

1. Identify customers who have participated in Con Edison programs in the past.
2. Determine cost effectiveness of direct marketing campaign to these customers.
3. If cost effective, provide targeted mailings or conduct other targeted activities about the C&I program to these customers.

## Program Delivery

Participants are highly satisfied with their interactions with program staff, both from Lockheed Martin and from Con Edison.

The largest barrier for Market Partners is the time commitment required to facilitate program participation for their customers.

- Market Partners cited the increased time associated with the rebate program, including paperwork, time to receive rebates, and time required to learn about the program, as barriers to participation.

Lack of awareness is the biggest program barrier for non-participants.

- For non-participating customers who reported that they would not be likely to participate in the program in the next year, they reported that lack of program awareness is their largest barrier (46 percent in Manhattan and 37 percent not in Manhattan).
- Non-participants reported the factors that would be likely to influence their organization to participate in the future, and approximately 70 percent in each region reported cost savings and favorable ROI as the most important factor, followed by incentive amounts.

Only 11 percent of participants perceived any drawbacks to participating in the program.

- The most common drawback reported by participants is that paperwork is burdensome (7 of 18 electric participants).

Gas customers appear to find the process of making energy efficiency improvements more difficult than do electric customers, but they place a bit more importance on program rebates than do electric customers.

- Particularly difficult aspects were identifying energy efficiency improvements to make, and estimating savings of proposed improvements.
- When reporting benefits to participating in the program, 52 percent of gas participants reported the program rebate as beneficial, compared to only 32 percent of electric participants.

Most non-participants are aware of neither the Con Edison nor NYSERDA program, but more are aware of the Con Edison program.

- Non-participants outside of Manhattan generally had a higher awareness of both Con Edison and NYSERDA's C&I programs, but non-participants in both areas were more aware of Con Edison's program.

When asked what kind of program information would be most beneficial to receive, Manhattan non-participants reported that they are most interested in seeing real examples of energy savings solutions for their sites (suggested by 38 percent), where Non-Manhattan non-participants are most interested in seeing bill savings and return on investment information (suggested by 41 percent).

### Recommendations for Program Delivery

- Consider creating a specific role within Lockheed Martin or Con Edison for outreach and technical assistance specifically for gas customers.
  - Gas customers reported a greater difficulty with the efficiency upgrade process, particularly in identifying upgrades and estimating energy savings.

- A dedicated gas account representative could assist these customers both in outreach, and initial phases of the participation process, leading to higher participation in the gas customer segment.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Identify individual(s) with gas industry expertise.
2. Leverage a gas expert to reach out to industry contacts to market the program.

- Increase program marketing to Trade Allies and Customers by holding gas workshops or have more gas-focused content in program newsletters.

- To gain more awareness of the program, and to overcome the initial barrier of identifying projects and estimating energy savings, Lockheed Martin can target gas customers in program marketing material.
- This may result in increased gas customer participation.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Develop gas-focused content to include in program newsletters.
2. Coordinate with industry associations to advertise gas workshops and gas program services.

### Satisfaction with the Program

Almost all of the participants and Market Partners interviewed reported being satisfied with the program overall. Ninety-one percent of electric participants and 95 percent of the gas participants said they were likely to recommend the program to others in the future. High satisfaction ratings were also given by the Market Partners and program drop-outs.

Sixty-two percent of electric participants and 71 percent of the gas participants ranked their satisfaction with the total rebate amount between eight and ten on a 1-10 scale, where one means “Not At All Satisfied” and ten means “Extremely Satisfied.” Only 31 percent of drop-outs were satisfied with the incentive amounts offered. Those who indicated that they were dissatisfied said that the rebate was too low or did not justify the total cost of the project.

The majority of participants were satisfied with the program’s communications and rebate turnaround time. Seventy-one percent of participants indicated that they were satisfied (scores of eight to ten) with the program’s communications. Sixty-three percent of electric program participants and 62 percent of gas program participants were satisfied with the program’s turnaround time to issue rebate checks. These results are positive, but suggest some room for improvement.

Nearly all of the survey participants expected their energy bills to decrease after installing the new equipment (91 percent of electric customers and 81 percent of gas customers). Sixty-two percent of electric participants and 65 percent of gas participants reported decreased energy bills.

During focus group interviews, both participating and non-participating trade allies reported that Con Edison should allow for more flexibility in program deadlines. While Con Edison does allow such flexibility, this perception highlights an opportunity to better promote this program policy.

#### Recommendations for Satisfaction with the Program

- The program materials should clearly communicate the requirements and flexibility around deadlines for offer letter return and project installation in appropriate circumstances, to encourage greater participation for customers who might otherwise not be aware of these policies.
  - Allow flexibility with regard to participation deadlines when equipment must be replaced in emergency situations (such as hot water heaters), equipment must be custom ordered, external funding must be secured, or government agencies are waiting for board approval.
  - The program website and materials should indicate that extensions may be granted, the allowable circumstances, the process for making requests, and the documentation required (if any).

Responsible party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Determine scenarios where deadline flexibility is acceptable.
2. Develop content for the program website to present this information.

- Explore options for assigning the rebate payment to an appropriate third-party. This could streamline the participation process for the customer.
  - In some instances it may be helpful to send the rebate to the consultant or the contractor so the contractor or consultant is paid in a more timely manner or, as the case may be, the customer incurs less out of pocket expense.

Responsible Party: Con Edison and DPS

Steps to Implementation:

1. Look into an option to send the rebate to the consultant or the contractor, so that the customer incurs less out of pocket expense. The application should still need to be signed by the customer, so that the customer is aware that this is a Con Edison program.
2. The program materials need to clearly indicate which party will incur the tax liability for rebates in excess of \$600.
3. Obtain approval from DPS to assign rebates, if feasible.

- Increase the lighting rebate levels for HID and expand the LED prescriptive offerings. This can result in additional participation in the electric sector, and streamline the participation process for customers wishing to install LEDs.
  - Expand the prescriptive rebate for LEDs (currently the only LED rebates available are two dollars per linear foot of non-refrigerated display case lighting and six dollars per linear foot of refrigerated display case lighting), provided the measures are cost effective.
  - Increase the rebate for high intensity discharge lighting greater than 350 watts (currently the rebate for greater than 350 watts is \$25, while the rebate for less than 350 watts is \$50).

Responsible Party: Con Edison and DPS

Steps to Implementation:

1. Identify LED measures to add to prescriptive rebate list.
2. Develop increased rebate for HID lighting greater than 350 watts.
3. Obtain approval from DPS to increase incentives and add prescriptive measures.

### Interactions with Other Programs

During customer interviews, participants and non-participants reported confusion about having two different programs, Con Edison’s and NYSERDA’s, targeting the same types of efficiency improvements. In particular, of those who were aware of both programs, approximately 50 percent reported that their confusion stemmed from trying to understand the differences between the programs and then choosing the best for their business.

Of the few Con Edison electric program participants who had also considered participating in NYSERDA’s program, the most common reason for choosing Con Edison’s program was because Con Edison’s incentive amounts were higher. Of the few gas participants who considered participating in NYSERDA’s program, the most common reasons for choosing Con Edison’s program had to do with the more straight forward application and program requirements.

Trade Allies confirm that Con Edison’s program is generally faster and more straight forward compared to NYSERDA’s program.

- Almost all of the participating Trade Allies interviewed who were aware of NYSERDA’s program indicated that it was easier to participate in Con Edison’s program than in NYSERDA’s.
- Sixty-one percent of the non-participating Trade Allies indicated that it was easier to participate in Con Edison’s program than. Twenty-one percent of them felt that they were the same in difficulty.

- All EMS Trade Allies felt that Con Edison’s program was either easier than, or just as easy as, NYSERDA’s. EMS firms indicated that they typically use Con Edison as their first choice, unless the project doesn’t qualify for the incentive.
- While most Trade Allies generally found Con Edison’s program to be easier than NYSERDA’s, several lighting and motors Trade Allies felt that Con Edison’s program was either just as difficult as or more difficult than NYSERDA’s.

Of those participants that participated in other utility-sponsored energy efficiency programs, 33 of the 39 electric participants and six of the eight gas participants reported that Con Edison’s Commercial and Industrial Energy Efficiency Program compares favorably to other utility-sponsored programs. Half of the gas participants rated Con Edison’s program as better, while only a third of the electric participants agreed.

While many of Con Edison’s incentives match up with NYSERDA’s, the NYSERDA program rebates are higher for Unitary HVAC and split air conditioners (up to 5.4 tons), small ODP and TEFC motors, small VFDs, super-efficient chillers, and both electric and gas custom projects at certain thresholds. In addition, prescriptive projects that are below one million kWh receive the custom incentive amount from NYSERDA’s program without the M&V requirement.

#### Recommendations for Interactions with Other Programs

- Consider adjusting incentive levels to match those of NYSERDA. When given equal rebates, contractors indicate a preference for the Con Edison program over that of NYSERDA, suggesting that with equal rebates, Con Edison program participation would increase.
  - The incentive level for small custom gas measures (one dollar per therm) is lower than NYSERDA’s custom gas incentive (two dollars per therm).
  - NYSERDA’s program has a bonus of \$1,000-1,400 per kilowatt for super-efficient electric chillers, while Con Edison does not have this type of bonus.
  - The incentive levels for small ODP and TEFC motors, as well as small VFDs, are slightly less in Con Edison’s program than NYSERDA’s.
  - Con Edison’s incentive for unitary HVAC and split air conditioners is \$25 per ton less than NYSERDA’s.

Responsible Party: Con Edison and DPS

Steps to Implementation:

1. Alter the following incentive levels, to a level commensurate with NYSERDA’s:
  - a. Raise the incentive level for small custom gas measures.
  - b. Increase the incentive levels for small ODP and TEFC motors, as well as small VFDs.
  - c. Raise the incentive for unitary HVAC and split air conditioners.
  - d. Add a bonus for super-efficient electric chillers.

2. Obtain approval from DPS to increase incentives, as needed.
- Outreach to Trade Allies should emphasize the speed and simplicity of the program. Trade Allies confirm that Con Edison's program is generally faster and simpler compared to NYSERDA's program. Of the few gas participants who considered participating in NYSERDA's program, the most common reasons for choosing Con Edison's program had to do with a more straight forward application and program requirements. Outreach and marketing efforts emphasizing these points could result in increased participation.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Modify outreach materials to point out the program's speed and simplicity.
2. Distribute materials to Trade Allies through direct mail, workshops, and other marketing events.
3. Emphasize these program advantages when conducting discussions with Trade Allies.

## Introduction

Navigant Consulting, Inc. (Navigant) is leading a series of process evaluations for energy efficiency programs that Consolidated Edison (Con Edison) is delivering as part of their Energy Efficiency Portfolio Standard (EEPS) Utility Administered programs, as ordered by the New York Public Service Commission (NYPSC). Navigant and its team (KEMA, Inc., APPRISE Inc., and SERA) were selected to complete process evaluations for all of the Con Edison's EEPS programs through a competitive bid process.

Con Edison is committed to independent and transparent program evaluations. Con Edison's Section Manager for Measurement, Verification & Evaluation is administering the process evaluation for both companies. This Section Manager reports directly to the Director of Energy Efficiency Programs to maintain internal independence.

This report is a process evaluation for the gas and electric Commercial and Industrial (C&I) Incentive Programs administered by Con Edison. All goals presented in this report were established by program design. All savings estimates are ex ante, and have not been confirmed by an independent impact evaluation.

### *Background*

In May 2007, the New York Public Service Commission (PSC) initiated a proceeding to design an electric and natural gas energy efficiency portfolio standard (EEPS). This order was in response to then-Governor Eliot Spitzer's goal of reducing energy usage by 15 percent by 2015. Responsibility for administering the new programs was split between the investor-owned utilities and the New York State Energy Research and Development Authority (NYSERDA). On June 23, 2008, the PSC issued an order establishing the EEPS target, approving the EEPS programs, and requiring the utilities to file their program proposals within 90 days.

Con Edison filed their commercial and industrial portfolio plans on September 22, 2008. The NYPSC approved the plan, with some modifications, on October 23, 2009, and required Con Edison to submit program implementation plans (PIPs), reflecting the NYPSC modifications, within 60 days. Con Edison submitted the PIP for its C&I Programs on December 22, 2009.

Con Edison launched its C&I programs in June of 2010. In July of 2010, Con Edison issued a request for proposals to select a third-party implementation contractor to assume responsibility for the implementation of its C&I Programs. The solicitation process was concluded and a contract executed with the winning proposer, Lockheed Martin, in September of 2010.

### *Program Description*

The Con Edison C&I Equipment Rebate and Custom Incentive programs promote the purchase and installation of specific high-efficiency equipment by C&I customers in existing facilities.

These programs provide customers with financial incentives to offset the higher purchase cost of specific energy efficient equipment (rebates) and information on the features and benefits of energy efficient equipment. Qualifying equipment includes lighting and HVAC equipment and controls, motors, variable frequency drives, and custom measures. Con Edison customers interested in installing cost-effective, high-efficiency equipment not specified in its Equipment Rebate program may participate in the utility’s Custom Efficiency program and receive a project-specific custom rebate. This report will discuss both the Equipment Rebate program and the Custom Efficiency program in terms of their fuel types: Electric Rebate, Gas Rebate, Electric Custom and Gas Custom.

The C&I Programs are open to non-residential Con Edison customers who pay the System Benefit Charge (SBC). The Con Edison C&I program includes both gas and electric measures. Once the projects or measures have been incentivized through the utility C&I Programs, they would not be eligible to receive an incentive from New York State Energy Research and Development Authority (NYSERDA) or another utility program for those same measures. NYSERDA is implementing programs targeting the same customers with many of the same measures, often at incentive levels that differ from those of Con Edison, which places the programs of the two entities in direct competition with each other

Non-residential customers of any size are eligible to participate in the programs, but Con Edison also operates a Small Business Direct Installation (SBDI) program that is available to customers with an average monthly consumption of less than 100 kilowatts (kW). The SBDI provides higher rebate levels for a limited set of the most common energy efficiency measures.

Table 1 summarizes the incentives for Con Edison’s gas and electric C&I programs.

**Table 1. Summary of Con Edison C&I Program Incentives**

Measure Category	Type	Rebate
Lighting and Lighting Controls	New Fixture Replacing Existing Fixture	\$2 - \$100
	De-lamp/Retrofit of Existing Fixture	\$0.75 - \$1.50 per linear foot removed
	Lighting Controls	\$30 - \$75
HVAC, Furnaces and Boilers <sup>3</sup>	High Efficiency Natural Gas Boilers	\$1,000 - \$15,000
	High Efficiency Steam Boilers	\$700 - \$2,500
	Gas Heating and Hot Water Controls	\$30 - \$200
Motors	Open Drip Proof (ODP)	\$40 - \$750
	Totally Enclosed Fan Cooled (TEFC)	\$45 - \$800
Variable Frequency Drives	Incentives Specific to Horsepower of Motors Controlled	\$300 - \$12,000
Custom Program	Electric Custom	\$0.088 - \$0.132 per kilowatt-hour (kWh) saved

<sup>3</sup> The HVAC rebates changed as of June 1, 2011.

Measure Category	Type	Rebate
	Gas Custom	\$1 - \$2 per therm saved

Source: Con Edison Commercial & Industrial Energy Efficiency Program Website.<sup>4</sup>

### Program Goals and Budget

The C&I Programs are designed to cost-effectively contribute to New York State’s and New York City’s energy efficiency goals. Table 2 below summarizes the Con Edison Program savings goals, in megawatt-hours (MWh) and decatherms (Dth).<sup>5</sup>

**Table 2. Con Edison C&I Savings Goals**

Program	2010-2011 Savings Goal
Electric Rebate (MWh)	96,619
Electric Custom (MWh)	15,980
Gas Rebate (Dth)	96,916
Gas Custom (Dth)	64,469

Source: EEPS Master File, received 10/18/12.

The program budgets for the Con Edison electric and gas programs are provided in Table 3, below.

**Table 3. Con Edison C&I Program Budgets**

Budget Category	Electric	Gas
Incentives	\$35,404,455	\$6,752,669
Administration & Planning	\$5,236,829	\$431,998
Implementation	\$9,680,833	\$399,179
Marketing & Training	\$11,280,872	\$626,256
Evaluation	\$3,242,263	\$432,110
<b>Total Program Budget</b>	<b>\$64,845,252</b>	<b>\$8,642,212</b>

Source: 2009-2011 Program Budget Report June 2012.

### Evaluation Objectives

The overall objective of the C&I Program process evaluations is to assess the effectiveness and efficiency of program design, delivery, and implementation processes. More specifically, Con Edison was seeking recommendations that can help to improve the program processes for the participating customers and to inform and improve the program in future program cycles.

The process evaluation addresses the following six program processes:

<sup>4</sup> <http://www.conedci.com/program.aspx#one>

<sup>5</sup> All goals presented in this report were established by program design.

- Program planning;
- Infrastructure development;
- Marketing and customer acquisition;
- Program delivery;
- Satisfaction with the program; and
- Interactions with other programs.

Specific research questions have been identified within each process area. These research questions are provided in Appendix A.

### *Overview of Methodology*

The research and the findings expressed in this report are based upon the following evaluation activities:

- Review of regulatory filings and reports;
- Review of program and marketing materials;
- Review and analysis of program tracking system and other data;
- Focus groups with lighting, electric-HVAC, and gas trade allies;
- In-depth interviews with:
  - Con Edison staff
  - Lockheed Martin staff delivering the Con Edison C&I programs
  - Participating trade allies; and
  - Non-participating trade allies.
- Customer telephone surveys with:
  - 149 Electric program participants (out of 621 total);
  - 21 Gas program participants (out of 47 total);
  - 39 program participants who did not complete the process (Drop-outs) (out of 176 total);
  - 146 program non-participants in Manhattan; and
  - 140 program non-participants outside of Manhattan.
- Benchmarking of utility marketing and outreach programs; and
- Review of Con Edison's DSM Potential Study findings.



A full description of the Evaluation Methodology is provided in Appendix B.

***Organization of Report***

This report is organized around the six broad research areas. Three sections follow this introduction:

- Participation Summary summarizes the program participation through 2011;
- Presentation of Findings discusses the key findings of the research conducted; and
- Conclusions and Recommendations provides the recommendations for modification to programs.

## Participation Summary

Program participation records were reviewed and summarized to provide an overview of the level of activity within each program, the types of measures installed, the distribution of installed measures across geographies and installation contractors, and the rate of program expenditure.

### Customer Participation

As of December 2011, Con Edison had 1,469 total customers participating in its commercial and industrial gas and electric programs: 146 gas rebate program participants, 9 gas custom program participants, 1,093 electric rebate program participants, and 494 electric custom program participants.<sup>6</sup> Only 33 customers participated in both gas and electric programs. Participation varied by industry, with the highest level of participation in the Real Estate and Educational Services sectors for gas program participants (approximately 20 percent each), and the Retail and Real Estate sectors for electric program participants (17 and 16 percent, respectively). Table 4 below shows total program participation by North American Industry Classification System (NAICS) code.

**Table 4. Program Participation by NAICS Code**

Measure	Number of Participant Sites	Percent of Participant Sites
<b>Gas Participants</b>	<b>155</b>	
Accommodation and Food Services	2	1.3%
Admin., Support, and Waste Management Services	2	1.3%
Arts, Entertainment, and Recreation	1	0.6%
Construction	3	1.9%
Educational Services	29	18.7%
Finance and Insurance	0	0.0%
Health Care and Social Assistance	13	8.4%
Information	0	0.0%
Manufacturing	3	1.9%
Miscellaneous Retail	0	0.0%
Other Services (except Public Administration)	3	1.9%
Professional, Scientific, and Technical Services	2	1.3%
Public Administration	2	1.3%
Real Estate and Rental and Leasing	31	20.0%
Retail Trade	2	1.3%

<sup>6</sup> Some customers participate in multiple programs (gas rebate/custom and electric rebate/custom) so the total customers in each program do not add up to the total customers overall.

Measure	Number of Participant Sites	Percent of Participant Sites
Transportation and Warehousing	6	3.9%
Wholesale Trade	1	0.6%
Not Listed	55	35.5%
<b>Electric Participants</b>	<b>1,390</b>	
Accommodation and Food Services	62	4.5%
Administrative and Support and Waste Management and Remediation Services	18	1.3%
Arts, Entertainment, and Recreation	16	1.2%
Construction	6	0.4%
Educational Services	41	2.9%
Finance and Insurance	133	9.6%
Health Care and Social Assistance	40	2.9%
Information	34	2.4%
Manufacturing	23	1.7%
Miscellaneous Retail	1	0.1%
Other Services (except Public Administration)	52	3.7%
Professional, Scientific, and Technical Services	16	1.2%
Public Administration	0	0.0%
Real Estate and Rental and Leasing	224	16.1%
Retail Trade	241	17.3%
Transportation and Warehousing	2	0.1%
Wholesale Trade	17	1.2%
Not Listed	464	33.4%

Source: Program Participation Data 12-31-11.

Table 5 shows the number of Con Edison participant sites with projects at each status code, by program, as of December 31, 2011. Many participants had projects that were still in the early initiation phase. Active projects are defined as projects in the first seven status codes: initiation through completed.

**Table 5. Con Edison C&I Participant Sites with Projects at Each Status Code**

Status	Rebate – Electric	Custom – Electric	Rebate – Gas	Custom – Gas
1-Initiation	142	78	21	3
2-Study	0	0	0	0
3-Offered	1	0	1	0
4-Committed	357	139	67	1
5-Installed	61	15	2	0
6-Payment Pending	32	17	5	0
7-Completed	446	160	38	3
<i>Subtotal – Participants</i>	997	397	131	7

Status	Rebate – Electric	Custom – Electric	Rebate – Gas	Custom – Gas
<i>with Active Projects</i>				
Discontinued	78	52	8	1
On Hold	29	47	8	1
<i>Subtotal – Participants with Inactive Projects</i>	104	99	16	2
<b>Grand Total of Participants</b>	<b>1,093</b>	<b>494</b>	<b>146</b>	<b>9</b>

Source: Program Participation Data 12-31-11.

Note: Some customers have projects in multiple stages, so the total projects in each status may not add up to the total customers in each program type.

For purposes of this evaluation, the program participants were split into two distinct groups: participants with active projects (participants) and participants with inactive projects (drop outs). Participants who have completed the entire application and inspection processes and received their incentive check were able to provide the richest program insights. To this end, the first participants surveyed had projects with “Completed” status codes, supplemented by participants with “Installed” and “Payment Pending” projects. Con Edison participant drop outs are defined as participants in the tracking database with a status code of “On-hold” or “Discontinued”. Decision-makers at participating sites surveyed by status code are listed in Table 6.

**Table 6. Participant Decision-Makers Surveyed, by Status Code**

Status Code	Number Surveyed
5-Installed	20
6-Payment Pending	18
7-Completed	132
<b>Total Surveyed</b>	<b>170</b>

Source: Program Participation Data 12-31-11; C&I Participant Surveys

Some participant decision-makers also had multiple projects. While the majority of these decision-makers submitted only one project, more than 20 percent of participant decision-makers have multiple projects in the program. The highest number of projects submitted was 85 projects for a single decision-maker. While Table 5 shows projects by account number, Table 7 shows the distribution of the number of projects per participant decision-maker. Some participating customers have multiple business locations and multiple accounts. Presented here are single participating decision-makers and the number of projects submitted across all of their accounts and locations.

**Table 7. Number of Active Projects Per Decision-Maker**

Number of Projects Per Participant	Number of Participants	Percent of Participants
1	483	77%
2	78	12%
3	24	4%
4-6	22	3%
7-10	11	2%
More than 10	11	2%
<b>Total</b>	<b>629</b>	<b>100%</b>

Source: Program Participation Data 12-31-11.

### Program Measures

The prescriptive measures installed through the C&I program are shown below in Table 8. These are measures for projects with status codes of “Installed”, “Payment Pending” or “Completed.” High Efficiency Steam Boilers have had no participation in the program, and are not included in the table. Lighting made up over 90 percent of all measures installed through the program, including custom projects.

**Table 8. Program Measures Installed**

Measure Category	Type	Number Installed	Percent of Installations
Lighting and Lighting Controls	New Fixture Replacing Existing Fixture	86,896	48.2%
	De-lamp/Retrofit of Existing Fixture	40,698	22.6%
	Lighting Controls	10,558	5.9%
HVAC, Furnaces and Boilers	High Efficiency Natural Gas Boilers	26	0.0%
	Packaged HVAC	518	0.3%
	Chillers	5	0.0%
	Furnaces	1	0.0%
	Gas Heating and Hot Water Controls	3	0.0%
	Combustion Tune-up/ Maintenance	167	0.1%
	Open Drip-Proof (ODP)	22	0.0%
Motors	Totally Enclosed Fan-Cooled (TEFC)	40	0.0%
	Variable Frequency Drives	1,280	0.7%
Insulation <sup>7</sup>		2	0.0%
Low-Flow Pre-Rinse Sprayers		296	0.2%
Energy Management Systems	Gas	12	0.0%
	Electric	903	0.5%
Custom Program	Gas	3	0.0%
	Electric	38,985	21.6%

<sup>7</sup> Insulation was reported in square feet. There were two participants who installed insulation, therefore this table lists two “units” of insulation.

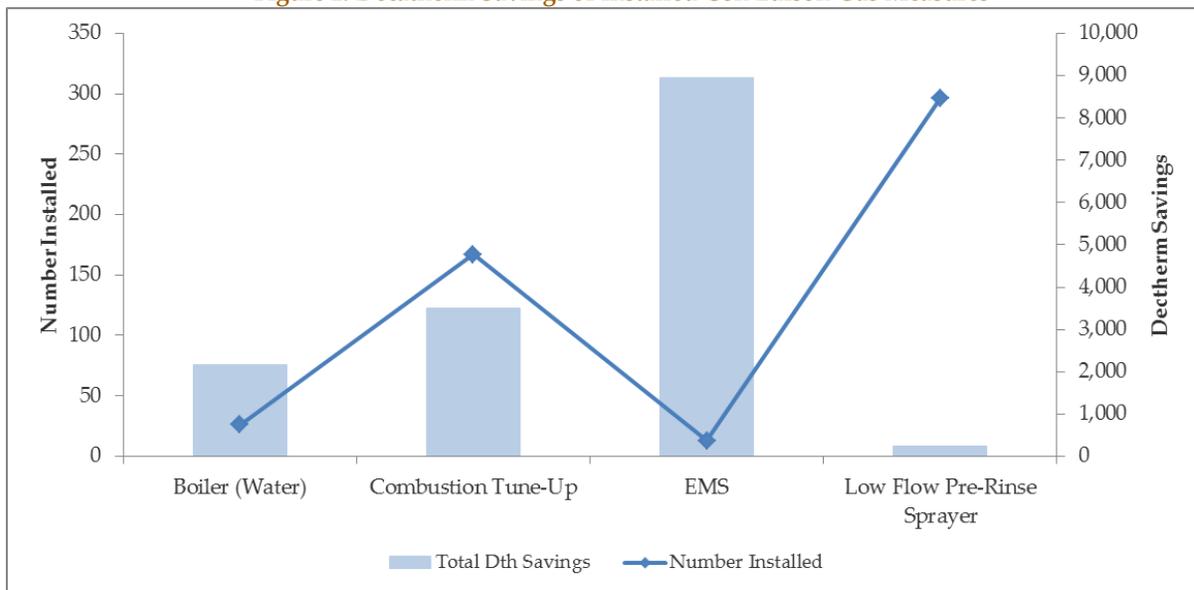
Measure Category	Type	Number Installed	Percent of Installations
	Lighting	31,950	17.7%
	Refrigeration (Night Covers, Anti-Sweat Heater Controls)	3,744	2.1%
	Motors/VFDs	1,943	1.1%
	Other Custom	1,348	0.7%
<b>Total Measures</b>		<b>180,415</b>	

Source: Program Participation Data 12-31-11.

The average number of measures installed per program participant is 10.6 for gas measures and 251.2 for electric measures.

Per unit energy savings varies by measure, depending on several factors including the type and size of the unit. Figure 1, Figure 2 and Figure 3 show the total decatherm (Dth) and megawatt hour (MWh) savings for each of the more frequently-installed measures in the gas and electric programs (non-lighting and lighting), respectively.<sup>8</sup>

**Figure 1. Decatherm Savings of Installed Con Edison Gas Measures**

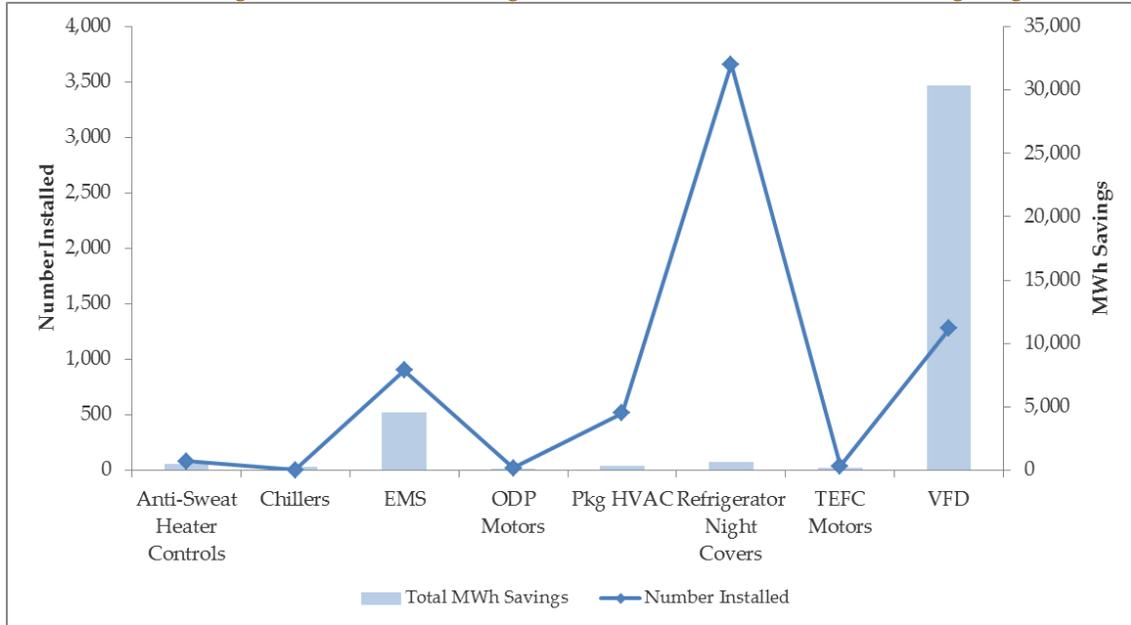


Source: Program Participation Data 12-31-11.

Decatherm savings are greatest for energy management systems (EMS), but lowest for low flow pre-rinse sprayers, despite having the highest number of installations. Water boiler and EMS therm savings per unit vary significantly, based on the size and efficiency of the equipment, or type of equipment controlled.

<sup>8</sup> Measures with greater than 5 installations. All savings estimates are ex ante, and have not been confirmed by an independent impact evaluation.

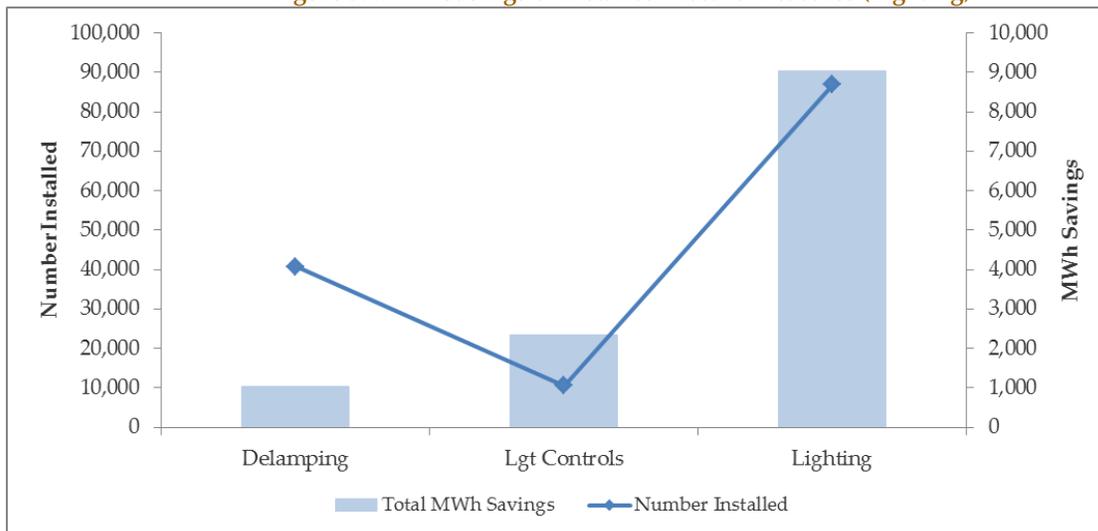
**Figure 2. Total MWh Savings of Installed Electric Measures (Non-Lighting)**



Source: Program Participation Data 12-31-11.

Variable Frequency Drives (VFD) are the highest contributors to electricity savings for non-lighting measures. Electricity savings for VFDs is based on the speed of the motors that are controlled. Refrigerator night covers have the highest number of installations, but very low savings compared to VFDs and EMS.

**Figure 3. MWh Savings of Installed Electric Measures (Lighting)**



Source: Con Ed C&I Monitoring and Verification Report December 31, 2011.

Average electricity savings for lighting measures is small, but a large number of installations make lighting the largest category for energy savings in the program. The variation in electricity savings for lighting is due to the type of fixture installed (T8, LED, etc.).

For the 2,240 completed projects<sup>9</sup>, the building types with the highest electricity savings are office buildings, approximately 50 percent of total MWh savings. This is likely due to lighting measures prevalent in office buildings. Multi-family buildings made up the largest percentage of gas savings with 44 percent of savings, followed by large offices (32 percent of gas savings). This is likely due to heating in multi-family and office buildings, with similar heating requirements. The distribution of energy savings by building type is shown in Table 9.

**Table 9. Distribution of Energy Savings by Building Type for Completed Projects**

Measure	MWh Savings	% of MWh Savings	Decatherm Savings	% of Decatherm Savings
Office - General	19,353.5	33.4%	627.0	1.5%
Office - General - Large	10,021.8	17.3%	13,839.2	32.1%
Food Stores	5,118.4	8.8%	(11.4)	0.0%
Retail	4,333.1	7.5%	103.4	0.2%
Hospitals	3,733.3	6.4%	616.2	1.4%
Multi-Family Common Area	1,783.1	3.1%	19,031.0	44.1%
Banks	1,704.6	2.9%	-	0.0%
Retail - Large	1,441.3	2.5%	15.5	0.0%
Lodging - Hotels/Motels	1,342.1	2.3%	(50.7)	-0.1%
Commercial Condo	1,297.4	2.2%	2,678.3	6.2%
Parking Garage	1,021.7	1.8%	(10.4)	0.0%
Retail - Small	735.2	1.3%	(274.4)	-0.6%
Manufacturing Facility	702.1	1.2%	(18.2)	0.0%
Office - General - Small	697.8	1.2%	6.5	0.0%
School / University	662.8	1.1%	-	0.0%
Industrial - 1 Shift	654.1	1.1%	809.5	1.9%
College - Dormitory	632.6	1.1%	3,355.5	7.8%
Restaurant	401.1	0.7%	150.3	0.3%
Other	2,304.2	4.0%	2,251.3	5.2%

*Source: Program Participation Data 12-31-11.*

The highest concentration (nearly 70 percent) of electric projects occurs in Manhattan. There are approximately 250,000 commercial and industrial customers in Con Edison’s territory, and approximately 25 percent of these customers are located in Manhattan. Though Manhattan customers consume approximately 50 percent of gas and electricity, these customers account

<sup>9</sup> Note that the number of completed projects is different from the number shown in table 5, which is the number of “participants” with completed projects. All savings estimates are ex ante, and have not been confirmed by an independent impact evaluation.

for approximately 70 percent of program savings. Not only are more savings achieved in Manhattan than any other borough, but the average project size is significantly higher in Manhattan, at 41 MWh compared to 15 MWh or fewer in other boroughs. This is shown in Table 10.

**Table 10. Distribution of Energy Savings by Borough for Completed Electric Projects**

Borough	% of MWh Consumption	MWh Savings	% of MWh Savings	Average Project Savings (MWh)
Manhattan	52%	40,782.9	69.2%	41.4
Brooklyn	15%	5,669.0	9.6%	14.6
Queens	13%	5,843.3	9.9%	14.7
Westchester County	10%	3,071.3	5.2%	11.2
Bronx	7%	2,214.5	3.8%	13.7
Staten Island	3%	489.2	0.8%	15.8

Source: Program Participation Data 12-31-11.

Similarly, the highest concentration (nearly 80 percent) of gas projects occurs in Manhattan. As with the electric projects, the average gas project size is significantly higher in Manhattan, at 34 Dth compared to 15 Dth or fewer in other boroughs. This is shown in Table 11.

**Table 11. Distribution of Energy Savings by Borough for Completed Gas Projects**

Borough	% of Dth Consumption	Dth Savings	% of Dth Savings	Average Project Savings (Dth)
Manhattan	44%	34,298.7	78.2%	34.8
Westchester County	14%	4,373.4	10.0%	16.0
Bronx	0%	2,141.0	5.0%	13.2
Queens	23%	2,111.8	4.8%	5.3
Brooklyn	19%	193.7	0.4%	0.5
Staten Island	0%	-	0.0%	-

Source: Program Participation Data 12-31-11.

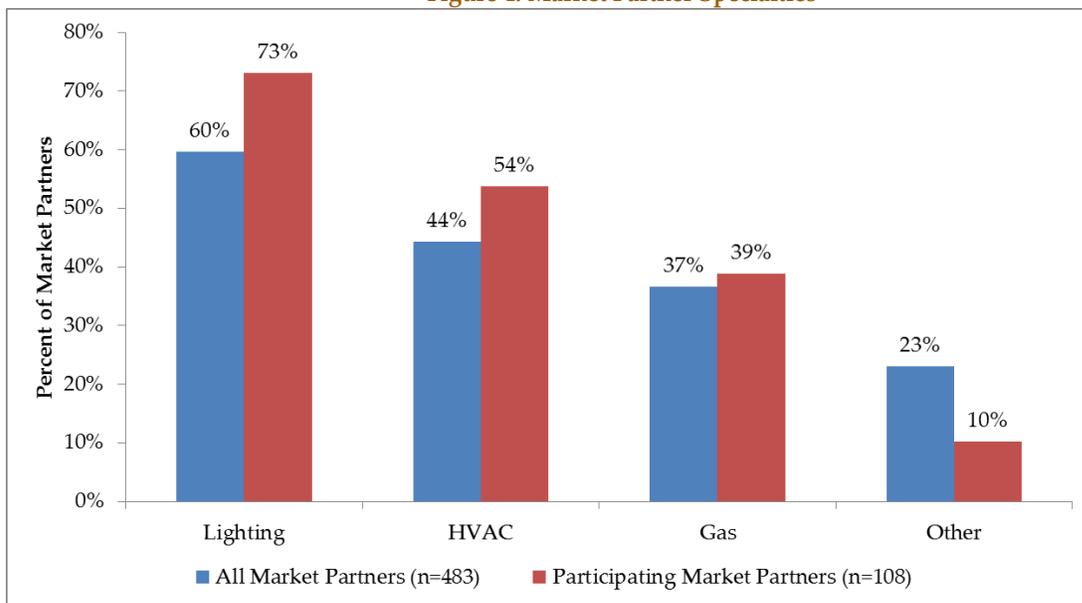
Note: Con Edison does not offer gas services in parts of Brooklyn, Queens and Staten Island

### Trade Ally Participation

Trade Allies played an integral role in the C&I program. The program maintains a Market Partner Network made up of installation contractors, equipment distributors, manufacturer representatives, and designers, who have enrolled with Con Edison as Market Partners. Customers are not required to work with an enrolled Market Partner to participate in the programs, and Trade Allies are not required to join the Market Partner Network for their customers to receive incentives. Con Edison posts the list of Market Partners on the program

website, to serve both as a major outreach tool for the Market Partners and as a resource for customers. Of the 194 Trade Allies with active projects, 108 are Con Edison Market Partners; and of the 483 registered Market Partners, 22 percent have active projects. As shown in Figure 4 below, these Market Partners specialize in various project types: lighting, HVAC, gas and other. For both the total Market Partner population and the participating Market Partner population, lighting is the most common specialty, followed by HVAC. Participating Market Partners have a higher concentration of Trade Allies that specialize in lighting than does the total Market Partner population.

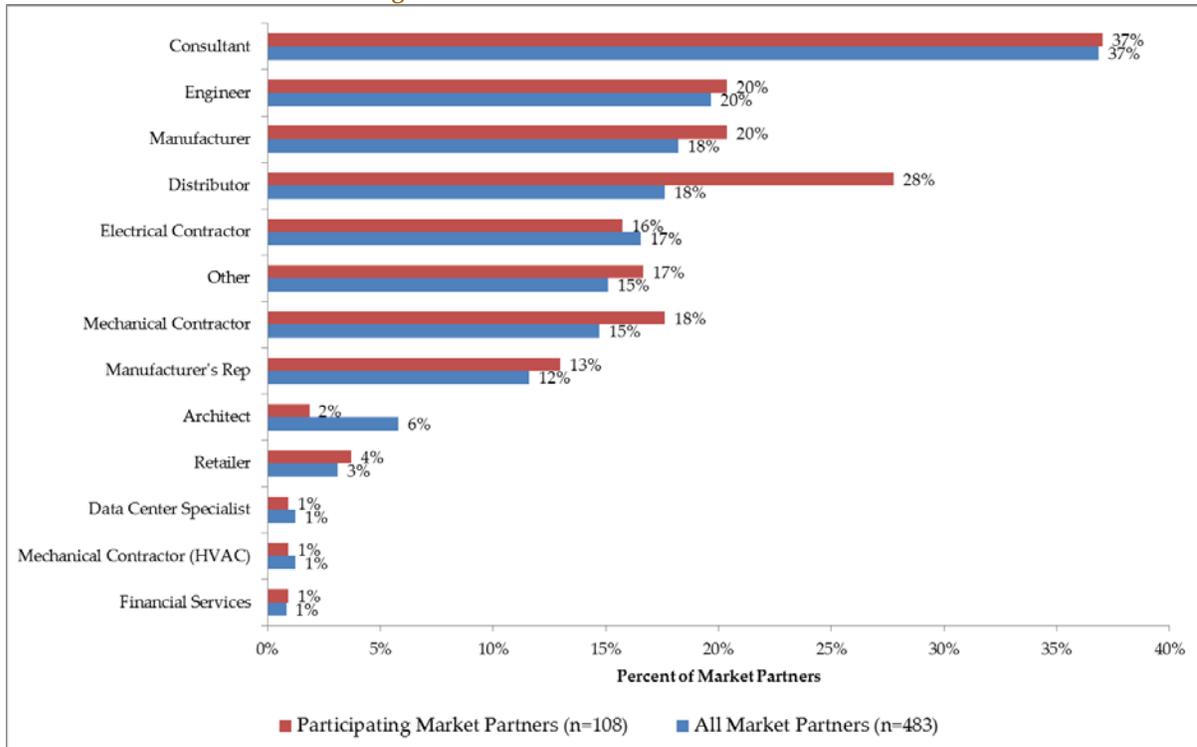
**Figure 4. Market Partner Specialties**



Source: Con Edison Market Partner Extract, September 2011.

Market Partner roles are quite varied among the total Market Partner Network. The highest percentage of both participating Market Partners and total Market Partners are consultants and engineers, where the participant population essentially matches the total program population. However a higher concentration of distributors become participating Market Partners. This distribution is shown in Figure 5.

**Figure 5. Distribution of Market Partner Roles**



Source: Con Edison Market Partner Extract, September 2011.

For Trade Allies with active projects, Market Partners are involved with approximately half of the projects, but these projects contribute approximately 63 percent of the energy savings. Table 12 below shows the number of projects, total energy savings, and incentives for projects submitted by Market Partners and non-Market Partners.

**Table 12. Trade Allies Projects and Savings**

Trade Allies with Active Projects	Number of Trade Allies	Number of Projects	Total MWh Savings	Total Dth Savings	Total Incentives
Non-Market Partner	86	592	49,652	51,456	\$6,125,817
Market Partner	108	616	82,925	67,241	\$9,561,719
<b>Total Trade Allies</b>	<b>194</b>	<b>1,208</b>	<b>132,576</b>	<b>118,697</b>	<b>\$15,687,536</b>

Source: Con Edison Market Partner Extract, September 2011; Program Participation Data 12-31-11.

For the active Market Partners who specialize in lighting (73 percent of active Market Partners), their projects account for more than 80 percent of total electricity savings. The comparison between Market Partners with lighting and non-lighting specialties is shown in Table 13.

**Table 13. Market Partners Projects and Savings by Specialty**

Market Partners with Active Projects	Number of Market Partners	Number of Projects	Total MWh Savings
Lighting	79	528	568,830
Non-Lighting	29	88	103,577
<b>Total Active Market Partners</b>	<b>108</b>	<b>616</b>	<b>672,407</b>

Source: Con Edison Market Partner Extract, September 2011; Program Participation Data 12-31-11.

As shown in Table 12, approximately 50 percent of all projects are submitted by Market Partners. Sixty percent of Market Partners submit more than one project through the program, while the most projects submitted by a single Market Partner is just over 100 projects. The number of projects submitted per Market Partner is shown in Table 14.

**Table 14. Distribution of Energy Savings by Borough for Completed Gas Projects**

Number of Projects Per Market Partner	Number of Market Partners	Percent of Market Partners
1	43	40%
2	19	18%
3	15	14%
4-6	9	8%
7-10	12	11%
More than 10	10	9%
<b>Total</b>	<b>108</b>	<b>100%</b>

Source: Program Participation Data 12-31-11.

### Program Spending

Con Edison had spent about 49 percent of its 2009-2011 C&I program budgets, as of June 2012. Table 15 and Table 16 show Con Edison’s electric program spending as of June 2012. With 40 percent of its savings goal acquired and 54 percent more committed, remaining program incentives and administration budget will be spent in the Electric Rebate program.

**Table 15. Con Edison Electric Rebate Program Spending**

Budget Category	Electric Rebate Program Budget	Electric Rebate Program Expenditures	Percent of Budget Expended
Incentives	\$28,743,119	\$9,703,943	34%
Administration & Planning	\$4,502,127	\$2,448,433	54%
Implementation	\$8,105,438	\$7,235,192	89%
Marketing & Training	\$10,125,305	\$4,352,942	43%
Evaluation	\$2,709,263	\$345,977	13%
<b>Total Program Budget</b>	<b>\$54,185,252</b>	<b>\$24,086,488</b>	<b>44%</b>

Source: C&I Only Budget Report June 2012 (2009-2011 Budget).

With 88 percent of its savings goal acquired and nearly double that amount committed, the Electric Custom program budget will almost certainly be exhausted.

**Table 16. Con Edison Electric Custom Program Spending**

Budget Category	Electric Custom Program Budget	Electric Custom Program Expenditures	Percent of Budget Expended
Incentives	\$6,661,336	\$5,337,710	80%
Administration & Planning	\$734,702	\$458,139	62%
Implementation	\$1,575,395	\$1,821,892	116%
Marketing & Training	\$1,155,567	\$ 299,657	26%
Evaluation	\$533,000	\$239,493	45%
<b>Total Program Budget</b>	<b>\$10,660,000</b>	<b>\$8,156,891</b>	<b>77%</b>

Source: C&I Only Budget Report June 2012 (2009-2011 Budget).

Table 17 and Table 18 show Con Edison’s gas program spending as of June 2012. The Gas Rebate program has acquired 12 percent of its savings goal, while three times that percentage of incentives has been paid.

**Table 17. Con Edison Gas Rebate Program Spending**

Budget Category	Gas Rebate Program Budget	Gas Rebate Program Expenditures	Percent of Budget Expended
Incentives	\$4,420,810	\$1,694,884	38%
Administration & Planning	\$308,325	\$262,743	85%
Implementation	\$271,026	\$458,905	169%
Marketing & Training	\$315,682	\$163,346	52%
Evaluation	\$279,781	\$157,787	56%
<b>Total Program Budget</b>	<b>\$5,595,624</b>	<b>\$2,737,665</b>	<b>49%</b>

Source: C&I Only Budget Report June 2012 (2009-2011 Budget).

The Gas Custom program has acquired 46 percent of its savings goal, while only expending 13 percent of the incentive budget. It already has overspent in administration and implementation.

**Table 18. Con Edison Gas Custom Program Spending**

Budget Category	Gas Custom Program Budget	Gas Custom Program Expenditures	Percent of Budget Expended
Incentives	\$2,331,859	\$292,455	13%
Administration & Planning	\$123,673	\$151,883	123%
Implementation	\$128,153	\$413,287	322%
Marketing & Training	\$310,574	\$126,362	41%
Evaluation	\$152,329	\$55,362	36%
<b>Total Program Budget</b>	<b>\$3,046,588</b>	<b>\$1,039,349</b>	<b>34%</b>

*Source: C&I Only Budget Report June 2012 (2009-2011 Budget).*

## Presentation of Findings

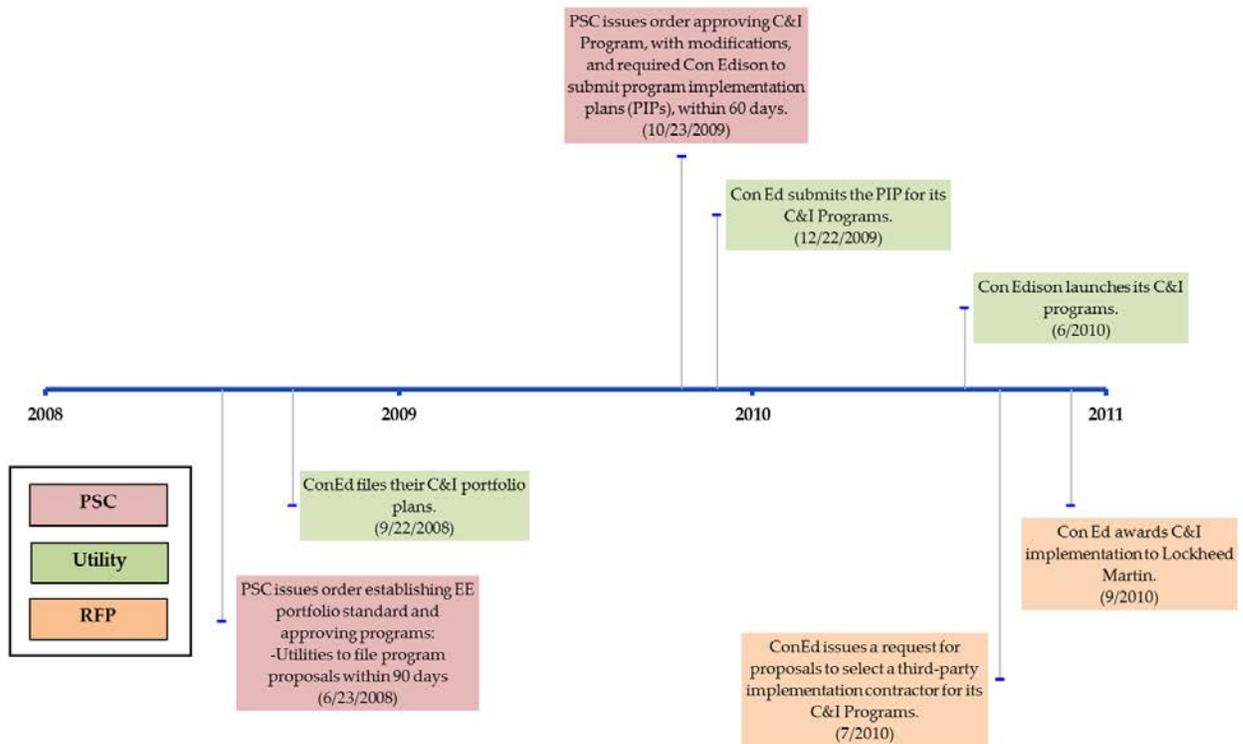
### *Program Planning and Design*

The C&I programs were designed to reach both gas and electric customers, but have produced varying results. This section will first give an overview of program planning, design and goals. Then, we will discuss potential barriers to meeting program goals, followed by an examination of the measures offered through the programs and their applicability to the C&I market in New York. This section will also discuss barriers to participation, as found through surveys of program participants and non-participants, as well as Trade Allies. Finally, we will summarize the program incentives set by the NYPSC, and compare them to the incremental costs of the rebated equipment.

#### Program Planning

The Con Edison C&I programs were approved by the NYPSC in October, 2009. Figure 6 shows key moments along the program timeline, from the initial order to implement the efficiency program, to selecting Lockheed Martin as Con Edison's implementation contractor.

**Figure 6. Timeline of Con Edison C&I Program**

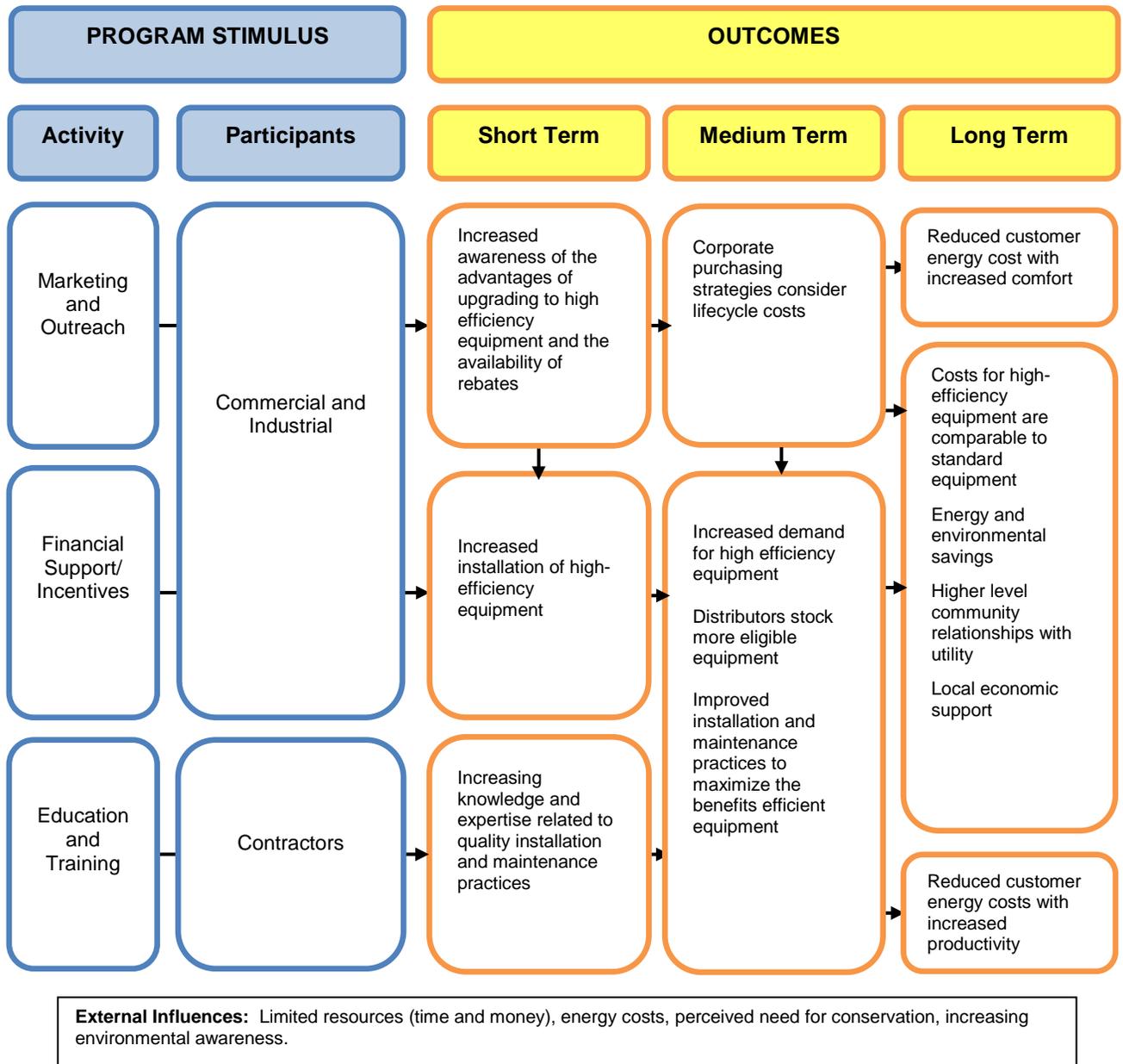


### Program Design and Goals

The C&I programs are designed to address several market barriers to energy efficiency in the commercial and industrial market segment. Many commercial and industrial customers are price-sensitive and only consider first costs when replacing or upgrading equipment. Many are also unaware of the long-term financial benefits (e.g., lower operating costs) of higher efficiency equipment over standard efficiency models. Market Partners and other trade allies often lack the motivation to up-sell to high efficiency equipment because they want to offer the lowest cost project bid to their customers, are concerned that a lengthy or complicated rebate application process will discourage their customers, or that equipment may not be readily available from their distributors. Therefore, the rebate program is designed to facilitate the purchase of higher efficiency equipment by providing financial incentives to offset the higher first costs and a robust pool of trade allies to facilitate the rebate application process and ensure the availability of eligible equipment.

The C&I program logic model is presented in Figure 7 below. The program logic model presents the goals of the program, the activities that are necessary to accomplish those goals, and causal relationships between the program activities and the effects.

Figure 7. C&I Program Logic Model



One of the program goals defined in the program logic model is increased installation of high-efficiency equipment and the energy savings associated with it. The NYPSC approved energy

savings goals for each year of the utility’s gas and electric programs. The two-year goals and program accomplishments for Con Edison are presented in Table 19 below.<sup>10</sup>

**Table 19. Program Savings Goals**

Program	2-Year Savings Goal	Savings Acquired	Savings Committed	Total Savings	Percent of Goal
Electric Rebate	96,619 MWh	38,870 MWh	54,994 MWh	93,864 MWh	97%
Electric Custom	15,980 MWh	14,106 MWh	23,844 MWh	37,950 MWh	237%
Gas Rebate	96,916 Dth	11,629 Dth	83,506 Dth	95,135 Dth	98%
Gas Custom	64,469 Dth	29,351 Dth	3,758 Dth	33,109 Dth	51%

*Source: Goals: EEPS Master File, received 10/18/12. Savings: Con Edison C&I Financial Incentive Report 12/19/12.*

During Focus Groups with participating and non-participating Trade Allies, feedback was obtained on the design and implementation of the C&I program. Overall, the speed of program delivery was highly rated among the Focus Group participants. Trade Allies noted that compared to NYSERDA’s program, Con Edison’s program is faster, has less complicated paperwork and the incentives are less uncertain (NYSERDA’s program has heavy measurement and verification requirements and only pays half of the rebate initially). However, NYSERDA often has higher incentives. Trade Allies reported that if rebates are the same, they tend to select Con Edison’s program over that of NYSERDA. The Con Edison and Lockheed Martin staff are viewed as cooperative, and the focus group participants reported having a positive experience with the program.

Focus Group participants reported that Lockheed Martin provides valuable services, including estimating tools, support filling out xACT<sup>11</sup>, and staff accompanying Trade Allies to customer meetings. However, some Trade Allies were unaware of these helpful services provided by Lockheed Martin. Trade Allies found that the ability to co-brand with two large, credible companies (Con Edison and Lockheed Martin) is very helpful with their clients. This was especially of value to small participating Market Partners. Focus Group participants reported that in almost all cases, the Trade Ally fills out the paperwork, and the customer signs it; it is fairly straightforward and not onerous.

The program is also designed to support New York State’s energy efficiency goals. According to the 2010 Energy Efficiency Potential Study<sup>12</sup>, the commercial and industrial sectors represent an electricity savings opportunity of 13 percent and gas savings of 10.9 percent of the forecast energy usage in 2018. The potential study presented the savings opportunity in terms of

<sup>10</sup> All goals presented in this report were established by program design. All savings estimates are ex ante, and have not been confirmed by an independent impact evaluation.

<sup>11</sup> xACT is an acronym for Excel-based Application and Calculation Tool.

<sup>12</sup> Energy Efficiency Potential Study for Consolidated Edison Company of New York, Inc. Global Energy Partners, LLC, Walnut Creek, June 2010.

building type, as both maximum achievable potential (MAP) and realistic achievable potential (RAP). The MAP represents the upper-boundary for energy efficiency savings that a utility could achieve through its programs. The RAP represents a forecast of likely customer behavior and acceptance rates of energy-efficiency technologies. The potential study projects that the commercial and industrial sectors can have a MAP of 6,341 GWh and 81 Mth by 2018, and a RAP of 4,102 GWh and 28 Mth by 2018.

Table 20 shows the potential study energy savings estimates compared to the results of the 2009-2011 C&I program. The distributions shown are based on percent of total projected or actual savings. While offices had the highest participation in the C&I program (and high office participation was projected by the potential study), there are several building types with very little program participation compared to potential study estimates. Restaurants were projected to account for seven to eight percent of total electricity savings, and four to six percent of total gas savings, but within the C&I program, they only account for one percent of electricity savings and zero percent of gas savings. Additional opportunities exist in lodging, entertainment and warehouses.

**Table 20. Percentage Energy Savings by Building Type, Actual Vs. Potential Study Projection**

Segment	2018 Energy Savings Forecast (Electric)			2018 Energy Savings Forecast (Gas)		
	Realistic Achievable Potential	Maximum Achievable Potential	2011 Program Actuals	Realistic Achievable Potential	Maximum Achievable Potential	2011 Program Actuals
Office	46%	44%	52%	32%	28%	34%
Restaurant	7%	8%	1%	4%	6%	0%
Grocery/Supermarket	4%	5%	9%	0%	1%	0%
Retail	7%	7%	11%	7%	6%	0%
Warehouse	2%	2%	0%	7%	6%	0%
Education	8%	8%	3%	4%	5%	9%
Hospital	4%	4%	6%	7%	7%	4%
Nursing Home	2%	2%	0%	**	**	**
Lodging	2%	2%	2%	0%	1%	0%
Entertainment	2%	2%	1%	7%	7%	0%
MF Common Area	8%	8%	3%	***	***	44%
Miscellaneous	8%	8%	9%	25%	25%	7%
Industrial*	1%	1%	2%	7%	6%	2%

\*Industrial is not defined in the Potential Study, so the following segments were included here: Manufacturing and Industrial - 1 Shift.

\*\*For gas measures, there was a single category: Health. This includes Hospitals and Nursing Homes.

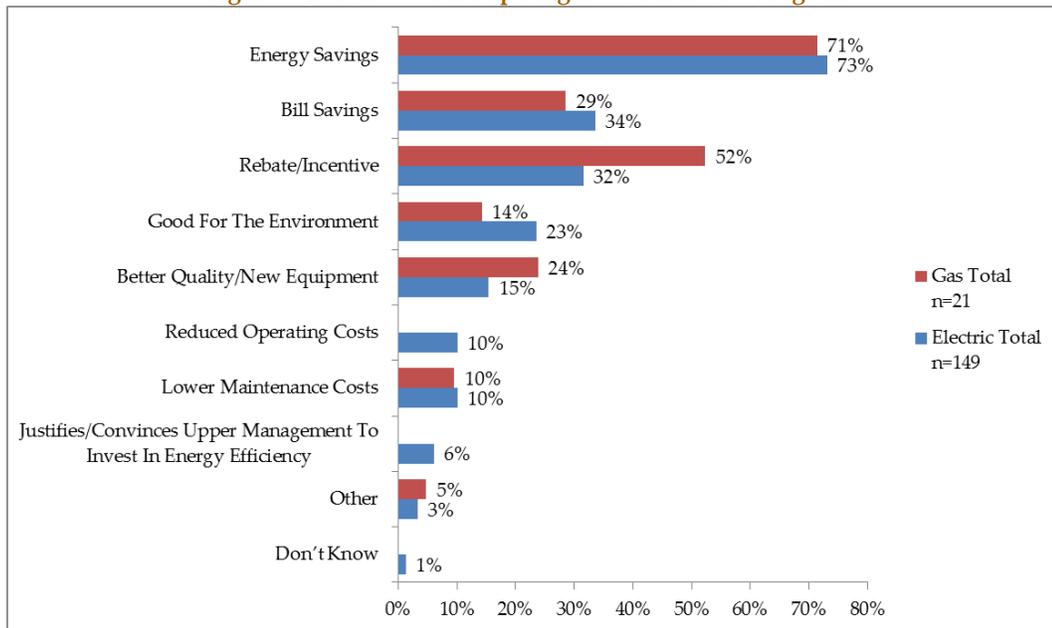
\*\*\*No gas potential was given for Multi Family common area.

Source: Program Participation Data 12-31-11 – Committed and Completed projects, Energy Efficiency Potential Study, Global Energy Partners, 2010.

### Barriers to Participation

Through interviews with program participants, drop-outs, and non-participants, as well as participating and non-participating Trade Allies, this evaluation evaluated benefits and potential barriers to participating in the C&I program. When asked about the benefits of participating in the Con Edison program, program participants reported that saving energy was the primary benefit to participating in the program (71 percent of gas participants and 73 percent of electric participants). With 52 percent responding, gas participants reported the program rebate to be beneficial, compared to only 32 percent of electric participants. The program benefits are shown in Figure 8, as reported by gas and electric participants.

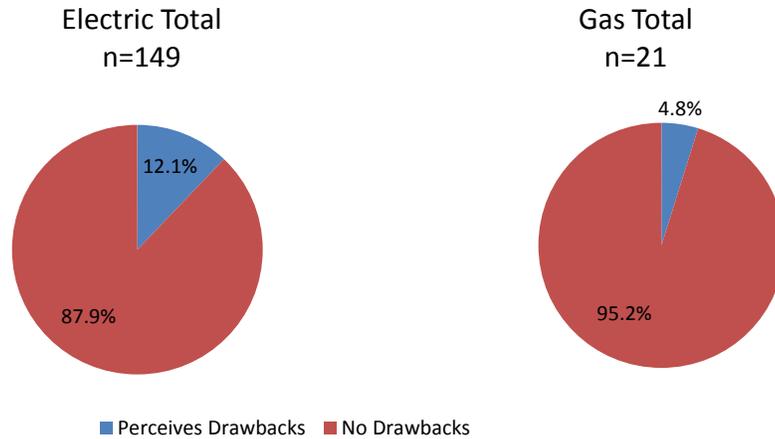
**Figure 8. Benefits to Participating in Con Edison’s Program**



Source: Con Edison Participant Survey Results.

When asked if participants viewed any drawbacks to participating in the program, the vast majority did not have any to report. Over 85 percent of electric participants and over 95 percent of gas participants reported no drawbacks to participation. These results are shown in Figure 9.

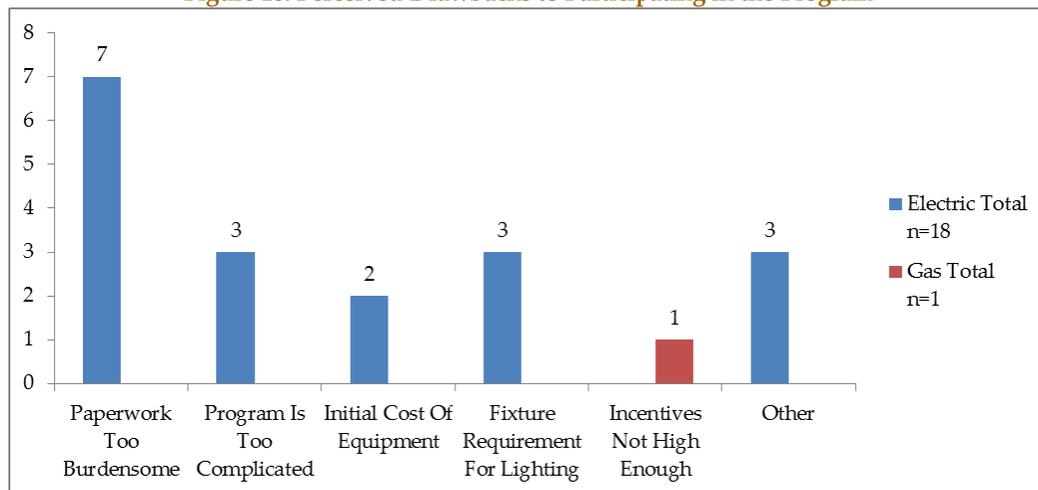
**Figure 9. Participants Who View Drawbacks to Participating in the Program**



Source: Con Edison Participant Survey Results.

For the few participants who reported drawbacks to participating in the program, the most frequently reported aspect was that paperwork was too burdensome, with 7 of 18 electric participants citing this. Additional reasons reported were the initial cost of equipment, the requirement to replace both the lamp and ballast or use specific fixture types, and that incentives were not high enough. These results are displayed in Figure 10.

**Figure 10. Perceived Drawbacks to Participating in the Program**



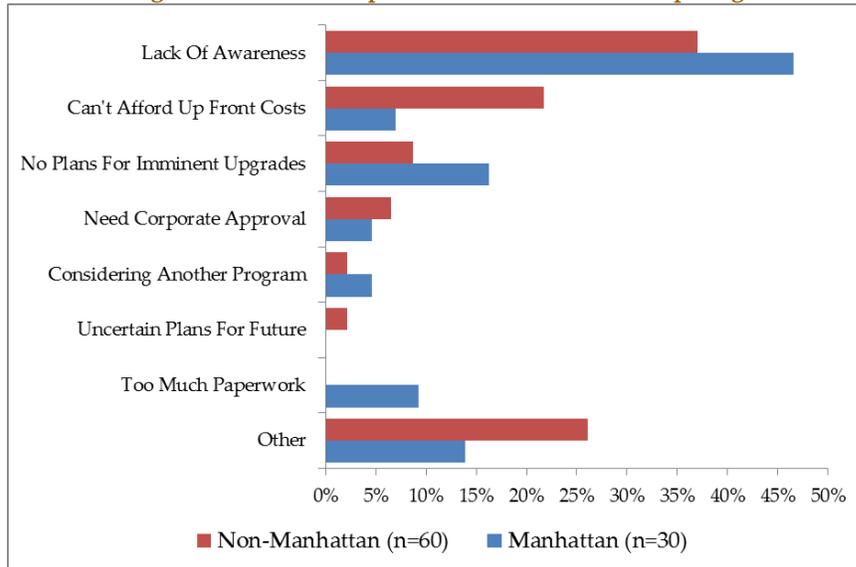
Source: Con Edison Participant Survey Results.

Note: "Other" responses were denial of rebate on second phase of work, limitations of technology, and the time required to get approved.

Non-participants were also surveyed about potential program barriers. For non-participating customers who reported that they would not be likely to participate in the program in the next

year, they reported that lack of program awareness is their largest barrier (46 percent of Manhattan and 37 percent of non-Manhattan). These results are shown in Figure 11.

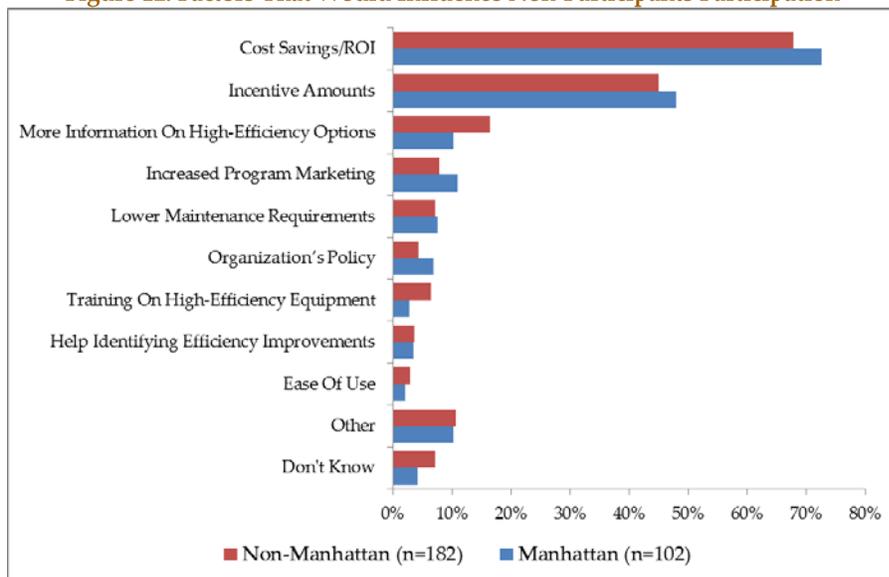
**Figure 11. Non-Participant Reasons for Not Participating**



Source: Con Edison Non-Participant Survey Results

Non-participants reported what factors would influence their organization to participate in the future, and approximately 70 percent in each region reported cost savings and ROI as the most important factor, followed by incentive amounts. These results are shown in Figure 12.

**Figure 12. Factors That Would Influence Non-Participants Participation**



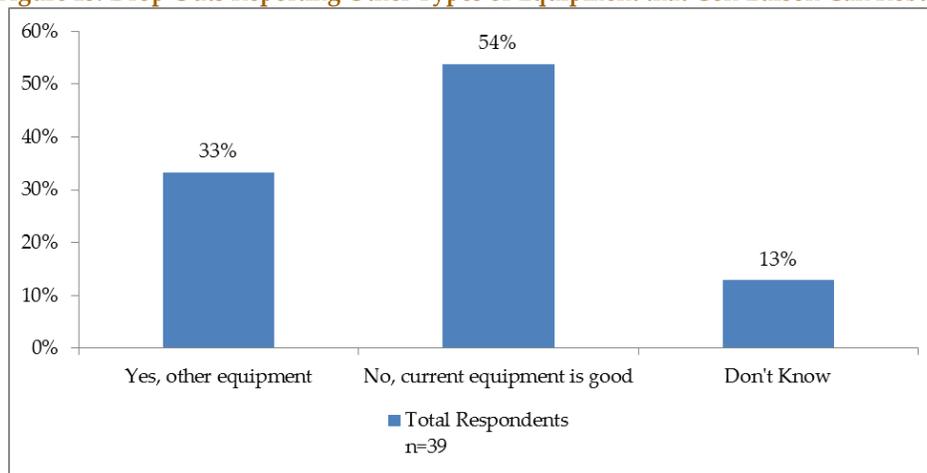
Source: Con Edison Non-Participant Survey Results

In Focus Groups with participating and non-participating Trade Allies, feedback was requested on what is required to influence customers to upgrade to high-efficiency equipment, and whether the Con Edison program could help move commercial customers from non-qualified to qualified equipment. Lighting Trade Allies reported that customers who seek out lighting upgrades are usually undertaking a larger energy upgrade, with lighting as a part of the project. These Trade Allies noted that moving customers to high-efficiency measures would be easier if the Con Edison rebates were higher, but that having Lockheed Martin as a resource that can help inform the non-lighting elements of an upgrade was reported to be useful. HVAC Trade Allies reported that when their customers were made aware of the cost difference of high-efficiency equipment, some customers are willing to pay the premium if the Trade Ally can prove the savings to them. These Trade Allies reported that moving customers to energy efficiency is mostly about the financial sell, and a tool or calculator on the Con Edison website that would show financial payback would be helpful. All types of Trade Allies in the Focus Group reported that some form of financing (on-bill or otherwise) would really benefit customers.

However, HVAC Trade Allies expressed real concern about increased maintenance required, equipment failure rates, and the low quality of the higher efficiency equipment from some manufacturers. For Gas equipment, Trade Allies reported that the rebate from Con Edison (typically less than \$500) is not nearly enough to change purchase decisions.

Customers who started to participate in the program, but did not finish the process (drop outs), were asked about additional equipment that they'd like to see in the Con Edison program. The majority of these customers (54 percent) reported that the current equipment available through the program is sufficient. This is shown in Figure 13.

**Figure 13. Drop Outs Reporting Other Types of Equipment that Con Edison Can Rebate**



Source: Con Edison Drop-Out Survey Results.

33 percent reported that they’d like to see additional equipment rebated by Con Edison. These other equipment types reported are lighting (3 respondents), cogeneration (2 respondents), and other (8 respondents).

Focus Group Trade Allies commented on current measures and rebates available through the C&I program. Selected comments about program measures are shown in Table 21, categorized by equipment type. Some Trade Allies noted that certain measures, such as de-lamping or programmable thermostats, should not be included in the rebate program, due to their low impact or low rebate. Trade Allies also suggested additional measures to include in the program, such as cogeneration, retro-commissioning, and indirect water heaters. Overall, many Trade Allies feel that rebates for large projects are not high enough, given the total project costs; this is especially true for gas projects, as those tend to be larger projects.

**Table 21. Trade Ally Comments on Existing Program Measures and Rebates**

Measure Category	Comments
Lighting and Lighting Controls	It is unexpected that the rebate on T5 and T5HO are similar, because there are different costs for lamp and ballast, while T12 rebates are different from those for T8 equipment.
	De-lamping is not removing the draw from the circuit, so it may not warrant a rebate.
	For the last 15 years, no distributors have sold anything but LED exit signs; the incentive should be given for replacing fluorescents.
	The LED rebate seems very low. Sylvania and Phillips case lighting costs \$250-300 and getting a \$24 rebate (or \$6 per foot) will not affect the decision.
	Consider making exceptions to the rule that the equipment must have greater than a one year ROI; instead, consider perhaps a six month ROI, which would help make more projects eligible.
HVAC Equipment	The Con Edison rebates are pretty minor incentives given the high costs for 30 ton equipment. It doesn’t compete with NYSERDA on large chillers, for example (e.g. 300 ton water cooled central system).
	Retro-commissioning isn’t covered by Con Edison, but should be considered.
	Con Edison has a slightly better incentive for VFDs than NYSERDA, further enhanced by the easier paperwork, but has an ROI restriction.
	Cogeneration isn’t covered by Con Edison, but covered by NYSERDA.
	Steam represents a big gap in the program. The steam chillers come close in price but the incentives push clients toward electric more often than not. If there were an option for high-efficiency steam replacement, that might tip the scales.
	Consider adding or including rebates for compressor equipment.
	Incentivize replacement of cooling towers (under the custom program).

Measure Category	Comments
	<p>There are thousands of acres of roof and no incentives to replace inefficient rooftop units (and these could also include solar installations).</p> <p>The program should include more control systems and overall system design and monitoring equipment, not only individual pieces of equipment.</p>
Gas Equipment	<p>The rebates do not seem to be high enough considering the size of equipment. When the cost for high efficiency is double, a \$30-50K rebate or incentive may be enough to push the equipment, but a \$10K incentive is insufficient. Matching up to a value nearer the percentage gap is important.</p> <p>If the rebates could get the payback down to 1.5 to 3 years, then it would help drive the market.</p> <p>Take the thermostat rebate off the list because it isn't worth the staff time investment for a \$30 rebate.</p> <p>Match up the commercial program with the residential program and add rebates for indirect water heaters.</p> <p>There is significant potential in outdoor duct insulation. There are massive numbers of rooftops with exposed ducts.</p>

Source: Con Edison Focus Group Report, March 2011.

Overall, Focus Group Trade Allies stated that the equipment on the prescriptive rebate list was generally typical of equipment installed in new and redesign projects. Very little of the equipment was described as “pushing the envelope” by any of the Trade Allies. Some attendees suggested the lighting measures didn’t go far enough, particularly in application of LEDs beyond case lighting and exits signs. Gas Trade Allies reported that the equipment list was irrelevant to a large share of jobs in the City – the steam boiler replacement market. Most importantly, the HVAC respondents expressed concerns over the higher operation and maintenance requirements associated with higher efficiency equipment. These concerns manifest as hesitation to recommend and install the high efficiency equipment, whether as part of current practice or program installations.

Focus Group Trade Allies identified equipment that is on the forefront of energy efficiency in their fields. Lighting Trade Allies noted that popular equipment includes occupancy sensors and solar controls. Additionally, increased control of LEDs using “smart” devices is an increasing trend. HVAC Trade Allies reported that variable speed drives are on the “hot” list, along with variable refrigerant flow, and micro wind turbines used in exhaust situations. Gas Trade Allies noted that cogeneration is gaining traction. Some property management companies are adopting the technology, and co-ops in New York are interested in going “green.” Building owners and managers trying to increase energy efficiency undertake a predictable cycle, moving through replacing the windows, upgrading the lobby, and then

installing controls – often with cogeneration in the back of their minds. In addition, splitting hot water from the main system is gaining traction in the market.

#### Program Incentives and Measure Applicability

Con Edison offers customers financial incentives at a rate of up to 50 percent of either the measure cost or the incremental measure cost (depending on the measures installed) for installing high-efficiency heating, cooling, and ventilation equipment, or for upgrading lighting and motors. Table 22 summarizes the incentives for Con Edison’s gas and electric C&I programs.

**Table 22. Summary of Con Ed C&I Program Incentives**

Measure Category	Type	Rebate
Lighting and Lighting Controls	New Fixture Replacing Existing Fixture	\$2 - \$100
	De-lamp/Retrofit of Existing Fixture	\$0.75 - \$1.50 per linear foot removed
	Lighting Controls	\$30 - \$75
HVAC, Furnaces and Boilers <sup>13</sup>	High Efficiency Natural Gas Boilers	\$1,000 - \$15,000
	High Efficiency Steam Boilers	\$700 - \$2,500
	Gas Heating and Hot Water Controls	\$30 - \$200
Motors	Open Drip Proof (ODP)	\$40 - \$750
	Totally Enclosed Fan Cooled (TEFC)	\$45 - \$800
Variable Frequency Drives	Incentives Specific to Horsepower of Motors Controlled	\$300 - \$12,000
Custom Program	Electric Custom	\$0.088 - \$0.132 per kWh
	Gas Custom	\$1 - \$2 per therm
Energy Efficiency Studies		Up to 50% of the study cost: max of \$50,000 for electric or gas, or \$67,000 for combined electric and gas.

Source: Con Edison Commercial & Industrial Energy Efficiency Program Website as of June 1, 2011.<sup>14</sup>

According to the Focus Group participants, equipment availability does not generally affect sales for high vs. standard efficiency equipment in lighting, electric HVAC, gas HVAC and other gas equipment in New York City. The equipment on the qualifying equipment list is generally as readily available as the comparable standard equipment. Incremental costs are 25 percent (for HVAC and fixtures) to several times higher for efficient models of some other equipment (lamps and boilers). For lighting measures, the cost premium for high efficiency

<sup>13</sup> The HVAC rebates changed as of June 1, 2011.

<sup>14</sup> <http://www.conedci.com/program.aspx#one>

equipment is two to three, or three to four times higher for lamps, and five to ten percent or 30 percent more expensive for fixtures (depending on ballasts), according to the Trade Allies. Costs can also be affected by whether the fixture needs special low power factor ballasts or reduced wattages (T8). For HVAC equipment, the premium for high efficiency is about 25 percent for much of the equipment, but some equipment may be double cost (e.g. inverter-driven, 23 SEER equipment). For gas equipment, high efficiency equipment can easily involve costs more than double that standard equipment, even excluding extremely high costs for potential add-ons associated with the installation (e.g., stainless steel chimney liners and other retrofits) and higher maintenance costs and electronics.<sup>15</sup>

When questioned about the effect that Con Edison’s program has had on the market for C&I equipment, the Focus Group respondents were certain the market for high efficiency equipment is moving forward, but they were not sure of Con Edison’s role in that movement. The Trade Allies could not quantify the percentage of Con Edison participants that would be considered free riders, but they noted some customers find the program a catalyst to move forward, and in some cases, the discussion about high efficiency might be off the table entirely if the program wasn’t around. Some lighting Trade Allies noted that the percentage of their sales of energy efficient equipment had been increasing.

HVAC Trade Allies reported that the rebate program is part of a bigger general wave toward higher efficiency, but the incentives provide an added bonus that helps customers make the energy efficiency decision. Several of the HVAC Trade Allies reported that they try to sell the highest efficiency they can, but if they feel they are losing the sale, they will give a range of options and, if needed (to retain the sale), stop pushing the energy efficient equipment.

The attendees in the Gas Focus Group called it “fifty-fifty” on whether the program was having an effect beyond what customers would have installed anyway. Attendees gave examples of both free riders and customers who would not have chosen the higher efficiency option without the rebate. Some reported that in a number of cases, the client’s engineers have already researched the rebate, so the decision for or against energy efficient equipment is being made before it makes it to Trade Allies. There are certainly jobs that were impacted positively by the rebate, but few of the attendees would make guesses on the share that were ultimately attributable to the program’s influence.

### ***Infrastructure Development***

Lockheed Martin uses a proprietary tracking system called LM-CAPTURES (an acronym for Lockheed Martin Customer, Project Tracking and Utility Reporting Enterprise System) as the tracking database for the C&I program. This database tracks projects enrolled through the C&I program and all relevant data.

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<sup>15</sup> Con Edison Focus Group Report, March 2011.

This section reviews several aspects of the infrastructure developed by Con Edison and Lockheed Martin to implement the program.

#### Database Review

Navigant conducted a review of program data in the Lockheed Martin tracking systems to assess their accuracy and effectiveness for use in recording, tracking, and reporting the process and impact of the programs. This review included an assessment of the key processing timeframes, review of the project data for outliers and missing information, and assessment of the data collected on the rebate applications and recorded in the tracking systems.

#### *Processing Time Frames and Data Integrity*

Lockheed Martin extracted measure installation information from its LM-CAPTURES tracking database, in response to Navigant's data request. The records analyzed in this report were as of December 31, 2011. Additional program data came from xACT (acronym for Excel-based Application and Calculation Tool) which was developed by Lockheed Martin to facilitate the program application process and provide a common methodology for calculating energy-savings for various energy efficiency measures.

Lockheed Martin also provided a spreadsheet with information on Market Partners and screenshots from LM-CAPTURES and xACT of two projects. Files provided included the following:

- **Monitoring and Verification Report 12-31-2011.xls** This document contains 6,867 records. The file contains project level details including information on the customer, Trade Ally, and measure, installation dates, and energy savings for each participating project. This file included both gas and electric measure installations, and all status codes (1-initiation, 2-study, 3-offered, 4-committed, 5-installed, 6-payment pending, 7-completed, discontinued and on-hold).
- **Con Ed Market Partner Extract 9-16-2011.xlsx** This document provided information on the Market Partners registered as of September 2011, including their roles and program specialties. The file contains 483 records.
- **Screenshots** Two projects were displayed in xACT and LM-CAPTURES. The screenshots include the facility detail and measure product information. The two reviewed project files were completed projects.

The program dataset provided by Lockheed Martin for the Con Edison programs was very complete. Of the 6,867 records provided, 2,240 were in the "completed" status, 304 were "installed", 215 were "payment pending", 2,143 were "committed", 1,117 were in the "initiation" phase, 315 were "On Hold", 86 were in the "Study" phase, 8 were "Offered" and 439 were "Discontinued". All projects in the "complete" status had populated fields for application received date, incentive offer delivered date, incentive offer accepted date and pre-

installation completed date. However, 25 records had no completion certificate or post-installation inspection date, but these records were marked as “study” projects.

The data contained only a few anomalies. In three records, the date that the incentive offer was accepted actually occurred before the incentive offer was delivered to the customer. All other dates for completed projects satisfied the logical time frame.

A very large proportion of projects included a pre-installation inspection date. Seventy-seven percent of the overall projects and 100 percent of “completed” projects had their pre-installation inspections.

### Analysis of Con Edison Processing Timeframes

Table 23 below presents an analysis of the number of days between key dates listed in the Con Edison dataset. The rebate process begins with the application for the program. The rebate application is submitted to the utility prior to the installation. If the project meets the program requirements, an incentive offer is made to the customer. If the incentive is satisfactory, it is accepted by the customer. Then a pre-installation inspection is conducted at the customer site. On average, it takes approximately 1.5 weeks to have a pre-installation inspection from the time the application is received. Once the installation is complete, the customer receives a completion certificate and a post-installation inspection.

**Table 23. Con Edison Application Processing Timeframe Analysis**

Time Period	Average Number of Weeks	Average Number of Days	Min Number of Days	Max Number of Days	Number of Projects
Application date to Incentive Offer date	4.0	28.3	0	415	6,714
Incentive Offer date to Acceptance date	1.8	13.1	-5	349	5,582
Acceptance date to Pre-Installation date	1.3	8.8	0	254	5,263
Pre-Installation date to Completion Certificate date	10.6	74.2	0	411	2,770
Completion Certificate date to Post-Installation Inspection date	3.2	22.5	0	122	2,485

*Source: Program Participation Data 12-31-11.*

### Discontinued Project Analysis

The LM-CAPTURES extract included project records that were rejected by the program, or discontinued by the participant. The records indicate that 422 electric projects and 11 gas projects were discontinued. This indicates that approximately six percent of the total measure applications are discontinued. Table 24 summarizes the reasons for discontinuing electric projects.

**Table 24. Summary of Discontinued Electric Projects**

Reason for rejecting the installation	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Abandoned-Not interested	283	67.1%	283	67.1%
NYSERDA Program Participant	57	13.5%	340	80.6%
Abandoned-Lack of funding	32	7.6%	372	88.2%
Project Already Completed	19	4.5%	391	92.7%
SBDI Referral	8	1.9%	399	94.5%
Market Partner Cancelled	6	1.4%	405	96.0%
Facility Closed	6	1.4%	411	97.4%
Inefficient Measures	3	0.7%	414	98.1%
Not Eligible	4	0.9%	418	99.1%
TRC Fail	2	0.5%	420	99.5%
Multifamily Referral	2	0.5%	422	100.0%

*Source: Program Participation Data 12-31-11.*

Table 25 summarizes the reasons that gas measures were discontinued.

**Table 25. Summary of Discontinued Gas Projects**

Reason for rejecting the installation	Frequency	Percent	Cumulative Frequency	Percent of total records
Project Already Completed	6	54.5%	6	54.5%
Abandoned-Not interested	2	18.2%	8	72.7%
Facility Closed	2	18.2%	10	90.9%
Inefficient Measures	1	9.1%	11	100.0%

*Source: Program Participation Data 12-31-11.*

The primary reason for discontinued electric projects is that the project was abandoned by the customer (67 percent of projects), but this occurred in only 18 percent (2) of the 11 discontinued gas projects. A high percentage of electric applications were determined to be NYSERDA projects (13 percent), which indicates that Lockheed Martin’s program cross-checking against the NYSERDA database is successful. The primary reason for discontinued gas projects is that the customer had already completed the project (55 percent). In some instances, this prevents participation because there could be no pre-installation inspection.

## Project File Review

Lockheed Martin provided 2 project files containing a screenshot from LM-CAPTURES and the xACT file submitted by the customer or Trade Ally. Each file referenced one applicant.

Information in the LM-CAPTURES file:

- Facility Information
  - Con Edison account number
  - Decision Maker Name
  - Address information
  - Building Type
  - Square Footage
  - Year Built
  - Annual Operating Hours
- Equipment Information
  - Measure Type
  - Number of Units
  - Baseline Energy Consumption
  - Energy Savings (kWh, kW or therms)
- Rebate amount
- Project start and end date
- Lockheed Martin Lead and Assistant
- Con Edison Account Executive

Information in the xACT file:

- Project Application
- Equipment Information
  - Measure Type
  - Number of Units
  - Baseline Energy Consumption
  - Energy Savings (kWh, kW or therms)
- Project cost
- Incentive amount
- Project payback and ROI

Both projects were also located in the tracking system.

The savings and costs reported in the LM-CAPTURES and the xACT extracts matched what was reported in the tracking system.

## Market Partner Tracking

As discussed previously, Market Partners are tracked by Lockheed Martin. One of the program requirements is that in order to remain active, Market Partners must enroll at least one qualifying energy efficiency project within 12 months. In addition, each Market Partner is required to enroll at least one project each subsequent year. Lockheed Martin reports in the Program Operation manual that they track this data in LM-CAPTURES.

## Quality Control

This section provides the results of a review of the quality control procedures for the Con Edison program. The review is organized around three areas: customer eligibility, equipment eligibility, and installation verification. The purpose of these reviews is to determine whether the procedures are sufficient to ensure that the reported savings are real and verifiable.

Lockheed Martin performs quality control checks at 19 stages in the program process. There is a maximum number of days each stage should take to complete before the system automatically alerts Lockheed Martin that a project status is late. Additionally, customer-supplied data such as hours of operation and efficiency assumptions of both baseline and efficient equipment are reviewed to ensure energy savings calculations are as accurate as possible.

For this energy efficiency program, participants submit their program application before the installation of the eligible equipment. Program applications are available in electronic form, and can be submitted via US mail in hard copy or emailed to Lockheed Martin. The information can be typed into the form and then printed, or a blank form can be printed and all information input by hand. Customers and Trade Allies are encouraged to submit applications using the xACT tool by filling out the Excel file and emailing it to Lockheed Martin, to enhance processing speed. Currently, no online application submittal is available through the program website. Online application submittal could improve the application process by allowing the process to begin promptly, even if proof of payment is mailed at a later date. One participant who discontinued participation in the program reported during their survey that “it would be nice to do everything online, instead of doing by paper. It would make it a lot easier for many companies and for me in general.”

## Customer Eligibility

Lockheed Martin, on behalf of Con Edison, conducts an eligibility validation of each application. The eligibility validation process includes verification of the following:

- Determine whether application is for an Equipment Rebate Project, Custom Project, or Energy Efficiency Study;
- The building is an existing facility;
- The customer has a valid Con Edison account number;

- The customer pays the SBC; and
- The customer has not participated in the NYSERDA program for the same project.

Once eligibility is determined, the application is routed to the appropriate program – electric rebate, electric custom, gas rebate, or gas custom. Then the incentive amount is calculated with the xACT tool, and the Project Coordinator issues a project pre-approval letter to the customer.

**Assessment:** Verifying customer eligibility through their account number and SBC payments is the most direct method for determining whether the customer is eligible to participate in the program. Additionally, the cross-check against the NYSERDA program database seems to be successful in flagging projects that are attempting to receive duplicate incentives.

### **Equipment Eligibility**

Filling out xACT requires details about the project, including baseline energy consumption, proposed equipment, and energy savings. Additional information required is building type, square footage and annual operating hours. This information is fed into xACT, which calculates the project payback and ROI. The xACT spreadsheet includes energy savings formulas, to enhance accuracy of energy savings and incentive amount calculations. Customer-supplied data such as hours of operation and efficiency assumptions of both baseline and efficient equipment are reviewed by Lockheed Martin to ensure energy savings calculations are as accurate as possible.

**Assessment:** Verifying the hours of use and baseline energy consumption is sound and necessary to provide credible results over relying on the customers or Trade Allies to comply. Additionally, using xACT to calculate energy savings streamlines the process and minimizes the likelihood of errors in the calculation process.

### **Equipment Verification**

Lockheed Martin and Con Edison divide the responsibility of equipment verification. Lockheed Martin performs all inspections for the custom programs, while Con Edison performs all inspections for the prescriptive programs. The purpose of each on-site inspection is to verify the baseline<sup>16</sup>, and then to verify that the project is installed and operational at the customer's site. The inspector confirms the baseline conditions reported, along with hours of use and building type. Pre-installation inspections are scheduled within five days from receiving the signed pre-approval letter from the customer. The inspection report is completed within three days of the inspection.

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<sup>16</sup> The baseline collects information about technology levels prior to the projects. This will include the nameplate values, equipment size, fixture counts etc.

**Assessment:** Inspecting all projects within the program is time consuming, but necessary to determine that projects were installed as planned at the time that Con Edison delivered an offer letter to the customer.

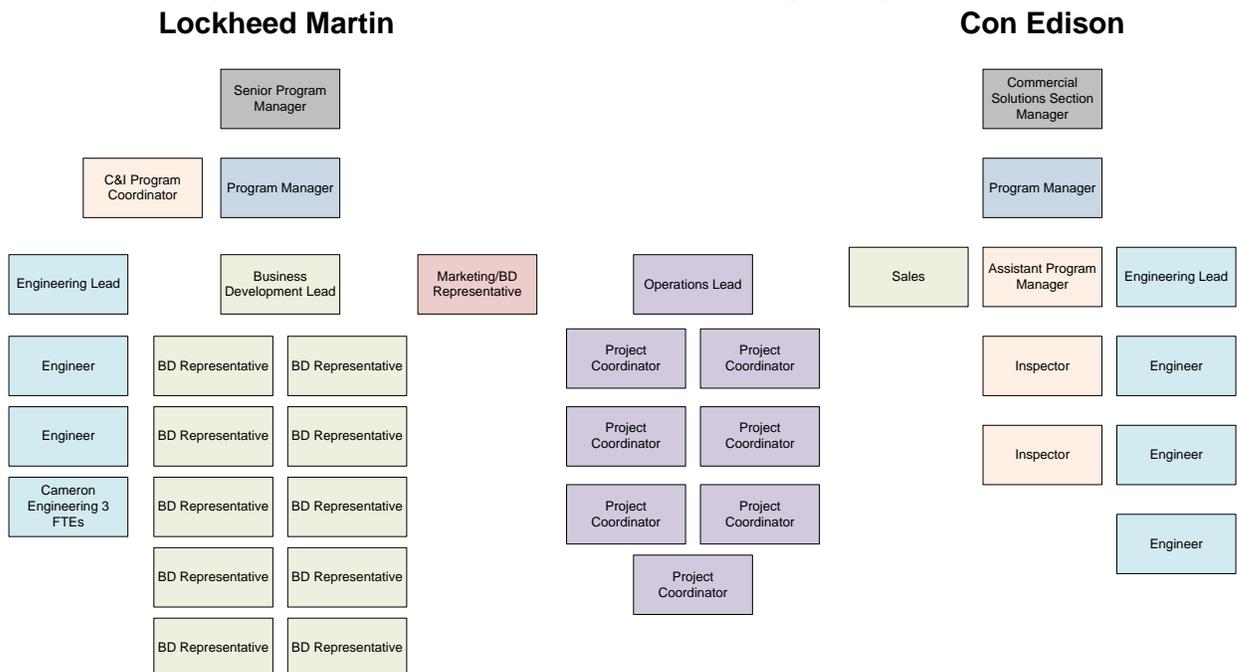
**Program Staffing**

Program staffing levels are sufficient for the C&I program. Lockheed Martin maintains two program managers and one program coordinator to oversee Con Edison’s gas and electric programs, four sub-program managers (engineering, business development, marketing, and operations), three engineering support staff, 10 business development support staff, and seven operations support staff.

Con Edison works alongside Lockheed Martin to implement the C&I program. Con Edison and Lockheed Martin split inspections for all projects. Con Edison has three program managers to oversee the gas and electric programs, two inspectors, three building engineers, and one salesperson.

Figure 14 show’s Lockheed Martin and Con Edison’s joint organization chart, and the relationships between the two organizations. The staffing of the C&I program is sufficient for program delivery.

**Figure 14. Lockheed Martin and Con Edison’s Joint Program Organization Chart**



Source: Positions Based on Lockheed Martin Permanent Organization Chart, received November 2012.

### *Marketing and Customer Acquisition*

The C&I program relies heavily on a network of Trade Allies to push the programs to their customers looking to replace energy-using equipment. Lockheed Martin is responsible for designing and developing the marketing material for the program.<sup>17</sup> Lockheed Martin focuses marketing efforts on both the Trade Allies and customers. Trade Allies who participate in the program marketing efforts are considered part of the Market Partner Network. The Market Partner Network is an important marketing channel to customers.

This section presents an overview of marketing efforts to promote the program and summarizes the effectiveness of those efforts of engaging Trade Allies and customers. The section uses results of surveys conducted with three customer types: program participants, program drop outs, and non-participants. Additionally, the section uses results of in-depth interviews and a focus group session with Trade Allies both in and out of the Market Partner Network.

#### **Program Marketing**

Lockheed Martin recruited Con Edison customers through two channels:

1. **Leveraged Marketing:** Lockheed Martin recruited Market Partners who in turn recommended program participation to eligible customers. Market Partners are companies and contractors who sell, distribute, and manufacture energy efficiency products and services, and who register with Con Edison as Market Partners.
2. **Direct Marketing:** Lockheed Martin targeted large customers with multiple locations through direct phone calls. This method also involved Con Edison Account Executives.

All marketing materials used in the program must be consistent with Con Edison’s corporate branding strategy, “The Power of Green.” Con Edison provides Lockheed Martin with brand guidelines and templates. Lockheed Martin customizes the templates and submits prospective materials to Con Edison for review and approval. Additionally, the program marketing materials must reflect the more recent “Green Team” concept. For C&I customers, this team consists of Con Edison program staff, engineers, and account executives; Lockheed Martin administration and marketing staff; the Market Partner Network; and Con Edison customers.

Primarily, Lockheed Martin recruited Market Partners through a series of seminars designed to promote energy efficiency and the program and provide networking opportunities between Con Edison and Lockheed Martin program staff and potential Market Partners. Several seminars were scheduled in the first months of the program in various locations around the New York City area. Lockheed Martin scheduled the seminars for early morning to accommodate the Trade Allies, and the seminars ran for two to three hours. The Trade Allies

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<sup>17</sup> All collateral is now produced internally by Con Edison in conjunction with “The Gate”.

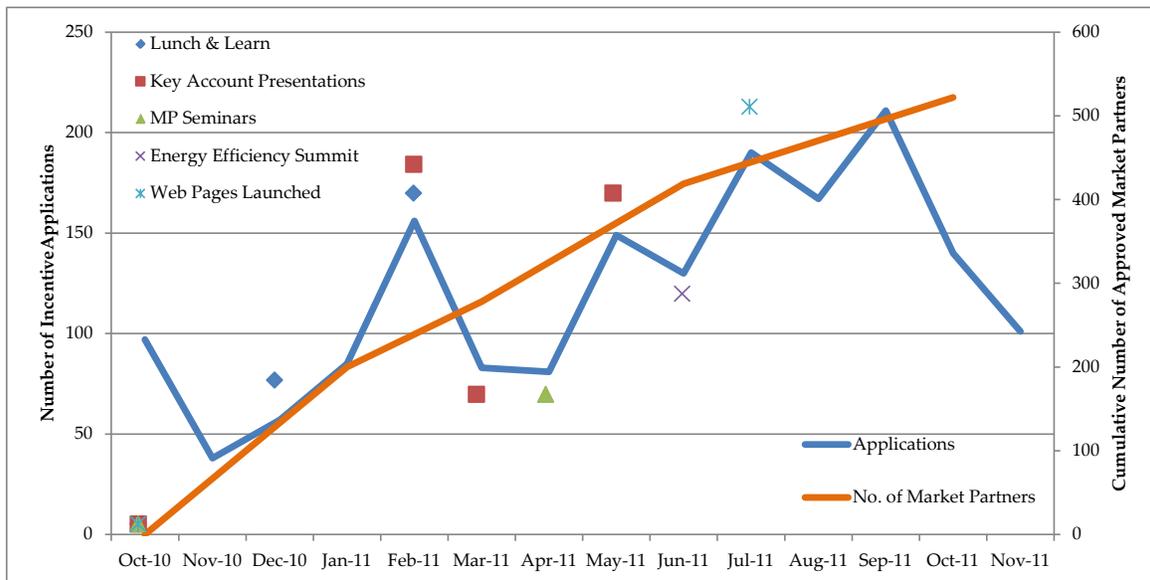
who attended the seminars received information regarding applicable technologies, available rebates, and marketing collateral.

In addition to seminars, Lockheed Martin planned to recruit Market Partners through the following channels:

- Presentations to trade associations and construction advocacy groups
- Attendance of industry trade shows
- Ongoing “lunch and learn” sessions with Trade Allies and consultants
- Distribution of a quarterly Market Partner newsletter
- Outreach through social media (e.g., LinkedIn, Twitter)

Figure 15 shows the monthly number of incentive applications received through the program year overlaid with the cumulative number of approved Market Partners added to the network. The figure implies that successful outreach to Market Partners led to higher incentive applications. Lockheed Martin initially sought Market Partners through a series of “lunch and learns” with industry professionals. These sessions successfully brought in Market Partners early on in the program. Later in the year, Lockheed Martin targeted additional Market Partners with a series of seminars. The number of Market Partners in the network grew significantly during this time from 278 to 419. Consequently, a few months later, the monthly incentive applications increased to their greatest numbers of the program term.

**Figure 15. Marketing Efforts Effects on Program Incentive Applications and Market Partner Network**

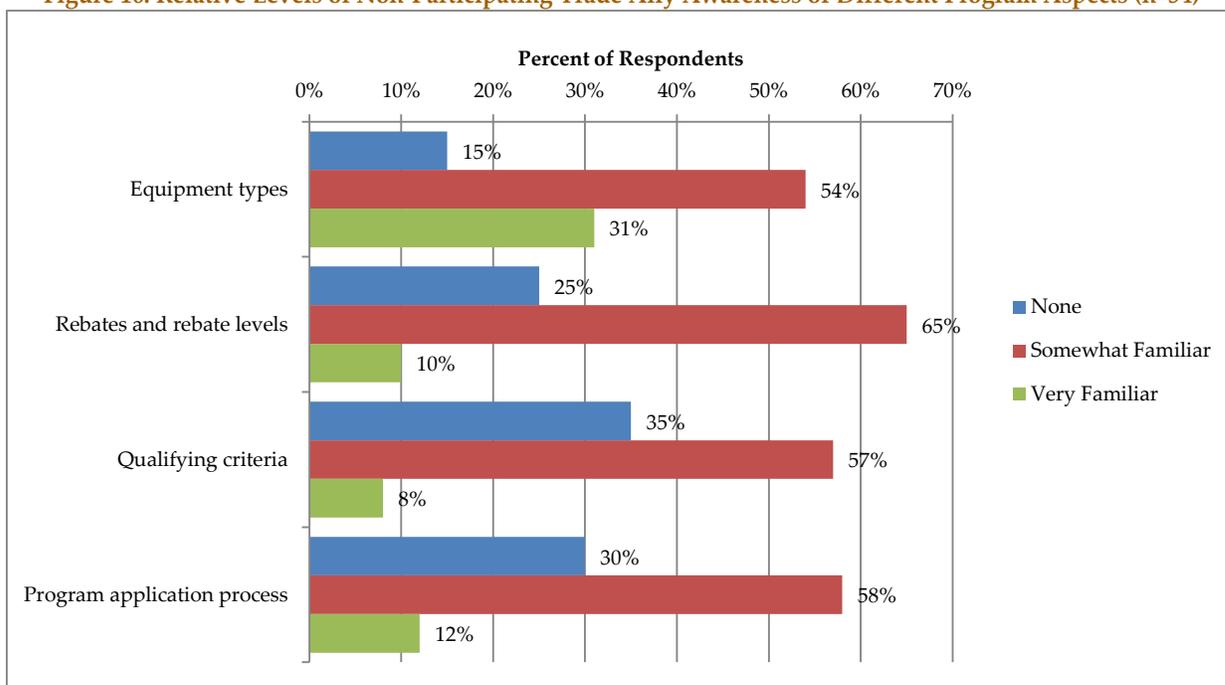


Source: Lockheed Martin Program Data and Marketing Event Calendar.

## Trade Ally Awareness & Program Understanding

Market Partners and other Trade Allies were interviewed to understand their awareness of the Con Edison program. Overall, the awareness of the program is strong. Ninety-four percent of the interviewed non-participating Trade Allies are familiar with the program. Figure 16 shows the relative level of awareness among non-participating Trade Allies for different aspects of the program. In general, the non-participating Trade Allies reported that they are at least somewhat familiar with the eligible equipment types, rebate levels, qualifying criteria, and program application process. Notably, 25 percent of the respondents said they were unaware of the available rebates and rebate levels.

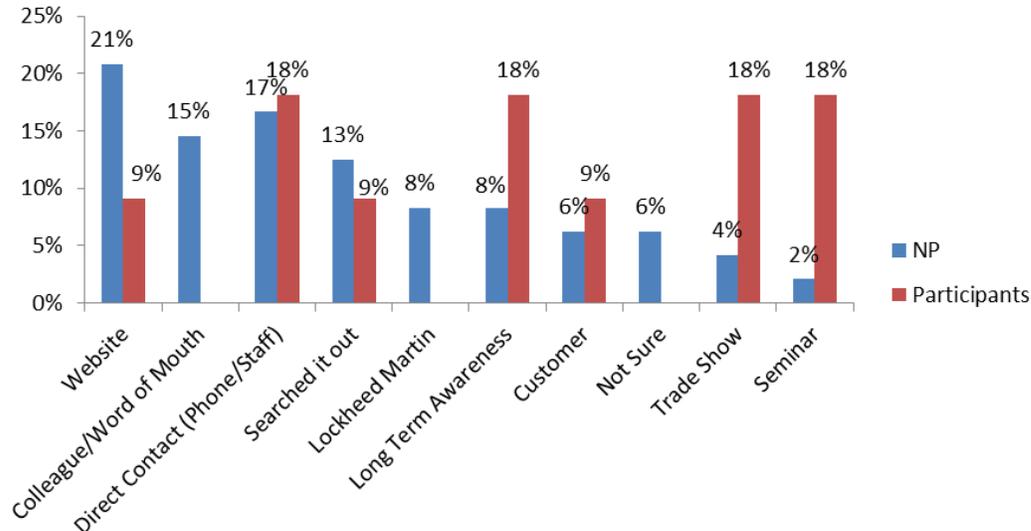
**Figure 16. Relative Levels of Non-Participating Trade Ally Awareness of Different Program Aspects (n=54)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

Participating and non-participating Trade Allies heard of the rebate program through a variety of channels. Figure 17 shows the top channels for each Trade Ally type. For both, direct contact with Con Edison staff works well to inform Trade Allies. The Con Edison and Lockheed Martin trade show presentations and seminars are equally successful channels to bring Trade Allies into the program. The non-participating Trade Allies tend to learn about the program through their own research.

**Figure 17. Top Channels of Trade Ally Program Awareness  
(Participating Trade Allies n=10, Non-Participating Trade Allies n=54)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results.  
Note: Respondents could report more than one channel.

### Trade Ally Drivers of & Barriers to Program Participation

From the Market Partner point of view, the greatest reason for Trade Allies not to enroll in the Market Partner Network is that non-participating Trade Allies only want to install the lowest cost equipment. The lowest cost equipment often does not qualify as high efficiency and is not eligible for rebates under the program. Of the respondents, a few Market Partners interviewed thought Trade Allies passed over the Market Partner Network because the program rebate process was too complicated. The non-participating Trade Allies generally agreed. Although non-participating Trade Allies cited lack of time as the single greatest barrier to participation, 25 percent cited a combination of program logistics, lack of information, and general confusion or unawareness about the program.

When asked how Con Edison could better promote the program to potential Market Partners, non-participating Trade Allies supported more marketing towards customers rather than to contractors, suppliers, and distributors. This finding suggests the non-participating Trade Allies will not be interested in the program until the customer demand for energy efficient equipment increases. According to the non-participating Trade Allies, they expect those customers will be large, national firms who have available capital and have aggressive operating cost reduction strategies. No particular customer profile stands out for Market Partners; they believe all of their customers would be responsive to a future rebate program.

## Trade Ally Drivers of & Barriers to Energy Efficiency

On average, among lighting, HVAC motors, and EMS Trade Allies, Market Partners reported 93 percent of the equipment they installed during the program term was high efficiency. The result is similar for non-participating Trade Allies, who reported 87 percent. Thirty percent of the 54 non-participating Trade Allies interviewed believe rebates and utility programs are the top reasons behind the trend toward high efficiency equipment installations. Customer demand follows at 20 percent. Notably, 25 percent of the respondents reported progressive local, regional, and national codes and regulations will drive installations of high efficiency equipment. Regardless of the driver, non-participating Trade Allies reported initial cost is still a principal barrier to high efficiency equipment. This was particularly true for the 16 HVAC Trade Allies, 57 percent of whom thought initial cost affected sales of high efficiency equipment.

Initial cost aside, Market Partners and non-participating Trade Allies alike promote high efficiency equipment in most situations. Market Partners tend to promote the equipment more strategically, opting to focus on certain business types, especially those customers who have a propensity toward sustainability.

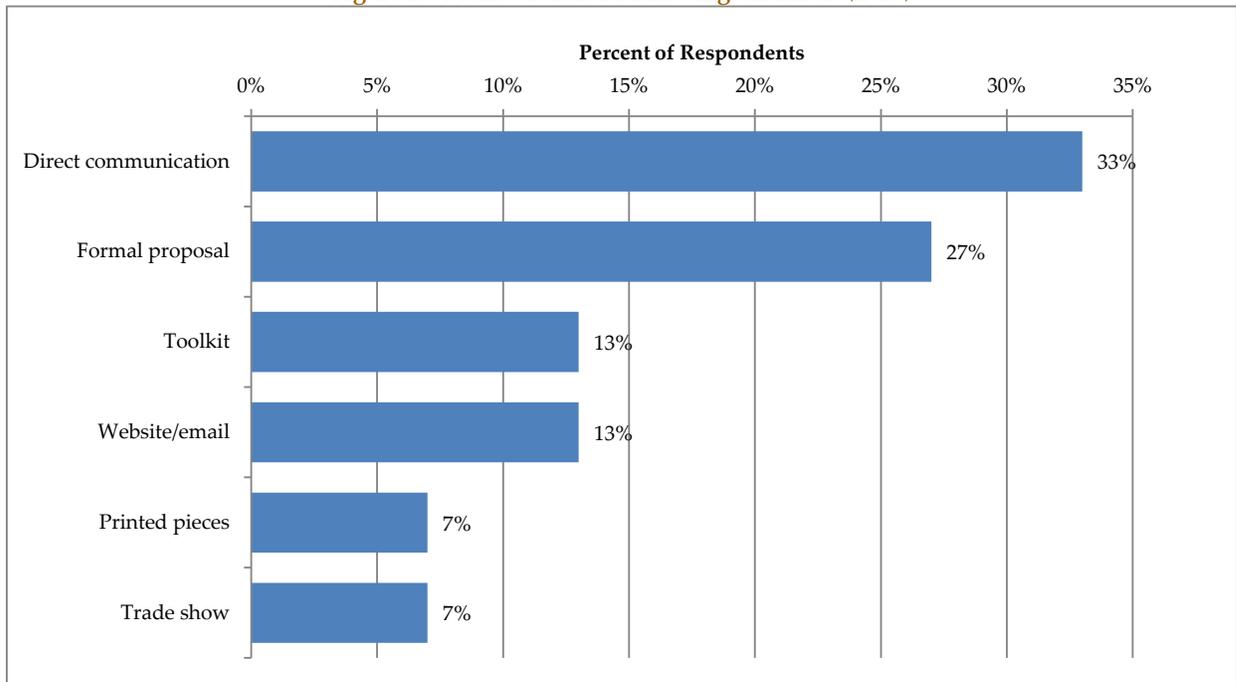
In general, Trade Allies reported that understanding and promoting high efficiency equipment gives them a competitive advantage. More than half of the Market Partners interviewed reported the primary reason for promoting high efficiency equipment is to differentiate their companies in a competitive landscape. Non-participating Trade Allies focused more on meeting customer demand and the long-term cost saving benefits of high efficiency equipment as their reasons for promoting this equipment. Still, some Trade Allies do not see high efficiency equipment as a competitive advantage, because most competitors already promote high efficiency and therefore no advantage exists. Thus, it can be inferred that some non-participating Trade Allies do not enroll in the program because they and their competitors are already promoting high efficiency. As noted earlier, some Trade Allies fail to see any benefit of the Market Partner Network.

## Trade Ally Marketing Approaches

As Figure 18 shows, direct communication is the primary channel Market Partners use to promote the program. Direct communication often occurs in person rather than over email and phone. Of the available marketing strategies, Market Partners reported using the range of materials, though the least used were the webinars. Figure 19 shows the breakdown of marketing strategy use for Market Partners and Non-Market Partners. “Other” materials reported by Market Partners included case studies and the xACT spreadsheet. When asked about other useful strategies that they would like to see added to the program, Market Partners suggested branded clothing, enhanced website information (e.g., case studies, Market Partner company descriptions), and an all-in-one program manual.

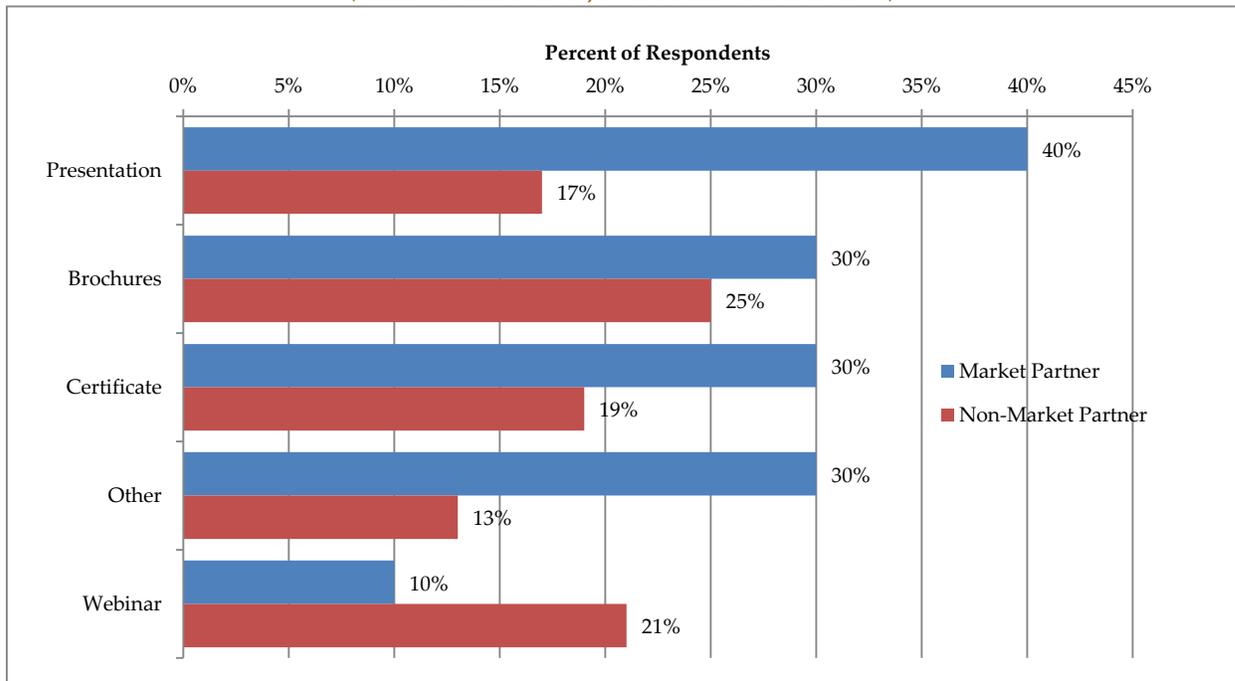
Participating Trade Allies who were Non-Market Partners used the brochures most often, but also used the range of materials. Non-participating Trade Allies noted Trade Allies in the Market Partner Network have a prominent advantage because of the personal contact they have with Con Edison.

**Figure 18. Market Partner Marketing Channels (n=10)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

**Figure 19. Primary Marketing Materials used by Trade Allies**  
(Market Partners n=10, Non-Market Partners n=54)



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

Note: The “other” category includes links to the program website, trade show materials, and the Green Team concept.

During the sales pitch, Market Partners primarily focus on the available rebates for installing high efficiency equipment. Table 26 shows the top five selling points for customers to install high efficiency equipment. The one-time cash back of the rebate outweighed the long-term financial feature of energy savings and return on investment (ROI).

**Table 26. Market Partner Top Selling Points for High Efficiency Equipment (n=10)**

Rank	Selling Point
1	Money back (via rebates) (38%)
2	Performance of equipment (14%)
3	Energy savings (10%)
6	Professional review (10%)
7	ROI (10%)

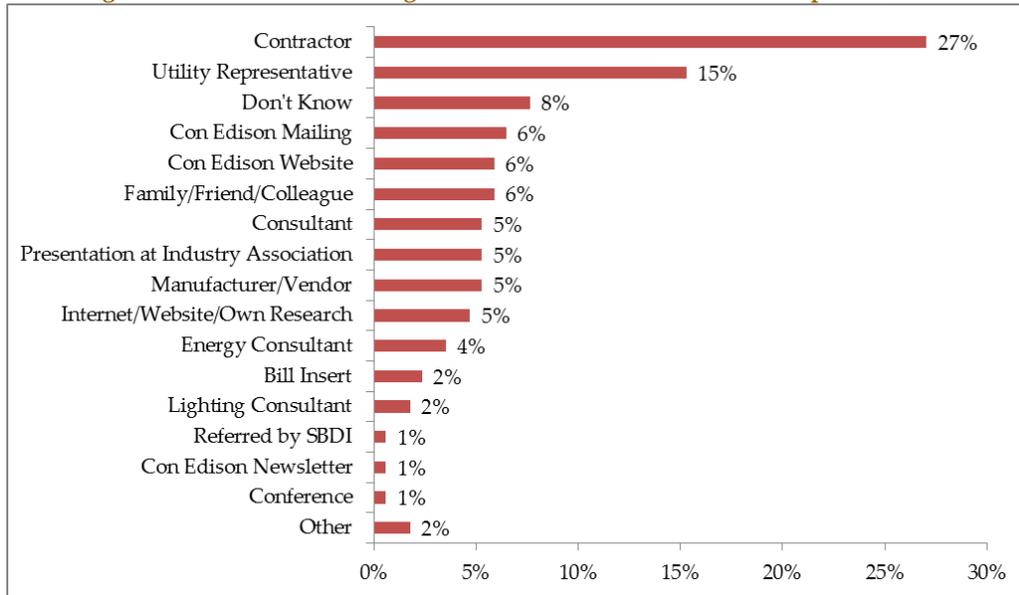
Source: Skumatz Economic Research Associates- In-Depth Interview Results.

### Customer Awareness & Program Understanding

In general, having Trade Allies promote the program is the most effective method to increase customer awareness. As Figure 20 shows, Trade Allies and Con Edison and Lockheed Martin representatives are responsible for nearly half of the customer awareness. Some respondents

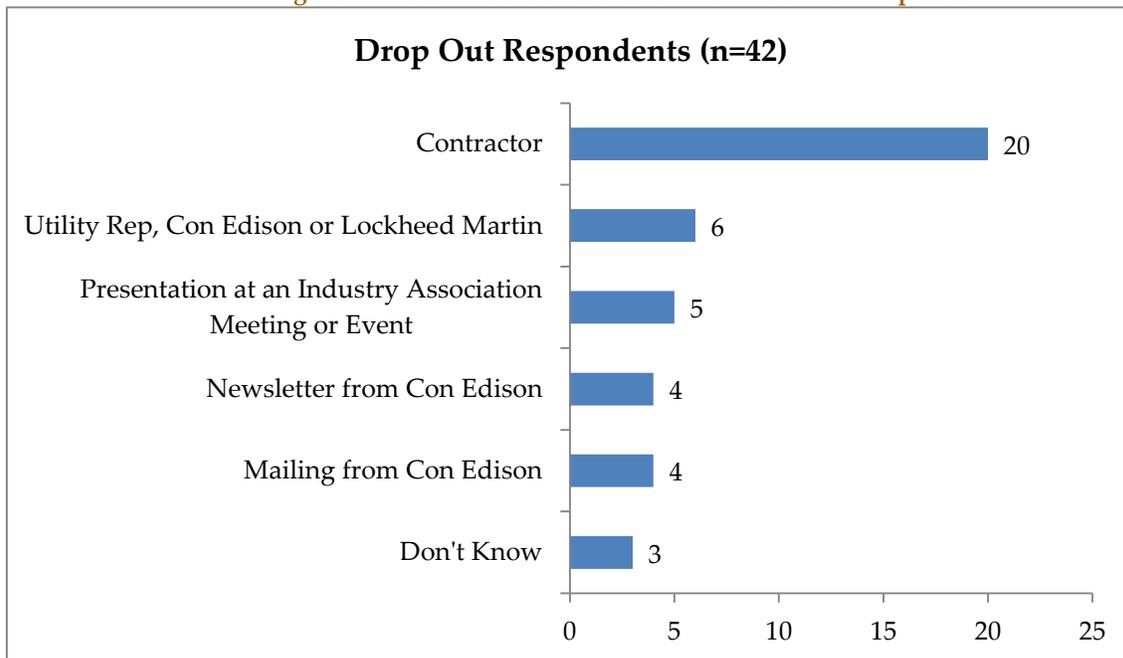
reported more than one source of awareness, but Figure 21 confirms the Trade Allies and program representatives have been effective as the most influential sources.

**Figure 20. Main Source of Program Awareness for Customer Participants (n=170)**



Source: Con Edison Participant Survey.

**Figure 21. Most Influential Source of Information for Drop Outs**

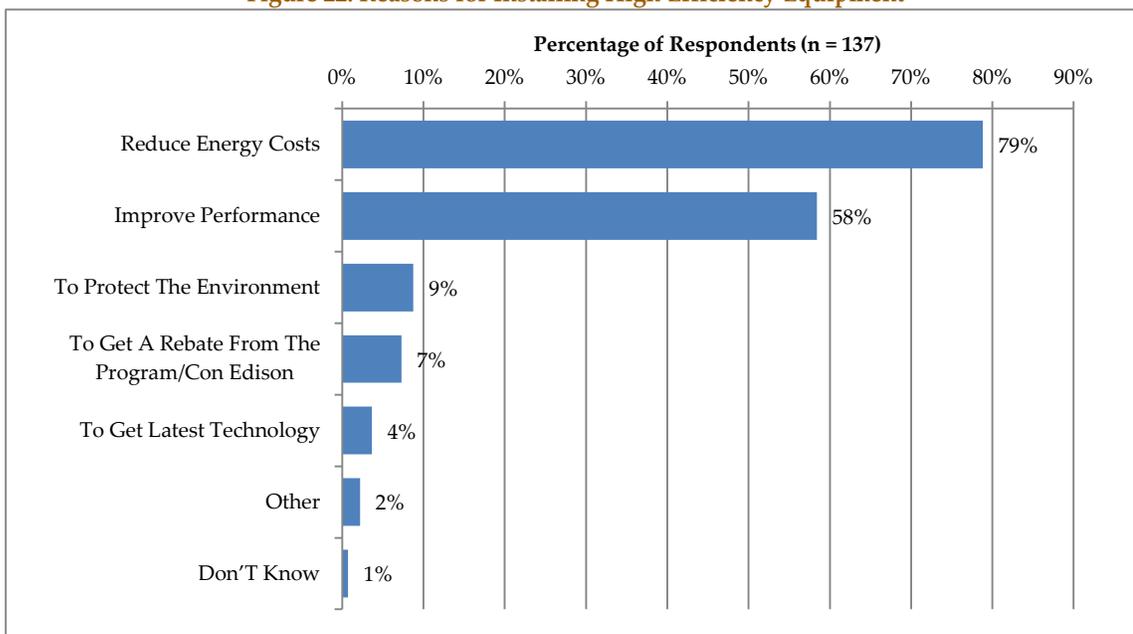


Source: Con Edison Drop-Out Surveys.

## Customer Drivers of & Barriers to Participation

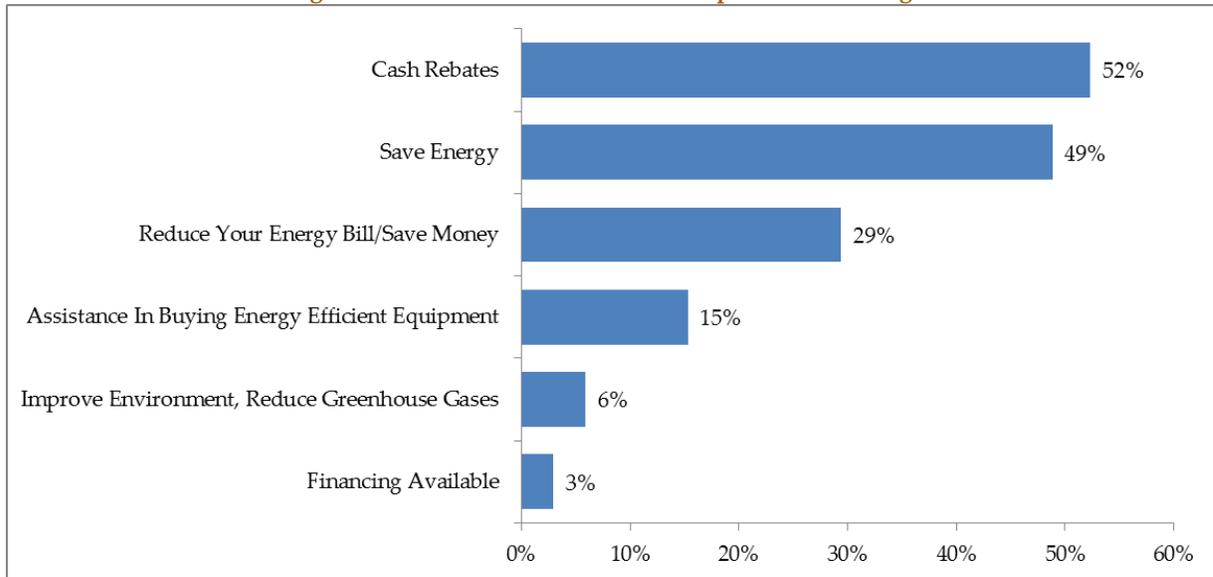
When participants and drop outs were asked for their rationale for installing high efficiency equipment, nearly 80 percent reported they wanted to reduce energy costs, as shown in Figure 22. Additionally, 60 percent of the respondents noted they wanted to improve the performance of their equipment. The top reasons for customer participation in the program are shown in Figure 23. Customers do seek rebates and want to save energy and related costs.

**Figure 22. Reasons for Installing High Efficiency Equipment**



Source: Con Edison Participant Survey Results.

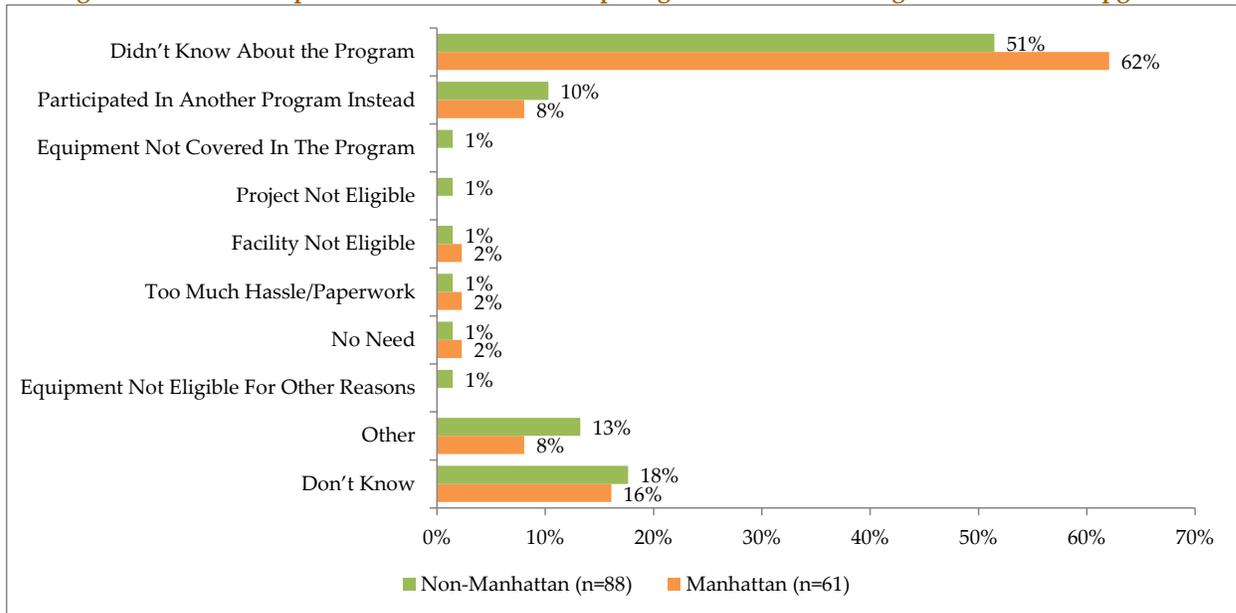
**Figure 23. Reasons for Customer Participation in the Program**



Source: Con Edison Participant Survey Results.

Non-participants were asked why they hadn't participated in the C&I program. The most common response was because they were unaware of the program's existence. Only 36 percent of Manhattan non-participant customers and only 40 percent of Non-Manhattan non-participant customers were aware of the C&I program. Sixty percent of non-participants in Manhattan and 48 percent of non-participants outside of Manhattan reported that they had made energy efficiency upgrades at their facility within the past two years. When asked why they didn't participate in the program, the majority of these customers reported that they were not aware of the program. The responses are shown in Figure 24.

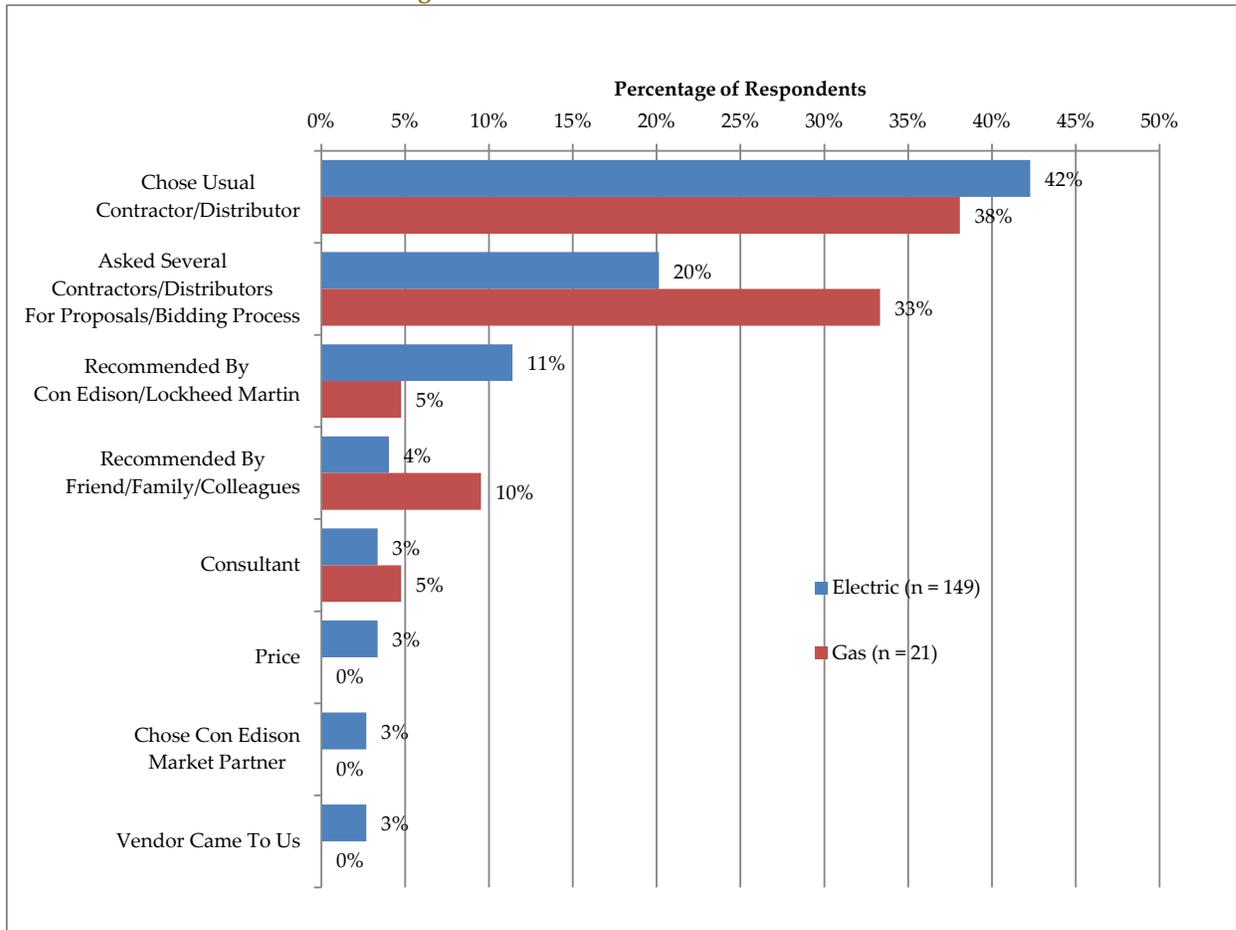
**Figure 24. Non-Participant Reasons for Not Participating in Con Edison’s Program for their EE Upgrades**



**Effectiveness of Market Partner Network**

Customers tend to use their usual and familiar contractors when performing energy efficiency upgrades as shown in Figure 25. Although a recommendation from Con Edison and Lockheed Martin was the third highest driver of contractor selection, only three percent of electric and no gas rebate customers chose contractors solely based on the Market Partner Network. Note, this finding does not imply customers used Market Partners only in those cases, but it does suggest the Market Partner Network list is not a strong driver of contractor selection in the absence of Con Edison and Lockheed Martin involvement.

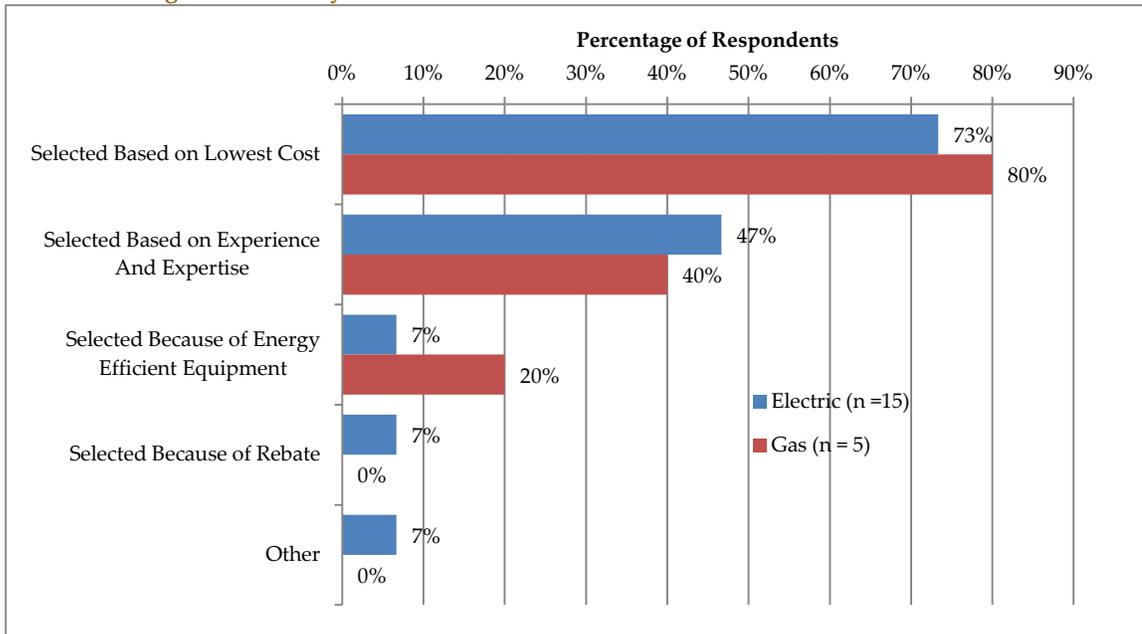
**Figure 25. Drivers of Contractor Selection**



Source: Con Edison Participant Survey Results

In the instances when customers sought bids from several contractors, lowest cost and experience were the key reasons for contractor selection as shown in Figure 26. Additionally, gas customers appeared to place more importance in their contractor selection on the fact that the contractor proposed energy efficient equipment.

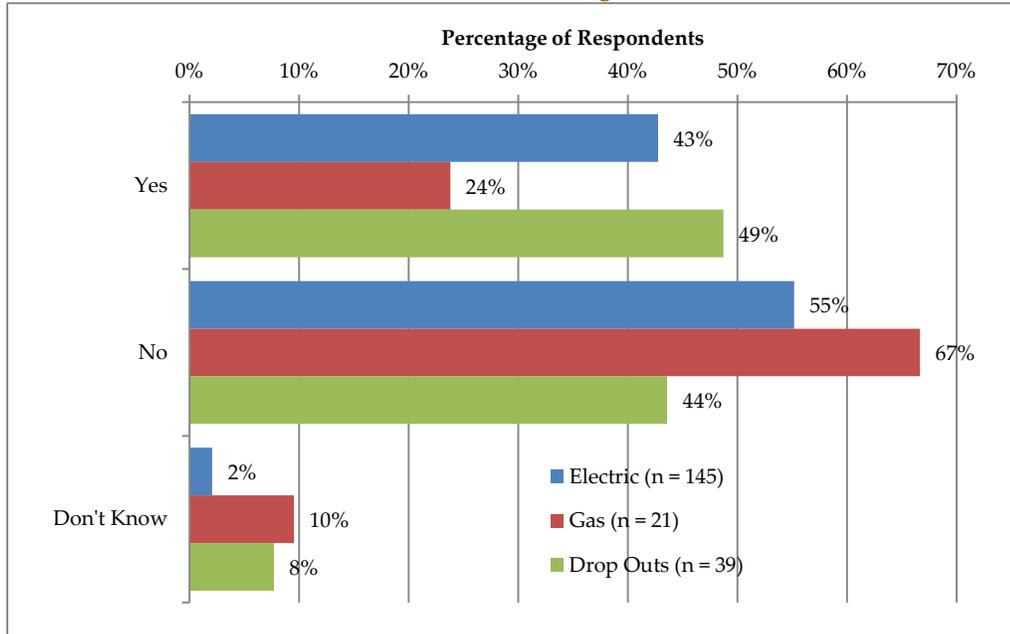
**Figure 26. Primary Reasons Customer Chose a Particular Installation Contractor**



Source: Con Edison Participant Survey Results

Of those respondents who did not mention choosing a Market Partner, many did not know the Market Partner Network existed. Figure 27 shows the relative awareness of the Market Partner Network among those respondents. Gas customers have the least awareness, as only 24 percent of this group knew about the network when making the decision to hire an installation contractor.

**Figure 27. Awareness of the Market Partner Network Among Customers Who Did Not Use the Network**



Source: Con Edison Participant and Drop-Out Surveys

For the customers who were aware of the Market Partner Network, but did not select a Market Partner, 31 percent reported they received a list of Market Partner Network firms at some point during the project. Handing out a list of Market Partner Network firms proved to be successful. Fifty-six percent of the respondents who received a list ultimately selected a firm from the list.

#### Program Website Review

Con Edison has a program website that provides Trade Allies and customers with basic information about the program. Lockheed Martin created a micro site that is linked to Con Edison’s main website. This website offers expanded program information, as well as information about the benefits of installing high efficiency systems, resources for Trade Allies, and a database of Market Partner Network Trade Allies.

As a key program information sharing and enrollment tool, the websites are of great importance to the program’s customer positioning, understanding, enrollment and satisfaction. Navigant conducted a review of the program’s websites and assessed them from a number of perspectives including:

- Structure and Navigation – Is the website well laid out (i.e., is it intuitively structured, easy to navigate, etc.)?
- Functionality – Does the website load quickly and run smoothly?

- Visual Design – Does the website’s visual design connect the target audience to the underlying message or information being presented?
- Consistency – Do the various pages or the website and any associated links match and conform to a common visual and informational theme?
- Content – Is the presented information relevant, easy to understand and consistent with that presented elsewhere?
- Interactivity – Does the website engage visitors and provide them with adequate tools to locate the information they are looking for or a means to request that information (e.g. searches, request forms, database queries, online chat).
- Customer Relations – Does the website provide the necessary contact information (i.e. address, customer help-line, email)
- Search – Is the website easy to find from various search engines (Google, Yahoo!, Bing, Ask AOL Search) using various key words?

The program website provides the information necessary to engage Trade Allies and customers and make it easy for them to participate in the rebate program. The Con Edison and Lockheed Martin webpages are consistent in their look and feel, though there is redundant information and the click pattern from the Con Edison main page is indirect. Table 27 provides a summary of our findings.

**Table 27. Summary of findings for Con Edison's C&I program-related websites<sup>18</sup>**

Assessment Category	Findings	Overall Assessment (Poor, Acceptable, Good, Excellent)
Overall Structure and Navigation	<ul style="list-style-type: none"> <li>• Green Team and Power of Green marketing prominent on main Con Edison page</li> <li>• Jump from Con Edison hosted pages to Lockheed Martin hosted pages is smooth</li> <li>• Easy navigation to <a href="http://www.coned.com/energyefficiency/business.asp">http://www.coned.com/energyefficiency/business.asp</a> page from <a href="http://www.coned.com/energyefficiency/default.asp">http://www.coned.com/energyefficiency/default.asp</a> page</li> <li>• Most pages have a lot of text</li> <li>• Consider adding more graphic links to reduce the amount of text on certain pages</li> </ul>	Acceptable

<sup>18</sup> Review conducted September 28, 2012

Con Edison hosted addresses reviewed:

- <http://www.coned.com>
- <http://www.coned.com/thepowerofgreen/index.asp>
- <http://www.coned.com/energyefficiency/>
- <http://www.coned.com/energyefficiency/business.asp>
- [http://www.coned.com/energyefficiency/ci\\_program\\_rebates.asp](http://www.coned.com/energyefficiency/ci_program_rebates.asp)
- [http://www.coned.com/customercentral/calculators/EC\\_bus\\_Calc.html](http://www.coned.com/customercentral/calculators/EC_bus_Calc.html)

Lockheed Martin hosted addresses reviewed:

- <https://www.conedci.com/>
- <https://www.conedci.com/program.aspx>
- <https://www.conedci.com/Resources.aspx>
- <https://www.conedci.com/News.aspx>
- <https://www.conedci.com/ForMarket.aspx>
- <https://www.conedci.com/FindMarket.aspx>
- <https://www.conedci.com/FindForms.aspx>
- <https://www.conedci.com/ContactUs.aspx>

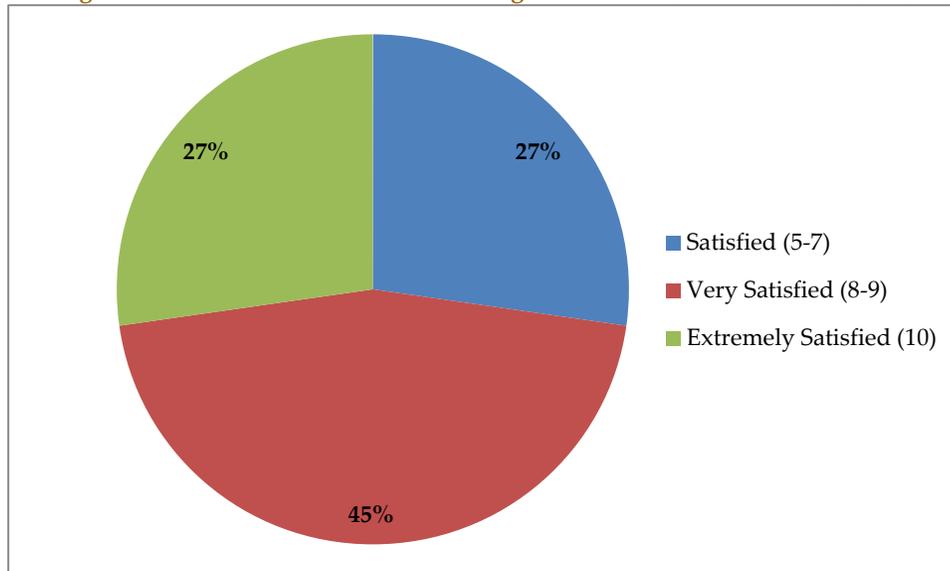
Assessment Category	Findings	Overall Assessment (Poor, Acceptable, Good, Excellent)
Structure and Navigation	<ul style="list-style-type: none"> <li>• Several links to get to rebate forms and contractor information</li> <li>• Text and graphics generally support intuitive navigation</li> <li>• Navigation to the Market Partner Network information is linked, but not prominent</li> <li>• Consider highlighting the Market Partner Network and clearly differentiate customer and contractor resources</li> <li>• Put rebate forms and contractor information on earlier pages to reduce number of clicks to access the information.</li> </ul>	Acceptable
Functionality	<ul style="list-style-type: none"> <li>• Various pages load quickly and cleanly.</li> </ul>	Good
Visual Design	<ul style="list-style-type: none"> <li>• Homepage uses graphics to assist user in locating relevant information, e.g., “Green Team” logo and moniker used to direct users to energy efficiency programs</li> <li>• Good use of scrolling images and “Pay it Green” messaging</li> <li>• Consider more graphics on sub-pages</li> <li>• Consider a “navigation roadmap” bar so users can ensure they are viewing the correct pages</li> </ul>	Good
Consistency	<ul style="list-style-type: none"> <li>• Lockheed Martin and Con Edison pages have consistent use of graphics, colors, language, and navigation</li> </ul>	Good

Assessment Category	Findings	Overall Assessment (Poor, Acceptable, Good, Excellent)
Content	<ul style="list-style-type: none"> <li>• Adequate information provided to determine eligibility and support participation</li> <li>• Eligibility requirements and other Terms and Conditions easy to locate and understand</li> <li>• Program resources are comprehensive with case studies, interviews, success stories, etc.</li> <li>• Online calendar of events is a good method to encourage attendance</li> <li>• Redundant information on Con Edison and Lockheed Martin versions of the sites</li> <li>• Consider offering fillable forms (rebate applications) and/or online rebate submission</li> <li>• Consider moving program application materials further up on the <a href="https://www.conedci.com/program.aspx">https://www.conedci.com/program.aspx</a> page and highlighting the “Find Program Forms” link</li> </ul>	Acceptable
Interactivity	<ul style="list-style-type: none"> <li>• Con Edison’s online audit tool is interactive and easy to use</li> <li>• Lockheed Martin’s online incentive estimator is interactive and easy to use, as well as contains relevant</li> <li>• Use of video and webinars is engaging</li> <li>• Considering adding information in the tool regarding the recommended technologies</li> </ul>	Good
Customer Relations	<ul style="list-style-type: none"> <li>• A number is provided for follow-up inquiries on all program related rebate documentation and is easy to locate on the associated web pages. An online query form is also available.</li> </ul>	Excellent
Search	<ul style="list-style-type: none"> <li>• Program information was easy to locate via all web browsers</li> </ul>	Excellent

*Source: Navigant Consulting Analysis*

Of the few customers who learned of the program through the program website, all were at least somewhat satisfied with the experience. As Figure 28 shows, over a quarter of respondents were extremely satisfied.

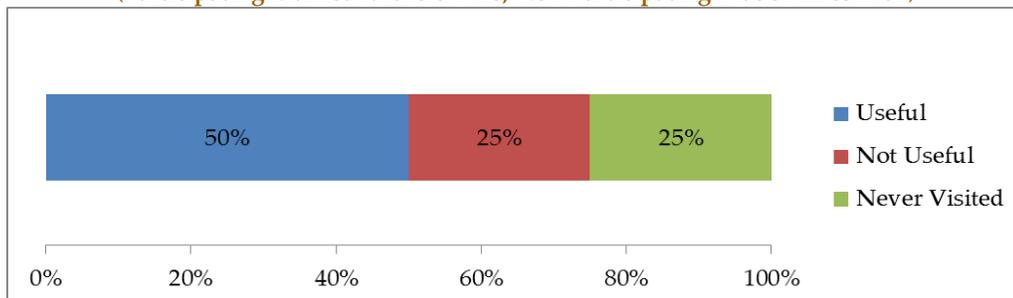
**Figure 28. Customer Satisfaction with Program Website (Scale of 1 to 10) (n=11)**



Source: Con Edison Participant Survey Results  
 Note: No respondents recorded a rating less than 5.

About half of the Market Partners and non-participating Trade Allies polled reported the website was useful to them. However, a quarter of the Market Partner respondents reported the website was not useful due to navigation difficulties, confusing paths, and disorganized information. Contrarily, only 6 percent of the non-participating Trade Allies reported the website as not useful, mainly due to navigation difficulties. The benefits to the website included ease of access, useful tools (e.g., xACT), and provision of information regarding competitor firms. Figure 29 shows the Trade Allies’ perception of the usefulness of the program website.

**Figure 29. Trade Ally Perception of Program Website  
 (Participating Market Partners n=10, Non-Participating Trade Allies n=54)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results

Both Market Partners and non-participating Trade Allies were asked to suggest improvements to the website. Table 28 lists the key suggestions.

**Table 28. Trade Ally Suggestions for Website Improvements**

Suggestions for Website Improvements
Easier navigation
Program budget tracking
Simple payback calculator to share with customers
Information on high efficiency equipment benefits
More detailed Market Partner company descriptions
Method to track rebate applications
Specifics on qualifying equipment
Information regarding financial assistance for customers

*Source: Skumatz Economic Research Associates- In-Depth Interview Results*

### Benchmarking of Marketing Practices

As part of its evaluation of the rebate programs, Navigant benchmarked the marketing and outreach activities of Con Edison to those of several other utility programs. Navigant conducted interviews with program management and marketing and outreach staff of seven utilities to identify their marketing best practices. Our team focused on C&I programs of utilities with similar program offerings and similar geographic features. Table 29 shows the comparison of Con Edison and Lockheed Martin marketing efforts to these identified best practices.

Additionally, Navigant interviewed marketing intelligence experts for insights into cutting-edge C&I energy efficiency strategies and program marketing trends. Table 30 represents the comparison of Con Edison and Lockheed Martin marketing efforts to current trends in C&I marketing and outreach.

**Table 29. Con Edison Comparison to Best Practices for C&I Marketing and Outreach**

Best Practices	Con Edison/Lockheed Martin Practices	Overall Assessment (Excellent, Good, Acceptable, Needs Improvement)
<p><b>Channel customers and trade allies through program website. Websites should be user-friendly and have relevant program information readily available.</b> All of the interviewed utilities host websites particular to their programs. Online traffic has increased, and utilities now channel more customers and trade allies to their websites.</p>	<p>Both the Con Edison and Lockheed Martin web pages host a great deal of readily available information regarding the program. Although Lockheed Martin’s approach to servicing Trade Allies and customers is high touch, users generally find the website useful. Market materials for the program do include references to the program websites, though they are not highlighted well.</p>	<p>Acceptable</p>
<p><b>Reach potential customers through multiple media.</b> Utilities use direct mailings, email blasts, phone calls, and personal meetings to reach potential customers. The utilities do not always know which method works in this strategy, but they agree more “touches” will yield more customers.</p>	<p>Lockheed Martin reaches out to customers and Trade Allies through many channels, including direct mailings, email, phone, personal meetings, newsletters, and industry presentations.</p>	<p>Excellent</p>
<p><b>Set up and manage electronic contact information databases for customers and trade allies.</b> Utilities use email blasts to reach a large number of contacts quickly. The marketing and outreach staff should keep the contact database up-to-date and continuously expand the database with additional contacts.</p>	<p>Lockheed Martin maintains a database of customers and Market Partners.</p>	<p>Good</p>

Best Practices	Con Edison/Lockheed Martin Practices	Overall Assessment (Excellent, Good, Acceptable, Needs Improvement)
<p><b>Engage trade allies and performance partners.</b> Trade allies conduct their own marketing and outreach as part of their business development. Utilities can educate the trade allies who can offer the available incentives as part of their service package to the customer.</p>	<p>Lockheed Martin leverages Market Partners to reach potential customers and hosts program-specific seminars and other informative functions to educate Trade Allies, consultants, etc.</p>	<p>Excellent</p>
<p><b>Hire and develop strong account executives.</b> Account executives should have experience in energy efficiency and a background in specific industries. Decision makers are more willing to pursue a project when an account executive not only understands an organization’s unique operations and needs but also understands the high-efficiency technologies he/she is promoting. In addition, utilities can set energy savings and participation goals for account executives.</p>	<p>Con Edison relies on account executives to educate the customer and market energy efficiency programs to key customers. The account executives do not necessarily have a lot of experience in energy efficiency, but often as the first line of outreach they are knowledgeable of the programs and technologies. Lockheed Martin typically coordinates marketing efforts with account executives. Account executives are held to key performance indicators for energy efficiency, such as MWh, Therms.</p>	<p>Acceptable</p>
<p><b>Leverage government relationships and partnerships.</b> Utilities can develop relationships with local governments and community partners, who can broadcast program information to a large audience.</p>	<p>Lockheed Martin has not focused marketing efforts toward local governments and community organizations. Alternatively, the focus has been on professional and industry groups.</p>	<p>Needs Improvement</p>
<p><b>Conduct regular feedback surveys with marketing targets.</b> Because marketing strategies are extensive and diverse, implementers have difficulty tracking the success of specific marketing efforts. Surveys from customers and trade allies after marketing and outreach events can facilitate evaluation of marketing strategies.</p>	<p>Lockheed Martin conducts regular satisfaction surveys of participating customers, but they do not survey specifically regarding marketing and outreach.</p>	<p>Needs Improvement</p>

Source: Navigant Consulting Analysis.

**Table 30. Con Edison Comparison to Trends in C&I Marketing and Outreach**

Industry Insights & Trends	Con Edison/Lockheed Martin Practices	Part of Marketing Plan?
<p><b>Use marketing strategies tailored to the size of the customer.</b> C&amp;I programs include large, medium and small business types. Utilities can use marketing strategies specific for customer size. Large customers often have a dedicated account executive who maintains an ongoing relationship. The account executive should understand the business model and any sustainability goals of the large customers. Medium-size customers do not always have dedicated account executives, thus utilities can rely on local associations and trade allies.</p>	<p>The Con Edison and Lockheed Martin program team effectively tailors outreach according to customer size. Con Edison account executives are fundamental components of the program marketing. Lockheed Martin actively presents to local chambers and organizations.</p>	<p>Yes</p>
<p><b>Integrate with existing communication channels.</b> Many C&amp;I customers participate in local organizations and associations, such as local restaurant groups. Utilities can send more effective marketing messages through existing channels that customers trust, rather than opening new, isolated communication channels. For example, a utility can advertise through local ASHRAE chapters.</p>	<p>Lockheed Martin reached several national and international organizations in the marketing effort, including ASHRAE, Building Owners Management Association (BOMA), American Institute of Architects (AIA), USGBC, and International Facility Management Association (IFMA). Also, they brought in local organizations, such as New York Building Congress (NYBC)</p>	<p>Yes</p>
<p><b>Target customers with previous participation.</b> Utilities can target customers that have participated in any previous programs or offerings. Marketing is more cost-effective when the customer has shown some interest in working with the utility. For example, if a customer has implemented a lighting project in the past, a utility can provide information on advanced lighting technologies and non-lighting energy efficiency measures.</p>		<p>No</p>

Industry Insights & Trends	Con Edison/Lockheed Martin Practices	Part of Marketing Plan?
<p><b>Set and communicate deadlines for incentive/rebate availability.</b> Most C&amp;I program cycles are long, up to several years. Customers do not feel pressure to sign up with the programs knowing the incentives and rebates likely will be available later. Utilities can use an “act now” strategy to initiate interest and drive participation. For example, utilities can advertise the programs and reference upcoming code changes or imminent rate increases.</p>		No
<p><b>Leverage local public relations and advertising.</b> Whether a branch of a national corporation or a unique small business, C&amp;I customers have a local presence. Utilities can leverage their customers’ needs for a positive local image by advertising in local media. Austin Energy takes advantage of the industry trend toward energy efficiency and sustainability, and recognizes participating customers in local newspapers and offers complimentary signage for store windows. Similarly, SCE hosts an annual awards banquet for program participants to acknowledge “green” businesses.</p>	<p>Lockheed Martin does acknowledge Market Partner Network participants by hosting an awards banquet toward the end of the program term. Lockheed Martin does host success stories and case studies on the program website, but customers do not receive local acknowledgement.</p>	No

Industry Insights & Trends	Con Edison/Lockheed Martin Practices	Part of Marketing Plan?
<p><b>Develop databases for predictive modeling.</b> Utilities can develop databases to compare previous participants to potential participants. Companies such as E Source offer database solutions that combine NAICS code, DEER, Census, and other relevant datasets. By comparing project and customer data from participants to the database, utilities can estimate a customer’s propensity to participate in certain programs. Xcel Energy, MN has begun using predictive modeling to define the “typical participant” for specific measures. The utility queries its database for customers that fit the profile and creates very specific marketing strategies to reach those customers.</p>		<p>No</p>

*Source: Navigant Consulting Analysis*

### *Program Delivery*

Lockheed Martin is the implementation contractor for the C&I Program, and is responsible for program delivery and ensuring that all program goals and objectives are met. Lockheed Martin communicates with customers and Market Partners and guides them through the program process to complete an energy efficiency project and receive a financial incentive.

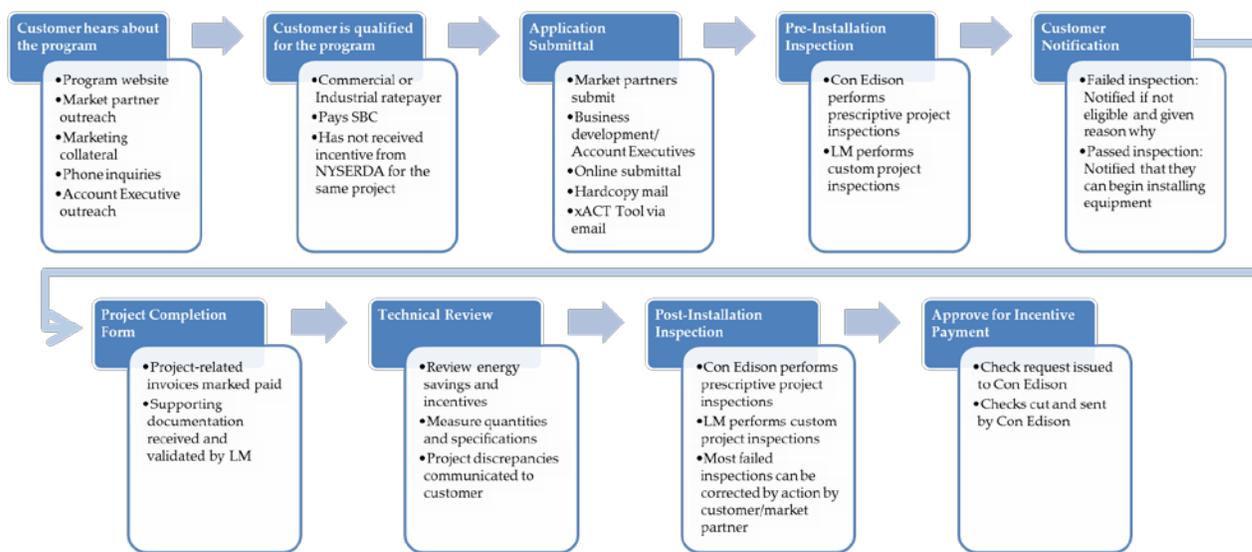
Key findings from this section include the following:

- Lockheed Martin's program participation process is very robust.
- Market Partners cited the increased time associated with the rebate program, including paperwork, time to receive rebates, and time required to learn about the program, as barriers to participation
- Market Partners observed that rebates made their customers more likely to install high-efficiency equipment, and better quality equipment, and that program rebates push their customers toward these high-efficiency options. However, many Market Partners were already promoting high-efficiency equipment to their customers before their involvement with the C&I program began.
- The program heavily influenced the decision to make lighting upgrades, more so than non-lighting projects. This is because non-lighting measures, such as chillers, boilers, and HVAC, are replaced when they fail or are otherwise not operating properly, whereas lighting projects were replaced in a discretionary fashion – customers wanted to lower their energy bill, but their lights were still operating properly.
- Overall, the participation in the program was a benefit to Market Partners.
- Participants are highly satisfied with their interactions with program staff, both Lockheed Martin and Con Edison.
- In general, electric customers perceived program participation as an easier process than did gas participants. Particularly in areas such as identifying energy efficiency improvements in their facility and estimating the costs and savings of these efficiency improvements, gas customers reported having difficulty with these steps.
- Only 15 percent of electric participants and 10 percent of gas participants reported any parts of the program that took longer than they considered reasonable, but the most often reported unreasonably long program step was obtaining the incentive payment.
- Participants who discontinued their program participation cited equipment costs as the primary reason they discontinued their projects. Other reasons reported were that customers were deciding between NYSERDA's and Con Edison's programs, they were held up waiting for corporate or executive approval, or they were waiting for Con Edison approval before proceeding with their project.

## Program Process

The program process is an organized set of steps and milestones that each customer's project goes through while working with the program to acquire an incentive. This process includes the identification and approval of energy-efficiency measures, offers of incentives for installing and/or implementing measures, coordination of pre- and post-installation inspections, and completion of the processing and project tracking necessary for the customer to receive an incentive. Although there may be some variation in the steps taken for each project due to their inherent differences, a systematic approach is very important in maintaining quality control and decreasing project processing time. Lockheed Martin developed a very robust process approach for the prescriptive and custom programs. The steps outlining the participation process are outlined in Figure 30 below.

**Figure 30. C&I Program Process**



Source: Con Edison C&I Program Manual, November 2010.

The program processes for prescriptive projects and custom projects are similar to each other in many project phases, but take different paths during other phases. For example, Con Edison performs pre- and post-installation inspections for all prescriptive projects, while Lockheed Martin performs these inspections for custom projects.

C&I Program implementation involves several Lockheed Martin staff members: Program Managers and Business Development staff. The Marketing and Creative Manager produces collateral, events, and manages web content. The Engineering department includes the Engineering Manager and Program Engineers. Program Operations includes the Operations

Manager and the Project Coordinators; and external client partners including: Market Partners, Con Edison Energy Efficiency Program Managers, Field Engineers and Account Executives.<sup>19,20</sup>

## Market Partner Participation

Market Partners are a group of installation contractors, equipment distributors, manufacturer representatives, and designers dedicated to the marketing, sales, specification, installation and maintenance of energy efficiency equipment. Market Partners are recruited by Lockheed Martin through the C&I program website, direct outreach and regional Market Partner events. Market Partner membership is open to all Trade Allies, but there is an application process that all new members must complete. Market Partners are asked to:

- Act as liaison between customer and Lockheed Martin during the project;
- Integrate program incentives and support services into project proposals wherever feasible;
- Maintain state-of-the-art awareness of energy efficient technologies and services within their field of expertise;
- Specify, install and maintain project measures;
- Follow up on referrals from Lockheed Martin to bid on specific projects.<sup>21</sup>

When surveyed about the reasons why Trade Allies decide against participating in the Market Partner program, current Market Partners believed that non-participating Trade Allies were not involved primarily because they were only interested in supplying or installing the lowest-cost options, which are often not the high-efficiency equipment that qualify for the program. However, actual non-participating Trade Allies reported that the real barrier to participating was the increased time associated with the rebate program, including paperwork, time to receive rebates, and time required to learn about the program. Figure 31 shows the program barriers listed by non-participants.

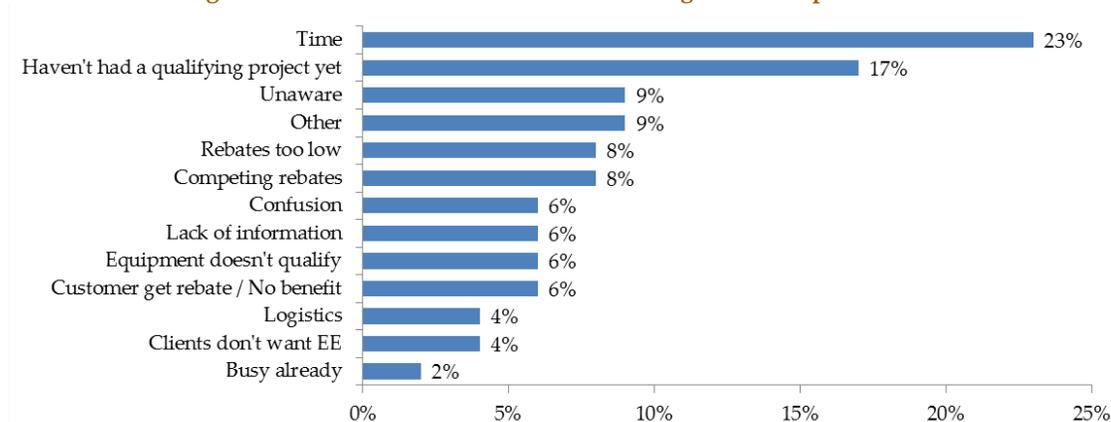
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<sup>19</sup> Lockheed Martin. Con Edison C&I Energy Efficiency Program Manual - November 19, 2010 – v1.0, page 7.

<sup>20</sup> All collateral is now produced internally by Con Edison in conjunction with “The Gate”.

<sup>21</sup> Lockheed Martin. Con Edison C&I Energy Efficiency Program Manual - November 19, 2010 – v1.0, page 21.

**Figure 31. Non-Market Partner Barriers to Program Participation (n=54)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

In Focus Groups with participating Market Partners, many of the participating firms were happy with the idea of the older, more established firms not taking advantage of the Con Edison rebates because it gives the more innovative, smaller firms a market advantage. The participating firms feel that they have done the research to sell and promote high efficiency equipment and they are pleased to see a reward for this effort. Focus Groups with non-participating firms found that these companies do not see the need for participating in the program, and that telling customers how to get rebates is not part of their current business model. Non-participating firms reported that they might become engaged in the program only when they stop making profits with their current business model.<sup>22</sup> However, participating Market Partners reported that in the next few months<sup>23</sup>, more firms will get involved in the program, especially given the current market conditions.

In Focus Groups, HVAC Market Partners reported that the program has helped some Trade Allies get in the door with some customers, and given them tools to continue the relationship. Specifically, the education on the latest equipment and designs, along with the incentives, has been very helpful for the HVAC participants.

In in-depth interviews, both Market Partners and non-participating Trade Allies were asked what efforts they thought Con Edison could take to better promote participation among contractors, suppliers, and designers. The majority of Market Partners suggested that Con Edison increase outreach and education to contractors, suppliers, and distributors (5 reported). Other suggestions were on-line training, a simplified process, and increased Market Partner recognition. For non-participating Trade Allies, the most common suggestion was to increase marketing to customers (19 percent) followed by more prescriptive measures, and rebates for contractors/suppliers (as opposed to customers) (eight percent each). In Focus Groups,

<sup>22</sup> Navigant Consulting. Focus Group Report, March 2012.

<sup>23</sup> Spring 2012.

lighting, HVAC and gas Trade Allies all reported that Con Edison offering third-party financing would be beneficial to increase program participation by customers.

The value of high-efficiency equipment was well perceived by both participating and non-participating Trade Allies. All of the participating Trade Allies reported that high-efficiency equipment was a good value for their customers, even without the presence of the rebate program. The majority of non-participants, 72 percent, reported that high-efficiency equipment was a good value even without the rebates, and 20 percent said the equipment was only sometimes a good value. For those who reported that high efficiency equipment is only sometimes a good value, they elaborated that this equipment typically benefits customers in the long term, but depended on each customer's specific characteristics (business size, capital, lease terms, etc.). The most common reasons cited by Trade Allies about the value of high-efficiency equipment were the potential for payback or return on investment, as well as non-energy benefits such as environmental benefits, equipment longevity or performance, or improved comfort.

Overall, Market Partners felt that the program has a positive impact on the high-efficiency market. The majority of Market Partners interviewed reported that they felt the program does have an effect on the equipment that their customers install. Market Partners observed that rebates made their customers more likely to install high-efficiency equipment, and better quality equipment, and that program rebates were pushing their customers toward these high-efficiency options. Additionally, most of Market Partners interviewed reported that they felt the program was moving customers from non-qualifying to qualifying equipment. Lighting was reported to be the equipment type most influenced by the program rebates, followed by HVAC equipment.<sup>24</sup>

However, many Market Partners were already promoting high-efficiency equipment to their customers before their involvement with the C&I program began. Market Partners were asked whether or not they felt the program had any impact on the way their firms did business, but all Market Partners reported that they promoted high efficiency products before they participated in the rebate program. Approximately half of Market Partners reported that their involvement in the program has had a positive impact on their business, while the remainder reported that the program hasn't had any impact. Only one Market Partner reported that promoting the program was "a hassle" and had a negative impact on their company. Conversely, one Market Partner reported that the rebate program has allowed them to hire extra staff to focus on high-efficiency equipment and rebates. Overall, the participation in the program was a benefit to Market Partners.

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<sup>24</sup> Skumatz Economic Research Associates. Results of the Con Edison Commercial & Industrial Energy Efficiency Program In-Depth Interviews, March 2011.

### Customer Participation

Participating customers indicated that the program had more influence on their decision to install high efficiency equipment for lighting than for non-lighting projects. Participants reported that non-lighting measures, such as chillers, boilers, and HVAC, are replaced when they fail or are otherwise not operating properly, whereas lighting projects were replaced in a more discretionary fashion. When questioned about the reasons participants installed new equipment, participants with non-lighting projects cited equipment failure as the primary reason, as shown in Table 31 below.

**Table 31. Participant Reasons for Installing New Equipment**

Reason for Installing Equipment	Boilers (n=8)	Chillers (n=2)	HVAC (n=10)	Motors (n=20)	Lighting (n=80)
Equipment stopped working all together	38%	0%	10%	0%	0%
Equipment was failing but still operating	25%	50%	40%	10%	35%
Some other reason	38%	50%	50%	90%	65%

Source: Con Edison Participant Survey Results.

As shown in Table 31, 90 percent of participants who installed lighting projects cited other reasons for upgrading their equipment. These reasons are shown in Table 32 below. The primary reason for installing new lighting measures was to lower the customer’s energy bill. The primary reason for non-lighting measures was to improve equipment performance.

**Table 32. Participant Reasons for Installing New Equipment**

Reason for Installing Equipment	Lighting (n=72)	Motors (n=13)	HVAC (n=5)	Boilers (n=3)
Wanted to improve equipment performance	69%	77%	60%	67%
Wanted a lower energy bill	71%	62%	20%	67%
Wanted to protect the environment	8%	15%	0%	0%
Remodeling or expanding the facility	6%	0%	40%	0%
Other	3%	8%	0%	0%

Source: Con Edison Participant Survey Results.

When customers were asked how likely they would have been to make the same upgrades without the financial assistance from the program, customers who made lighting upgrades reported a higher program influence on their decision. Non-lighting customers reported a very high likelihood of making the same changes, even without the rebate, while lighting customers reported a lower likelihood. Table 33 shows on a scale of 1-10 where 10 is extremely likely to

make the same upgrades without the program rebate, the average likelihood reported, by measure type.

**Table 33. Likelihood of Installing High Efficiency Equipment Without the Program**

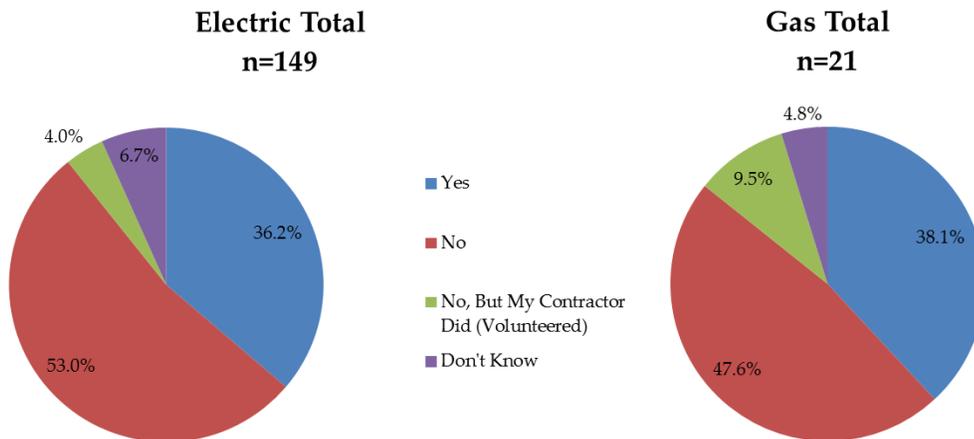
Program Process	Lighting (n=108)	Non-lighting (n=62)
Average likelihood of installing high efficiency equipment without the program	6.9	7.9
Number ranking 8, 9 or 10 for likelihood of installing high efficiency equipment without the program (low program influence)	19%	39%
Percent ranking 1, 2 or 3 for likelihood of installing high efficiency equipment without the program (high program influence)	48%	13%

Source: Con Edison Participant Survey Results.

Table 33 shows that nearly half of the participants with lighting projects ranked their likelihood of making the same upgrades without the program only a 1, 2 or 3 on the likelihood scale. This indicates that for these 50 percent of lighting participants, the program strongly influenced their decision to install high-efficiency lighting.

Participating customers were interviewed about their experience with the program process. Approximately 50 percent of electric and gas customers (53 percent and 48 percent respectively) reported that they did not need to contact a program representative during the entire program process. Figure 32 shows the percentage of participants, both gas and electric, who needed to contact someone at Con Edison or Lockheed Martin, or if their contractor did.

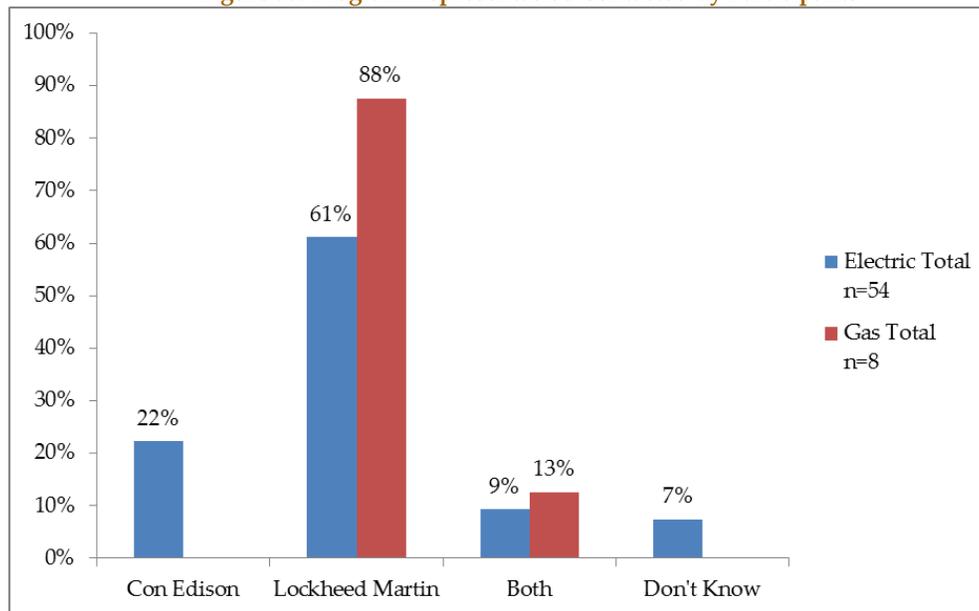
**Figure 32. Participants Who Contacted a Program Representative**



Source: Con Edison Participant Survey Results.

For those participants who did report contacting a program representative (54 electric customers and 8 gas customers), the primary contact was to Lockheed Martin. Gas customers almost exclusively contacted Lockheed Martin for their program issues, while 31 percent (17 of the 54) electric customers contacted Con Edison. The customer contacts are shown in Figure 33 below.

**Figure 33. Program Representative Contacted by Participants**



Source: Con Edison Participant Survey Results.

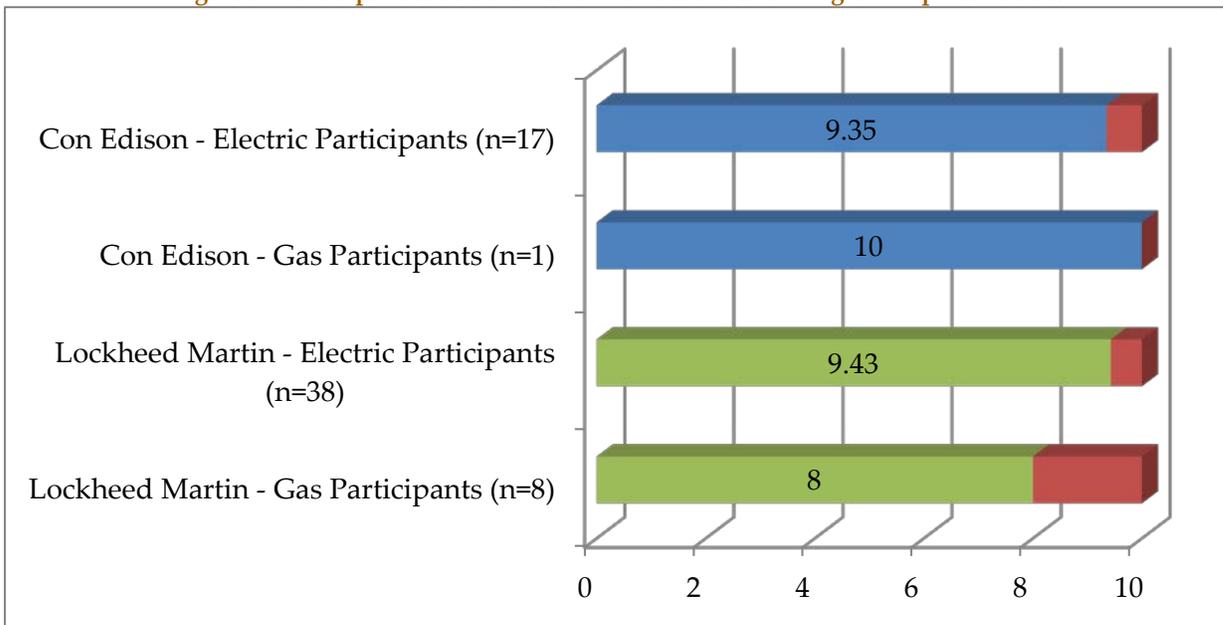
Participants were asked about the nature of their inquiries to Con Edison. The primary reasons reported were general program questions (5 of 17), program eligibility questions (3 of 17), application status questions (3 of 17) and rebate status questions (3 of 17). All of the participants who contacted Con Edison (17 participants) reported that the representative was knowledgeable about the program and its processes. All inquiries were resolved to the customer's satisfaction. On a 1 to 10 scale, where 10 is extremely satisfied, electric participants reported a mean satisfaction of 9.35 for their interaction with Con Edison program representatives.

Similarly, inquiries to Lockheed Martin were primarily regarding general program questions (18 of 38 electric participants, 2 of 8 gas participants) and application or project-specific/technical questions (9 of 38 electric participant and 2 of 8 gas participants). Additional questions involved eligibility, inspections, and rebate status for both gas and electric customers. More than 90 percent of electric participants who contacted Lockheed Martin (36 participants) reported that the representative was knowledgeable about the program and its processes. Six of the eight gas participants reported this as well. The majority of inquiries were

resolved to the customer’s satisfaction (94 percent for electric participants, and 75 percent for gas participants). On a 1 to 10 scale, where 10 is extremely satisfied, electric participants reported a mean satisfaction of 9.43 for their interaction with Lockheed Martin program representatives, while gas participants reported a mean score of 8 for their interactions with Lockheed Martin.

Figure 34 shows participant satisfaction with interactions with program representatives.

**Figure 34. Participant Satisfaction with Interactions with Program Representatives**

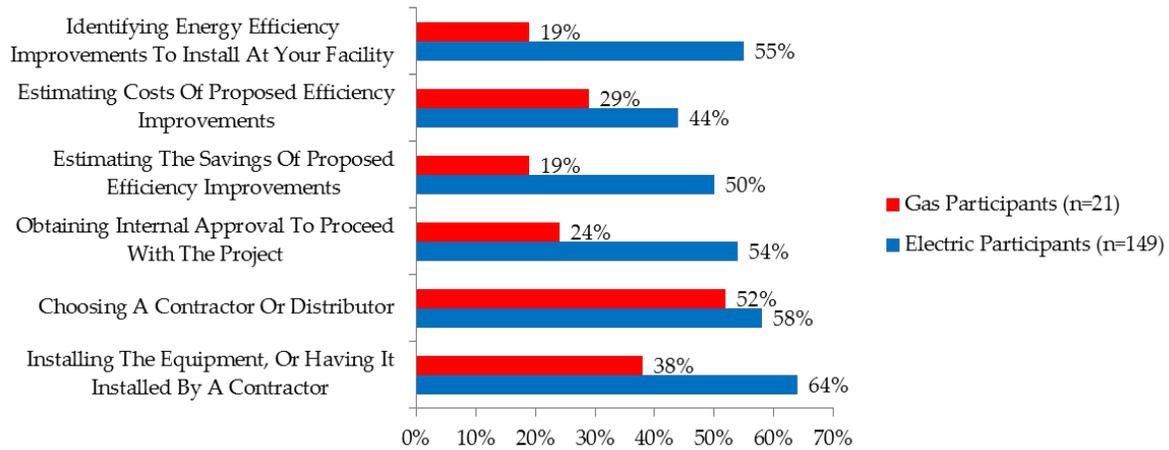


Source: Con Edison Participant Survey Results.

Note: these results are only for participants who contacted Con Edison or Lockheed Martin.

In general, electric customers perceived making energy efficiency improvements as an easier process than did gas participants, particularly in areas such as identifying energy efficiency improvements at their facilities, as well as estimating the savings associated with those improvements. Figure 35 below shows the percent of program participants who ranked each of the energy efficiency improvement phases as easy, or a rank of 8, 9 or 10 on a scale of 1-10 where 10 is very easy.

**Figure 35. Ease of Energy Efficiency Improvement Process Aspects  
(Percent Perceived as Easy – Rank of 8, 9, or 10)**



Source: Con Edison Participant Survey Results.

When asked if there were any parts of the program that took longer than participants considered reasonable, only 15 percent of electric participants (22 of 149) and 10 percent of gas participants (2 of 21) reported this experience. The most often reported program step that took longer than reasonable was obtaining the incentive payment (reported by 13 of 23 electric participants, and 1 of 2 gas participants).

Customers who did not continue their participation in the program were asked at which point they made the decision to discontinue participating. Table 34 shows the steps completed by the 39 customers who were surveyed. The primary initial steps for energy efficiency projects were identifying which measures to install and estimating the cost of the project – these steps were completed by more than 70 percent of customers surveyed. Six respondents reported that they actually installed their equipment, but only 2 reported scheduling their post-installation inspection.

**Table 34. Program Processes Completed by Drop Outs**

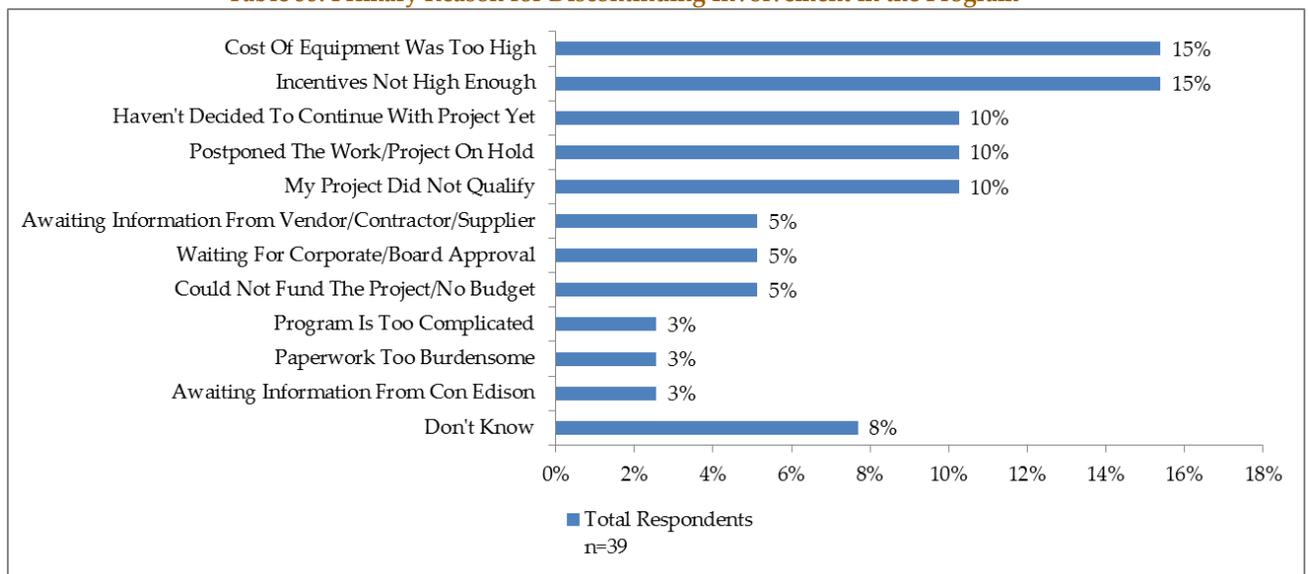
Program Process	Total Respondents	Yes	No	Don't Know
Identify the measure(s) to install at your facility?	39	74.4%	15.4%	10.3%
Estimate costs of the proposed measures?	39	71.8%	17.9%	10.3%
Estimate the savings of the proposed measures?	39	66.7%	20.5%	12.8%
Obtain internal approval to proceed with the project?	39	51.3%	41.0%	7.7%
Choose a contractor or distributor?	39	46.2%	48.7%	5.1%
Submit an application?	39	69.2%	15.4%	15.4%
Schedule the program's pre-inspection?	33	30.3%	45.5%	24.2%
Obtain an offer letter from Con Ed	18	38.9%	27.8%	33.3%
Install the equipment or have it installed?	13	46.2%	30.8%	23.1%

Program Process	Total Respondents	Yes	No	Don't Know
Schedule the program's post-inspection?	9	22.2%	22.2%	55.6%

Source: Con Edison Participant Survey Results.

These same customers were asked why they discontinued their involvement in the C&I program. The most reported answers related to high equipment costs or low incentives (12 of 39 respondents reported these reasons). The next highest responses related to general reasons about placing the project on hold, but not totally abandoning the project. Table 35 shows all responses about why customers discontinued their participation in the program. Approximately 23 percent of respondents reported reasons indicating that they are waiting to continue their project.

**Table 35. Primary Reason for Discontinuing Involvement in the Program**



Source: Con Edison Drop Out Survey Results.

Note: Two respondents reported other reasons: one that their landlord did not approve of the equipment, and the other that they completed the project with Global Energy Partners.

One third of participants who discontinued their involvement in the program (13 of 39) contacted a program representative at some point during their process. Of the 13 drop outs, 7 contacted a Lockheed Martin representative, 2 contacted a Con Edison representative, and 3 contacted both. The primary nature of these inquiries was to get general information about the program, as well as questions about inspections, or to provide the representatives with the status of their projects.

The majority of drop outs were very satisfied with their interactions with Con Edison and Lockheed Martin, with 13 of 15 customers reporting that their inquiries were resolved to their

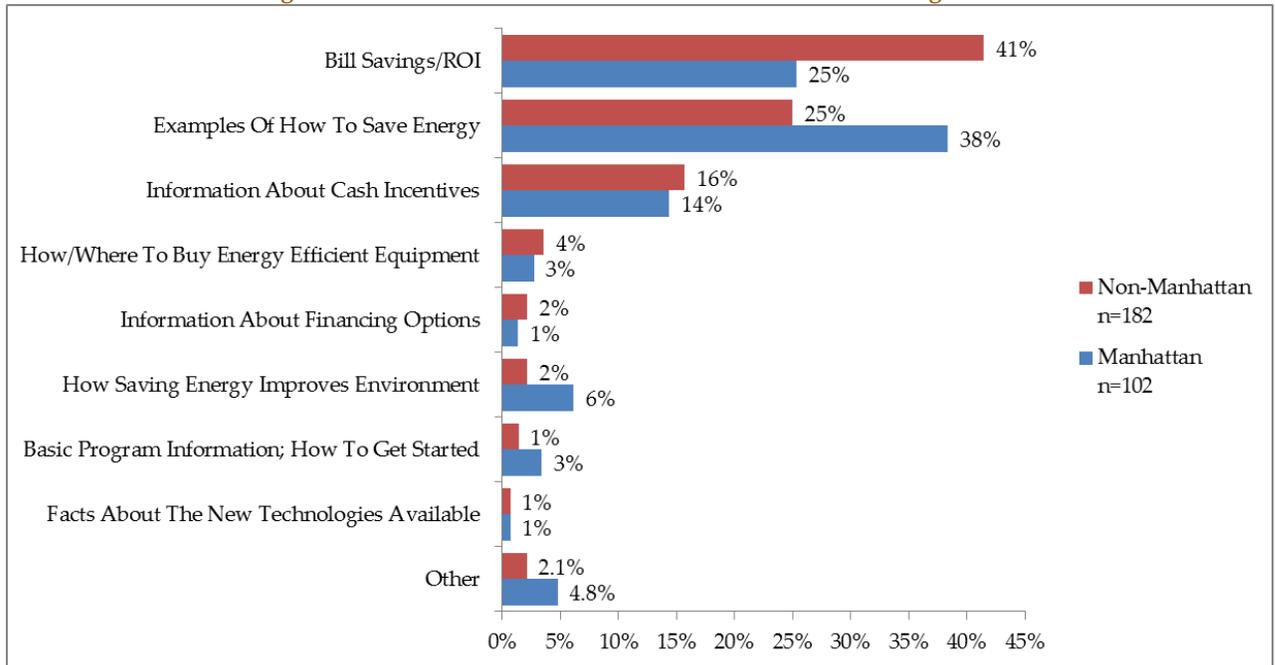
satisfaction. Drop outs rated their satisfaction with Con Edison and Lockheed Martin customer service an 8.5 out of 10 on the satisfaction scale, where 10 is extremely satisfied.

Only 18 percent of drop outs (7 of 39) reported any aspect of the program as taking longer than they thought was reasonable. The most-cited program aspects that took longer were scheduling the pre-inspection, obtaining an offer letter from Con Edison, and scheduling the post-inspection. One customer cited difficulty in determining which equipment would be eligible for a rebate, and which would not. One reported suggestion to improve the program process was to have Spanish-speaking representatives to assist the Spanish community through the program.

When asked what would need to be different in order for the drop outs to continue through the program, 46 percent (16 of 35) reported that equipment costs were the primary reason they discontinued their projects. Other reasons reported were that customers were deciding between NYSERDA's and Con Edison's programs (3 of 35), they were held up waiting for corporate or executive approval (2 of 35), or they were waiting for Con Edison approval before proceeding with their project (3 of 35). In short, from interviews with drop outs, it does not seem to be a program design or delivery issue but rather customer issues that tend to prevent participation.

Non-participants suggest email and direct mailings are the best methods for informing them about the program. When asked what kind of program information would be most beneficial to receive, Manhattan non-participants reported that they are most interested in seeing real examples of energy savings solutions for their sites (suggested by 38 percent), where Non-Manhattan non-participants are most interested in seeing bill savings/return on investment information (suggested by 41 percent). These results are shown in Figure 36.

**Figure 36. Critical Information to Communicate about the Program**



Source: Con Edison Non-Participant Survey Results.

### ***Satisfaction with the Program***

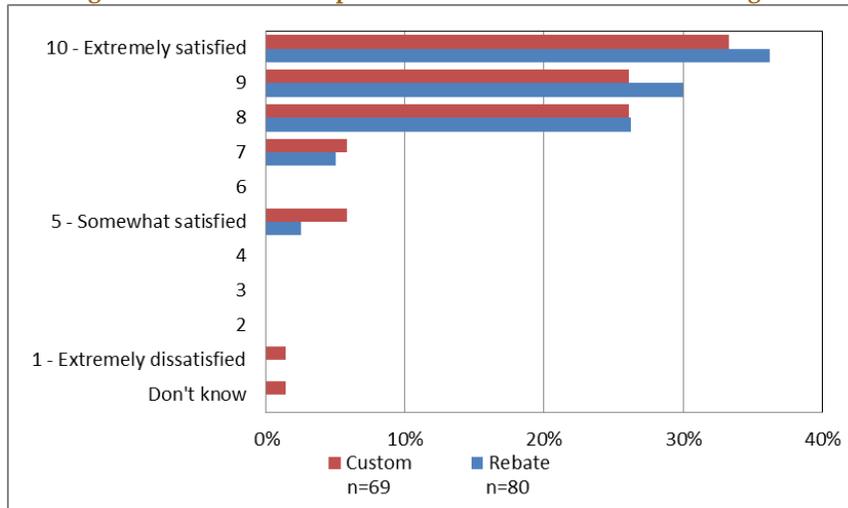
In order to assess program satisfaction, participating and non-participating customers were asked several questions relating to their perceptions of the program. Market Partners were also interviewed in order to obtain their program feedback. This section provides an assessment of customer satisfaction with the program, including suggestions for improvement. It also addresses Market Partner satisfaction with the program.

### **Customer Satisfaction**

#### *Overall Program Satisfaction*

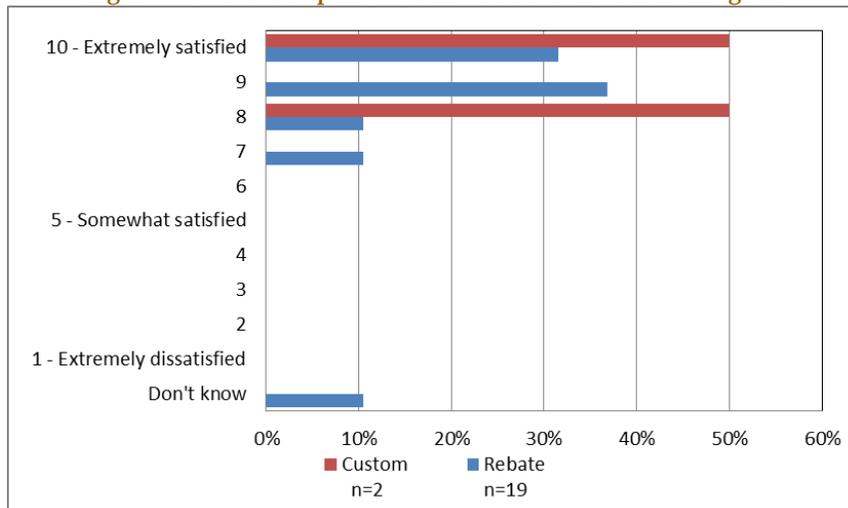
Overall, almost all of customers surveyed reported being satisfied with C&I Programs. While slightly more electric participants reported satisfaction scores of eight to 10, all gas participants rated their satisfaction as a seven or above. Electric rebate customers were more satisfied than electric custom customers, while the opposite was true for gas rebate and custom customers (though this was based on only two custom gas program participants). The breakdown of responses for electric and gas participants can be seen in Figure 37 and Figure 38, respectively.

**Figure 37. Electric Participant Overall Satisfaction with the Program**



Source: Con Edison Participant Survey Results.

**Figure 38. Gas Participant Overall Satisfaction with the Program**



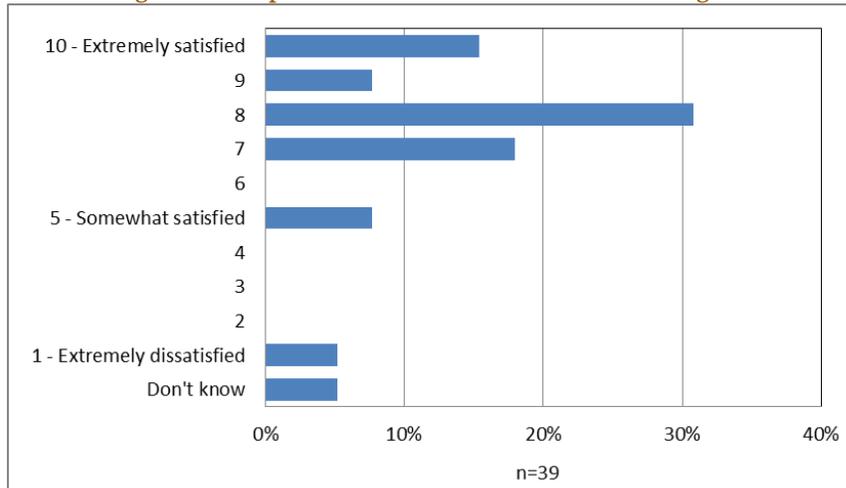
Source: Con Edison Participant Survey Results.

When asked if there were any drawbacks to participating in the program, 18 out of the 149 electric participants and one out of the 21 gas participants answered “Yes”. Seven electric participants indicated that the paperwork was too burdensome. Three electric participants felt that the program was too complicated. While the sole gas participant indicated that the incentives were not high enough, none of the electric participants gave this response.

Even program participants who did not complete the process and receive a rebate were largely satisfied with the program. Fifty-four percent of drop-out respondents rated their overall satisfaction with the program in the eight to 10 range, on a scale of one (extremely dissatisfied) to 10 (extremely satisfied). The breakdown of overall satisfaction scores can be seen in Figure

39. Two respondents who indicated that they were dissatisfied listed low rebates as the reason, while one said it was the lack of follow-up.

**Figure 39. Drop-Out Overall Satisfaction with the Program**



Source: Con Edison Drop-Out Survey Results.

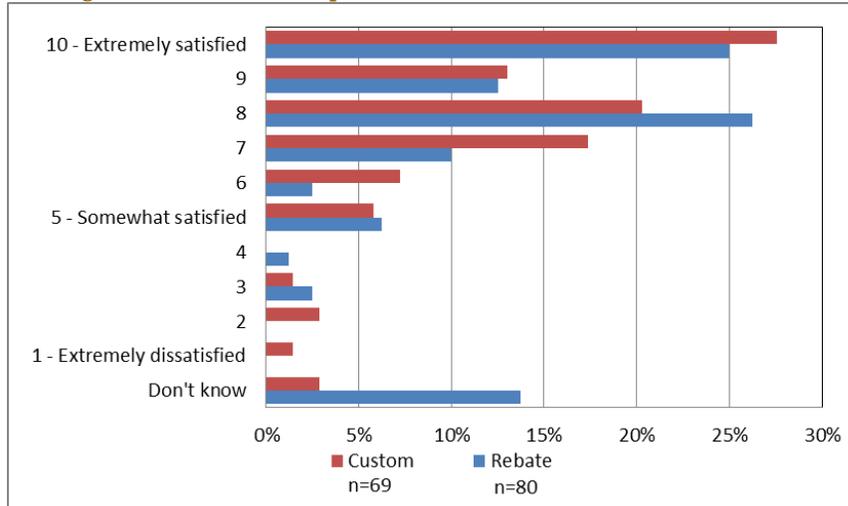
Respondents who indicated that they chose a Market Partner for installation were usually satisfied with working with their Market Partner. Nine out of the 12 electric respondents chose a score of eight to 10 on a scale of one (extremely dissatisfied) to 10 (extremely satisfied). Both of the gas respondents chose a score of nine to 10. Those who did not choose a Market Partner to install their new equipment most often indicated that they used their normal contractor/distributor/installer. This answer accounted for four out of the eight electric respondents and the one gas respondent.

### *Rebate Satisfaction*

Gas customers gave higher satisfaction scores than electric customers overall. Electric and gas rebate customers were more satisfied with the total rebate amount than custom customers. As might be expected, drop-outs were significantly less satisfied than participants with the rebate amounts.

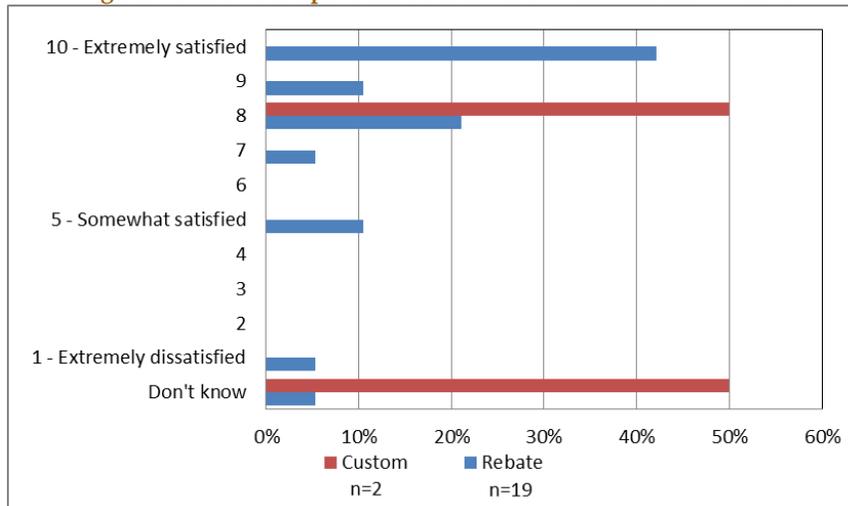
The majority of respondents indicated that they were satisfied with the total rebate amount – 62 percent of electric respondents and 71 percent of gas respondents chose scores of eight to 10. The breakdown of rebate satisfaction responses for electric and gas participants can be seen in Figure 40 and Figure 41, respectively.

**Figure 40. Electric Participant Satisfaction with Total Rebate Amount**



Source: Con Edison Participant Survey Results.

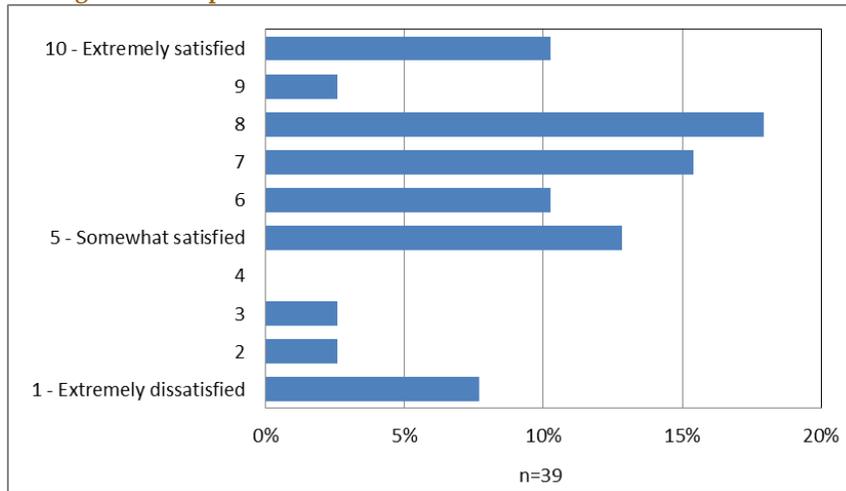
**Figure 41. Gas Participant Satisfaction with Total Rebate Amount**



Source: Con Edison Participant Survey Results.

Drop-out survey participants were asked about their satisfaction with the incentive amounts offered. Thirty-one percent of drop-outs answered with eight to 10, on a scale of one (extremely dissatisfied) to 10 (extremely satisfied). The breakdown of incentive satisfaction scores can be seen in Figure 42. Those who indicated that they were dissatisfied reported that the rebate was either too low or did not justify the total cost of the project.

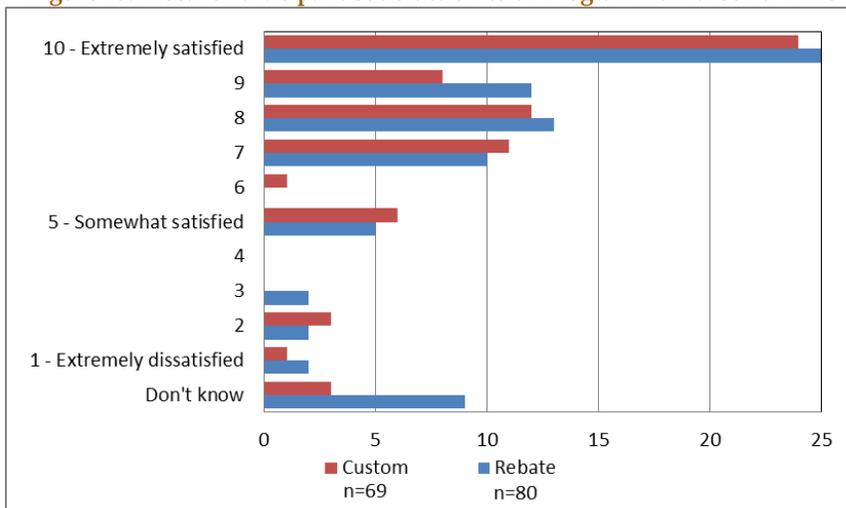
**Figure 42. Drop-Out Satisfaction with the Incentive Amounts Offered**



Source: Con Edison Drop-Out Survey Results.

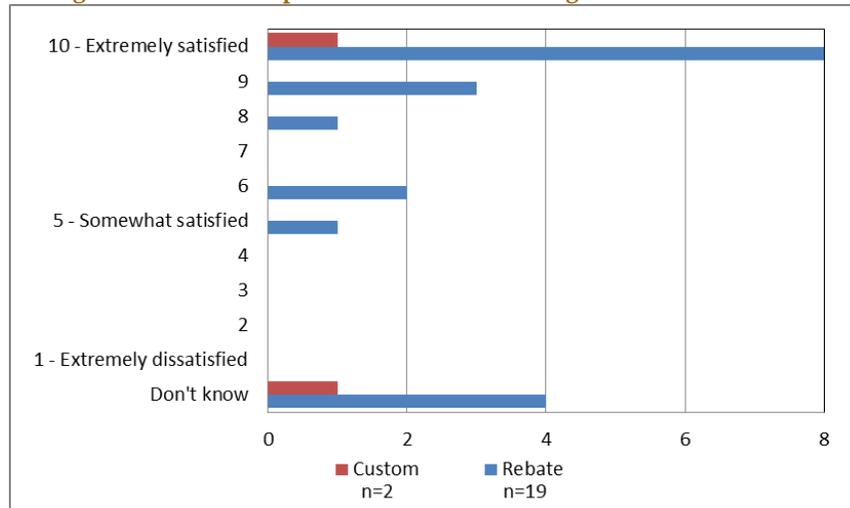
Customers were asked to rate their satisfaction with the program’s turnaround time to issue rebate checks. Out of the 170 total survey respondents, 63 percent responded with satisfaction scores of eight to 10 on a scale of one (extremely dissatisfied) to 10 (extremely satisfied). The percentage of gas versus electric and rebate versus custom customers were roughly even for overall satisfaction. The breakdown of satisfaction responses for electric and gas participants can be seen in Figure 43 and Figure 44, respectively. Both electric custom and electric rebate participants gave an eight as their average satisfaction ranking. Gas rebate and gas custom ranked their satisfaction slightly higher, with average ratings of 8.8 and 10, respectively.

**Figure 43. Electric Participant Satisfaction with Program Turnaround Time**



Source: Con Edison Participant Survey Results.

**Figure 44. Gas Participant Satisfaction with Program Turnaround Time**



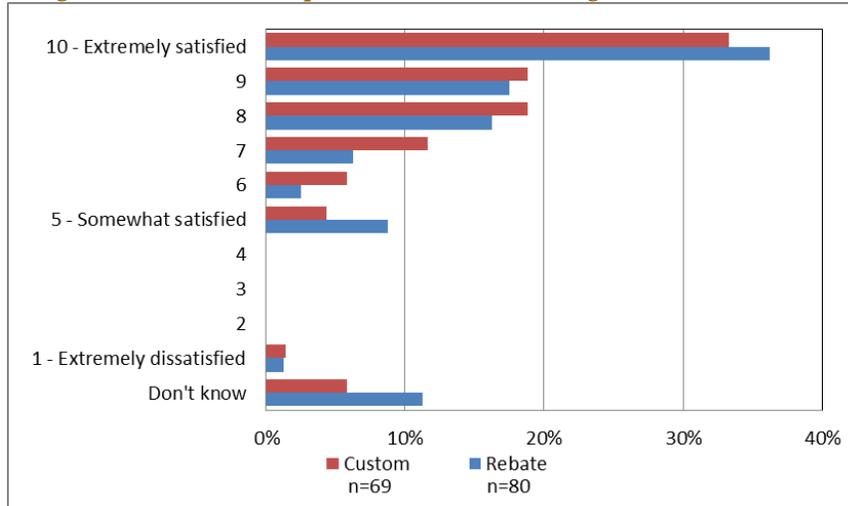
Source: Con Edison Participant Survey Results.

Those who reported dissatisfaction with the program turnaround time were asked why they were dissatisfied. These respondents were also asked whether they had any recommendations for how to improve the process. Six of the 10 respondents offered recommendations: Three out of 10 respondents suggested issuing the rebate sooner, while two said program communications needed to be improved and one recommended sending the check directly to the company.

#### *Satisfaction with Program Communications*

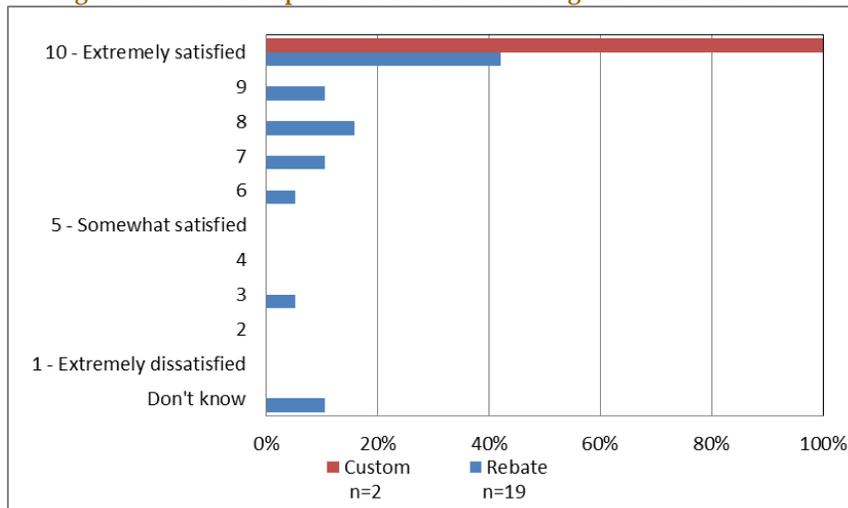
The majority of respondents indicated that they were satisfied with the program’s communications. More specifically, 71 percent of both the electric respondents and gas respondents chose a score of eight to 10 on a scale of one (extremely dissatisfied) to 10 (extremely satisfied). The breakdown of satisfaction responses for electric and gas participants can be seen in Figure 45 and Figure 46, respectively. Two respondents that indicated that they were dissatisfied answered why and how they would suggest changing the process. One respondent did not receive the second half of their rebate and the other believes that Con Edison should handle the entire program internally, instead of hiring contractors. Electric custom and electric rebate participants gave an 8.4 and 8.5 as their average satisfaction ranking, respectively. Gas rebate and gas custom ranked their satisfaction slightly higher, with average ratings of 8.5 and 10, respectively.

**Figure 45. Electric Participant Satisfaction with Program Communications**



Source: Con Edison Participant Survey Results.

**Figure 46. Gas Participant Satisfaction with Program Communications**



Source: Con Edison Participant Survey Results.

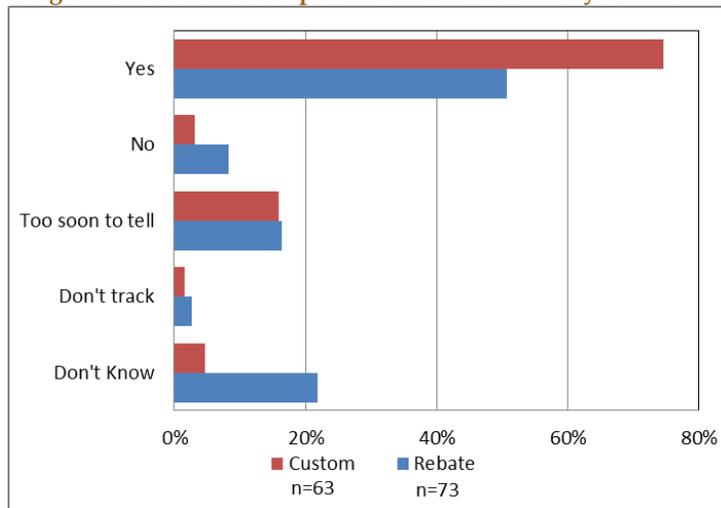
Out of the 39 drop-out respondents, 13 of them contacted a program representative during their participation. Five of these respondents spoke with a Con Edison representative: four reported that the program representative was knowledgeable and one claimed they kept getting transferred to different people on the phone. However, all five reported that the Con Edison representative resolved their inquiry to their satisfaction.

### *Effect on Customer Energy Bills*

The majority of customers who participated in the program have seen their energy bills decrease. Nearly all of the survey participants expected their energy bills to decrease after

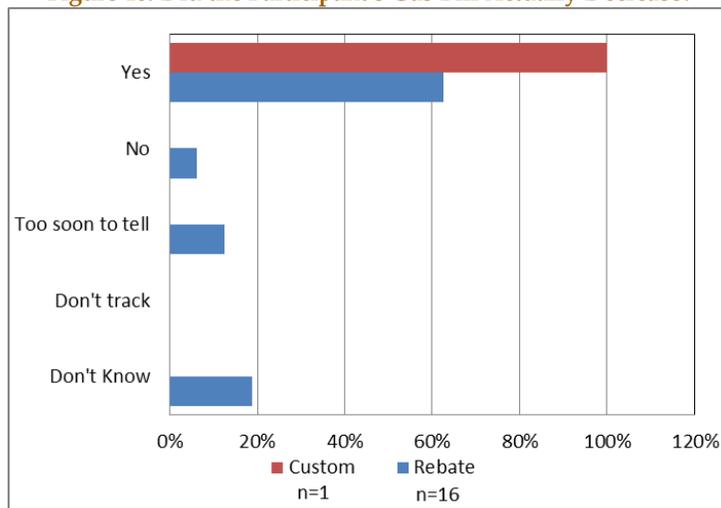
installing the new equipment (91 percent of electric respondents and 81 percent of gas respondents). When asked if their bills actually decreased, the majority of respondents said yes (62 percent of electric and 65 percent of gas). More custom customers reported a decrease in their energy bills than rebate customers. The breakdown of responses for electric and gas participants can be seen in Figure 47 and Figure 48, respectively.

**Figure 47. Did the Participant’s Electric Bill Actually Decrease?**



Source: Con Edison Participant Survey Results.

**Figure 48. Did the Participant’s Gas Bill Actually Decrease?**



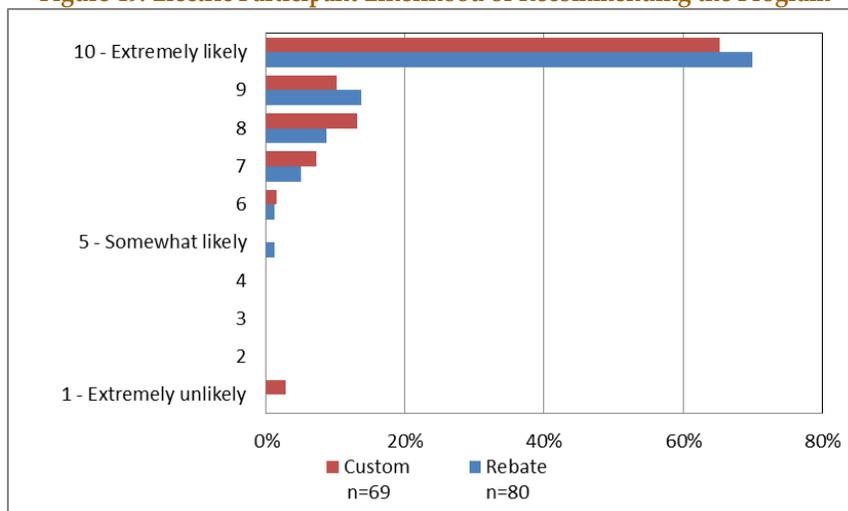
Source: Con Edison Participant Survey Results.

### *Likelihood of Recommending the Program*

Another measure of customer satisfaction is whether the participant would recommend participation in the program to other customers. Most respondents indicated that they would

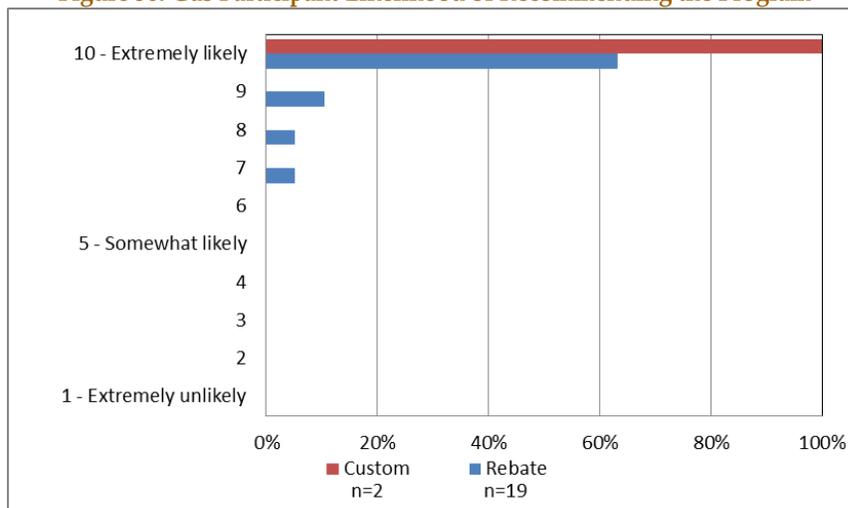
be extremely likely to recommend the program to others in the future (68 percent of electric and 67 percent of gas). Moreover, 91 percent of the electric respondents and 95 percent of the gas respondents chose a score of eight to 10 on a scale of one (extremely unlikely) to 10 (extremely likely). Electric rebate customers are more likely to recommend the program to others than electric custom customers, while the opposite is true for gas customers. This mirrors their reported overall satisfaction with the program and also reflects the fact that only two gas custom program participants were surveyed. The breakdown of responses for electric and gas participants can be seen in Figure 49 and Figure 50, respectively.

**Figure 49. Electric Participant Likelihood of Recommending the Program**



Source: Con Edison Participant Survey Results.

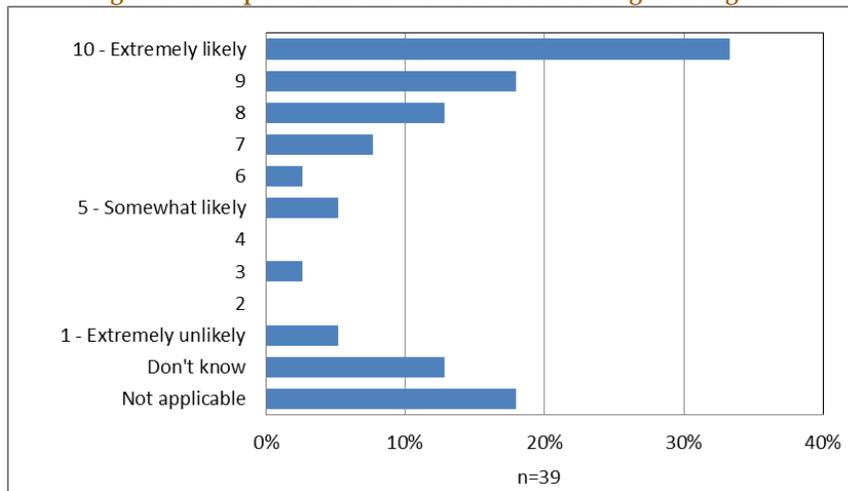
**Figure 50. Gas Participant Likelihood of Recommending the Program**



Source: Con Edison Participant Survey Results.

Despite dropping out of the program, a majority of drop-out respondents said they would likely recommend the program to others in the future. The breakdown of drop-out responses can be seen in Figure 51. Two respondents who said they were unlikely to recommend the program indicated low incentive amounts as the reason, while one said it was not worth the effort involved.

**Figure 51. Drop-Out Likelihood of Recommending the Program**



Source: Con Edison Drop-Out Survey Results.

### Market Partner Satisfaction

#### *Overall Program Satisfaction*

Market Partners were asked to rate their overall program satisfaction on a scale of one to five, where one is 'very dissatisfied' and five is 'very satisfied'. The average score was 4.1 with half of the respondents rating themselves 'very satisfied' and almost all of the others choosing a score of four.

One Market Partner reported that he was very dissatisfied (score of one). This respondent reported that the program was too complicated and that the benefits of the program were not worth the added effort required to sign-up for being a Market Partner, applying for a rebate, and marketing the program. He also reported that the rebate process was too slow and the rebate levels were not high enough. The respondent reported he was also frustrated with the challenges he met when trying to contract Con Edison staff with questions about the program. Amongst the other respondents, the one negative about the program mentioned was that the rebate amount should be higher.

#### *Suggestions for Improvement*

Market Partner suggestions for potential improvements included:

- Increased education for customers / Trade Allies
- Involve equipment suppliers in the program
- Add new construction
- Add more prescriptive measures
- Improve program tracking
- Allow rebates to be paid directly to consultants or installation contractors

All of the respondents (both participating and non-participating Trade Allies) were asked for additional suggestions and comments in an open-ended fashion. Their responses are listed below.

### **Participating Trade Allies**

- Resolve rebate conflicts with building tenants and owners (i.e., if the tenant pays for the upgrade but the owners get the rebate).
- Allow the funding cycle to be more flexible so that it can better match project cycles.
- Do not pay rebates for LED tubes and induction lighting. These are not believed to be good products.

### **Non-Participating Trade Allies**

#### *Program Logistics:*

- Allow for more flexibility in form submission deadlines.
- Make the paperwork easier and user-friendly with instant rebates. Customers don't want to wait to find out rebate value, so having prescriptive options would be good.
- Shorten lead times.

#### *Information:*

- Include case studies on companies that are currently using Con Edison's rebates.
- Create a web tool where typing in a zip code would lead to a list of eligible residential or commercial rebates.
- Consolidate rebate information in a more centralized manner. Present steps on the website instead of just a table.
- Clear up program overlaps.
- Clarify what is required with the energy study audit.

#### *Marketing:*

- Improve customer awareness.
- Sponsor a trade show on lighting. This would be useful for getting more Trade Allies involved.

#### *Cost:*

- Develop a financing program to help customers overcome the first cost barrier for energy efficiency.

## *Promoting Energy Efficiency*

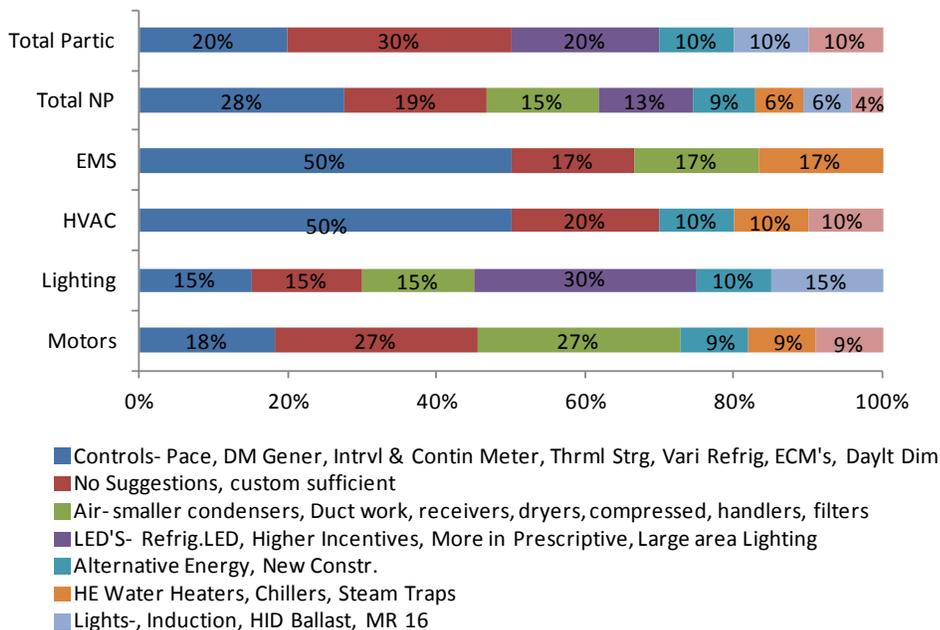
Participants have reported that Con Edison's program has been helpful in moving energy efficiency equipment forward. Lighting customers often worry the most about first cost and payback period, but they are also concerned with improved lighting and longer lifetimes. HVAC Trade Allies said that they usually start the discussion with potential customers about energy efficient equipment at the top of Con Edison's sheet but usually end up with a compromise. Trade Allies working with gas equipment include energy efficient products within their pitch for a building system, instead of individually pitching each piece of equipment. Increased maintenance is a major issue for steam boiler replacement, especially in New York City, which is why Trade Allies generally try to avoid the subject with customers.

In addition, Market Partners felt that promoting their expertise in energy efficiency currently provided their firm with a competitive advantage. However, they feel that once energy efficiency hits the mainstream (in perhaps two years), it will be harder for the smaller firms to stand out. One remaining advantage for these firms is the up-to-date and pertinent information they have, which comes partly from relationships with manufacturers and partly from Con Edison training.

## *Rebate Satisfaction*

The respondents had a number of suggestions for other equipment that should be included in the program. Of greatest interest were controls (EMS and HVAC) and LEDs (lighting), although the most common response for participants was "no suggestions". The motors group was most likely to suggest no changes or air-related measures. These results are illustrated in Figure 52.

**Figure 52. Suggestions for Other Equipment, by Trade Ally Type (n=64)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results  
 Total Partic – Participating Trade Allies of all types (EMS, HVAC, Lighting, Motors)  
 Total NP – Non-participating Trade Allies of all types (EMS, HVAC, Lighting, Motors)

Forty-four percent of the respondents reported they had completed projects for qualifying equipment for which they had not applied for a Con Edison rebate. The remaining 56 percent reported they always applied for a rebate when they installed qualifying equipment. The respondents who reported they had installed equipment that qualified and not applied for rebate on past project were asked to explain. The reasons were that:

- We are planning to submit the rebates once we get client approval.
- We applied for an alternative rebate.
- The client chose not to pursue the rebate because the amount was not large enough.

Participating Market Partners were asked whether or not they thought the current rebate levels were high enough to cover the additional cost premium of high efficiency equipment to be viable. The majority of participant respondents, 50 percent, reported that they thought the rebate did cover enough of the additional cost of the high efficiency equipment for all or most of the high efficiency equipment. Another 20 percent reported it depended on which measure (for example, one reported it did for fluorescent lighting but not LED). The remaining 30 percent felt that it was not high enough. One respondent thought the rebate levels need to be about 20 percent higher while another reported that the rebate levels were not even close to cover the additional cost.

### *Interactions with Other Programs*

Several programs are available to customers in the same region as the Con Edison C&I Programs. Participating and non-participating customers were asked whether they knew about these other programs and whether they had participated in them. In some cases these programs are complimentary to the Con Edison programs, but some programs, such as the NYSERDA Existing Facilities Program, are focused on the same measures and directly compete with the Con Edison C&I programs. This section addresses the areas of conflict with the statewide NYSERDA Existing Facilities Program. It also discusses participant and non-participant awareness of other efficiency programs, as well as identifies areas of confusion for Trade Allies as a result of multiple programs that are similar. Lastly, this section provides an assessment of the potential for double dipping and counting as a result of program overlap.

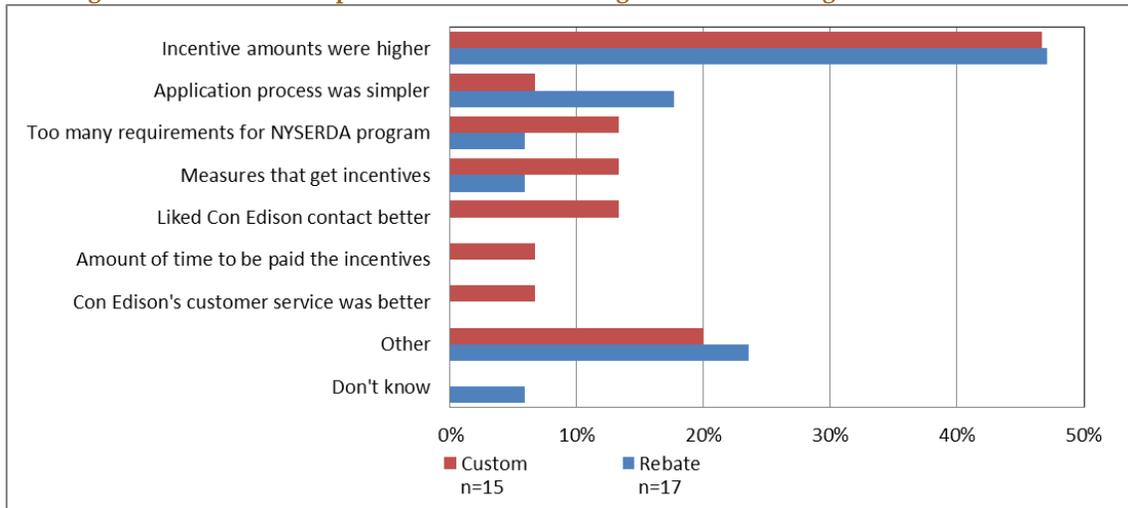
#### **Overlap with NYSERDA's Existing Facilities Program**

NYSERDA's Existing Facilities Program offers incentives for energy improvements in existing commercial facilities in the state of New York. The program, established in 1999, offers both pre-qualified (prescriptive) incentives and performance-based incentives.

#### *Customer Awareness*

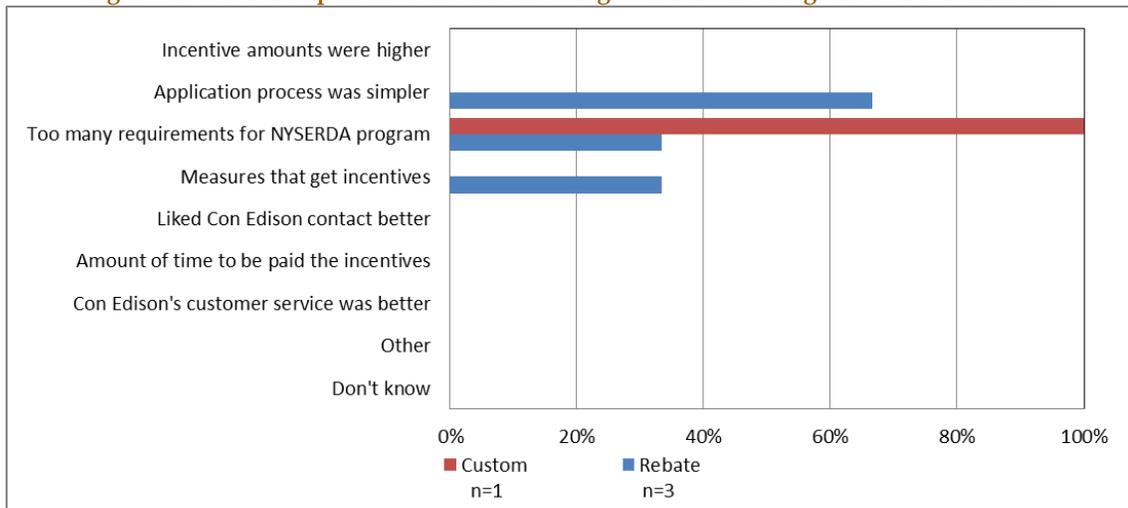
Less than half of the survey participants had heard of NYSERDA's Existing Facilities Program. Forty-eight percent of electric rebate participants, 46 percent of electric custom participants, 37 percent of gas rebate participants, and 50 percent of gas custom participants indicated that they were aware of NYSERDA's program. Of those who had heard of the NYSERDA program, about half (46 percent of electric participants and 50 percent of gas participants) considered participating in that program instead of the Con Edison Commercial and Industrial Energy Efficiency Program. For electric participants, the most common reason for opting for Con Edison's program over the NYSERDA program was that Con Edison's incentive amounts were higher, while the most common reasons for gas participants had to do with simplicity of the application and program requirements. Figure 53 and Figure 54 show the breakdown of responses for electric and gas participants, respectively.

**Figure 53. Electric Participant Reasons for Choosing Con Edison's Program over NYSERDA's**



Source: Con Edison Participant Survey Results.

**Figure 54. Gas Participant Reasons for Choosing Con Edison's Program over NYSERDA's**

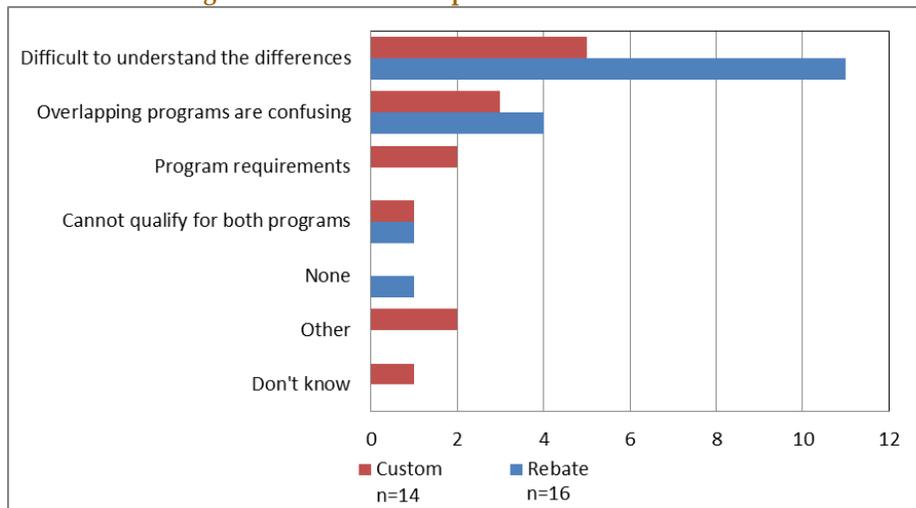


Source: Con Edison Participant Survey Results.

### Customer Confusion

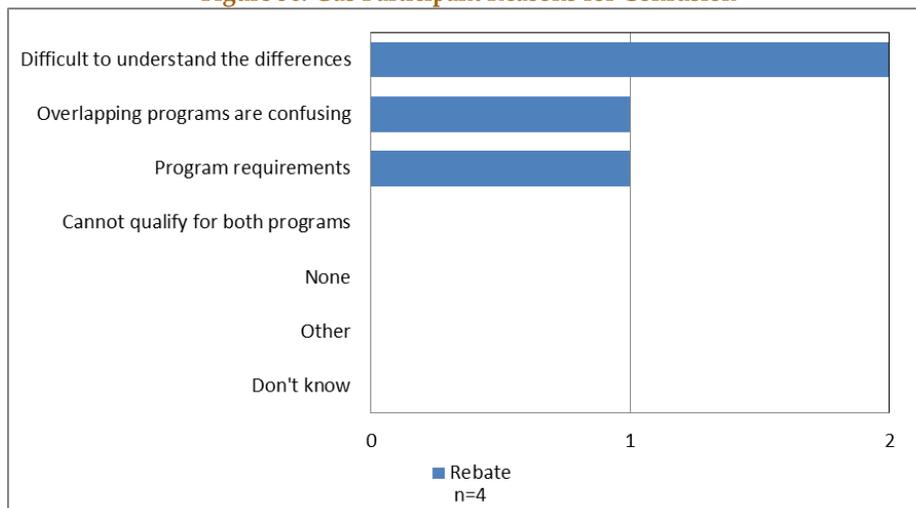
Amongst those who had heard of NYSERDA's Existing Facilities Program, 43 percent of electric respondents and 50 percent of gas respondents found it confusing that there were similar programs offered by multiple organizations. For 16 out of the 30 electric respondents and two of the four gas respondents, the confusion stemmed from trying to understand the differences between the programs and then choosing the best one. The breakdown of responses for electric and gas respondents can be seen in Figure 55 and Figure 56.

**Figure 55. Electric Participant Reasons for Confusion**



Source: Con Edison Participant Survey Results.

**Figure 56. Gas Participant Reasons for Confusion**



Source: Con Edison Participant Survey Results.

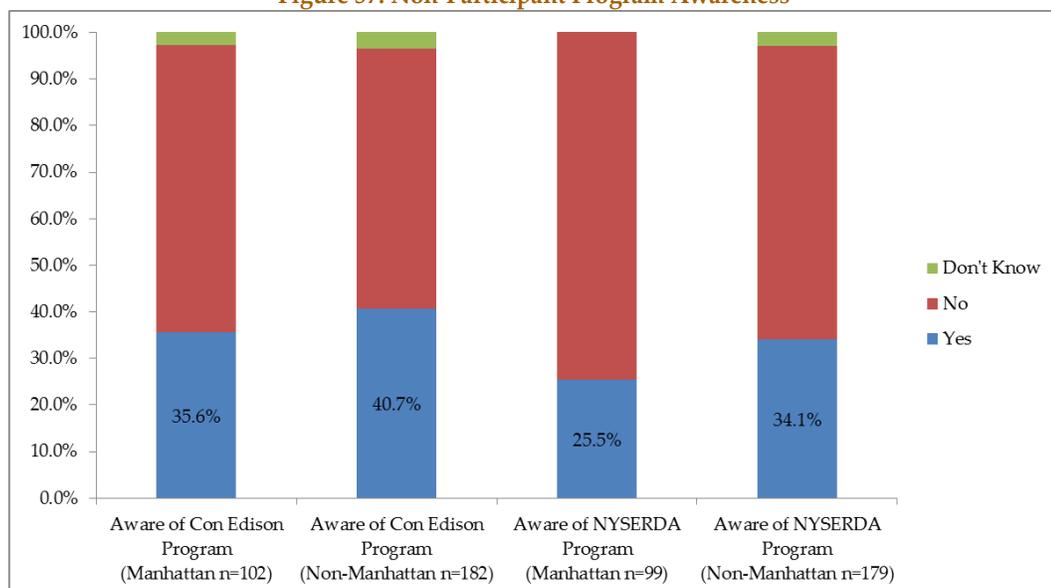
### *Drop-Out Awareness and Confusion*

Out of the 18 survey participants that dropped out of the Con Edison program, one decided to participate in the NYSERDA program because of the higher incentive and five others reported that they considered but did not participate in the NYSERDA program. Half of the 18 respondents found it confusing that there are similar programs offered by multiple organizations. Three respondents cited that overlapping programs are confusing, two found it hard to understand the differences between the programs, and one had difficulty figuring out which one had the best rebate.

### Non-Participant Awareness

Non-participants reported a very low rate of program awareness, which includes both Con Edison’s program and NYSERDA’s. Most non-participants are aware of neither the Con Edison nor NYSERDA program, but more non-participants are aware of the Con Edison program. Non-participants outside of Manhattan generally had a higher awareness of both Con Edison and NYSERDA’s C&I programs, but non-participants in both areas were more aware of Con Edison’s program. These results are shown in Figure 57.

**Figure 57. Non-Participant Program Awareness**



Source: Con Edison Non-Participant Survey Results.

### Comparison of Rebates

The focus groups yielded some comments on HVAC equipment related to the NYSERDA program. According to the trade allies participating in the electric HVAC focus group, the Con Edison program was a better offer to the customer with respect to VFDs because its incentives were slightly better than NYSERDA’s. On the other hand, the Con Edison rebates for 30-ton equipment are perceived as too low, given the high costs. Con Edison’s program rebates were reported to not compete well with NYSERDA’s with respect to large chillers (e.g., 300-ton water cooled central system). In addition, cogeneration and retro-commissioning are covered by NYSERDA but not by the Con Edison program.

As seen in Table 36, Con Edison’s incentives are lower than NYSERDA’s for certain types of HVAC, small motors and VFDs, super-efficient chillers, and custom projects. In addition, NYSERDA’s program allows prescriptive projects that are under specific size thresholds to

receive the custom incentive amount without the M&V requirement. Con Edison’s incentives are higher for some measures, including lighting measures and large motors.

**Table 36. Comparison of Incentives for Some Measures for Con Edison’s and NYSERDA’s Program**

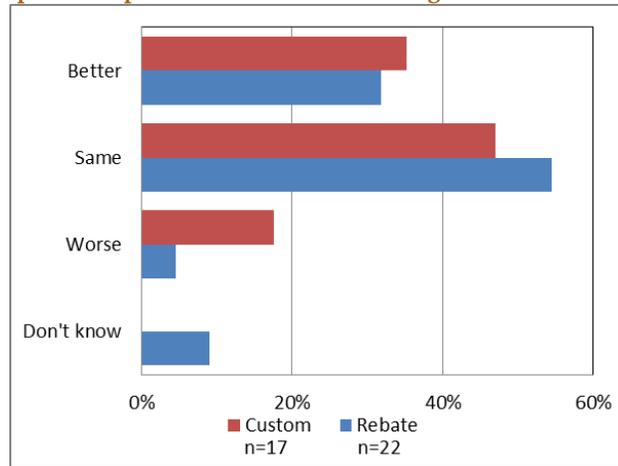
Measure	Con Edison Incentives	NYSERDA Incentives	Con Edison Program Measures Installed
<b>Unitary HVAC and Split Air: Up to 5.4 tons</b>	\$100/ton	\$125/ton	Up to 5.4 tons: 4 Total HVAC: 518
<b>ODP Motor: 1-1.5 HP</b>	\$40/motor	\$45/motor	1-1.5 HP: 3 Total ODP Motors: 22
<b>TEFC Motor: 1-1.5 HP</b>	\$45/motor	\$50/motor	1-1.5 HP: 0 Total TEFC Motors: 40
<b>VFD: 5 HP</b>	\$60/HP (\$300 for 5 HP)	\$900	5 HP: 29 Total VFDs: 1,280
<b>Super-efficient chiller bonus</b>	N/A	\$1,400/kW (Full Load) \$1,000/kW (NPLV)	Total Chillers: 5
<b>LED Exit signs</b>	\$15/fixture	\$10/fixture	Total LED Exit Signs: 347
<b>Fixture Mounted Occupancy Sensor</b>	\$30/sensor	\$20/sensor	Total: 361
<b>Remote Mounted Occupancy Sensor</b>	\$60/sensor	\$50/sensor	Total: 4
<b>ODP Motor: 200 HP</b>	\$750/motor	\$630/motor	200 HP: 0 Total ODP Motors: 22
<b>Electric Custom</b>	\$0.088/kWh ( $\leq$ 10% savings) \$0.11/kWh (11-20% savings) \$0.132/kWh ( $>$ 20% savings)	\$0.16/kWh	Total Electric Custom: 38,985
<b>Gas Custom</b>	\$1.00/therm ( $\leq$ 20% savings) \$2.00/therm ( $>$ 20% savings)	\$2.00/therm	Total Gas Custom: 3

## Overlap with Other Programs

### Customer Comparisons

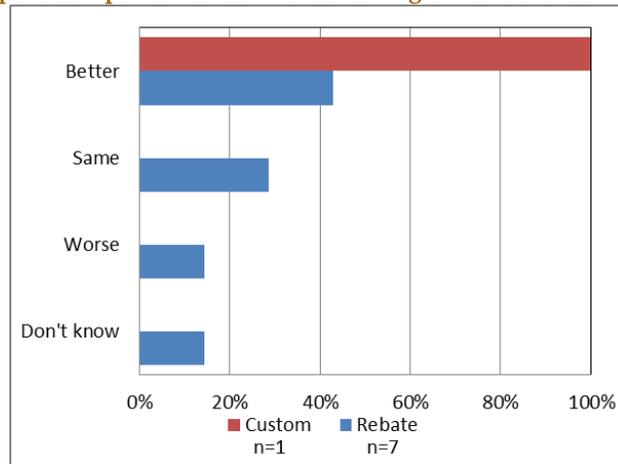
Customers who previously participated in other utility-sponsored energy efficiency programs were asked to compare Con Edison’s program to that of the other utility/utilities. Most reported that Con Edison’s C&I Programs are the same or better. Figure 58 and Figure 59 show the breakdown of responses from electric and gas participants, respectively.

**Figure 58. Electric Participant Comparison of Con Edison’s Program to Other Utility-Sponsored Programs**



Source: Con Edison Participant Survey Results.

**Figure 59. Gas Participant Comparison of Con Edison’s Program to Other Utility-Sponsored Programs**



Source: Con Edison Participant Survey Results.

### Drop-Out Comparisons

After dropping out of the Con Edison program, 41 percent of the respondents ended up installing their planned measures. Fifty-nine percent of the respondents were already planning on implementing the efficiency improvement(s) when they first heard about the Con Edison program. Of the measures that ended up being installed by the drop-out respondents, it was

reported that 15 out of 18 of these measures would have qualified for Con Edison’s program, though this could not be confirmed independently. None of these measures were installed through other programs instead. Table 37 shows the breakdown of which planned measures ended up being installed by the drop-out respondents.

**Table 37. Equipment Installed by Drop-Outs Outside of the Con Edison Program**

	Boiler	Chiller	Compressed Air System	Energy Management System	HVAC	Lighting	Monitor	Refrigerator	VFD	Other	Total
<b>Planned Measures</b>	1	1	2	2	2	25	5	4	2	38	82
<b>Measures Installed</b>	1	0	1	1	0	8	3	3	1	15	33

Source: Con Edison Drop-Out Survey Results.

### Areas of Confusion for Market Partners

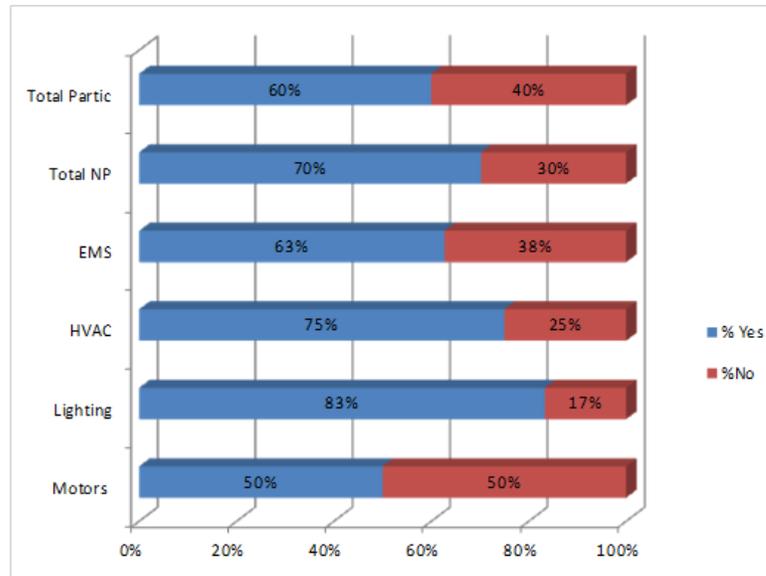
#### *Market Partner Awareness*

All Market Partners surveyed were aware of the NYSERDA program and more than half were aware of other programs beyond NYSERDA’s. The programs they recalled included National Grid (NGRID), Long Island Power Authority (LIPA), and New Jersey’s programs.

#### *Non-Participant Trade Ally Awareness*

Almost 90 percent of the non-participant Trade Allies indicated that they were aware of NYSERDA’s program. Figure 60 shows that 70 percent of the non-participating Trade Allies were aware of programs beyond NYSERDA, with highest recall of other programs by the lighting and HVAC respondents. In Table 38, it can be seen that the programs they recalled most frequently were NGRID’s (mainly by the HVAC and motors respondents), other states’ programs, LIPA’s (mainly by motors respondents), and New Jersey’s offerings (mainly by the lighting respondents).

**Figure 60. Non-Participating Trade Allies That Have Heard Of or Participated in Other Programs, Besides NYSERDA's (n=54)**



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

**Table 38. Programs Other Than NYSERDA's That Non-Participating Trade Allies are Aware of or Participated in (n=54)**

	Motors	Lighting	HVAC	EMS	Total Non-Participants	Total Participants
LIPA	3	2	1	2	8	1
Lockheed Programs		2			2	
MA		2	1		3	
NGRID	3	1	6		10	3
NYPA	2				2	
NJ Programs: Clean Air, Clean Energy, Smart Start		4	2	1	7	2
SBDI		4			4	
Programs in Other States: CA, CT, DE, GA, MN, OH, PA, VT and TX		4	4	1	9	
Others		5	5	4	14	1
None Specified	5	4	4	3	16	
Total Responses	13	28	23	11	54	7

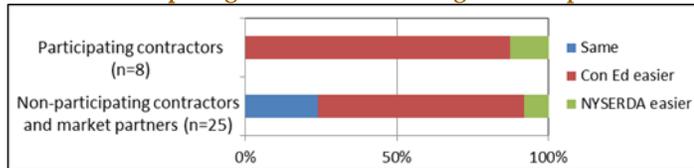
Source: Skumatz Economic Research Associates- In-Depth Interview Results

### Market Partner Confusion

Almost all of the participating Market Partners interviewed who were aware of the NYSERDA program indicated that it was easier to participate in Con Edison's program than in

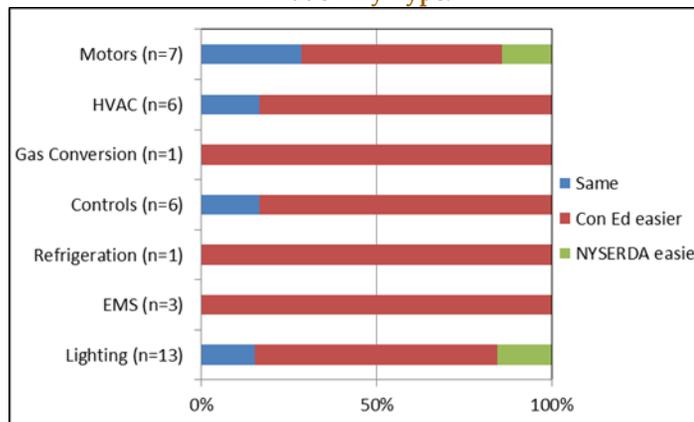
NYSERDA’s, as shown in Figure 61. Sixty-one percent of the non-participating contractors and market partners indicated that it was easier to participate in Con Edison’s program than NYSERDA’s. Twenty-one percent of them felt that they were the same in difficulty. When examined by Trade Ally type, some motors and lighting Trade Allies reported that NYSERDA’s program was easier, as shown in Figure 62.

**Figure 61. Ease of Participating in NYSERDA’s Program Compared to Con Edison’s**



Source: Skumatz Economic Research Associates- In-Depth Interview Results

**Figure 62. Ease of Participating in NYSERDA’s Program Compared to Con Edison’s, by Trade Ally Type.**



Source: Skumatz Economic Research Associates- In-Depth Interview Results

All EMS contractors felt that participation in Con Edison’s program was easier or the same as participation in NYSERDA’s. EMS firms indicated that they typically use Con Edison as their first choice, unless the project doesn’t qualify for the incentive.

While Trade Allies generally found Con Edison’s program to be easier than NYSERDA’s, 31 percent of lighting Trade Allies and 43 percent of motors Trade Allies felt that Con Edison’s program was either just as difficult or more difficult than NYSERDA’s. A key difference between NYSERDA and Con Edison’s programs is that for projects under \$30,000, NYSERDA requires that the rebate application be submitted within 90 days of project completion; Con Edison’s program requires the application to be submitted before installation. Despite this, Con Edison has completed 1,279 smaller, standard lighting projects with an average incentive of \$817 and 354 larger, custom lighting projects with an average incentive of \$2,496.

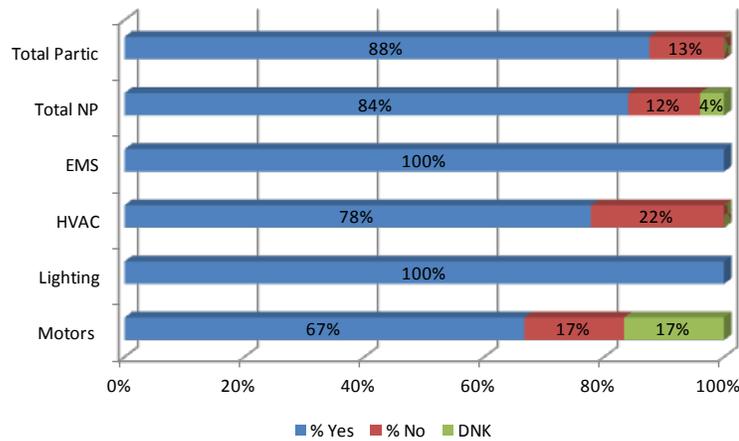
The key issues cited by Market Partners for selecting the Con Edison program were:

- Less paperwork
- Easier program (Note: This helped with large corporate accounts and resulted in more business.)

The vast majority of participating Market Partners said Con Edison’s program overlapped with other programs, as shown in Figure 63 and

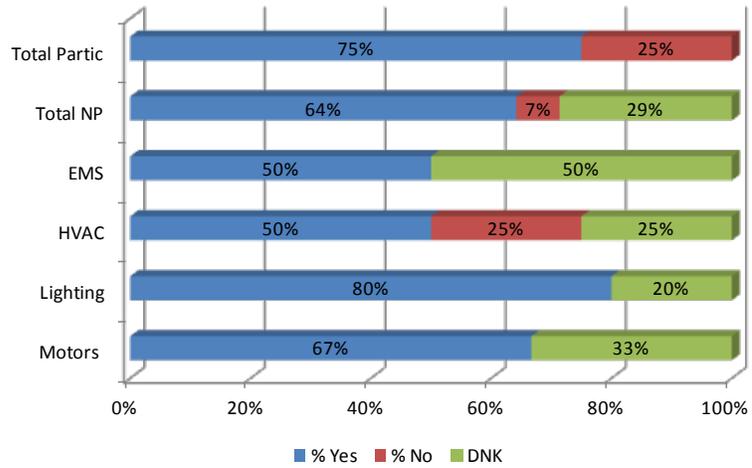
Figure 64. Three-quarters of the respondents felt that program overlap led to confusion for customers and two-thirds felt it led to confusion for the Trade Allies themselves (Figure 65 and Figure 66). EMS respondents generally did not feel as strongly about the program overlap leading to confusion.

**Figure 63. Does NYSERDA’s Program Overlap with Con Edison’s?  
(Participating Market Partners n=10, Non-Participating Trade Allies n=54)**



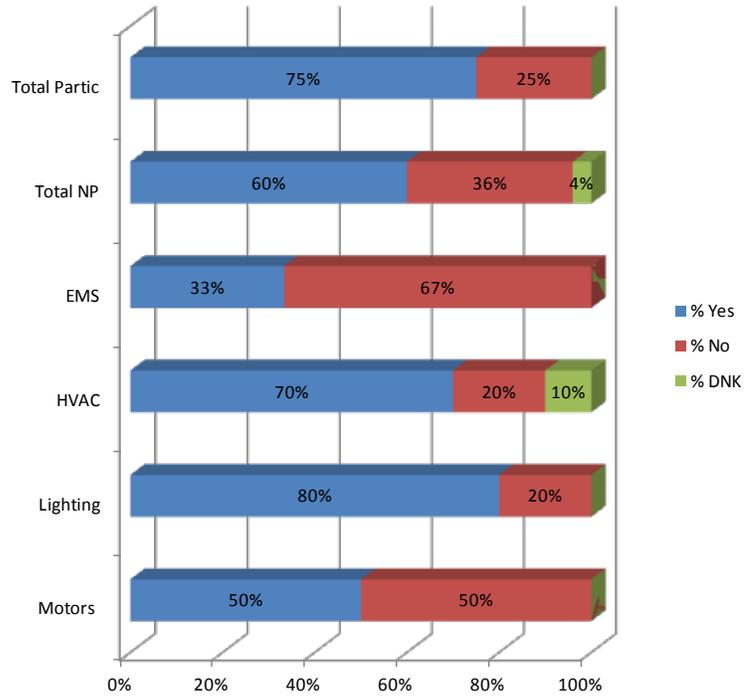
Source: Skumatz Economic Research Associates- In-Depth Interview Results.

**Figure 64. Do Other Programs Overlap with Con Edison's?**  
 (Participating Market Partners n=10, Non-Participating Trade Allies n=54)



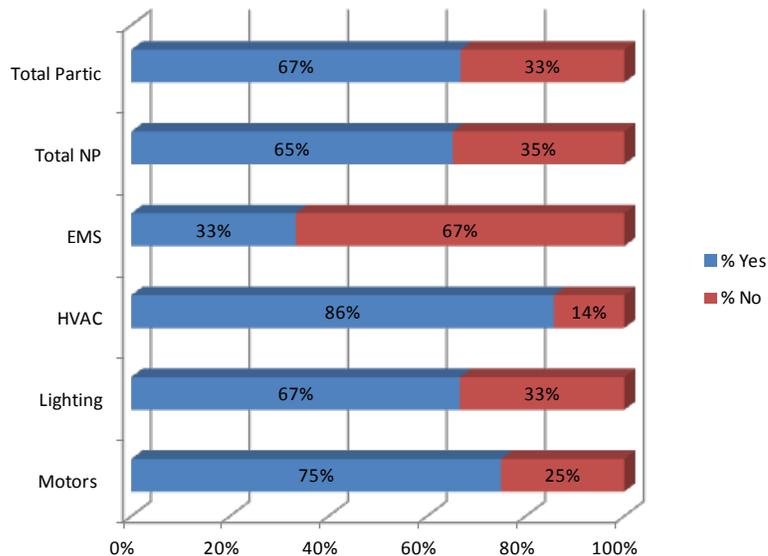
Source: Skumatz Economic Research Associates- In-Depth Interview Results.

**Figure 65. Does the Presence of the NYSERDA Program Lead to Conflict or Confusion for Customers?**  
 (Participating Market Partners n=10, Non-Participating Trade Allies n=54)



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

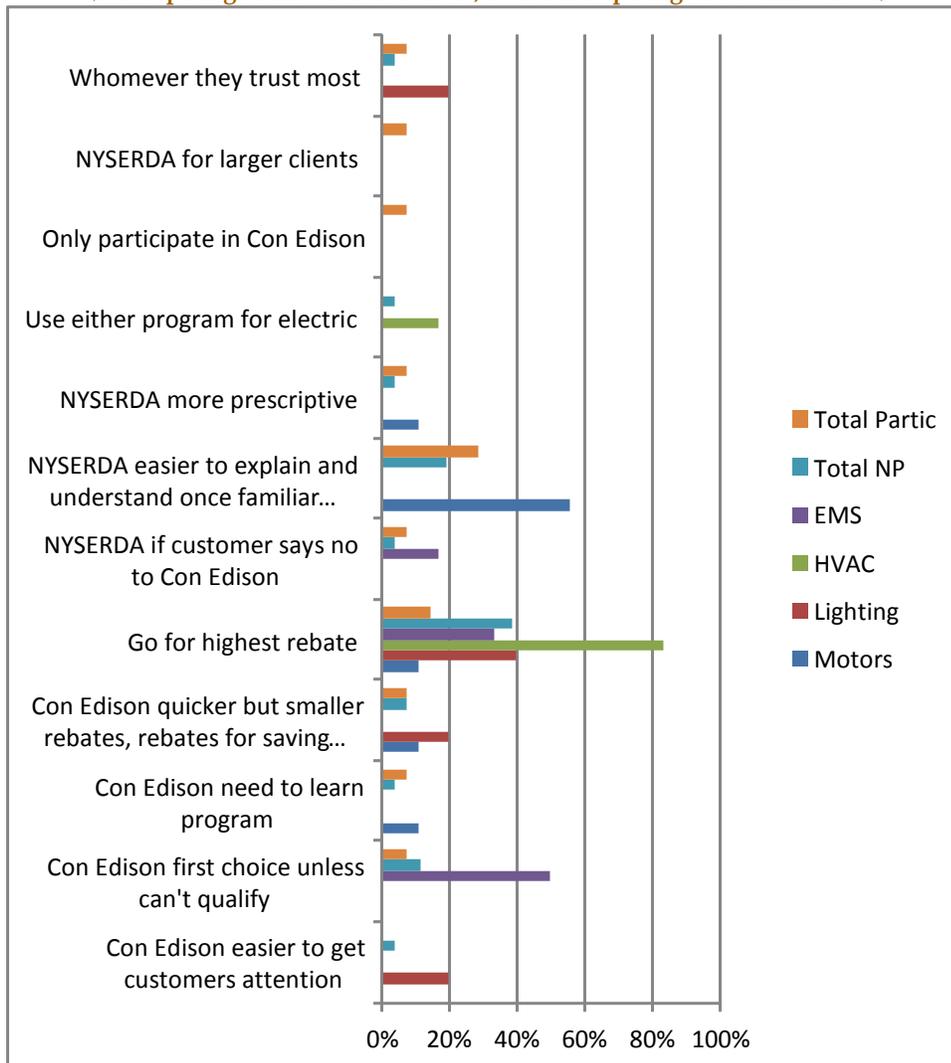
**Figure 66. Does the Presence of the NYSERDA Program Lead to Conflict or Confusion for Trade Allies?**  
 (Participating Market Partners n=10, Non-Participating Trade Allies n=54)



Source: Skumatz Economic Research Associates- In-Depth Interview Results.

When asked how they choose which program to use for a particular job, the participating Market Partners most often replied that they selected the program with the highest rebate. However, the majority of motors Trade Allies said that NYSEERDA's program was easier to explain and understand. The majority of EMS respondents said that Con Edison's program was their first choice as long as the customer qualified.

**Figure 67. Circumstances Under Which Customers Participate in NYSEERDA vs. Con Edison Program?**  
 (Participating Market Partners n=10, Non-Participating Trade Allies n=54)



Source: Skumatz Economic Research Associates- In-Depth Interview Results.  
 Note: Graph shows the percentage of mentions; multiple responses allowed

### *Non-Participant Trade Ally Confusion*

Most non-participant Trade Allies indicated that participation in NYSEERDA's program was less straightforward (45 percent) or that the two programs were about the same in difficulty (30 percent). The EMS and HVAC respondents were more likely to indicate NYSEERDA as the more complex program (75 percent and 67 percent), while the lighting respondents thought the two programs were about the same in ease of use (80 percent). Comparing Con Edison's program to programs other than NYSEERDA's, the non-participating Trade Allies were more evenly split between the other programs being easier, the same, or harder. Lighting respondents were mostly likely to call other programs easier (44 percent); EMS respondents were most likely to call other programs harder (67 percent).

The key issues that made them select another program over Con Edison's:

- Other programs were more straightforward and easier to sell
- Other programs had higher rebates

Less commonly, the non-participating Trade Allies said they weren't as familiar with Con Edison's program or that the other programs were more prescriptive.

The majority of non-participating Trade Allies indicated overlap between Con Edison's program and other programs. Eighty-four percent reported overlap with NYSEERDA's program, and 64 percent reported overlap with other programs, according to Figure 63 and Figure 64. The NYSEERDA overlap was noted especially by the EMS and lighting respondents; the overlap with other programs was most commonly noted by lighting and motors respondents. Figure 65 and Figure 66 indicate the non-participating Trade Allies feel that overlap between various programs available leads to conflict or confusion both to customers (60 percent) and to the Trade Allies themselves (65 percent). The customer confusion is mostly noted by lighting Trade Allies (80 percent), and the impact on the Trade Allies was noted most by the HVAC respondents (86 percent).

Figure 67 suggests that non-participating Trade Allies consider the following factors most commonly in selecting the Con Edison or NYSEERDA program to use for a particular job (in descending order):

- NYSEERDA's program is easier to explain
- Whichever program has the highest rebate
- NYSEERDA's program has a more prescriptive design

HVAC and lighting Trade Allies are most likely to seek out the highest rebate. EMS firms indicated that they typically use Con Edison as their first choice, unless the project doesn't qualify for the incentive. The motors respondents were most likely to go with NYSEERDA because it is the easiest program to explain to their customers.



## Conclusions and Recommendations

This section presents the key conclusions and recommendations from the findings and analysis presented throughout the report. We limit this section to substantive issues that are likely to help to improve the program processes for the participating customers and to inform and improve the program in future program cycles. These conclusions and recommendations are organized around the six key area of research. Where possible, steps to implementation are provided for each recommendation.

### *Program Planning and Design*

#### Findings

- Trade Allies highlight two main benefits of the Con Edison program: its program services and co-branding.
- Trade Allies noted that compared to NYSEERDA's program, Con Edison's program is faster, has less complicated paperwork and the incentive is less uncertain. NYSEERDA's program has a one-year measurement and verification requirement, paying only half of the rebate upon installation. Con Edison requires an engineering analysis to estimate energy savings and pays the full incentive upon verification of installation.
- If rebates are equal, Trade Allies reported they select Con Edison's program over NYSEERDA.
- Focus Group Trade Ally participants reported that Lockheed Martin provides valuable program services, including estimating tools, support filling out xACT, and staff attending client and contractor meetings. However, some Trade Allies were unaware of these services.
- Focus Group Trade Ally participants reported that they benefit from being associated with the Con Edison and Lockheed Martin "brands" that are linked to the program, because these brands bring additional credibility to the Trade Allies' offers to customers.
- Rebates appear to be a bit more important for gas customers participating in the program than for electric customers, although the primary benefit to participation for both customer types is saving energy.
- Custom gas rebate levels may not be meeting participant needs, especially for projects with smaller savings levels.
- Trade Allies reported that the ability to offer financing options through the program would benefit their customers, to assist in lowering up-front costs.
- Offices have been the most active market segment, but there is opportunity for savings in other sectors, especially restaurants.

## Recommendations

- Increase promotion and awareness of Lockheed Martin's support of Trade Allies.
  - Several trade allies reported that these are beneficial services (estimating tools, Lockheed Martin attendance at client and contractor meetings, etc.), but others were unaware that these were services available to them.
  - Promoting the Con Edison/Lockheed Martin names/brands as well as Lockheed Martin's standard program support as services could attract more Market Partners, and encourage more trade allies to recommend the program to their customers.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

  1. Develop marketing elements to highlight the Con Edison and Lockheed Martin brands that are associated with the program as well as Lockheed Martin's specific program services, including estimating tools and attending client and contractor meetings.
  2. Market these services through brochures, direct outreach, and on the program website.
- Develop specific efforts around restaurants for additional energy savings.
  - The recent Con Edison DSM potential study suggests that the restaurant sector has the potential for a significant amount of gas and electricity savings, but program participation in this sector is quite low.
  - Attending relevant trade shows or making presentations to industry associations or vendors could bring in Market Partners who serve restaurants.
  - Consider adding prescriptive measures specific to this sector, such as efficient commercial cooking equipment.
  - These actions could result in greater program participation in the targeted sector.

Responsible Party: Con Edison, with DPS approval

Steps to Implementation:

  1. Attend trade shows and/or make presentations to industry associations and/or vendors to bring in Market Partners who serve restaurants.
  2. Identify prescriptive measures specific to this sector, such as commercial cooking equipment.
  3. Obtain DPS approval for adding prescriptive measures.
- Investigate sources of third-party financing.
  - Financing resources should be identified on the program website; Market Partners that offer financing should be identified in Market Partners database.
  - All trade allies in the Focus Groups reported that some form of financing would benefit customers. However, non-participating customers did not specifically identify the need for financing as a barrier to participation. Research exploring

the value of financing with this population is needed, to determine the extent to which it would make a difference in their program participation decision.

- This could lead to greater program participation, because first cost was often cited by drop-outs and non-participants as a barrier to installing high efficiency equipment.
- Forty-six percent of drop-outs cited as their reasons for not completing their participation that equipment costs are too high or that they did not have sufficient funding to complete their project.

Responsible Party: Con Edison

Steps to Implementation:

1. Create task force to research potential financing options, and conduct research with non-participating customers to determine the extent to which a financing offering is likely to make a difference for customers.
2. Determine feasibility of implementing third-party financing.
3. Obtain approval from program managers to offer third-party financing, if deemed beneficial.

## *Infrastructure Development*

### Findings

- Lockheed Martin's LM-CAPTURES system is a robust tracking system with visibility down to the measure-level. The information collected and recorded in the tracking system is adequate for program management, reporting, and evaluation.
- The program process appears to move quickly. The average time between receiving an application and performing a pre-installation inspection is 1.5 weeks. Scheduling a post-installation inspection takes longer, with an average time of three weeks from receiving a completion certificate to the post-installation inspection.
- The staffing of the C&I program is sufficient for program delivery.
- Program applications are available on the program website, but must be submitted through other channels.

### Recommendations

- Consider allowing customers to submit applications online.
  - Customers requested that applications be available to submit through the program website, rather than downloading a form, filling it out, and emailing it to Lockheed Martin.
  - This could streamline the program participation process for customers, as well as Lockheed Martin. An online application could check that all necessary data fields are captured in the application, which streamlines the Quality Control process.

- Invoices could still be submitted through mail at a later date for proof of payment  
Responsible Party: Con Edison and Lockheed Martin  
Steps to Implementation:
  1. Investigate the cost effectiveness and viability of using an online platform to allow for electronic submittal of applications.
  2. Determine which information can be submitted online and which information must be received in paper form (customer signatures, invoices, proof of payment, etc.).
  3. If approved, develop online platform.

## *Marketing and Customer Acquisition*

### Findings

- Awareness of the program is strong in the potential Trade Ally community, but not for potential participants.
  - Overall, 94 percent of Trade Allies outside of the Market Partner Network were aware that Con Edison had a program offering rebates for C&I customers.
  - Only 36 percent of Manhattan non-participant customers and 40 percent of Non-Manhattan non-participant customers were aware of the C&I program.
- Direct contact with contractors is the top source of customer awareness of the program, while trade allies are informed in a variety of channels.
  - Asked how they promote the programs, one third of participating Market Partners interviewed reported direct communication with customers is the primary marketing channel.
  - Forty-two percent of surveyed participants and drop-outs reported direct contact with contractors and Con Edison or Lockheed Martin staff was responsible for their awareness of the program.
  - Both participating and non-participating Trade Allies heard of the rebate program through a variety of channels (e.g., website, word of mouth, trade show).
- Selection of high efficiency equipment and program participation comes down to money and performance.
  - When asked about specific equipment types (e.g., HVAC, lighting, motors), customers who select high efficiency equipment tend to do so because of the equipment's reduced operating costs and improved system performance.
  - The marketing message needs to highlight the available rebates. Although the program offers customers an opportunity to reduce energy use, energy costs, and improve the environment, customers most often enroll in the program for the available rebates.

- The Trade Allies understand customer needs. The customers want rebates, and the Trade Allies make sure customers know rebates are available.
- Trade Allies and customers are generally satisfied with the website.
  - All customers surveyed are satisfied with the website, while 72 percent are very satisfied.
  - Seventy-five percent of the Trade Allies surveyed use the website, and two-thirds of those that use the website find it useful to find program information. Those who said the website was not useful reported it was difficult to navigate and find all of the information they needed.
  - Trade Allies suggested improvements to the website, such as more detailed Market Partner company information and a method to track application progress.
- Con Edison marketing efforts are on par with those of other utilities and with industry trends.
  - Navigant benchmarked the program marketing and outreach activities to several other C&I utility programs and industry trends. Generally, the Con Edison program marketing and outreach strategy compares favorably to these benchmarks.

## Recommendations

- Continue to provide marketing resources and support for Trade Allies to improve program satisfaction.
  - Trade Allies see an advantage in emphasizing their partnership with Con Edison. They believe the relationship will ultimately drive customer participation and installation of high-efficiency measures, because they believe customers appreciate the collaboration and backing of Con Edison.
  - Co-marketing will emphasize the collaboration between the Market Partner Network and Con Edison.  
Responsible Party: Con Edison and Lockheed Martin  
Steps to Implementation:
    1. Obtain feedback from Trade Allies on types and message content of marketing materials that could emphasize the Con Edison and Lockheed Martin partnership with Trade Allies.
    2. Develop marketing materials emphasizing this partnership and distribute them to Trade Allies.
- Develop technical briefs for common equipment rebated through the programs to increase participation.
  - Educating customers and providing examples of the participation successes of similar customers could nudge potential participants toward high efficiency equipment and selecting a Market Partner for the project.  
Responsible Party: Con Edison and Lockheed Martin

## Steps to Implementation:

1. Develop the technical briefs in phases. In the first phase, select high volume and other key measures. Should this prove successful, include less common measures in a second phase. A third phase could include emerging measures or specialty measures.
- Provide more detail about the Market Partners and more functionality in the network directory.
    - More information could lead customers to choose a firm from the Market Partner Network and enroll in the program.
    - For instance, indicate the different services that each Market Partner provides, including whether they offer financing.

Responsible Party: Con Edison

## Steps to Implementation:

1. Develop the information and metrics for the directory.
  2. Include number of projects completed and company profile narratives.
  3. Enable users to sort and filter on results.
- Consolidate rebate information, documents, and links on the website.
    - The website has a great deal of information, but often the information is difficult to find.
    - Con Edison could further increase program satisfaction by increasing the effectiveness of the website.
    - Responsible Party: Lockheed Martin
    - Steps to Implementation:
      1. Bring the “Market Partner Tools” page up a level, rather than having to click through several pages to reach it.
      2. Consider developing a “library” page that contains relevant program documents for easier access.

- If the program is reaching its incentive budget limits, consider adding a rebate tracking mechanism on the website to increase overall application process satisfaction.
  - Enable customers and Trade Allies to track the total rebate budget available, the acquired rebate dollars, and the committed rebate dollars. These can be shown in pie or bar charts for Trade Allies to gauge available program funds.
  - This can encourage customers and Trade Allies to quickly submit incentive applications when funds are diminishing.

Responsible Party: Con Edison

## Steps to Implementation:

1. Define which program metrics to show in the tracking mechanism.
  2. Design tracking mechanism (e.g., a simple gauge).
- Target customers with previous participation in Con Edison programs.
    - Marketing is more cost-effective when the customer has shown some interest in working with the utility.

Responsible Party: Con Edison

Steps to Implementation:

1. Identify customers who have participated in Con Edison programs in the past.
2. Determine cost effectiveness of direct marketing campaign to these customers.
3. If cost effective, provide targeted mailings or conduct other targeted activities about the C&I program to these customers.

## *Program Delivery*

### Findings

- Participants are highly satisfied with their interactions with program staff, both from Lockheed Martin and from Con Edison.
- The largest barrier for Market Partners is the time commitment required to facilitate program participation for their customers.
  - Market Partners cited the increased time associated with the rebate program, including paperwork, time to receive rebates, and time required to learn about the program, as barriers to participation.
- Lack of awareness is the biggest program barrier for non-participants.
  - For non-participating customers who reported that they would not be likely to participate in the program in the next year, they reported that lack of program awareness is their largest barrier (46 percent in Manhattan and 37 percent not in Manhattan).
  - Non-participants reported the factors that would be likely to influence their organization to participate in the future, and approximately 70 percent in each region reported cost savings and favorable ROI as the most important factor, followed by incentive amounts.
- Only 11 percent of participants perceived any drawbacks to participating in the program.
  - The most common drawback reported by participants is that paperwork is burdensome (7 of 18 electric participants).
- Gas customers appear to find the process of making energy efficiency improvements more difficult than do electric customers, but they place a bit more importance on program rebates than do electric customers.
  - Particularly difficult aspects were identifying energy efficiency improvements to make, and estimating savings of proposed improvements.
  - When reporting benefits to participating in the program, 52 percent of gas participants reported the program rebate as beneficial, compared to only 32 percent of electric participants.

- Most non-participants are not aware of either the Con Edison or NYSEERDA program, but more are aware of the Con Edison program.
  - Non-participants outside of Manhattan generally had a higher awareness of both Con Edison and NYSEERDA's C&I programs, but non-participants in both areas were more aware of Con Edison's program.
- When asked what kind of program information would be most beneficial to receive, Manhattan non-participants reported that they are most interested in seeing real examples of energy savings solutions for their sites (suggested by 38 percent), where Non-Manhattan non-participants are most interested in seeing bill savings/return on investment information (suggested by 41 percent).

### Recommendations

- Consider creating a specific role within Lockheed Martin or Con Edison for outreach and technical assistance specifically for gas customers.
  - Gas customers reported a greater difficulty with the efficiency upgrade process, particularly in identifying upgrades and estimating energy savings
  - A dedicated gas account representative could assist these customers both in outreach, and initial phases of the participation process, leading to higher participation in the gas customer segment.  
Responsible Party: Con Edison and Lockheed Martin  
Steps to Implementation:
    1. Identify individual(s) with gas industry expertise.
    2. Leverage a gas expert to reach out to industry contacts to market the program.
- Increase program marketing to Trade Allies and Customers by holding gas workshops or have more gas-focused content in program newsletters.
  - To gain more awareness of the program, and to overcome the initial barrier of identifying projects and estimating energy savings, Lockheed Martin can target gas customers in program marketing material.
  - This may result in increased gas customer participation.  
Responsible Party: Con Edison and Lockheed Martin  
Steps to Implementation:
    1. Develop gas-focused content to include in program newsletters.
    2. Coordinate with industry associations to advertise gas workshops and gas program services.

## *Satisfaction with the Program*

### Findings

- Almost all of the participants and Market Partners surveyed reported being satisfied with the program overall. Ninety-one percent of electric participants and 95 percent of the gas participants said they were likely to recommend the program to others in the future. High satisfaction ratings were also given by the Market Partners and program drop-outs.
- Sixty-two percent of electric participants and 71 percent of the gas participants ranked their satisfaction with the total rebate amount between eight and ten on a 1-10 scale, where one means “Not At All Satisfied” and ten is “Extremely Satisfied.” Only 31 percent of drop-outs were satisfied with the incentive amounts offered. Those who indicated that they were dissatisfied said that the rebate was too low and/or did not justify the total cost of the project.
- The majority of participants were satisfied with the program’s communications and rebate turnaround time. Seventy-one percent of participants indicated that they were satisfied (scores of eight to ten) with the program’s communications. Sixty-three percent of electric program participants and 62 percent of gas program participants were satisfied with the program’s turnaround time to issue rebate checks. These results are positive, but suggest some room for improvement.
- Nearly all of the survey participants expected their energy bills to decrease after installing the new equipment (91 percent of electric customers and 81 percent of gas customers). Sixty-two percent of electric participants and 65 percent of gas participants reported decreased energy bills.
- During focus group interviews, both participating and non-participating trade allies reported that Con Edison should allow for more flexibility in program deadlines. While Con Edison does allow such flexibility, this perception highlights an opportunity to better promote this program policy.

### Recommendations

- The program materials should clearly communicate the requirements and flexibility around deadlines for offer letter return and project installation in appropriate circumstances, to encourage greater participation for customers who might otherwise not be aware of these policies.
  - Allow flexibility with regard to participation deadlines when equipment must be replaced in emergency situations (such as hot water heaters), equipment must be custom ordered, external funding must be secured, or government agencies are waiting for board approval.

- The program website and materials should indicate that extensions may be granted, the allowable circumstances, the process for making requests, and the documentation required (if any).  
Responsible party: Con Edison and Lockheed Martin  
Steps to Implementation:
  1. Determine scenarios where deadline flexibility is acceptable.
  2. Develop content for the program website to present this information.
- Explore options for assigning the rebate payment to an appropriate third-party. This could streamline the participation process for the customer.
  - In some instances it may be helpful to send the rebate to the consultant or the contractor so the contractor or consultant is paid in a more timely manner or, as the case may be, the customer incurs less out of pocket expense.
  - This could streamline the participation process for the customer.  
Responsible Party: Con Edison and DPS  
Steps to Implementation:
    1. Look into an option to send the rebate to the consultant or the contractor, so that the customer incurs less out of pocket expense. The application should still need to be signed by the customer, so that the customer is aware that this is a Con Edison program.
    2. The program materials need to clearly indicate which party will incur the tax liability for rebates in excess of \$600.
    3. Obtain approval from DPS to assign rebates, if feasible.
- Increase the lighting rebate levels for HID and expand the LED prescriptive offerings. This can result in additional participation in the electric sector, and streamline the participation process for customers wishing to install LEDs.
  - Expand the prescriptive rebate for LEDs (currently the only LED rebates available are two dollars per linear foot of non-refrigerated display case lighting and six dollars per linear foot of refrigerated display case lighting), provided the measures are cost effective.
  - Increase the rebate for high intensity discharge lighting greater than 350 watts (currently the rebate for greater than 350 watts is \$25, while the rebate for less than 350 watts is \$50).  
Responsible Party: Con Edison and DPS  
Steps to Implementation:
    1. Identify LED measures to add to prescriptive rebate list.
    2. Develop increased rebate for HID lighting greater than 350 watts.
    3. Obtain approval from DPS to increase incentives and add prescriptive measures.

## *Interactions with Other Programs*

### Findings

- During customer interviews, participants and non-participants reported confusion about having two different programs, Con Edison's and NYSERDA's, targeting the same types of efficiency improvements. In particular, of those who were aware of both programs, approximately 50 percent reported that their confusion stemmed from trying to understand the differences between the programs and then choosing the best for their business.
- Of the few Con Edison electric program participants who had also considered participating in NYSERDA's program, the most common reason for choosing Con Edison's program was because Con Edison's incentive amounts were higher. Of the few gas participants who considered participating in NYSERDA's program, the most common reasons for choosing Con Edison's program had to do with the simpler application and program requirements.
- Trade Allies confirm that Con Edison's program is generally faster and simpler compared to NYSERDA's program.
  - Almost all of the participating Trade Allies interviewed who were aware of NYSERDA's program indicated that it was easier to participate in Con Edison's program than in NYSERDA's.
  - Sixty-one percent of the non-participating Trade Allies indicated that it was easier to participate in Con Edison's program than NYSERDA's. Twenty-one percent of them felt that they were the same in difficulty.
  - All EMS Trade Allies interviewed felt that Con Edison's program was easier or just as easy as NYSERDA's. EMS firms indicated that they typically use Con Edison as their first choice, unless the project doesn't qualify for the incentive.
  - While Trade Allies generally found Con Edison's program to be easier than NYSERDA's, several lighting and motor Trade Allies felt that Con Edison's program was either just as difficult as or more difficult than NYSERDA's.
- Of those participants that participated in other utility-sponsored energy efficiency programs, 33 of the 39 electric participants and six of the eight gas participants reported that Con Edison's Commercial and Industrial Energy Efficiency Program compares favorably to other utility-sponsored programs. Half of the gas participants rated Con Edison's program as better, while only a third of the electric participants agreed.
- While many of Con Edison's incentives match up with NYSERDA's, the NYSERDA program rebates are higher for: Unitary HVAC and split air conditioners (up to 5.4 tons), small ODP and TEFC motors, small VFDs, super-efficient chillers, and both electric and gas custom projects. In addition, prescriptive projects that are below one million kWh receive the custom incentive amount from NYSERDA's program without the M&V requirement.

## Recommendations

- Consider adjusting incentive levels to match those of NYSERDA, if cost effective. When given equal rebates, contractors indicate a preference for the Con Edison program over NYSERDA, suggesting that with equal rebates, Con Edison program participation would increase.
  - The incentive level for small custom gas measures (one dollar per therm) is lower than NYSERDA's custom gas incentive (two dollars per therm).
  - NYSERDA's program has a bonus of \$1,000-1,400/kW for super-efficient electric chillers, while Con Edison does not have this type of bonus.
  - The incentive levels for small ODP and TEFC motors, as well as small VFDs, are slightly less in Con Edison's program than NYSERDA's.
  - Con Edison's incentive for unitary HVAC and split air conditioners is \$25 per ton less than NYSERDA's.

Responsible Party: Con Edison and DPS

Steps to Implementation:

1. Alter the following incentive levels, to a level commensurate with NYSERDA's, unless such increases are not likely to result in increased participation:
    - a. Raise the incentive level for small custom gas measures.
    - b. Increase the incentive levels for small ODP and TEFC motors, as well as small VFDs.
    - c. Raise the incentive for unitary HVAC and split air conditioners.
    - d. Add a bonus for super-efficient electric chillers.
  2. Obtain approval from DPS to increase incentives, as needed.
- Outreach to Trade Allies should emphasize the speed and simplicity of the program. Trade Allies confirm that Con Edison's program is generally faster and more straight forward compared to NYSERDA's program. Of the few gas participants who considered participating in NYSERDA's program, the most common reasons for choosing Con Edison's program had to do with less confusing application and program requirements. Outreach and marketing efforts emphasizing these points could result in increased participation.

Responsible Party: Con Edison and Lockheed Martin

Steps to Implementation:

1. Modify outreach materials to point out the program's speed and simplicity.
2. Distribute materials to Trade Allies through direct mail, workshops, and other marketing events.
3. Emphasize these program advantages when conducting discussions with Trade Allies.



## Appendix A: Evaluation Objectives

Table 39 shows the research questions for each research objective and the data collection activities used to respond to each question.

**Table 39. C&I Program Research Areas and Evaluation Activities**

Research Areas		Utility and Implementer Staff Interviews	Database, Document & Website Review	Participating and Non-participating Market Partner Interviews	Program Participant Surveys	Participant Drop-out Surveys	Non-Participant Surveys
<i>Program Planning and Design</i>							
1	Identify program processes and requirements that impede the program’s ability to meet goals.	✓	✓	✓	✓	✓	
2	Identify possible improvements for cost-effectiveness, energy savings, and increased Market Partner and customer participation.	✓	✓	✓	✓	✓	✓
3	Identify beneficial measure additions or necessary changes to existing measures.	✓	✓	✓	✓	✓	✓
4	Determine whether incentive levels are appropriate relative to the customer’s incremental cost.	✓		✓	✓	✓	
<i>Infrastructure Development</i>							
5	Determine whether program staffing levels and capabilities are appropriate.	✓					
6	Determine whether the program is gathering all info needed for program management, reporting, and evaluation.		✓				
7	Determine whether the tracking systems contain appropriate data fields for effective program management, reporting and evaluation.		✓				
8	Determine whether the tracking systems contain accurate data.		✓				
9	Assess the quality control procedures regarding participant and equipment eligibility and on-site verification of installed measures.	✓	✓		✓		

Research Areas		Utility and Implementer Staff Interviews	Database, Document & Website Review	Participating and Non-participating Market Partner Interviews	Program Participant Surveys	Participant Drop-out Surveys	Non-Participant Surveys
<b>Marketing &amp; Customer Acquisition</b>							
10	Determine customer awareness of the program and understanding of program requirements.				✓	✓	✓
11	Assess whether marketing partners and channels are appropriate and effective.	✓	✓	✓	✓	✓	✓
12	Determine whether marketing approaches are appropriate and effective.	✓	✓	✓		✓	✓
13	Determine whether marketing materials are being leveraged by Market Partners.			✓	✓		
14	Evaluate the effectiveness of each program's website to both customers and Market Partners.		✓	✓	✓	✓	
15	Identify customer and Market Partner program participation drivers and barriers.			✓	✓	✓	✓
16	Identify the factors that motivate customers to upgrade to high efficiency equipment.			✓	✓	✓	✓
<b>Program Delivery</b>							
17	Determine whether the programs are successful at presenting the programs' value proposition to effectively recruit the participation of Market Partners.			✓			
18	Identify Market Partner perceptions of the benefits of program participation.			✓			
19	Identify possible bottlenecks in the participation process.	✓	✓	✓	✓	✓	
20	Identify opportunities for streamlining the program delivery processes.	✓	✓	✓	✓	✓	
<b>Satisfaction with Program</b>							
21	Assess participating customer's satisfaction with programs and identify possible improvements.			✓	✓		
22	Determine whether customers are satisfied with the timing of rebate payments.		✓	✓	✓		

Research Areas		Utility and Implementer Staff Interviews	Database, Document & Website Review	Participating and Non-participating Market Partner Interviews	Program Participant Surveys	Participant Drop-out Surveys	Non-Participant Surveys
23	Assess Market Partner satisfaction with the programs and identify possible improvements.			✓			
<i>Interactions with Other Programs</i>							
24	Identify areas of potential program overlap with other programs.	✓	✓	✓	✓	✓	✓
25	Document the areas of conflict with NYSERDA's Existing Facilities Program, and what impact, if any, competition with NYSERDA has on the C&I programs.		✓		✓	✓	✓
26	Determine whether there are any areas of Market Partner or customer confusion about the program due to having multiple programs in market.			✓	✓	✓	
27	Identify potential areas where double-counting of program savings may occur or synergistic effects, if applicable.	✓	✓	✓			

## Appendix B: Evaluation Methodology

This appendix describes the evaluation methodologies used to gather information for this report. The evaluation approach included both primary and secondary data collection.

### *Review of Program and Marketing Materials*

The Navigant team conducted the following background review activities before interviewing program implementation staff:

- Utility filings and NYPSC Orders
- Program Websites
- Program Applications

Based on the background review, the team refined the specific evaluation instruments planned to capture research issues unique to the C&I program.

During and following the interviews, the process team received additional materials from the program managers. The following materials and resources were reviewed for this report:

- Program database extracts
- Program Operations Handbook and process diagrams
- Program applications and XACT spreadsheets
- Marketing plans, calendars, and annual recap
- Marketing materials
- Utility Scorecards
- Implementer status reports to Con Edison

### *Benchmarking of Marketing Practices*

As part of its evaluation of the rebate programs, Navigant benchmarked the marketing and outreach activities of Con Edison to those of several other utility programs. Navigant conducted interviews with program management and marketing and outreach staff of seven utilities. Our team focused on C&I programs of utilities with similar program offerings and similar geographic features. Navigant also interviewed marketing industry experts to gain insight into C&I program marketing trends. Additionally, Navigant interviewed marketing intelligence experts for insights into cutting-edge C&I energy efficiency strategies.

### *Program Administrator and Implementation Staff Interviews*

The evaluation team conducted interviews with individuals responsible for C&I program design, management, and implementation. Table 40 summarizes the number of interviews the team conducted with representatives from Con Edison and the implementation contractor.

**Table 40. Interviews of Utility and Implementation Staff for the C&I Programs**

Utility Program	Number of Interviews	Staff Interviewed	Date of Interviews
Con Edison	3	Program Management Account Executives	June 2011
Lockheed Martin	4	Program Manager Marketing Manager Trade Ally Sales Manager Program Operations	January 2010 and June 2011
<b>Total</b>	<b>7</b>		

### *Participant Survey*

APPRISE, Inc. conducted telephone surveys with Con Edison C&I program participants. The sample frame was developed using the entire participant population through December of 2011.

Table 41 shows the number of Con Edison participants with projects at each status code, by program, through December 31, 2011.

**Table 41. Number of Con Edison C&I Participants with Projects at each Status Code**

Status Code	Rebate – Electric	Custom – Electric	Rebate – Gas	Custom – Gas
1-Initiation	142	78	21	3
2-Study	0	0	0	0
3-Offered	1	0	1	0
4-Committed	357	139	67	1
5-Installed	61	15	2	0
6-Payment Pending	32	17	5	0
7-Completed	446	160	38	3
<i>Subtotal – Participants with Active Projects</i>	997	397	131	7
Discontinued	78	52	8	1
On Hold	29	47	8	1
<i>Subtotal – Participants with Inactive Projects</i>	104	99	16	2

<b>Grand Total of Participants</b>	<b>1,093</b>	<b>494</b>	<b>146</b>	<b>9</b>
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Source: Con Ed C&I Monitoring and Verification Report through December 31, 2011.

Note: Subtotals may not add to the sum of participants in each status code due to participants with projects in multiple stages.

The participant surveys were intended to obtain feedback on the program processes, eligibility and requirements as well as insights into the customer’s decision-making process for equipment upgrades and awareness of the Con Edison and other, similar programs. Participants who completed the entire application and inspection processes and received their incentive check were assumed to be able to provide the richest program insights. To this end, the surveys were conducted with participants with “Completed” projects, supplemented by participants with “Installed” and “Payment Pending” projects.

Table 42 shows the count of unique decision makers for each program in these status codes along with the survey targets:

- The first column shows the participants by account number by program, but participants could fall into multiple programs;
- The second column is the count of unique participants by account number (no accounts are repeated in multiple programs);
- The third column shows the decision makers associated with the account numbers (decision makers are often in charge of multiple accounts), but the decision makers are not unique across programs;
- The final column is the count of unique decision makers across programs.

Because of the small number of participants in the gas rebate and custom programs, call attempts were made to a census of these customers.

**Table 42. Con Edison Decision Maker Sample Frame and Survey Targets**

Program	Number of Account Numbers (not unique across Programs)	Number of Account Numbers (unique across Programs)	Number of Decision Makers (for the unique account numbers)	Number of Unique Decision Makers	Survey Target
Gas Custom	3	3	3	3	Attempt Census
Gas Rebate	45	44	35	35	Attempt Census

Program	Number of Account Numbers (not unique across Programs)	Number of Account Numbers (unique across Programs)	Number of Decision Makers (for the unique account numbers)	Number of Unique Decision Makers	Survey Target
Electric Custom	187	185	131	130	Census with a target of 70
Electric Rebate	532	427	164	152	70

One gas project was removed from the sample frame because it did not have an adequate measure description.

The survey instrument for the participant survey is provided in Appendix C.

#### Participant Survey Disposition

Surveys were conducted between June 7th and June 29th of 2012. APPRISE attempted to reach each decision maker through at least 8 call attempts scheduled at different times of day and days of the week. Interviewers left a scripted message when they encountered an answering machine, including a toll-free number. Messages were left initially and every three days thereafter.

Table 43 shows the final disposition of the participant surveys for the Con Edison C&I programs.

**Table 43. Con Edison C&I Participant Survey Disposition**

Disposition	Custom Gas	Rebate Gas	Custom Electric	Rebate Electric	Total
Total in Sample Frame	3	35	130	152	320
Completed Interview	2	19	69	80	170
Break-Off	0	0	1	2	3
Disconnected Number	0	1	0	2	3
Fax Number	0	1	0	1	2
Wrong Number	1	0	1	1	3
Ineligible (Business) Number	0	0	1	1	2
No Answer	0	1	5	0	6
Busy	0	0	1	1	2
Refused	0	1	6	9	16
Language Barrier	0	0	3	2	5
Answering Machine	0	5	24	24	53

Disposition	Custom Gas	Rebate Gas	Custom Electric	Rebate Electric	Total
Callback	0	7	17	19	43
Terminated - Ineligible	0	0	2	2	4
<b>TOTAL</b>	<b>3</b>	<b>35</b>	<b>130</b>	<b>144</b>	<b>310</b>

Note: Break-Off indicates a call that was terminated by the participant after the screening process but prior to the completion of the interview; these surveys are not included in the survey results.

Response rates for the participant survey are shown in Table 44 below.

**Table 44. Participant Survey Response Rates**

Response Rate Calculation	Number
I=Complete Interviews (1.1)	170
P=Partial Interviews (1.2)	0
R=Refusal and break off (2.1)	19
NC=Non Contact (2.2)	96
O=Other (2.0, 2.3)	5
e=Estimated proportion of cases of unknown eligibility that are eligible	0.96
UH=Unknown Household (3.1)	8
UO=Unknown other (3.2-3.9)	0
<b>Response Rate 1</b>	
$I / (I + P) + (R + NC + O) + (UH + UO)$	0.570
<b>Response Rate 3</b>	
$I / ((I + P) + (R + NC + O) + e(UH + UO))$	0.571

Note: e is the estimated proportion of cases of unknown eligibility that are eligible. This estimate is based on the proportion of eligible units among all units in the sample for which a definitive determination of status was obtained (a conservative estimate).

The 170 completed participant interviews achieved a precision of 4.3 percent at the 90 percent confidence level.

### **Program Drop-Out Survey**

Customers of the C&I programs who submitted applications but whose projects were either rejected outright or categorized as on hold were also surveyed by APPRISE, Inc. Con Edison participant drop outs were defined as participants in the tracking database with a status code of “On-hold” or “Discontinued”.

Table 45 below shows the number of Con Edison participant drop outs by status code and fuel type.

**Table 45. Con Edison Program Drop Outs by Status Code and Fuel Type**

Status Code	Electric	Gas
Discontinued	130	9
On Hold	76	9
<b>Con Edison Total</b>	<b>206</b>	<b>18</b>

Source: Con Ed C&I Monitoring and Verification Report December 31, 2011.

As in the participant survey, several of these program drop-outs had projects at multiple sites and 17 decision-makers with drop-out projects also had projects that were completed. These decision-makers were removed from the drop-out sample.

Three facilities had projects that dropped out but then were resubmitted and completed. One facility had a drop out project that was resubmitted and in the committed status. However, all four of the decision-makers for those facilities had been removed from the drop out sample because they had other completed projects.

The unique decision makers in the drop-out population are shown in Table 46. After removing participating decision-makers, the final drop out sample is shown below.

**Table 46. Decision Maker Counts for Drop Out Projects**

	Number of Decision Makers (unique across Programs)	Number of Decision Makers not in Participant Sample (unique across Programs)
Electric Rebate	61	50
Electric Custom	59	53
Gas Rebate	6	6
Gas Custom	2	2

Lastly, one “Laundromat” project was removed from the sample frame because it did not have an adequate measure description.

The objective was to complete surveys with 50 decision makers in the electric programs and 8 in the gas programs.

#### Program Drop-Out Survey Disposition

Surveys were conducted between June 28th and July 27th of 2012. APPRISE attempted to reach each decision maker through at least 8 call attempts scheduled at different times of day and days of the week. Interviewers left a scripted message when they encountered an answering

machine, including a toll-free number. Messages were left initially and every three days thereafter. These steps were taken to minimize non-response bias potential due to the timing of the attempted completions with surveyed customers.

Table 47 shows the final disposition of the program drop-out surveys for the Con Edison C&I programs.

**Table 47. Con Edison C&I Program Drop-Out Survey Disposition**

Disposition	Electric	Gas	Total
Total in Sample Frame	103	8	111
Completed Interview	36	3	39
Break-Off	0	0	0
Disconnected Number	4	2	6
Fax Number	0	0	0
Wrong Number	2	0	2
Ineligible (Business) Number	0	0	0
No Answer	0	0	0
Busy	1	0	1
Refused	9	0	9
Language Barrier	3	0	3
Answering Machine	2	0	2
Callback	22	0	22
Terminated - Ineligible	24	3	27
<b>TOTAL</b>	<b>103</b>	<b>8</b>	<b>111</b>

*Note: Break-Off indicates a call that was terminated by the participant after the screening process but prior to the completion of the interview; these surveys are not included in the survey results.*

Response rates for the drop out survey are shown in Table 48 below.

**Table 48. Drop Out Survey Response Rates**

Response Rate Calculation	Number
I=Complete Interviews (1.1)	<b>39</b>
P=Partial Interviews (1.2)	0
R=Refusal and break off (2.1)	9
NC=Non Contact (2.2)	23
O=Other (2.0, 2.3)	3
e=Estimated proportion of cases of unknown eligibility that are eligible	0.787
UH=Unknown Household (3.1)	17
UO=Unknown other (3.2-3.9)	0

Response Rate Calculation	Number
<b>Response Rate 1</b>	
$I/(I+P) + (R+NC+O) + (UH+UO)$	0.429
<b>Response Rate 3</b>	
$I/((I+P) + (R+NC+O) + e(UH+UO) )$	0.446

Note: *e* is the estimated proportion of cases of unknown eligibility that are eligible. This estimate is based on the proportion of eligible units among all units in the sample for which a definitive determination of status was obtained (a conservative estimate).

The 39 completed participant drop-out interviews achieved a precision of 10.6 percent at the 90 percent confidence level.

### ***Non-Participant Survey***

APPRISE, Inc. conducted surveys with non-participating C&I customers. Non-participants were defined as customers who qualified for the program but who had not participated. Their perspectives are important to understand the broader trends and needs within the market as well as awareness of the program across the population of eligible customers.

The sample frame was developed from Con Edison’s Customer Information System (CIS). Customers are tracked in the CIS by their account numbers and fall into three main categories: 1) customers who only have electric service under their account number, 2) customers with both gas and electric service provided under the same account number, and 3) customers who only have gas service under their account number. Gas customers were limited to those who use their gas for heating purposes because heating equipment is the predominant gas program measure and the overwhelming majority of gas customers have gas heating. Con Edison does not have any customers who only take gas service, but it does have customers who only have electric service. A customer listed with a gas-only account number almost invariably also has an electric-only account; they are merely listed under two different account numbers. The evaluation team attempted to link as many of these customers’ electric and gas accounts together as possible; these matched customers were included in the appropriate non-participant survey sample frame category.

Electric Program Sample. The Small Business Direct Install (SBDI) program is available for customers under 100 kilowatts and provides for turnkey installation of electric measures at a rebate level that is higher than that of the C&I program. As a result, the C&I program targets larger electric customers that are not eligible for the SBDI. For the purposes of the electric program non-participant surveys, the sample frame included segments specifically designed to collect information from larger electric customers (greater than 100 kilowatts), but did not exclude electric customers with demand under 100 kilowatts. Program staff members were interested in understanding whether there are differences between Manhattan and non-

Manhattan C&I customers. Consequently, separate samples were selected for each of these two regions.

Gas Program Sample. Con Edison program staff indicated an interest in surveying both large and small gas customers. Larger customers (defined as having greater than 10,000 decatherms of consumption per year) were installing program gas measures that were a more significant investment, such as a boiler, while small gas customers were taking advantage of the combustion tune-up incentives. As with the electric samples, separate samples were selected for Manhattan and non-Manhattan C&I gas program non-participant customers.

Table 49 contains counts of Con Edison C&I customer accounts by consumption category.

**Table 49. Con Edison C&I Customer Accounts by Customer Consumption Category**

Manhattan:	Number of Accounts
Gas-only <u>accounts</u> with gas heat and gas usage > 10,000 decatherms	103
Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms	42
Gas-only <u>accounts</u> with gas heat and gas usage <=10,000 decatherms	12,489
Electric > 100 kW, with gas heat and gas usage <=10,000 decatherms	1,310
Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms	6
Electric <= 100 kW, with gas heat and gas usage <=10,000 decatherms	13,857
<b>Total Manhattan Gas Accounts</b>	<b>27,807</b>
Electric Consumption Only	34,429
No Electric Consumption, No Gas Consumption	23,226
<b>Total Manhattan Accounts</b>	<b>85,462</b>
Non-Manhattan:	Number of Accounts
Gas-only <u>accounts</u> gas heat and gas usage > 10,000 decatherms	132
Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms	42
Gas only <u>accounts</u> with gas heat and gas usage <= 10,000 decatherms	22,282
Electric > 100 kW, with gas heat and gas usage <= 10,000 decatherms	1,151
Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms	8
Electric <= 100 kW, with gas heat and gas usage <= 10,000 decatherms	37,748
<b>Total Non-Manhattan Gas Accounts</b>	<b>61,363</b>
Electric Consumption Only	83,396
No Electric Consumption, No Gas Consumption	71,682
<b>Total Non-Manhattan Accounts</b>	<b>216,411</b>

*Source: Con Edison customer data provided May 15, 2012.*

While the accounts are unique, it is possible that a single customer site has multiple accounts, both gas and electric. To account for this, Navigant matched the account records based on the combination of Facility Name, Address, City, State and Zip Code. Navigant removed extra spaces and other non-text (e.g., periods) in the Facility Name and Address fields to match like records, and removed participants and drop-outs from the Non-Participant database.

Table 50 summarizes the number of accounts in each category before and after the data cleaning and matching.

**Table 50. Number of Accounts by Consumption Category Pre- and Post-Matching**

Group		Manhattan:	Accounts Pre-Matching	Accounts Post-Matching
1	Gas-only <u>accounts</u> with gas heat and gas usage > 10,000 decatherms		103	71
2	Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms		42	67
3	Gas-only <u>accounts</u> with gas heat and gas usage <=10,000 decatherms		12,489	9,269
4	Electric > 100 kW, with gas heat and gas usage <=10,000 decatherms		1,310	1,488
5	Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms		6	12
6	Electric <= 100 kW, with gas heat and gas usage <=10,000 decatherms		13,857	14,292
<b>Total Manhattan Gas Accounts</b>			<b>27,807</b>	<b>25,199</b>
7	Electric Consumption Only		34,429	28,523
8	No Electric Consumption, No Gas Consumption		23,226	14,729
<b>Total Manhattan Accounts</b>			<b>85,462</b>	<b>68,451</b>
Group		Non-Manhattan:	Accounts Pre-Matching	Accounts Post-Matching
1	Gas-only <u>accounts</u> gas heat and gas usage > 10,000 decatherms		132	77
2	Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms		42	44
3	Gas only <u>accounts</u> with gas heat and gas usage <= 10,000 decatherms		22,282	18,614
4	Electric > 100 kW, with gas heat and gas usage <= 10,000 decatherms		1,151	1,274
5	Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms		8	13
6	Electric <= 100 kW, with gas heat and gas usage <= 10,000 decatherms		37,748	25,223
<b>Total Non-Manhattan Gas Accounts</b>			<b>61,363</b>	<b>45,245</b>
7	Electric Consumption Only		83,396	77,268
8	No Electric Consumption, No Gas Consumption		71,682	59,104
<b>Total Non-Manhattan Accounts</b>			<b>216,411</b>	<b>181,617</b>

Source: Con Edison customer data provided May 15, 2012.

Three-hundred non-participant surveys were to be conducted: 150 in Manhattan, and 150 outside of Manhattan. Because the large gas consumption customer populations (greater than 10,000 decatherms) were so small, Navigant attempted to survey a census of these customers.

Samples were pulled from the top six groups in each geographic area in Table 50 as follows:

- Manhattan Accounts targeted 150 surveys completed:
  - 75 surveys of large gas and large electric customers:
    - A census of 150 large gas (greater than 10,000 Dth – groups 1, 2 and 5) customers was targeted; and
    - A random sample of large electric customers (greater than 100 kW – group 4) to fill in the remaining surveys to achieve 75 completions for this segment.
  - 75 surveys of small gas customers:
    - A random sample of small gas customers (less than or equal to 10,000 Dth – groups 3 and 6) to achieve 75 completions.
- Non-Manhattan Accounts targeted 150 surveys completed:
  - 75 surveys of large gas and large electric customers:
    - A census of 134 large gas (greater than 10,000 Dth – groups 1, 2 and 5) customers was targeted; and
    - A random sample of large electric customers (greater than 100 kW – group 4) to fill in the remaining surveys to achieve 75 completions for this segment.
  - 75 surveys of small gas customers:
    - A random sample of small gas customers (less than or equal to 10,000 Dth – groups 3 and 6) was targeted to achieve 75 completions.

During surveys calls, it was determined that some customer records were duplicates that were not filtered out during the initial matching process, as shown in Table 50. These included records with the same customer and different addresses, or addresses with typos that prevented their filtering in the initial screen. When customers were determined to be duplicates, their duplicate records were removed from the sample. Additionally, during survey calls, some customers were determined to have participated in the program. These customers were removed as well. This is shown in Table 51.

**Table 51. Duplicate Records Removed During Survey Calls**

Group	Manhattan:	Total Available Records from Participant Database	Duplicate or Participant Records Removed	Total Valid Population Records
1	Gas-only <u>accounts</u> with gas heat and gas usage > 10,000 decatherms	71	4	67
2	Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms	67	5	62
3	Gas-only <u>accounts</u> with gas heat and gas usage <=10,000 decatherms	9,269	7	9,262
4	Electric > 100 kW, with gas heat and gas usage <=10,000 decatherms	1,488	23	1,465
5	Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms	12	0	12
6	Electric <= 100 kW, with gas heat and gas usage <=10,000 decatherms	14,292	4	14,288
<b>Total Manhattan Gas Accounts</b>		<b>25,199</b>	<b>43</b>	<b>25,156</b>
Group	Non-Manhattan:	Total Available Records from Participant Database	Duplicate or Participant Records Removed	Total Valid Population Records
1	Gas-only <u>accounts</u> gas heat and gas usage > 10,000 decatherms	77	4	73
2	Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms	44	4	40
3	Gas only <u>accounts</u> with gas heat and gas usage <= 10,000 decatherms	18,614	4	18,610
4	Electric > 100 kW, with gas heat and gas usage <= 10,000 decatherms	1,274	36	1,238
5	Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms	13	0	13
6	Electric <= 100 kW, with gas heat and gas usage <= 10,000 decatherms	25,223	4	25,219
<b>Total Non-Manhattan Gas Accounts</b>		<b>45,245</b>	<b>52</b>	<b>45,193</b>

Source: Con Edison customer data provided May 15, 2012, and Con Edison Non-Participant Survey screen.

Non-participant final survey data were weighted to reflect the population of non-participants. Table 52 shows the total non-participant population compared to the sample population, and

the resulting sample weights. Sample weights are calculated for each strata by dividing the proportion of the total population by the proportion of the sample.

**Table 52. Non-Participant Survey Weighting**

Manhattan:	Total Population Records	Percent of Population	Surveys Completed	Percent of Survey Population	Weight
Gas-only <u>accounts</u> with gas heat and gas usage > 10,000 decatherms	67	0.3%	10	6.8%	3.9%
Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms	62	0.2%	8	5.5%	4.5%
Gas-only <u>accounts</u> with gas heat and gas usage <=10,000 decatherms	9,262	36.8%	23	15.8%	233.7%
Electric > 100 kW, with gas heat and gas usage <=10,000 decatherms	1,465	5.8%	66	45.2%	12.9%
Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms	12	0.0%	2	1.4%	3.5%
Electric <= 100 kW, with gas heat and gas usage <=10,000 decatherms	14,288	56.8%	37	25.3%	224.1%
<b>Total Manhattan Gas Accounts</b>	<b>25,156</b>	<b>100%</b>	<b>146</b>	<b>100%</b>	
Non-Manhattan:	Total Population Records	Percent of Population	Surveys Completed	Percent of Survey Population	Weight
Gas-only <u>accounts</u> gas heat and gas usage > 10,000 decatherms	73	0.2%	11	7.9%	2.1%
Electric > 100 kW, with gas heat and gas usage > 10,000 decatherms	40	0.1%	7	5.0%	1.8%
Gas only <u>accounts</u> with gas heat and gas usage <= 10,000 decatherms	18,610	41.2%	23	16.4%	250.7%
Electric > 100 kW, with gas heat and gas usage <= 10,000 decatherms	1,238	2.7%	63	45.0%	6.1%
Electric <= 100 kW, with gas heat and gas usage > 10,000 decatherms	13	0.0%	1	0.7%	4.0%
Electric <= 100 kW, with gas heat and gas usage <= 10,000 decatherms	25,219	55.8%	35	25.0%	223.2%
<b>Total Non-Manhattan Gas Accounts</b>	<b>45,193</b>	<b>100%</b>	<b>140</b>	<b>100%</b>	

### Non-Participant Survey Disposition

Surveys were conducted between August 2 and September 20 of 2012. APPRISE attempted to reach each decision maker through at least eight call attempts scheduled at different times of day and days of the week. Interviewers left a scripted message when they encountered an answering machine, including a toll-free number. Messages were left initially and every three days thereafter.

Non-participants were offered an honorarium of 50 dollars for completing the survey. Table 53 shows the final disposition for the non-participant surveys.

**Table 53. Final Non-Participant Survey Disposition**

<b>Disposition</b>	<b>Manhattan Customers</b>	<b>Non-Manhattan Customers</b>	<b>Total Customers</b>
Phone busy	9	2	11
Disconnected phone	30	36	66
Residential	35	55	90
Respondent not available	274	367	641
Initial refusal	187	158	345
Computer tone	8	7	15
Language problems	19	36	55
Schedule callback	56	56	112
No Answer	14	18	32
Answering Machine	136	146	282
Terminated during interview	3	1	4
Save	0	0	0
Wrong Number	22	10	32
Blocked call	7	4	11
Irate refusal	0	1	1
Cell phone	6	8	14
Program Participant	14	21	35
Third party - no referral	92	69	161
Final disconnect	61	63	124
Final refusal	95	72	167
Corp policy prohibits participation	53	44	97
Gov't facility -unable to participate	4	5	9
Duplicate company/contact	29	31	60
Completed Interviews	146	140	286
Target Completions	150	150	300
<b>TOTAL</b>	<b>1,300</b>	<b>1,350</b>	<b>2,650</b>

*Note: Participants and duplicate contacts were filtered during surveying; these surveys are not included in the survey results.*

Response rates for the non-participant survey are shown in Table 54 below.

**Table 54. Non-Participant Survey Response Rates**

Response Rate Calculation	Number
I=Complete Interviews (1.1)	286
P=Partial Interviews (1.2)	0
R=Refusal and break off (2.1)	517
NC=Non Contact (2.2)	1,035
O=Other (2.0, 2.3)	55
e=Estimated proportion of cases of unknown eligibility that are eligible	0.729
UH=Unknown Household (3.1)	54
UO=Unknown other (3.2-3.9)	0
<b>Response Rate 1</b>	
$I / (I + P) + (R + NC + O) + (UH + UO)$	0.147
<b>Response Rate 3</b>	
$I / ((I + P) + (R + NC + O) + e(UH + UO))$	0.148

*Note: e is the estimated proportion of cases of unknown eligibility that are eligible. This estimate is based on the proportion of eligible units among all units in the sample for which a definitive determination of status was obtained (a conservative estimate).*

The 146 completed Manhattan non-participant interviews achieved a precision of 6.9 percent at the 90 percent confidence level. The 140 completed non-Manhattan non-participant interviews achieved a precision of 6.8 percent at the 90 percent confidence level.

### ***Other Sources of Error***

#### **Measurement Error**

The first step taken to address measurement error was the development of valid and reliable questionnaires. The surveys developed for this program were subjected multiple rounds of internal review, as well as review by Con Edison and the NYDPS. Additionally, to minimize unit and item non-response, APPRISE used pre-survey letters requesting cooperation, multiple call backs at different times of the day, incentives for non-participants, as well as experienced interviewers.

#### **Non-Response Bias**

Non-response bias is always an issue when conducting surveys of voluntary participants. The evaluation team employed industry standard techniques for mitigating the impact of non-response bias. These include stratifying the sample, making phone survey calls at varying times of day and evening, calling sampled participants at least eight times before removing them from consideration, and offering cash incentives to non-participants.

### Sample Frame Error

As described in previous sections, the sample frames were created at the decision-maker level. The evaluation team made every effort to accurately group projects and customer accounts by decision-maker. Error may be introduced where database records were entered incorrectly and were unable to be properly matched by decision-maker. An additional source of error is the case of incorrect phone numbers or inactive customer accounts. To the extent possible, the evaluation team cleaned and matched population data with valid New York phone numbers.

### *Survey Pretests*

The participant and non-participant surveys were pretested after receiving DPS approval and prior to the main data collection effort. The surveyors were briefed on the program nomenclature and survey goals prior to making any calls. After approximately five surveys, each instrument was reviewed by APPRISE, Inc. and Navigant to identify issues and implement improvements.

### *Contractor Focus Groups and In-Depth Interviews*

Navigant and Skumatz Economic Research Associates (SERA) conducted focus groups and in-depth interviews with C&I trade allies with the objective of gathering in-depth information for the C&I energy efficiency market, including:

- market status, factors, and decision-making;
- feedback on program design elements, participation, and program influence; and
- standard practices for different sectors and equipment types.

### Focus Groups

Focus groups were conducted to “drill down” on market characteristics, influences on customer decision-making, and other topics for Con Edison customers. They also allowed Navigant to provide feedback to the utilities more quickly than the in-depth interviews because Con Edison and Lockheed Martin were able to view the focus groups in person. In order to gather information on the breadth of the market, both participants and non-participants (defined below) were included in each focus group, and the moderator took care to cycle through the groups to assure any differences based on participation status was uncovered. Given the “market” focus of the focus groups, three separate focus group sessions were conducted, one in each of three key market areas:

- Lighting and lighting controls;
- Electric HVAC equipment, services, and controls; and
- Gas equipment and tune ups.

These three categories were selected because the highest level of customer program activity (as determined by the energy savings of active projects at the time of focus group planning and recruitment) fell within these end uses, as indicated in Table 55.

**Table 55. Con Edison C&I Participation by End-Use Category**

End Use	Number of Projects	Percent of Total Projects	Total kWh Savings	Percent of Total kWh Savings	Total Therm Savings	Percent of Total Therm Savings
Combustion Tune Up	33	32%	-		2,225,470	87%
EMS Gas	19	18%	-		191,703	8%
Insulation	21	20%	-		75,801	3%
Prescriptive Furnace	2	2%	-		30,991	1%
Prescriptive Boiler	21	20%	-		16,793	1%
Pre-Rinse Spray Valve	3	3%	-		2,385	0%
Boiler Controls	3	3%	-		1,268	0%
Custom Gas	2	2%	-		-	0%
<i>Gas Total</i>	<b>104</b>		-		<b>2,544,411</b>	
Lighting and Controls	4,073	89%	45,708,290	32%	(37,363)	
HVAC	235	5%	37,095,935	26%	-	
Custom Electric	58	1%	28,763,600	20%	-	
Custom Motors	36	1%	23,515,034	16%	-	
EMS Electric	92	2%	7,161,018	5%	3,669	
VFD	26	1%	1,805,654	1%	-	
Prescriptive Motor	51	1%	443,530	0%	-	
Compressed Air	2	0%	140,306	0%	-	
Process Upgrades	1	0%	-	0%	-	
<i>Electric Total</i>	<b>4,574</b>		<b>144,633,368</b>		<b>(33,694)</b>	

Source: Con Edison C&I program participation data dated September 27, 2011.

### Contractor In-Depth Interviews

In-depth interviews were conducted with trade allies to obtain a better understanding of how the program might be better aligned to the needs of the contractors and other trade allies, the way they do business, and the needs of their, and Con Edison’s, commercial and industrial customers. SERA completed the interviews and prepared a report of the findings.

The interviews included questions designed to provide feedback on a number of key topics:

- The program’s plan and design, levels of effort, and focus;

- The program’s marketing and the effectiveness in reaching potential contractor partners;
- Satisfaction with the Con Edison C&I programs and its elements; and
- Potential interactions, overlap, and confusion with other programs in the territory.

Interviews were conducted with trade allies involved across all end uses represented in the program, including lighting, HVAC, and gas with stratification groups defined as:

1. Participating trade allies and contractors that had completed project under the program.
2. Trade allies who registered to be a program Market Partner but were not listed on an active or completed project as the trade ally.
3. Trade allies who were not associated with a project under the program or engaged as a Market Partner.

### Populations and Topics for the Focus Groups and Interviews

The populations for participating Market Partner, partial participating Market Partner, and non-participating trade ally are described in the sections below. Both the focus groups and in-depth interviews recruited from the same sample frame. The focus groups recruited from all Market Partners across all participation types but only within lighting, electric HVAC and gas end uses, while the in-depth interviews recruited across all end use types.

### Participant and Partial Participant Sample Frames

The population of participating trade allies are those trade allies indicated in the program records for active projects in the Con Edison C&I program. They may or may not be registered as a Market Partner on the Market Partner listing made available to customers. Only Market Partners with completed or in-process projects are included as “participating” trade allies.

Partial participants are those trade allies registered on the Market Partner listing made available to customers but who were not involved with an active project.

Market Partners indicate their area of specialty and services offered when they register. Each focus group recruited Market Partners with the following areas of specialty and services offered, as follows:

- Lighting: Market Partners who provide lighting services or have a lighting and controls specialty.
- Electric HVAC: Market Partners who provide heating/HVAC or HVAC services or a furnaces, chillers or refrigeration specialty.

- Gas: Market Partners who offer foodservice equipment and heating tune up services and as well as boiler and furnace specialties.

Table 56 describes how the population of Market Partners and active projects was distributed between the specialties included in the focus groups (and are therefore eligible for participation) and program activity. There were 483 registered Market Partners. The highlighted cells indicate the count of Market Partners who did have an active project. The bold cells are the Market Partners with a specialty or service eligible for a focus group.

**Table 56. Market Partner Grouping<sup>25</sup>**

		Focus Group		
		Eligible for Focus Group	Not Eligible for Focus Group	Total
Active Project?	Yes	<b>105</b>	11	116
	No	<b>267</b>	100	367
	Total	<b>372</b>	111	483

In addition, there were 86 trade allies with an active project who were not registered on the Con Edison Market Partner list, bring the total number of Trade Allies eligible for the focus groups to 191.

### Non-Participant Sample Frame

Non-participating trade ally names were purchased through Dun & Bradstreet. Participating trade ally NAICS classifications were reviewed and a subset of the most relevant NAICS classifications was used to create the non-participant sample frame. For instance, many participating trade allies had an NAICS classification of “consultant” but we removed this from the non-participant list because that classification is too broad. The sample frame also sought to include trade allies operating throughout the Con Edison service territory. Table 57 shows how the non-participating trade ally sample frame was distributed geographically.

**Table 57. Distribution of Non-Participants Across Con Edison Service Territory**

Geographic Region	Population of Trade Allies	Trade Allies in Non-Participant Sample Frame
Manhattan	4,693	670

<sup>25</sup> Because Market Partners may indicate multiple areas of specialty or services provided, they are grouped together so as not to double count the number of contacts and population size.

Geographic Region	Population of Trade Allies	Trade Allies in Non-Participant Sample Frame
Bronx	1,244	514
Brooklyn	3,461	600
Staten Island	1,055	662
Queens	3,998	700
Westchester	2,798	692

Table 58 and Table 59 summarize the approach to the focus groups and in-depth interviews, respectively.

**Table 58. Outline of Focus Group Recruitment**

Focus Group	Recruitment Goal	Source of Recruitment List
Lighting		Participant source: Program participation records. Includes vendors associated with lighting projects (custom and prescriptive). Partial participant source: Market Partners who provide lighting services or a lighting and controls specialty (with participating Market Partners removed). Non-participant source: Dun & Bradstreet
Electric HVAC	Recruit 12-15 to achieve 8-10; 3-5 each of participants, partial participants, and true non-participants.	Participant source: Program participation records. Includes vendors associated with package HVAC, custom chillers, and VFDs controlling HVAC projects. Partial participant source: Market Partners who provide heating/HVAC or HVAC services, install furnaces, or indicate a chiller or refrigeration specialty (with participating Market Partners removed). Non-participant source: Dunn & Bradstreet
Gas		Participant source: Program participation records. Includes vendors associated with gas projects (boilers, custom gas, gas tune-up). Partial participant source: Market Partners who offer foodservice equipment and heating tune up services and as well as boiler and furnace specialties. Non-participant source: Dun & Bradstreet

**Table 59. Targets for Trade Ally In-Depth Interviews**

Target Population	Target Number of In-Depth Interviews
HVAC contractors, dealers, suppliers	16
Lighting contractors, designers, suppliers	18
Motor dealers, distributors	10

Target Population	Target Number of In-Depth Interviews
Controls companies	8
Participating contractors	10
Total	62

Detailed topics for the focus groups and interviews for each target, organized by the topic areas mentioned above, are summarized in the Table in Appendix A.

### Focus Group Disposition

Three focus groups were conducted as follows:

1. Lighting on November 15, 2011 - 5:30-7pm,
2. Electric HVAC on November 16, 2011 - 5:30-7pm, and
3. Gas equipment on November 17, 2011 - 5:30-7pm.

All focus groups were held at the Murray Hill Center East, 373 Park Avenue South, 10th floor, New York City, NY 10016.

SERA staff sent introductory letters in late October, and began recruitment on October 25, 2011 and recruitment continued through November 10, 2011. E-mailed reminders were sent to confirmed group participants within the week prior to each group. Participants were provided 150 dollars in cash (or donation to their preferred charity) for their participation. Each session lasted about 10-15 minutes longer than the anticipated 1.5 hours, and the attendees remained engaged and provided productive responses until the end. Each session was observed by staff from Con Edison, Lockheed Martin, and Navigant Consulting.

Table 60 illustrates the number of individuals successfully recruited for each group, as well as the number who attended. Participants were promised anonymity in their responses in return for their candid contributions to the focus group.

**Table 60: Focus Group Invitees and Attendees by Specialty and Category**

	Participants	Partial Participants	Non-participants	Total
Lighting	7 agreed / 5 attended	4 agreed / 2 attended	3 agreed / 2 attended	14 agreed / 9 attended
HVAC	5 agreed / 3 attended	6 <sup>26</sup> agreed / 3 attended	4 agreed / 3 attended	15 agreed / 9 attended
Gas Equipment <sup>27</sup>	4 agreed / 3 attended	5 agreed / 2 attended	4 agreed / 1 attended	13 agreed / 6 attended
Total	16 agreed / 11 attended	15 agreed / 7 attended	11 agreed / 6 attended	42 agreed / 24 attended

### In-Depth Interview Disposition

A total of 64 interviews with trade allies were completed as follows:

- Total participants (n=10)
- Total non-participants (n=54, includes partial participants<sup>28</sup>) including:
  - HVAC (n=16)
  - Lighting (n=18)
  - Motors (n=12)
  - Energy Management Systems / Controls (n=8)

The average Trade Ally interview took about 40 minutes (ranging 25 to 65 minutes).

<sup>26</sup> In this case, two attendees were from the same company – one with expertise in the “paperwork” aspects, and one with the engineering / installation side. Both did attend; they were promised only one incentive between them.

<sup>27</sup> Note that on this night, “Occupy Wall Street” interfered with traffic and transit, which may have affected the attendance figures. One partial participant also cancelled at the last minute.

<sup>28</sup> Partial participants are defined as respondents that have signed-up to become a Market Partner but have not completed any rebated work under the program.

## Appendix C: Survey Instruments

### Participant Survey

#### Con Edison Commercial/Industrial PARTICIPANT Survey

Field Version 060712

**[THE SPONSORING UTILITY FOR THE PROGRAM IS CON EDISON AND THE PROGRAM NAME IS COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY. LOCKHEED MARTIN IMPLEMENTS THE PROGRAM ON BEHALF OF CON EDISON.]**

#### INTRODUCTION

Hello, my name is \_\_\_\_\_, and I'm calling from Issues and Answers on behalf of Consolidated Edison. We're evaluating Con Edison's Commercial and Industrial Energy Efficiency Program. We understand that you submitted an application to this program, and we would like to ask you some questions about your participation. May I please speak with [Decision Maker Name]?

**[IF DECISION MAKER NO LONGER WORKS FOR THE ORGANIZATION OR WILL NOT BE AVAILABLE DURING THE SURVEY PERIOD SAY:]**

Could I please speak with a person such as the facility manager, building manager, operations manager or chief engineer who would be most knowledgeable about your organization's participation in Con Edison's Commercial and Industrial Energy Efficiency Program?

**[LOCATE PROPER RESPONDENT:]**

0. Are you the person most familiar with your organization's participation in the program? I'd like to obtain your views on the Program based on your experience to date. The interview will take about 20 minutes IF NECESSARY SAY: We can continue now, or schedule a time that's more convenient for you.

01 YES, RECORD NAME: \_\_\_\_\_, GO TO SCREENER

02 NO, SCHEDULE CALLBACK; DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

**[REPEAT INTRO IF NEW PERSON COMES TO PHONE, THEN CONTINUE]**

#### SCREENER

1. First, I'd like to confirm some basic information regarding your business and your application.

**[PRE-FILL FIELDS FROM PROJECT DATABASE WHEREVER POSSIBLE AND THEN CONFIRM. MODIFY FIELDS FROM SAMPLE AS NEEDED.]**

- a. My records indicate that the physical address where the project is located is: **[INSERT ADDRESS.]** Is that correct? **[IF MULTI-SITE RESPONDENT, ASK: My records indicate that you had several projects, one of them being at: [INSERT ADDRESS]. Is that correct?]**

1	YES [GO TO Q1c]
2	NO
96	REFUSED [GO TO Q1c]
97	DON'T KNOW [GO TO Q1c]

**[ASK Q1b if Q1a=2]**

b. What is the physical address of the project?

01 RESPONSE PROVIDED \_\_\_\_\_

96 REFUSED

97 DON'T KNOW

c. What type of facility is this? **[DO NOT READ. MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	OFFICE
2	RETAIL STORE
3	FULL-SERVICE RESTAURANT
4	QUICK-SERVICE RESTAURANT
5	MEDICAL – HOSPITAL, CLINIC, DOCTOR OFFICE
6	REFRIGERATED WAREHOUSE
7	UNREFRIGERATED WAREHOUSE
8	MANUFACTURING
9	SCHOOL – KINDERGARTEN THROUGH HIGH SCHOOL
10	COLLEGE/UNIVERSITY, OR
95	SOMETHING ELSE, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

d. What is the primary business activity performed at this site? **[CAPTURE OPEN-ENDED RESPONSE. IF MULTI-SITE RESPONDENT, MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

01 RESPONSE PROVIDED \_\_\_\_\_

96 REFUSED

97 DON'T KNOW

e. How old is this facility? **[DO NOT READ. IF MULTI-SITE RESPONDENT, MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	LESS THAN 2 YEARS,
2	2 TO JUST UNDER 5 YEARS,
3	5 TO JUST UNDER 10 YEARS,
4	10 TO JUST UNDER 20 YEARS,
5	20 TO JUST UNDER 30 YEARS, OR
6	30 OR MORE YEARS OLD?
96	REFUSED
97	DON'T KNOW

f. And what is the approximate square footage of this facility? **[DO NOT READ. MAY NEED TO CLARIFY: Only the square footage of the portion of the building that your business occupies OR FOR MULTI-SITE RESPONDENTS: I am only referring to the site [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	LESS THAN 5,000 SQ FT,
2	5,000 TO JUST UNDER 10,000 SQ FT,
3	10,000 TO JUST UNDER 20,000 SQ FT,

4	20,000 TO JUST UNDER 30,000 SQ FT,
5	30,000 TO JUST UNDER 40,000 SQ FT,
6	40,000 TO JUST UNDER 50,000 SQ FT,
7	50,000 TO JUST UNDER 100,000 SQ FT, OR
8	100,000 SQ FT OR LARGER?
95	OTHER: Specify: _____
96	REFUSED
97	DON'T KNOW

- g. Con Edison's records indicate that you installed the following equipment types . . .First, is: **[CONFIRM LISTED EQUIPMENT CATEGORIES WITH RESPONDENT. FOR MULTI-SITE RESPONDENTS, MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE IDENTIFIED IN [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**:

**EQUIPMENT CATEGORIES:**

1ga. Air Dampers
1gb. Boiler
1gc. Chillers
1gd. Compressed-Air Systems
1ge. Controls
1gf. Energy Management System
1gg. Heating System Maintenance
1gh. HVAC
1gi. Insulation
1gj. Lighting
1gk. Low Flow Pre-Rinse Sprayer
1gl. Motors
1gm. Process Upgrades
1gn. Refrigerator Controls
1go. Variable Frequency Drive
1gp. Window Film
1gq. High Efficiency Rectifiers
1gr. Refrigeration System
1gs. Server Virtualization
1gt. Central Plant Optimization
1gu. Water Filtering Sand System
1gv. Duct Air Humidification

- 01 YES
- 02 NO
- 96 REFUSED
- 97 DON'T KNOW

- h. Were any other types of equipment installed and rebated by the Program that I have not mentioned? **[IF MULTI-SITE RESPONDENT, MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	YES
2	NO <b>[GO TO NEXT SECTION]</b>
96	REFUSED <b>[GO TO NEXT SECTION]</b>
97	DON'T KNOW <b>[GO TO NEXT SECTION]</b>

**[ASK Q1i IF Q1h=1]**

- i. What were they?  
 01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[GO TO PROGRAM AWARENESS SECTION IF AT LEAST ONE MEASURE=01 (YES) IN Q1g. ONLY ASK ABOUT MEASURES THAT ARE CONFIRMED. TERMINATE IF NO MEASURES ARE CONFIRMED.]**

**PROGRAM AWARENESS**

2. How did you learn about the program? **[DO NOT READ LIST, PROBE: "Did you hear about it any other way?" RECORD ALL RESPONSES]**

1	MAILING FROM CON EDISON – UNSPECIFIED <b>[GO TO Q3]</b>
2	NEWSLETTER FROM CON EDISON <b>[GO TO Q3]</b>
3	BILL INSERT FROM CON EDISON <b>[GO TO Q3]</b>
4	CON EDISON WEBSITE
5	FAMILY/FRIEND <b>[GO TO Q3]</b>
6	CONTRACTOR <b>[GO TO Q3]</b>
7	UTILITY REPRESENTATIVE <b>[GO TO Q3]</b>
8	NEWS STORY <b>[GO TO Q3]</b>
9	TELEVISION <b>[GO TO Q3]</b>
10	RADIO <b>[GO TO Q3]</b>
11	PRESENTATION AT AN INDUSTRY ASSOCIATION MEETING OR EVENT <b>[GO TO Q3]</b>
12	CONFERENCE <b>[GO TO Q3]</b>
13	REFERRED FROM THE SMALL BUSINESS DIRECT INSTALL PROGRAM <b>[GO TO Q3]</b>
95	OTHER , SPECIFY: _____ <b>[GO TO Q3]</b>
96	REFUSED <b>[GO TO Q3]</b>
97	DON'T KNOW <b>[GO TO Q3]</b>

**[ASK Q2a IF Q2=4]**

- 2a. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with the ease of finding the information you were looking for on the program website.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY				SOMEWHAT				EXTREMELY		REF	DK
DISSATISFIED				SATISFIED				SATISFIED			

**[ASK Q2b IF Q2a<5]**

2b. Why do you say that? **[IF NEEDED SAY: Why weren't you satisfied with the program website?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q3 IF MORE THAN ONE RESPONSE IN Q2]**

3. Which of the sources of information you just mentioned was *most* influential in your decision to participate in the program? You mentioned **[INSERT ANSWERS FROM Q2]. [RECORD MOST INFLUENTIAL SOURCE CITED.]**

**[ASKED OF ALL]**

4. What was it you learned *about* the program that made you want to participate? **[DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.]**

1	SAVE ENERGY
2	REDUCE YOUR ENERGY BILL
3	CASH REBATES
4	ASSISTANCE IN BUYING ENERGY EFFICIENT EQUIPMENT
5	ANOTHER ORGANIZATION HAD A GOOD EXPERIENCE WITH PROGRAM
6	IMPROVE ENVIRONMENT, REDUCE GREENHOUSE GASES
7	FINANCING AVAILABLE
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

5. How would you suggest Con Edison reach out to customers like you to get them to participate in the program? **[DO NOT READ. ACCEPT MULTIPLE RESPONSES]**

1	WITH ACCOUNT REPRESENTATIVES
2	WITH FLYERS/ADS/MAILINGS
3	WITH BILL INSERTS
4	RAISE REBATE/MORE BENEFITS
5	TARGET OWNERS/UPPER MANAGEMENT
6	THROUGH CONTRACTORS/EQUIPMENT INSTALLERS
7	THROUGH DISTRIBUTORS/MANUFACTURERS
8	ATTRACTIVE FINANCING
9	AT AN INDUSTRY ASSOCIATION EVENT/CONFERENCE
94	I DON'T HAVE ANY SUGGESTIONS
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

6. What do you believe are the main benefits of participating in the Commercial and Industrial Energy Efficiency Program? **[DO NOT READ, ACCEPT MULTIPLE RESPONSES.]**

1	ENERGY SAVINGS
2	GOOD FOR THE ENVIRONMENT
3	LOWER MAINTENANCE COSTS
4	BETTER QUALITY/NEW EQUIPMENT
5	REBATE/INCENTIVE
6	BILL SAVINGS
7	JUSTIFIES/CONVINCES UPPER MANAGEMENT TO INVEST IN ENERGY EFFICIENCY
8	REDUCED OPERATING COSTS
9	RETURN ON SYSTEMS BENEFITS CHARGE
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

7. Do you perceive any drawbacks to participating in the Commercial and Industrial Energy Efficiency Program?

1	YES
2	NO <b>[SKIP TO Q8]</b>
96	REFUSED <b>[SKIP TO Q8]</b>
97	DON'T KNOW <b>[SKIP TO Q8]</b>

**[ASK Q7a IF Q7=1]**

7a. What do you see as the drawbacks to participating in the program? **[DO NOT READ, ACCEPT MULTIPLE RESPONSES]**

1	PAPERWORK TOO BURDENSOME
2	INCENTIVES NOT HIGH ENOUGH
3	PROGRAM IS TOO COMPLICATED
4	NOT WORTH THE EFFORT REQUIRED
5	INITIAL COST OF EQUIPMENT
6	LACK OF ATTRACTIVE FINANCING OPTIONS
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**CONTRACTOR/DISTRIBUTOR/INSTALLER INTERACTIONS**

**[ASKED OF ALL]**

8. How did you decide which contractor to use to purchase or install your new equipment? **[DO NOT READ, PROBE FOR ADDITIONAL, ACCEPT MULTIPLE RESPONSES.]**

1	RECOMMENDED BY FRIEND/FAMILY <b>[GO TO Q10]</b>
2	RECOMMENDED BY CON EDISON <b>[GO TO Q10]</b>
3	CHOSE USUAL CONTRACTOR/DISTRIBUTOR <b>[GO TO Q10]</b>
4	ASKED SEVERAL CONTRACTORS/DISTRIBUTORS FOR PROPOSALS
5	CHOSE CON EDISON MARKET PARTNER <b>[GO TO Q12]</b>
95	OTHER, SPECIFY: _____ <b>[GO TO Q10]</b>
96	REFUSED <b>[GO TO Q10]</b>
97	DON'T KNOW <b>[GO TO Q10]</b>

**[ASK IF Q8=4]**

9. You indicated that you asked several contractors and/or distributors for proposals prior to installing your new equipment. What was your final decision based on? **[DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.]**

1	SELECTED BASED ON LOWEST COST
2	SELECTED BECAUSE OF ENERGY EFFICIENT EQUIPMENT
3	SELECTED BECAUSE OF REBATE
4	SELECTED BASED ON EXPERIENCE AND EXPERTISE
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

10. Are you aware of Con Edison's Market Partner Network, consisting of contractors and other vendors who have been trained on the program application process? **[DO NOT READ]**

1	YES
2	NO <b>[SKIP TO Q15]</b>
96	REFUSED <b>[SKIP TO Q15]</b>
97	DON'T KNOW <b>[SKIP TO Q15]</b>

**[ASK Q11 IF Q10=1]**

11. Did you obtain a list of Market Partner firms? **[DO NOT READ]**

1	YES
2	NO <b>[SKIP TO Q15]</b>
96	REFUSED <b>[SKIP TO Q15]</b>
97	DON'T KNOW <b>[SKIP TO Q15]</b>

**[ASK Q12 IF Q11=1 OR Q8=5]**

12. **[IF Q8=5: To confirm,]** Did you choose a firm from the Market Partner Network for your installation? **[DO NOT READ]**

1	YES
2	NO <b>[SKIP TO Q14]</b>
96	REFUSED <b>[SKIP TO Q15]</b>
97	DON'T KNOW <b>[SKIP TO Q15]</b>

**[ASK Q13 IF Q12=1]**

13. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction working with your Market Partner.

1   2   3   4   5   6   7   8   9   10   96   97  
 EXTREMELY                      SOMEWHAT                      EXTREMELY  
 DISSATISFIED                      SATISFIED                      SATISFIED                      REF      DK

**[ASK Q14 IF Q11=1 AND Q12=2]**

14. Why didn't you choose a Market-Partner firm to install your new equipment? **[DO NOT READ; ACCEPT MULTIPLE RESPONSES.]**

1	NONE AVAILABLE IN MY GEOGRAPHIC LOCATION
---	--

2	NONE AVAILABLE IN THE CATEGORY OF WORK I NEEDED
3	DIDN'T KNOW HOW TO CONTACT THEM
4	USED MY NORMAL CONTRACTOR/DISTRIBUTOR/INSTALLER
5	TOO EXPENSIVE
6	INADEQUATE/BAD REFERENCES
7	DIDN'T RESPOND TO MY REQUEST FOR BID
8	DIDN'T CALL ME BACK
9	DIDN'T KNOW OF MARKET PARTNER AT TIME OF APPLICATION
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

### INTERACTION WITH UTILITY

**[ASKED OF ALL]**

15. At any point during your participation in the Commercial and Industrial Energy Efficiency Program, did you contact a program representative? **[INTERVIEWER NOTE, THIS COULD BE A REP FROM CON EDISON, OR LOCKHEED MARTIN]**

1	YES
2	NO <b>[GO TO NEXT SECTION, Q16]</b>
3	NO, BUT MY CONTRACTOR DID (IF VOL.) <b>[GO TO NEXT SECTION, Q16]</b>
96	REFUSED <b>[GO TO NEXT SECTION, Q16]</b>
97	DON'T KNOW <b>[GO TO NEXT SECTION, Q16]</b>

**[ASK Q15a IF Q15=1]**

- 15a. Was the representative from Con Edison or Lockheed Martin? **[INTERVIEWER NOTE: RECORD BOTH IF VOLUNTEERED]**

1	CON EDISION
2	LOCKHEED MARTIN <b>[SKIP TO Q15i]</b>
3	BOTH
96	REFUSED <b>[GO TO Q15p]</b>
97	DON'T KNOW <b>[GO TO Q15p]</b>

**[ASK Q15b IF Q15a=1 OR 3]**

- 15b. For the next few questions, please think about your experience with the *Con Edison* representative. What was the nature of your inquiry or inquiries to Con Edison?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15c IF Q15a=1 OR 3]**

- 15c. Overall, was the *Con Edison* representative knowledgeable?

1	YES <b>[GO TO Q15e]</b>
2	NO
96	REFUSED <b>[GO TO Q15e]</b>
97	DON'T KNOW <b>[GO TO Q15e]</b>

**[ASK Q15d IF Q15c=2]**

15d. Why do you say that? **[IF NEEDED: Why do you feel the Con Edison representative was not knowledgeable?]**

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 96 REFUSED
- 97 DON'T KNOW

15e. Did the *Con Edison* representative resolve your inquiry to your satisfaction?

1	YES <b>[GO TO Q15g]</b>
2	NO
3	STILL UNRESOLVED <b>[GO TO Q15g]</b>
96	REFUSED <b>[GO TO Q15g]</b>
97	DON'T KNOW <b>[GO TO Q15g]</b>

**[ASK Q15f IF Q15e=2]**

15f. Why were you dissatisfied?

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 96 REFUSED
- 97 DON'T KNOW

**[ASK Q15g if Q15a=1 OR 3]**

15g. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with your experience contacting a *Con Edison* representative.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY DISSATISFIED				SOMEWHAT SATISFIED				EXTREMELY SATISFIED		REF	DK

**[ASK Q15h if Q15g<5]**

15h. Why do you say that? **[IF NEEDED SAY: Why weren't you satisfied with your experience contacting a Con Edison representative?]**

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 96 REFUSED
- 97 DON'T KNOW

**[FOR LOCKHEED MARTIN CONTACTS, ASK Q15i IF Q15a=2 OR 3, ELSE SKIP TO INSTRUCTIONS BEFORE Q15p]**

15i. For the next few questions, please think about your experience with the *Lockheed Martin* representative. What was the nature of your inquiry or inquiries to Lockheed Martin? **[OPEN ENDED ANSWER]**

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 96 REFUSED
- 97 DON'T KNOW

**[ASK Q15j if Q15a=2 OR 3]**

15j. Overall, was the *Lockheed Martin* representative knowledgeable?



**[ASK Q15q IF Q15a=96 OR 97]**

15q. Overall, was the *program* representative knowledgeable?

1	YES [GO TO Q15s]
2	NO
96	REFUSED [GO TO Q15s]
97	DON'T KNOW [GO TO Q15s]

**[ASK Q15r if Q15q=2]**

15r. Why do you say that? **[IF NEEDED: Why do you feel the representative was *not* knowledgeable?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

15s. Did the *program* representative resolve your inquiry to your satisfaction?

1	YES [GO TO Q15u]
2	NO
3	STILL UNRESOLVED [GO TO Q15u]
96	REFUSED [GO TO Q15u]
97	DON'T KNOW [GO TO Q15u]

**[ASK Q15t if Q15s=2]**

15t. Why were you dissatisfied?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15u if Q15a=96 OR Q15a=97]**

15u. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with your experience contacting a *program* representative.

1      2      3      4      5      6      7      8      9      10      96      97  
 EXTREMELY                      SOMEWHAT                      EXTREMELY      REF      DK  
 DISSATISFIED                      SATISFIED                      SATISFIED

**[ASK Q15v IF Q15u<5]**

15v. Why do you say that? **[IF NEEDED SAY: Why weren't you satisfied with your experience contacting a program representative?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**PROGRAM PROCESS**



- d. Scheduling With Con Edison For The Program's Post-Inspection
- e. Obtaining The Incentive Payment From The Program

- 01 YES
- 02 NO
- 03 CONTRACTOR DID THIS (IF VOL.)
- 96 REFUSED
- 97 DON'T KNOW
- 99 NOT APPLICABLE

17b. Was there anything else that took too long?

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 94 NOTHING ELSE
- 96 REFUSED
- 97 DON'T KNOW

17c. In your opinion, what could be done differently to expedite progress through this program?  
**[OPEN ENDED ANSWER]**

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 94 NO IMPROVEMENTS
- 96 REFUSED
- 97 DON'T KNOW

**[ASKED OF ALL]**

18. Is there anything else about the program, other than what we just discussed, that made it difficult to participate? **[OPEN ENDED ANSWER]**

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 94 NOTHING ELSE
- 96 REFUSED
- 97 DON'T KNOW

**PRODUCT SPECIFIC**

19. **[FOR EQUIPMENT FOR WHICH EFFICIENCY TYPE = "EFFICIENCY LEVEL". ASK FOR EACH EQUIPMENT TYPE INSTALLED. With respect to [INSERT MEASURE CODE IF CONFIRMED IN Q1g] [FOR MULTI-SITE RESPONDENTS, AT [INSERT ADDRESS FROM Q1a OR FROM Q1b IF Q1a=2], did you *replace* it because [READ OPTIONS]....?**  
**[INTERVIEWER NOTE: FOR MULTI-SITE RESPONDENTS, THIS QUESTION IS SITE-SPECIFIC]**

**[PROGRAMMER NOTE: ASK Q20 IN SEQUENCE AFTER Q19 FOR THE APPLICABLE MEASURE CODE]**

1	It was failing but still operating <b>[GO TO Q21]</b>
2	The equipment stopped working all together <b>[GO TO Q21]</b>
95	Or because of some other reason?
4	<b>IT WAS DIFFERENT FOR EACH SITE (DO NOT READ. INTERVIEWER NOTE: RECORD THIS RESPONSE, BUT REITERATE THAT THE REMAINING QUESTIONS ARE RELATED TO ONLY THE SITE IDENTIFIED IN Q1a)</b>
96	REFUSE <b>[GO TO Q21]</b>

97	DON'T KNOW [GO TO Q21]
----	------------------------

MEASURE CODE:
19a. Air Dampers
19b. Boiler
19c. Chillers
19d. Compressed-Air Systems
19e. Controls
19f. Energy Management System
19g. Heating System Maintenance
19h. HVAC
19i. Insulation
19j. Lighting
19k. Low Flow Pre-Rinse Sprayer
19l. Motors
19m. Process Upgrades
19n. Refrigerator Controls
19o. Variable Frequency Drive
19p. Window Film
19q. High Efficiency Rectifiers
19r. Refrigeration System
19s. Server Virtualization
19t. Central Plant Optimization
19u. Water Filtering Sand System
19v. Duct Air Humidification

20. What was the reason you replaced the [INSERT MEASURE PER Q1g IF CONFIRMED IN Qg1]? [DO NOT READ. PROBE TO CAPTURE RESPONSE IN ONE OF THE FOLLOWING CATEGORIES. ACCEPT MULTIPLE RESPONSES.]:

1	YOU WANTED TO IMPROVE EQUIPMENT PERFORMANCE.
2	YOU WANTED TO LOWER YOUR ENERGY BILL.
3	YOU WANTED TO PROTECT THE ENVIRONMENT.
4	YOU WERE REMODELING OR EXPANDING THE FACILITY.
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

21. [FOR EQUIPMENT FOR WHICH EFFICIENCY TYPE = "EFFICIENCY LEVEL"] Why did your company decide to install *high-efficiency* [READ MEASURE TYPES PER Q1g IF CONFIRMED] equipment instead of standard-efficiency equipment? [CLARIFY: THIS IS

**SEPARATE FROM THE REASONS FOR INSTALLING THE EQUIPMENT. DO NOT READ REASONS; SELECT ALL FACTORS CITED. USE COMMENTS FIELD TO CLARIFY, IF NECESSARY.]**

1	IMPROVE PERFORMANCE
2	REDUCE ENERGY COSTS
3	TO GET A REBATE FROM THE PROGRAM/CON EDISON
4	TO GET LATEST TECHNOLOGY
5	TO PROTECT THE ENVIRONMENT
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[ONLY ASK FOR MEASURE=HVAC IF THERE ISN'T ANY EFFICIENCY LEVEL HVAC]  
ONLY ASK FOR MEASURE=LIGHTING IF THERE ISN'T ANY EFFICIENCY LEVEL LIGHTING]**

**22. [FOR EFFICIENCY IMPROVEMENTS FOR WHICH EFFICIENCY TYPE = "STANDALONE"]**

What was the primary reason you chose to make the [READ MEASURE TYPES PER Q1G IF CONFIRMED] efficiency improvement [IF MULTI-SITE RESPONDENT: at [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]? [PROBE TO CAPTURE RESPONSE IN THE FOLLOWING CATEGORIES IF RESPONSE DIFFERS BY IMPROVEMENT CATEGORY. ACCEPT MULTIPLE RESPONSES.]: [INTERVIEWER NOTE: WE ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1A OR FROM Q1b IF Q1a=2]

1	IMPROVE PERFORMANCE
2	REDUCE ENERGY COSTS
3	TO GET A REBATE FROM THE PROGRAM/CON EDISON
4	TO GET LATEST TECHNOLOGY
5	TO PROTECT THE ENVIRONMENT
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[ASKED OF ALL]**

**23. On a scale of 1 to 10, where 1 is extremely dissatisfied and 10 is extremely satisfied, how would you rate your satisfaction with each type of new high efficiency equipment installed through the program. [IF MULTIPLE MEASURES SAY: First is . . . [INSERT MEASURE]**

1 2 3 4 5 6 7 8 9 10 96 97  
 EXTREMELY SOMEWHAT EXTREMELY 96 97  
 DISSATISFIED SATISFIED SATISFIED REF DK

**[ASKED OF ALL]**

24. Please rate your satisfaction with the total rebate amount on a scale of 1-10, with 1 being extremely dissatisfied and 10 being extremely satisfied. **[INTERVIEWER NOTE: IF RESPONDENT ASKS, PLEASE REPORT ACROSS ALL SITES.]**

1 2 3 4 5 6 7 8 9 10 96 97  
 EXTREMELY SOMEWHAT EXTREMELY 96 97  
 DISSATISFIED SATISFIED SATISFIED REF DK

**[ASK Q24a IF Q24<5]**

24a. Why were you dissatisfied? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASKED OF ALL]**

25. On a scale of 1 to 10 again, but this time with 1 being extremely unlikely and 10 being extremely likely, please tell me how likely it is that you would have undertaken the rebated efficiency improvements you did through the program had the program not been available.

1 2 3 4 5 6 7 8 9 10 96 97  
 EXTREMELY SOMEWHAT EXTREMELY 96 97  
 UNLIKELY LIKELY LIKELY REF DK

## SATISFACTION

Now, we'd like to get a sense of your satisfaction with specific aspects of the program. Please use a 1 to 10 scale again, where 1 means EXTREMELY DISSATISFIED and 10 means EXTREMELY SATISFIED.

26. How would you rate your satisfaction with the program's turnaround time to issue your rebate check(s) once all program requirements were met?

1 2 3 4 5 6 7 8 9 10 96 97  
 EXTREMELY SOMEWHAT EXTREMELY 96 97  
 DISSATISFIED SATISFIED SATISFIED REF DK

**[ASK Q26a IF Q26<5]**

26a. Why do you say that? **[IF NECESSARY: Why are you less than satisfied with the turnaround time of processing your rebate application?]** **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q26b IF Q26<5]**

26b. Do you have any recommendations for improving the process? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_

94 NO/NONE  
 96 REFUSED  
 97 DON'T KNOW

**[ASKED OF ALL]**

27. How would you rate your satisfaction with the program's communications throughout the participation process?

1 2 3 4 5 6 7 8 9 10 94 96 97  
 EXTREMELY EXTREMELY CONTRACTOR 96 97  
 DISSATISFIED SATISFIED DID THIS (IF VOL) REF DK

**[ASK Q27a IF Q27<5]**

27a. What dissatisfied you? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q27b IF Q27<5]**

27b. How would you change the process? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASKED OF ALL]**

28. Please rate your **overall** satisfaction with the program.

1 2 3 4 5 6 7 8 9 10 96 97  
 Extremely Somewhat Extremely 96 97  
 Dissatisfied Satisfied Satisfied REF DK

**[ASK Q28a IF Q28<5]**

28a. Why were you dissatisfied? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASKED OF ALL]**

29. Did you expect your energy bill to increase, decrease or stay the same after you installed the new equipment? **[IF NECESSARY FOR MULTI-SITE RESPONDENTS: Please report for all your sites in the program.]**

1	INCREASE
2	DECREASE
3	STAY THE SAME
96	REFUSED
97	DON'T KNOW

30. Did your energy bill **actually** [FILL IN RESPONSE FROM Q29]?" [INTERVIEWER NOTE: FOR MULTI-SITE RESPONDENTS, WE ARE ASKING ACROSS ALL SITES]

1	YES
2	NO
3	TOO SOON TO TELL
4	WE DON'T TRACK
96	REFUSED
97	DON'T KNOW

31. On a scale of 1 to 10, where 1 is Not at All Likely, and 10 is Extremely Likely, how likely are you to recommend the program to others in the future?

1	2	3	4	5	6	7	8	9	10	96	97
NOT AT ALL LIKELY				SOMEWHAT LIKELY				EXTREMELY LIKELY		REF	DK

[ASK Q31a IF Q31<5]

0a. Why do you say that? [IF NEEDED SAY: Why are you unlikely to recommend the program to others? [OPEN ENDED ANSWER]

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**OTHER PROGRAMS**

[ASKED OF ALL]

Finally, I'd like to ask you about other energy efficiency programs that may be available in your area for businesses like yours.

32. First, have you heard of NYSERDA's Existing Facilities Program? (IF NEEDED SAY: NYSERDA is the New York State Energy Research and Development Authority.)

1	YES
2	NO [GO TO Q36]
96	REFUSED [GO TO Q36]
97	DON'T KNOW [GO TO Q36]

[ASK Q33 IF Q32=1]

33. Did you consider participating in the NYSERDA Existing Facilities program instead of the Con Edison Commercial and Industrial Energy Efficiency Program for this project?

1	YES
2	NO (GO TO Q35)
96	REFUSED (GO TO Q35)
97	DON'T KNOW (GO TO Q35)

[ASK Q34 IF Q33=1]

34. Why did you decide to participate in the Con Edison program rather than the NYSERDA program? [DO NOT READ. MARK ALL THAT APPLY]

1	INCENTIVE AMOUNTS WERE HIGHER
2	MEASURES THAT GET INCENTIVES
3	TOO MANY INSPECTIONS FOR NYSERDA PROGRAM
4	INFORMATION/EDUCATION PROVIDED
5	APPLICATION PROCESS WAS SIMPLER
6	LIKED CON EDISON CONTACT BETTER
7	AMOUNT OF TIME IT TAKES TO BE PAID THE INCENTIVES
8	CON EDISON'S CUSTOMER SERVICE WAS BETTER
9	HEARD ABOUT CON EDISON PROGRAM AND NOT ABOUT NYERDA'S
10	HEARD ABOUT CON EDISON'S PROGRAM <i>BEFORE</i> HEARING ABOUT NYSERDA'S
95	OTHER (SPECIFY): _____
96	REFUSED
97	DON'T KNOW

**[ASK Q35 IF Q32=1]**

35. Did you find it confusing that there are similar programs offered by multiple organizations, in which you could participate?

1	YES
2	NO <b>[GO TO Q36]</b>
96	REFUSED <b>[GO TO Q36]</b>
97	DON'T KNOW <b>[GO TO Q36]</b>

**[ASK Q35a IF Q35=1]**

35a. What was confusing to you? [OPEN ENDED ANSWER]

- 01 Comments: \_\_\_\_\_
- 94 NO/NONE/NOTHING
- 96 REFUSED
- 97 DON'T KNOW

36. Have you participated in any other *utility-sponsored* energy efficiency programs?

- 01 YES
- 02 NO **[GO TO Q38]**
- 96 REFUSED **[GO TO Q38]**
- 97 DON'T KNOW **[GO TO Q38]**

**[ASK Q37 IF Q36=1]**

37. Overall, how does Con Edison's Commercial and Industrial Energy Efficiency Program compare to those other utility-sponsored programs? Would you say it's **[RANDOMIZE 'BETTER' AND 'WORSE' AND READ OPTIONS.]**?

- 01 BETTER
- 02 SAME
- 03 WORSE
- 96 REFUSED
- 97 DON'T KNOW

38. Do you have any other comments or thoughts you would like to share about your experiences with the Commercial & Industrial Energy Efficiency Program? **[OPEN ENDED ANSWER]**

01 Comments \_\_\_\_\_

94 NO/NONE/NOTHING

96 REFUSED

97 DON'T KNOW

39. *Thank you very much for your time. I do want to let you know that someone will probably be calling your organization later this year, as part of an assessment of how much energy Con Edison's program is actually saving participating customers. This will involve some detailed questions about the specific efficiency improvements you have made. Would you be the person they should talk to about this?*

01 YES **[GO TO END]** **[PROGRAMMER NOTE: AUTOFILL RESPONDENT'S NAME]**

02 NO

96 REFUSED **[GO TO END]**

97 DON'T KNOW **[GO TO END]**

*Please give me the name and telephone number of the right person for them to talk to.*

01 RECORD: NAME: \_\_\_\_\_

PHONE: \_\_\_\_\_

96 REFUSED

97 DON'T KNOW

**END:** *Have a good day/evening!*



*Drop-Out Survey*

**Consolidated Edison Commercial/Industrial EE Program  
DROPOUT Survey [061512]**

**[THE SPONSORING UTILITY FOR THE PROGRAM IS CON EDISON AND THE PROGRAM NAME IS COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY. LOCKHEED MARTIN IMPLEMENTS THE PROGRAM ON BEHALF OF CON EDISON.]**

**INTRODUCTION**

Hello, my name is \_\_\_\_\_, and I'm calling from Issues and Answers on behalf of Consolidated Edison. We're evaluating Con Edison's Commercial and Industrial Energy Efficiency Program. We understand that you submitted an application but at some point dropped out of the program. We would like to ask you some questions about your program experience, so that we can improve the program. May I please speak with [Decision Maker Name]?

**[IF DECISION MAKER NAME NO LONGER WORKS FOR THE ORGANIZATION OR WILL NOT BE AVAILABLE DURING THE SURVEY PERIOD SAY:]**

Could I please speak with a person such as the facility manager, building manager, operations manager or chief engineer who would be knowledgeable about your organization's participation in Con Edison's Commercial and Industrial Energy Efficiency Program?

**[LOCATE PROPER RESPONDENT:]**

0. Are you the person most familiar with your organization's participation in the program and knowledgeable about why your organization dropped out of the program? I'd like to obtain your views on the Program based on your experience. The interview will take about 20 minutes.

01 YES, RECORD NAME: \_\_\_\_\_, GO TO SCREENER  
02 NO, SCHEDULE CALLBACK, DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

**[REPEAT INTRO IF NEW PERSON COMES TO PHONE, THEN CONTINUE]**

**SCREENER**

39. First, I'd like to confirm some basic information regarding your business and your application.

**[PRE-FILL FIELDS FROM PROJECT DATABASE WHEREVER POSSIBLE AND THEN CONFIRM. MODIFY FIELDS FROM SAMPLE AS NEEDED.]**

a. My records indicate that the physical address where the project is located is: **[INSERT ADDRESS.]** Is that correct? **[IF MULTI-SITE RESPONDENT, ASK: My records indicate that you had several projects, one of them being at: [INSERT ADDRESS]. Is that correct?**

1	YES <b>[GO TO Q1c]</b>
2	NO
96	REFUSED <b>[GO TO Q1c]</b>
97	DON'T KNOW <b>[GO TO Q1c]</b>

**[ASK Q1b if Q1a=2]**

b. What is the physical address of the project?  
01 RESPONSE PROVIDED \_\_\_\_\_  
96 REFUSED  
97 DON'T KNOW

- c. What type of facility is this? **[DO NOT READ. MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE AT [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	OFFICE
2	RETAIL STORE
3	FULL-SERVICE RESTAURANT
4	QUICK-SERVICE RESTAURANT
5	MEDICAL – HOSPITAL, CLINIC, DOCTOR OFFICE
6	REFRIGERATED WAREHOUSE
7	UNREFRIGERATED WAREHOUSE
8	MANUFACTURING
9	SCHOOL – KINDERGARTEN THROUGH HIGH SCHOOL
10	COLLEGE/UNIVERSITY, OR
95	SOMETHING ELSE, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[PROGRAMMER NOTE: C1-C3 ARE UNIQUE TO THE DROP OUT SURVEY]**

- c1. Is this location the only location for your organization, one of several locations existing *only within the Con Edison territory*, or one of several locations for the organization with locations *outside of the Con Edison territory*? **[INTERVIEWER IF NEEDED CON EDISON'S TERRITORY INCLUDES MANHATTAN, STATEN ISLAND, BROOKLYN, BRONX, QUEENS AND WESTCHESTER]**

1	ONLY LOCATION FOR THE ORGANIZATION
2	ONE OF SEVERAL LOCATIONS EXISTING ONLY IN CON EDISON TERRITORY
3	ONE OF SEVERAL LOCATIONS INCLUDING LOCATIONS OUTSIDE CON EDISON TERRITORY
96	REFUSED
97	DON'T KNOW

- c2. **[ASK 1c2 IF MULTI\_SITES =1]** Does your organization have sites located outside of Con Edison's service territory?

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

**[ASK 1c3 IF 1c1 = 3 OR 1c2 = 1]**

- c3. Is the headquarters for your organization located within Con Edison's territory? **[INTERVIEWER IF NEEDED CON EDISON'S TERRITORY INCLUDES MANHATTAN, STATEN ISLAND, BROOKLYN, BRONX, QUEENS AND WESTCHESTER]**

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

- d. What is the primary business activity performed at this site? **[CAPTURE OPEN-ENDED RESPONSE. IF MULTI-SITE RESPONDENT, MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

- e. How old is this facility? **[DO NOT READ. IF MULTI\_SITES=1, MAY NEED TO CONFIRM THAT YOU ARE ONLY ASKING ABOUT THE SITE [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	Less than 2 years
2	2 to just under 5 years
3	5 to just under 10 years
4	10 to just under 20 years
5	20 to just under 30 years, or
6	30 or more years old?
96	REFUSED
97	DON'T KNOW

- f. And what is the approximate square footage of this facility? **[DO NOT READ. MAY NEED TO CLARIFY: Only the square footage of the portion of the building that your business occupies OR FOR MULTI-SITE RESPONDENTS: I am only referring to the site [INSERT SITE FROM Q1a OR FROM Q1b IF Q1a=2]]**

1	Less than 5,000 sq ft,
2	5,000 to just under 10,000 sq ft,
3	10,000 to just under 20,000 sq ft,
4	20,000 to just under 30,000 sq ft,
5	30,000 to just under 40,000 sq ft,
6	40,000 to just under 50,000 sq ft,
7	50,000 to just under 100,000 sq ft, or
8	100,000 sq ft or larger?
95	OTHER: SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[PROGRAMMER NOTE: QUESTIONS 1g-1i INTENTIONALLY OMITTED FROM DROP OUT SURVEY AND 1j, k and l ARE UNIQUE TO THE DROP OUT SURVEY]**

- j. Our records indicate that your organization began but discontinued participating in the Con Edison C&I Energy Efficiency Program. What parts of the process did you complete? Did you...(READ LIST)

- g. Identify the measure(s) to install at your facility?
- h. Estimate costs of the proposed measures?
- i. Estimate the savings of the proposed measures?
- j. Obtain internal approval to proceed with the project?
- k. Choose a contractor or distributor?
- l. Submit an application? **[GO TO Q1k IF Q1jf=NO]**
- m. Schedule the program's pre-inspection? **[GO TO Q1k IF Q1jg=NO]**

- n. Obtain an offer letter from Con Ed? **[GO TO Q1k IF Q1jh=NO]**
- o. Install the equipment or have it installed? **[GO TO Q1k IF Q1ji=NO]**
- p. Schedule the program's post-inspection?

**[RECORD ONE RESPONSE FOR EACH ITEM IN THE LIST ABOVE]**

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

k. What was the primary reason that your organization dropped out of the program? **[DO NOT READ; SELECT ONE OPTION THAT BEST FITS RESPONSE.]**

1	PAPERWORK TOO BURDENSOME
2	INCENTIVES NOT HIGH ENOUGH
3	NOT WORTH THE EFFORT REQUIRED
4	PROGRAM IS TOO COMPLICATED
5	COST OF EQUIPMENT WAS TOO HIGH
6	BAD ECONOMY/BUSINESS UNCERTAINTY
7	DECIDED TO PARTICIPATE IN NYSERDA PROGRAM INSTEAD
8	POSTPONED THE WORK
9	MY EQUIPMENT DID NOT QUALIFY
10	MY PROJECT DID NOT QUALIFY
11	COULD NOT FUND THE PROJECT/PROJECT WAS NOT IN OUR BUDGET
12	WE <b>DID</b> PARTICIPATE IN THE CON EDISON C/I PROGAM – <b>[THANK AND TERMINATE]</b>
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

- l. What would have had to be different for you to continue to participate? This is very important information to Con Edison, so please be as specific as possible in your response. **[RECORD VERBATIM]**

- 01 RECORD RESPONSE \_\_\_\_\_
- 94 NOTHING
- 96 REFUSED
- 97 DON'T KNOW

**[IF Q1l=01, SAY]:** Thanks for that feedback.

**[ALL]** Now, I'd like to ask a few questions about how you came to participate in the program.

**PROGRAM AWARENESS**

- 2. How did you learn about the program? **[DO NOT READ LIST, PROBE: "Did you hear about it any other way?"]** **[RECORD ALL RESPONSES]**

1	MAILING FROM CON EDISON – UNSPECIFIED <b>[GO TO Q3]</b>
2	NEWSLETTER FROM CON EDISON <b>[GO TO Q3]</b>
3	BILL INSERT FROM CON EDISON <b>[GO TO Q3]</b>

4	CON EDISON WEBSITE
5	FAMILY/FRIEND <b>[GO TO Q3]</b>
6	CONTRACTOR <b>[GO TO Q3]</b>
7	UTILITY REPRESENTATIVE <b>[GO TO Q3]</b>
8	NEWS STORY <b>[GO TO Q3]</b>
9	TELEVISION <b>[GO TO Q3]</b>
10	RADIO <b>[GO TO Q3]</b>
11	PRESENTATION AT AN INDUSTRY ASSOCIATION MEETING OR EVENT <b>[GO TO Q3]</b>
12	CONFERENCE <b>[GO TO Q3]</b>
13	REFERRED FROM THE SMALL BUSINESS DIRECT INSTALL PROGRAM <b>[GO TO Q3]</b>
95	OTHER, SPECIFY: _____ <b>[GO TO Q3]</b>
96	REFUSED <b>[GO TO Q3]</b>
97	DON'T KNOW <b>[GO TO Q3]</b>

**[ASK Q2a IF Q2=4]**

2a. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with the ease of finding the information you were looking for on the program website.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY				SOMEWHAT				EXTREMELY		REF	DK
DISSATISFIED				SATISFIED				SATISFIED			

**[ASK Q2b IF Q2a<5]**

2b. Why do you say that? **[IF NEEDED: Why weren't you satisfied with the program website?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q3 IF MORE THAN ONE RESPONSE IN Q2]**

3. Which of the sources of information you just mentioned was *most* influential in your decision to begin the process of participating in the program? You mentioned **[INSERT ANSWERS FROM Q2]** **[PROGRAMMER NOTE: SHOW ONLY THE OPTIONS SELECTED IN Q2. ]**. **[RECORD MOST INFLUENTIAL SOURCE CITED.]**

**[ASKED OF ALL]**

4. What was it you learned *about* the program that made you want to participate? **[DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.]**

1	SAVE ENERGY
2	REDUCE YOUR ENERGY BILL
3	CASH REBATES
4	ASSISTANCE IN BUYING ENERGY EFFICIENT EQUIPMENT
5	ANOTHER ORGANIZATION HAD A GOOD EXPERIENCE WITH PROGRAM
6	IMPROVE ENVIRONMENT, REDUCE GREENHOUSE GASES
7	FINANCING AVAILABLE
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[PROGRAMMER NOTE: Q'S 5-14 INTENTIONALLY OMITTED FROM DROP OUT SURVEY]**  
**INTERACTION WITH UTILITY**

15. At any point during your participation in the Commercial and Industrial Energy Efficiency Program, did you contact a program representative? **[INTERVIEWER NOTE, THIS COULD BE A REP FROM CON EDISON, OR LOCKHEED MARTIN]**

1	YES
2	NO <b>[GO TO NEXT SECTION, Q16]</b>
96	REFUSED <b>[GO TO NEXT SECTION, Q16]</b>
97	DON'T KNOW <b>[GO TO NEXT SECTION, Q16]</b>

**[ASK Q15a IF Q15=1]**

- 15a. Was the representative from Con Edison or Lockheed Martin? **[INTERVIEWER NOTE: RECORD BOTH [CODE3] IF VOLUNTEERED]**

1	CON EDISION
2	LOCKHEED MARTIN <b>[SKIP TO Q15i]</b>
3	BOTH
96	REFUSED <b>[GO TO Q15p]</b>
97	DON'T KNOW <b>[GO TO Q15p]</b>

**[ASK Q15b IF Q15a=1 OR 3]**

- 15b. For the next few questions, please think about your experience with the *Con Edison* representative. What was the nature of your inquiry or inquiries to Con Edison?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15c IF Q15a=1 OR 3]**

- 15c. Was the *Con Edison* representative knowledgeable?

1	YES <b>[GO TO Q15e]</b>
2	NO
96	REFUSED <b>[GO TO Q15e]</b>
97	DON'T KNOW <b>[GO TO Q15e]</b>

**[ASK Q15d IF Q15c=2]**

- 15d. Why do you say that? **[IF NEEDED: Why do you feel the Con Edison representative was not knowledgeable?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

- 15e. Did the Con Edison representative resolve your inquiry to your satisfaction?

1	YES <b>[GO TO Q15g]</b>
2	NO
3	STILL UNRESOLVED <b>[GO TO Q15g]</b>

96	REFUSED [GO TO Q15g]
97	DON'T KNOW [GO TO Q15g]

**[ASK Q15f IF Q15e=2]**

15f. Why were you dissatisfied?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15g if Q15a=1 OR 3]**

15g. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with your experience contacting a *Con Edison* representative.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY					SOMEWHAT				EXTREMELY	REF	
DK											
DISSATISFIED					SATISFIED				SATISFIED		

**[ASK Q15h if Q15g<5]**

15h. Why do you say that? **[IF NEEDED SAY:** Why weren't you satisfied with your experience contacting a Con Edison representative?]

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[FOR LOCKHEED MARTIN CONTACTS, ASK Q15i IF Q15a=2 OR 3, ELSE SKIP TO INSTRUCTIONS BEFORE Q15p]**

15i. For the next few questions, please think about your experience with the *Lockheed Martin* representative. What was the nature of your inquiry to Lockheed Martin? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15j if Q15a=2 OR 3]**

15j. Was the *Lockheed Martin* representative knowledgeable?

1	YES [GO TO Q15i]
2	NO
96	REFUSED [GO TO Q15i]
97	DON'T KNOW [GO TO Q15i]

**[ASK Q15k IF Q15j=2]**

15k. Why do you say that? **[IF NEEDED:** Why do you feel the *Lockheed Martin* representative was *not* knowledgeable?]

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

15l. Did the *Lockheed Martin* representative resolve your inquiry to your satisfaction?

1	YES [GO TO Q15n]
2	NO
3	STILL UNRESOLVED [GO TO Q15n]
96	REFUSED [GO TO Q15n]
97	DON'T KNOW [GO TO Q15n]

**[ASK Q15m IF Q15l=2]**

15m. Why were you dissatisfied?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15n if Q15a=2 OR 3]**

15n. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with your experience contacting a *Lockheed Martin* representative.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY					SOMEWHAT					EXTREMELY	REF
DK											
DISSATISFIED					SATISFIED					SATISFIED	

**[ASK Q15o IF Q15n<5]**

15o. Why do you say that? **[IF NEEDED SAY: Why weren't you satisfied with your experience contacting a Lockheed Martin representative?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[FOR CONTACTS WHERE COMPANY IS UNKNOWN, ASK Q15p IF Q15a=96 OR 97, ELSE SKIP TO INSTRUCTIONS BEFORE Q16]**

15p. For the next few questions, please think about your experience with the *program* representative. What was the nature of your inquiry? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15q IF Q15a=96 OR 97]**

15q. Was the *program* representative knowledgeable?

1	YES [GO TO Q15s]
2	NO
96	REFUSED [GO TO Q15s]
97	DON'T KNOW [GO TO Q15s]

**[ASK Q15r if Q15q=2]**

15r. Why do you say that? **[IF NEEDED: Why do you feel the representative was *not* knowledgeable?]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

15s. Did the *program* representative resolve your inquiry to your satisfaction?

1	YES [GO TO Q15u]
2	NO
3	STILL UNRESOLVED [GO TO Q15u]
96	REFUSED [GO TO Q15u]
97	DON'T KNOW [GO TO Q15u]

**[ASK Q15t if Q15s=2]**

15t. Why were you dissatisfied?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

**[ASK Q15u if Q15a=96 OR Q15a=97]**

15u. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with your experience contacting a *program* representative.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY				SOMEWHAT				EXTREMELY		REF	DK
DISSATISFIED				SATISFIED				SATISFIED			

**[ASK Q15v IF Q15u<5]**

15v. Why do you say that? **[IF NEEDED SAY:** Why weren't you satisfied with your experience contacting a program representative?]

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

## PROGRAM PROCESS

16. For the next question we'd like to learn how your organization makes energy efficiency improvements, to help understand how the program might provide assistance. Please rate each of the following aspects of making your energy efficiency improvements on a 1-10 scale, where "1" means "Very Difficult" and "10" means "Very Easy." If I ask you about an aspect you have no experience with, please say "Not Applicable." First, how would you rate the ease of **[READ AND OBTAIN RESPONSE FOR EACH ASPECT BELOW]? [REPEAT QUESTION UNTIL ALL ASPECTS ARE RATED: "How about . . . " INTERVIEWER NOTE: FOR MULTI-SITE RESPONDENTS, WE ARE ASKING ACROSS ALL SITES]**

- Identifying energy efficiency improvements to install at your facility.....\_\_\_\_\_
- Estimating **costs** of proposed efficiency improvements.....\_\_\_\_\_
- Estimating the **savings** of proposed efficiency improvements .....\_\_\_\_\_
- Choosing a contractor or distributor.....\_\_\_\_\_
- Obtaining internal approval to proceed with the project.....\_\_\_\_\_

f. Installing the equipment needed for the efficiency improvement, or having it installed by a contractor.....\_\_\_\_\_

1 2 3 4 5 6 7 8 9 10 96 97 99  
 VERY VERY REF DK NOT APPLICABLE  
 DIFFICULT EASY

17. As you progressed through the program, were there any aspects of the program that took much longer than you thought was reasonable?

1	YES
2	NO [GO TO 18]
96	REFUSED [GO TO Q18]
97	DON'T KNOW [GO TO Q08]

**[ASK Q17a IF Q17=1]**

17a. I am going to read a list of aspects in the program. For each aspect, please tell me if that aspect of the program took too long. First, **[INSERT OPTION FROM Q17aa – Q17ae]. [IF NECESSARY: Did this aspect take too long?]**

- f. Completing And Submitting The Program Application
- g. Scheduling With Con Edison For The Program's Pre-Inspection
- h. Obtaining An Offer Letter From Con Edison
- i. Scheduling With Con Edison For The Program's Post-Inspection
- j. Obtaining The Incentive Payment From The Program

01 YES  
 02 NO  
 03 CONTRACTOR DID THIS (IF VOL.)  
 96 REFUSED  
 97 DON'T KNOW  
 99 NOT APPLICABLE/DID NOT HAPPEN PRIOR TO DISCONTINUING

17b. Was there anything else that took too long?

01 RESPONSE PROVIDED \_\_\_\_\_  
 94 NOTHING ELSE  
 96 REFUSED  
 97 DON'T KNOW

17c. In your opinion, what could be done differently to expedite progress through this program?

**[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 94 NO IMPROVEMENTS  
 96 REFUSED  
 97 DON'T KNOW

**[ASKED OF ALL]**

18. Is there anything else about the program, other than what we just discussed, that made it difficult to participate? **[OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 94 NOTHING ELSE

96 REFUSED  
97 DON'T KNOW

**PRODUCT SPECIFIC**

**[PROGRAMMER NOTE 19\_1 IS UNIQUE TO THE DROP OUT SURVEY. USE SAMPLE VARIABLES EQUIP\_1ga THRU EQUIP\_1gv HERE TO DETERMINE IF PROGRAM RECORDS CONTAIN MEASURE CODE INFORMATION, IF THEY DO, ASK Q19\_1, ELSE SKIP TO Q19\_2]**

19\_1. According to Con Edison's records you had planned to install a/an **[READ "MEASURE CODE" FROM SAMPLE]** project at **[FOR MULTI-SITE RESPONDENTS, at [INSERT ADDRESS FROM Q1a OR FROM Q1b IF Q1a=2].** Did you make **[INSERT MEASURE]** improvement(s) even though you didn't continue to participate in Con Edison's program? **[RECORD "YES" OR "NO" FOR EACH MEASURE CODE ON SAMPLE LIST. IF NO EFFICIENCY IMPROVEMENTS MADE, SKIP TO Q19\_4]**

19-1a.	Air Dampers
19-1b.	Boiler
19-1c.	Chillers
19-1d.	Compressed-Air Systems
19-1e.	Controls
19-1f.	Energy Management System
19-1g.	Heating System Maintenance
19-1h.	HVAC
19-1i.	Insulation
19-1j.	Lighting
19-1k.	Low Flow Pre-Rinse Sprayer
19-1l.	Motors
19-1m.	Process Upgrades
19-1n.	Refrigerator Controls
19-1o.	VFD
19-1p.	Window Film
19-1q.	High Efficiency Rectifiers
19-1r.	Refrigeration System
19-1s.	Server Virtualization
19-1t.	Central Plant Optimization
19-1u.	Water Filtering Sand System
19-1v.	Duct Air Humidification

1 YES  
2 NO  
96 REFUSED  
97 DON'T KNOW

**[PROGRAMMER NOTE: Q19\_2 – Q19\_4 ARE UNIQUE TO THE DROP OUT SURVEY] [IF PROGRAM RECORDS DO NOT CONTAIN MEASURE CODE, ASK Q19\_2, ELSE SKIP TO INSTRUCTIONS BEFORE Q19\_2b]:**

19\_2. When you started the participation process with Con Edison, you probably had some specific efficiency improvements or equipment replacements in mind. Did you make any of those efficiency improvements or equipment replacements even though you dropped out of the program?

- 1 YES
- 2 I AM IN THE PROCESS OF MAKING THE REPLACEMENT
- 3 NO **GO TO Q19-4**
- 96 REFUSED **GO TO Q19-4**
- 97 DON'T KNOW **GO TO Q19-4**

19\_2a. Which improvements **[IF 19\_2=1:did you make; IF 19\_2=2:are you making?]** **[DO NOT READ LIST. RECORD ALL THAT APPLY]**

19-2a.	AIR DAMPERS
19-2b.	BOILER
19-2c.	CHILLERS
19-2d.	COMPRESSED-AIR SYSTEMS
19-2e.	CONTROLS
19-2f.	ENERGY MANAGEMENT SYSTEM
19-2g.	HEATING SYSTEM MAINTENANCE
19-2h.	HVAC
19-2i.	INSULATION
19-2j.	LIGHTING
19-2k.	LOW FLOW PRE-RINSE SPRAYER
19-2l.	MOTORS
19-2m.	PROCESS UPGRADES
19-2n.	REFRIGERATOR CONTROLS
19-2o.	VFD
19-2p.	WINDOW FILM
19-2q.	HIGH EFFICIENCY RECTIFIERS
19-2r.	REFRIGERATION SYSTEM
19-2s.	SERVER VIRTUALIZATION
19-2t.	CENTRAL PLANT OPTIMIZATION
19-2u.	WATER FILTERING SAND SYSTEM
19-2v.	DUCT AIR HUMIDIFICATION
19-2w.	SOMETHING ELSE #1 [SPECIFY]:
19-2x.	SOMETHING ELSE #2 [SPECIFY]:
19-2y.	SOMETHING ELSE #3 [SPECIFY]:

**[FOR EACH CONFIRMED MEASURE CODE IN 19\_1 OR 19\_2a, ASK Q19\_2b-Q19\_3b IN SEQUENCE:]**

19\_2b. Was/were the **[MEASURE CODE OR MEASURE/EQUIPMENT NAME]** you ended up installing at an efficiency level that would have qualified for Con Edison's program?

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

19\_3 Did you install the **[MEASURE CODE OR MEASURE/EQUIPMENT NAME]** through another program?

1	YES
2	NO <b>[SKIP 19_3a AND 19_3b FOR THIS MEASURE]</b>
96	REFUSED <b>[SKIP 19_3a AND 19_3b FOR THIS MEASURE]</b>
97	DON'T KNOW <b>[SKIP 19_3a AND 19_3b FOR THIS MEASURE]</b>

19\_3a Through which program did you install the **[MEASURE CODE OR MEASURE/EQUIPMENT NAME]**? **[DO NOT READ. ACCEPT ONE RESPONSE]**

1	NYSERDA'S EXISTING FACILITIES PROGRAM
2	FEDERAL TAX CREDIT PROGRAM
95	OTHER (SPECIFY): _____
96	REFUSED
97	DON'T KNOW

19-3b Why did you install the measure through that program and not through the Con Edison program? **[DO NOT READ. MARK ALL THE APPLY.]**

1	EQUIPMENT DID NOT QUALIFY FOR THE CON EDISON PROGRAM
2	MY SITE DID NOT QUALIFY FOR THE CON EDISON PROGRAM
3	REBATES WERE HIGHER IN THE OTHER PROGRAM
4	PROGRAM PROCESS WAS SIMPLER IN THE OTHER PROGRAM
	<b>RESPONSE OPTION REMOVED FROM DROP OUT SURVEY</b>
95	OTHER REASON, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

19\_4 At the time that you first heard about the Con Edison program, were you already planning on implementing the efficiency improvement(s) you had in mind when you started the Con Edison program participation process?

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

**[FOR EACH MEASURE CODE INSTALLED IN 19\_1 AND MARKED "EFFICIENCY LEVEL" IN THE DATASET, OR EQUIPMENT INDICATED IN 19\_2a, ASK]**

**[PROGRAMMER NOTE: Q19a-Q23a IS VERY SIMILAR TO, BUT NOT EXACTLY THE SAME AS, Q19-Q23 FROM THE PARTICIPANT SURVEY.]**

19a. When you started the participation process, were you replacing the equipment **[FOR MULTI-SITE RESPONDENTS: at [INSERT ADDRESS FROM Q1a OR FROM Q1b IF Q1a=2]** because **[READ OPTIONS]**...?

**[PROGRAMMER NOTE: ASK Q20a IN SEQUENCE AFTER Q19a FOR THE APPLICABLE MEASURE CODE]**

1	It was failing but still operating <b>[GO TO Q22a]</b>
2	The equipment stopped working all together <b>[GO TO Q22a]</b>
3	Or because of some other reason? <b>[GO TO Q20a]</b>

4	IT WAS DIFFERENT FOR EACH SITE [DO NOT READ. INTERVIEWER NOTE: RECORD THIS RESPONSE, BUT REITERATE THAT THE REMAINING QUESTIONS ARE RELATED TO ONLY THE SITE IDENTIFIED IN Q1a]
96	REFUSED [GO TO Q22a]
97	DON'T KNOW [GO TO Q22a]

20a. What was the reason you were replacing the [INSERT EQUIPMENT]? [DO NOT READ. PROBE TO CAPTURE RESPONSE IN ONE OF THE FOLLOWING CATEGORIES. ACCEPT MULTIPLE RESPONSES.]:

1	YOU WANTED TO IMPROVE EQUIPMENT PERFORMANCE.
2	YOU WANTED TO LOWER YOUR ENERGY BILL.
3	YOU WANTED TO PROTECT THE ENVIRONMENT.
4	YOU WERE REMODELING OR EXPANDING THE FACILITY.
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

21. [IF Q19\_2b=YES, ASK Q21, ELSE SKIP TO INSTRUCTIONS BEFORE Q22a] Why did your company decide to install high efficiency equipment instead of standard efficiency equipment? [CLARIFY: THIS IS SEPARATE FROM THE REASONS FOR INSTALLING THE EQUIPMENT. DO NOT READ REASONS; SELECT ALL FACTORS CITED.]

1	IMPROVE PERFORMANCE
2	REDUCE ENERGY COSTS
3	TO GET A REBATE FROM THE PROGRAM/CON EDISON
4	TO GET LATEST TECHNOLOGY
5	TO PROTECT THE ENVIRONMENT
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

[ONLY ASK FOR MEASURE=HVAC IF THERE ISN'T ANY EFFICIENCY LEVEL HVAC]  
 [ONLY ASK FOR MEASURE=LIGHTING IF THERE ISN'T ANY EFFICIENCY LEVEL LIGHTING]

22a. [FOR EQUIPMENT MARKED "STAND ALONE" ASK: What was the primary reason you chose to make the [INSERT MEASURE] efficiency improvement(s)? [DO NOT READ. PROBE TO CAPTURE RESPONSE IN THE FOLLOWING CATEGORIES. ACCEPT MULTIPLE RESPONSES.]:

1	IMPROVE PERFORMANCE
2	REDUCE ENERGY COSTS
3	TO GET A REBATE FROM THE PROGRAM/CON EDISON
4	TO GET LATEST TECHNOLOGY

5	TO PROTECT THE ENVIRONMENT
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[PROGRAMMER NOTE: Q22b\_1 AND Q22b\_2 ARE UNIQUE TO THE DROP OUT SURVEY]**

**[ASK OF ALL]**

22b\_1. Are there other types of equipment not covered by the program for which you feel Con Edison should provide rebates?

- 01 YES
- 02 NO
- 96 REFUSED
- 97 DON'T KNOW

22b\_2. For which types of equipment do you feel Con Edison should provide rebates?

- 01 RESPONSE PROVIDED \_\_\_\_\_
- 94 NOTHING ELSE
- 96 REFUSED
- 97 DON'T KNOW

22b\_3. Are you planning on making any energy efficiency improvements at this site in the next year?

- 01 Yes
- 02 No
- 96 REFUSED
- 97 DON'T KNOW

***CONTRACTOR/DISTRIBUTOR/INSTALLER INTERACTIONS***

**[NOTE: NUMBERING BELOW ALIGNS WITH PARTICIPANTS SURVEY.]**

10. Are you aware of Con Edison's Market Partner network, consisting of contractors and other vendors who have been trained on the program requirements and application process? **[DO NOT READ]**

1	YES
2	NO <b>[SKIP TO Q14a]</b>
96	REFUSED <b>[SKIP TO NEXT SECTION, OTHER PROGRAMS]</b>
97	DON'T KNOW <b>[SKIP TO Q14a]</b>

**[ASK Q11 IF Q10=1]**

11. Did you obtain a list of Market Partner firms?

1	YES
2	NO <b>[SKIP TO NEXT SECTION, OTHER PROGRAMS]</b>
96	REFUSED <b>[SKIP TO NEXT SECTION, OTHER PROGRAMS]</b>
97	DON'T KNOW <b>[SKIP TO NEXT SECTION, OTHER PROGRAMS]</b>

**[ASK Q12 IF Q11=1 AND AT LEAST ONE MEASURE CONFIRMED IN Q19-1] [PROGRAMMER NOTE: LOGIC DIFFERS FROM PARTICIPANT SURVEY]**

12. Did you choose a firm from the Market Partner network for your installation? **[DO NOT READ]**

1	YES
2	NO [SKIP TO Q14]
96	REFUSED [SKIP TO NEXT SECTION, OTHER PROGRAMS]
97	DON'T KNOW [SKIP TO NEXT SECTION, OTHER PROGRAMS]

**[ASK Q13 IF Q12=1]**

13. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction working with your Market Partner.

1	2	3	4	5	6	7	8	9	10	96	97
EXTREMELY				SOMEWHAT				EXTREMELY		REF	DK
DISSATISFIED				SATISFIED				SATISFIED			

**[ASK Q14 IF Q11=1 AND Q12=2]**

14. Why didn't you choose a Market Partner firm to install your new equipment? **[DO NOT READ; ACCEPT MULTIPLE RESPONSES.]**

1	NONE AVAILABLE IN MY GEOGRAPHIC LOCATION
2	NONE AVAILABLE IN THE CATEGORY OF WORK I NEEDED
3	DIDN'T KNOW HOW TO CONTACT THEM
4	USED MY NORMAL CONTRACTOR/DISTRIBUTOR/INSTALLER
5	TOO EXPENSIVE
6	INADEQUATE/BAD REFERENCES
7	DIDN'T RESPOND TO MY REQUEST FOR BID
8	DIDN'T CALL ME BACK
9	DIDN'T KNOW OF MARKET PARTNER AT TIME OF APPLICATION
10	WE DID NOT GO THROUGH WITH THE PROJECT
95	OTHER, SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[PROGRAMMER NOTE: THIS QUESTION IS UNIQUE TO THE DROP OUT SURVEY]**

**[ASK Q14a IF Q10=2 OR 97]**

14a. Do you think knowing about the Market Partner Network would have resulted in your organizations continued participation in the Con Edison program?

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

**OTHER PROGRAMS**

Now I'd like to ask you about other energy efficiency programs that may be available in your area for businesses like yours.

**32. First, have you heard of NYSERDA's Existing Facilities Program? [IF NEEDED – NYSERDA is the New York State Energy Research and Development Authority and is NOT a utility company]**

1	YES
2	NO [GO TO Q40]
96	REFUSED [GO TO Q40]
97	DON'T KNOW [GO TO Q40]

**[ASK Q33a IF Q32=1]**

33a. Did you either consider participating or did you participate in the NYSEDA Existing Facilities program instead of the Con Edison Commercial and Industrial Energy Efficiency Program for this project? **[INTERVIEWER NOTE: PROBE TO DISTINGUISH BETWEEN OPTIONS 1 AND 2]**

1	YES – CONSIDERED <b>[GO TO Q35]</b>
2	YES – CONSIDERED AND PARTICIPATED
3	NO <b>[GO TO Q35]</b>
96	REFUSED <b>[GO TO Q35]</b>
97	DON'T KNOW <b>[GO TO Q35]</b>

**[ASK Q34a IF Q33=2] [PROGRAMMER NOTE SLIGHT DIFFERENCES BETWEEN Q34 IN PARTICIPANT SURVEY AND Q34a IN DROP OUT SURVEY]**

34a. Why did you decide to participate in the NYSEDA program instead of the Con Edison program? **[DO NOT READ. MARK ALL THAT APPLY.]**

1	INCENTIVE AMOUNTS WERE HIGHER
2	MEASURES THAT GET INCENTIVES
3	TOO MANY INSPECTIONS FOR CON ED PROGRAM
4	INFORMATION/EDUCATION PROVIDED
5	APPLICATION PROCESS WAS SIMPLER
6	LIKED NYSEDA CONTACT BETTER
7	AMOUNT OF TIME IT TAKES TO BE PAID THE INCENTIVES
8	NYSEDA'S CUSTOMER SERVICE WAS BETTER
9	HEARD ABOUT NYSEDA PROGRAM AND NOT ABOUT CON EDISON'S
10	HEARD ABOUT NYSEDA'S PROGRAM <i>BEFORE</i> HEARING ABOUT CON EDISON'S
95	OTHER; SPECIFY: _____
96	REFUSED
97	DON'T KNOW

**[ASK Q35 IF Q32=1]**

35. Did you find it confusing that there are similar programs offered by multiple organizations, in which you could participate?

1	YES
2	NO <b>[GO TO Q40]</b>
96	REFUSED <b>[GO TO Q40]</b>
97	DON'T KNOW <b>[GO TO Q40]</b>

**[ASK Q35a IF Q35=1]**

35a. What was confusing to you? **[OPEN-ENDED ANSWER]**

- 01 **[RECORD COMMENTS:]** \_\_\_\_\_
- 94 NO/NONE/NOTHING
- 96 REFUSED
- 97 DON'T KNOW

Now we'd like to get a sense of your satisfaction with specific aspects of the program. If you have no experience with any of these program elements, please respond with 'not applicable'. Please use a 1 to 10 scale again, where 1 means EXTREMELY DISSATISFIED and 10 means EXTREMELY SATISFIED.

**[PROGRAMMER NOTE: Qs 40 THROUGH 41a ARE UNIQUE TO THE DROP OUT SURVEY]**

40. How would you rate your satisfaction with the incentive amount(s) offered?

1	2	3	4	5	6	7	8	9	10	96	97	99
EXTREMELY				SOMEWHAT			EXTREMELY			REF	DK	N/A
DISSATISFIED				SATISFIED			SATISFIED					

**[ASK Q40a IF Q40<5]**

40a. Why do you say that?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

41. How would you rate your satisfaction with the Con Edison program in general?

1	2	3	4	5	6	7	8	9	10	96	97	99
EXTREMELY				SOMEWHAT			EXTREMELY			REF	DK	N/A
DISSATISFIED				SATISFIED			SATISFIED					

**[ASK Q41a IF Q41<5]**

41a. Why do you say that?

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

31. On a scale of 1 to 10, where 1 is Not at All Likely and 10 is Extremely Likely, how likely are you to recommend the program to others in the future?

1	2	3	4	5	6	7	8	9	10	96	97
NOT AT ALL				SOMEWHAT				EXTREMELY		REF	DK
LIKELY				LIKELY				LIKELY			

**[ASK Q31a IF Q31<5]**

31a. Why do you say that? **[IF NEEDED SAY: Why are you unlikely to recommend the program to others? [OPEN ENDED ANSWER]**

01 RESPONSE PROVIDED \_\_\_\_\_  
 96 REFUSED  
 97 DON'T KNOW

38. Do you have any other comments or thoughts you would like to share about your experiences with the Commercial & Industrial Energy Efficiency Program? **[OPEN ENDED ANSWER]**

01 **[RECORD COMMENTS:]** \_\_\_\_\_  
 94 NO/NONE/NOTHING  
 96 REFUSED  
 97 DON'T KNOW

**[PROGRAMMER NOTE: Q42 IS UNIQUE TO THE DROP OUT SURVEY]**

42. And, finally, for classification purposes only, which of the following best describes your organization's annual revenues? Are they . . .**[READ RANGES]**

1	Less than \$1 million
2	\$1 to just under \$10 million
3	\$10 to just under \$20 million
4	\$20 to just under \$50 million, or
5	\$50 million or more?
96	REFUSED
97	DON'T KNOW

*Thank you for taking the time to complete this important survey. INTERVIEWER, VERIFY RESPONDENT NAME.*

*Name:*

*Have a good day/evening!*



### Non-Participant Survey

#### Con Edison and Orange & Rockland Commercial & Industrial Energy Efficiency Programs Non-Participant Survey

FINAL FOR PROGRAMMING with CATI checking edits & REVISED INTRO 082212

#### INTRODUCTION

Hello, my name is \_\_\_\_\_, and I'm calling on behalf of [Con Edison/Orange & Rockland]. We're contacting you today to ask a few questions about your interactions with [Con Edison/Orange & Rockland] and your awareness of different energy efficiency programs in your area. We are offering a \$50 incentive to complete a 10 minute interview. Could I please speak with the person who is the most knowledgeable about your energy use at this facility (such as the facility manager, building manager, operations manager or chief engineer)?

#### LOCATE PROPER RESPONDENT:

Are you the person who is most familiar with your organization's energy use and with any energy efficiency improvements at this facility? I'd like to ask you a few questions about your interactions with [Con Edison/Orange & Rockland] and your awareness of different energy efficiency programs in your area. This is not a sales call; it is research sponsored by [Con Edison/Orange & Rockland] in order to help improve its programs and better serve organizations like yours. These questions will take about 10 minutes, and we are offering a \$50 incentive if you complete an interview.

YES, GO TO SCREENER

NO/REF/DK, ASK TO BE TRANSFERRED TO APPROPRIATE RESPONDENT

**[REPEAT INTRO IF NEW PERSON COMES TO PHONE, THEN CONTINUE]**

#### SCREENER

40. Have you ever heard of the [Con Edison Commercial and Industrial Energy Efficiency/Orange and Rockland Big Energy Solutions] program, which provides businesses of all sizes with rebates and other assistance to help them make energy efficiency improvements?

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

41. Have you made any energy-using equipment improvements to your facility in the last year or two, such as high-efficiency HVAC or lighting equipment upgrades, installing premium efficiency motors or variable frequency drives, energy management systems or lighting controls, equipment tune-ups, or other upgrades?

1	YES
2	NO <b>[SKIP TO INSTRUCTIONS BEFORE Q52]</b>
96	REFUSED <b>[SKIP TO INSTRUCTIONS BEFORE Q52]</b>
97	DON'T KNOW <b>[SKIP TO INSTRUCTIONS BEFORE Q52]</b>

42. Now I'm going to ask you what types of efficiency improvements you made. Did you . . .
- a. Install lighting upgrades or controls?
  - b. Install new heating, ventilation or air conditioning?
  - c. Install motors or variable frequency drives?
  - d. Install an energy management system?
  - e. Tune up existing equipment?

f. Did you do any other efficiency improvements? **[IF YES, SPECIFY]**

1	YES
2	NO
96	REFUSED
97	DON'T KNOW

**[PROGRAMMER NOTE: IF NO, DK, REF TO ALL Q3a-Q3f, SKIP TO INSTRUCTIONS BEFORE Q13]**

**[ASK Q4 IF Q40=Yes & ANY Q3a-Q3f=1, ELSE SKIP TO Q5]**

43. Did you participate in [Con Edison's Commercial and Industrial Energy Efficiency/Orange & Rockland's Big Energy Solutions] program when you made those improvements?

1	YES <b>[THANK AND TERMINATE]</b>
2	NO
96	REFUSED <b>[THANK AND TERMINATE]</b>
97	DON'T KNOW

**THANK AND TERMINATE TEXT:** Unfortunately, you do not qualify for this survey. Thank you for your time and have a nice day.

**PROGRAM AWARENESS**

44. Why didn't your organization participate in [Con Edison's Commercial and Industrial Energy Efficiency/Orange & Rockland's Big Energy Solutions] program? **[DO NOT READ LIST, RECORD ALL RESPONSES]**

1	EQUIPMENT DIDN'T MEET EFFICIENCY LEVELS
2	EQUIPMENT NOT ELIGIBLE FOR OTHER REASONS
3	EQUIPMENT NOT COVERED IN THE PROGRAM
4	PROJECT NOT ELIGIBLE
5	FACILITY NOT ELIGIBLE
6	NO NEED – IMPROVEMENTS PAID FOR THEMSELVES WELL ENOUGH WITHOUT INCENTIVES
7	TOO MUCH HASSLE/PAPERWORK
8	INCENTIVES AVAILABLE AREN'T BIG ENOUGH TO MATTER
9	PARTICIPATED IN ANOTHER PROGRAM INSTEAD
10	TO AVOID DISCLOSURE OF TRADE SECRETS
11	DIDN'T KNOW ABOUT CON EDISON'S/O&RS PROGRAM(S)
12	DON'T BELIEVE UTILITY/GOVERNMENT PROGRAMS ARE NEEDED
13	WAS INFORMED NO PROGRAMS OFFERED FOR ORGS LIKE MINE
95	OTHER <b>[SPECIFY]</b>
96	REFUSED
97	DON'T KNOW

**[IF Q44 = 9, ASK Q5a]**

44a. What was the name of the program that you participated in?

1	NYSERDA EXISTING FACILITIES
95	SOME OTHER PROGRAM <b>[SPECIFY]</b>
96	REFUSED
97	DON'T KNOW

45. Why did your organization decide to make the efficiency improvement(s) you described? **[IF NEEDED SAY: the ones your organization made in the last year or two]** **[DO NOT READ LIST, RECORD ALL RESPONSES]**

1	TO REPLACE EQUIPMENT THAT WAS OLD OR OUTDATED BUT STILL WORKING
2	TO REPLACE EQUIPMENT THAT HAD FAILED AND WAS NOT WORKING AT ALL
3	REMODELING/EXPANDING/UPGRADING FACILITY
4	TO IMPROVE PERFORMANCE
5	TO REDUCE ENERGY COSTS/SAVE MONEY
6	TO GET A REBATE
7	TO GET THE LATEST TECHNOLOGY
8	TO PROTECT THE ENVIRONMENT/REDUCE GREENHOUSE GASES/GO GREEN
95	OTHER <b>[SPECIFY]</b>
96	REFUSED
97	DON'T KNOW

46. Did you make these energy efficiency improvements ~~purchase and install the equipment in~~ house or did you hire a contractor?

1	IN HOUSE
2	HIRED A CONTRACTOR
3	BOTH <b>[IF VOLUNTEERED]</b>
96	REFUSED
97	DON'T KNOW

**[ASK Q7a IF Q7=2 OR 3; ELSE, SKIP TO Q8]**

46a. What was your contractor's name?

**[PROGRAMMER NOTE: LEAVE SPACE FOR UP TO FIVE RESPONSES]**

- 01 **[RECORD RESPONSE PROVIDED]**
- 02 JOHNSON CONTROLS
- 03 SIEMENS
- 04 WILLDAN
- 05 HONEYWELL
- 96 REFUSED
- 97 DON'T KNOW

47. Which of the following *best* describes the financial criteria you used for deciding whether to make these energy efficiency improvements? **[READ LIST. SELECT ONE]**

1	Lowest first cost,
2	Lowest operating cost,
3	Payback within a specified time period,
4	Positive net present value, or
9	ALL OF THE ABOVE <b>[IF VOLUNTEERED]</b>
95	Some other financial criterion? <b>[SPECIFY]</b>
96	REFUSED
97	DON'T KNOW

48. Did you expect your energy bill to increase, decrease or stay the same after you installed the new equipment?

1	INCREASE
2	DECREASE
3	STAY THE SAME
96	REFUSED
97	DON'T KNOW

**[IF Q9=1, 2 OR 3, ASK Q10, ELSE SKIP TO INSTRUCTION BEFORE Q11]**

49. Did your energy bill *actually* [RESPONSE FROM Q9]?"

1	YES
2	NO
3	TOO SOON TO TELL
96	REFUSED
97	DON'T KNOW

**[ASK Q11 IF Q5=9; ELSE SKIP TO Q12]**

50. Did your organization receive any type of rebate or other financial incentive from a utility company or other organization for installing any of the equipment?

1	YES
2	NO
3	YES FOR SOME IMPROVEMENTS, NO FOR OTHERS
96	REFUSED
97	DON'T KNOW

**[ASK Q11a IF Q50=1 OR 3; ELSE SKIP TO Q12]**

50a. Which utility or company provided the rebate or financial incentive? **[PROGRAMMER, LEAVE SPACE FOR UP TO THREE RESPONSES]**

01 **[RECORD RESPONSE PROVIDED]**

02 NYSERDA

96 REFUSED

97 DON'T KNOW

51. On a scale of 1 to 10, where 1 is extremely dissatisfied and 10 is extremely satisfied, how would you rate your overall satisfaction with your organization's (new equipment/ IF ONLY Q3e=YES, USE THIS WORDING: equipment tune-up?

1	2	3	4	5	6	7	8	9	10	96	97
Extremely				Somewhat				Extremely		REF	DK
Dissatisfied				Satisfied				Satisfied			

**[ASK Q12a IF Q12<5, ELSE SKIP TO INSTRUCTION BEFORE Q13]**

51a. Why were you dissatisfied with your organization's new equipment?

01 **[RECORD RESPONSE PROVIDED]**

96 REFUSED

97 DON'T KNOW

**PROGRAM AWARENESS**

**[ASK Q13 IF Q40 = 1 (YES) ELSE SKIP TO INSTRUCTION BEFORE Q53]**

52. How did you first learn about the [Con Edison Commercial and Industrial Energy Efficiency/Orange & Rockland Big Energy Solutions] program? **[DO NOT READ LIST, RECORD ALL RESPONSES]**

1	MAILING FROM UTILITY COMPANY – UNSPECIFIED
2	NEWSLETTER FROM UTILITY COMPANY
3	BILL INSERT FROM UTILITY COMPANY
4	UTILITY COMPANY WEBSITE
5	FAMILY/FRIEND/COLLEAGUE
6	CONTRACTOR
7	UTILITY COMPANY REPRESENTATIVE/CON ED/O&R/LOCKHEED MARTIN
8	NEWS STORY
9	TELEVISION
10	RADIO
11	PRESENTATION AT AN INDUSTRY ASSOCIATION MEETING OR EVENT
12	CONFERENCE
13	REFERED FROM THE SMALL BUSINESS DIRECT INSTALL PROGRAM
14	CONSULTANT [TYPE NOT SPECIFIED]
15	ENERGY CONSULTANT
16	LIGHTING CONSULTANT
17	MANUFACTURER/VENDOR
18	INTERNET/WEBSITE/OWN RESEARCH
95	OTHER <b>[SPECIFY]</b>
96	REFUSED
97	DON'T KNOW

**INTERACTION WITH UTILITY**

**[ASK Q14-Q15 TO ALL]**

53. How would you suggest [Con Edison/Orange & Rockland] reach out to customers like you to provide information about its energy efficiency programs? **[DO NOT READ LIST, RECORD ALL RESPONSES, PROBE FOR ADDITIONAL RESPONSES; Anything else?]**

1	ACCOUNT REPS/PERSONAL CONTACT/FACE TO FACE MEETINGS
2	WITH FLYERS/ADS/MAILINGS
3	WITH BILL INSERTS
4	RAISE REBATES/MORE INCENTIVES
5	TARGET OWNERS/UPPER MANAGEMENT
6	THROUGH CONTRACTORS/EQUIPMENT INSTALLERS
7	THROUGH DISTRIBUTORS/MANUFACTURERS
8	OFFER ATTRACTIVE FINANCING
9	AT AN INDUSTRY ASSOCIATION EVENT/CONFERENCE
10	EMAIL
11	TESTIMONIALS/CASE STUDIES
12	TV COMMERCIALS/NEWS FEATURES
13	RADIO COMMERCIALS/NEWS FEATURES
14	WEBSITE/WEBCASTS
94	NONE/I DON'T HAVE ANY SUGGESTIONS
95	OTHER <b>[SPECIFY]</b>

96	REFUSED
97	DON'T KNOW

54. In your opinion, what do you think is the most critical information about this program that should be communicated to businesses like yours to get them interested in participating? **[DO NOT READ. CLARIFY AS NEEDED TO SELECT ONE RESPONSE.]**

1	EXAMPLES OF HOW TO SAVE ENERGY
2	TYPICAL ENERGY SAVINGS/BILL REDUCTION AMOUNTS/THE RETURN YOU'LL GET ON YOUR INVESTMENT
3	INFORMATION ABOUT CASH INCENTIVES
4	INFORMATION ABOUT FINANCING OPTIONS
4	HOW/WHERE TO BUY ENERGY EFFICIENT EQUIPMENT
6	HOW SAVING ENERGY IMPROVES ENVIRONMENT, REDUCES GREENHOUSE GASES
7	LET THE TARGET MARKET KNOW THE PROGRAMS EXIST
8	FACTS ABOUT THE NEW TECHNOLOGIES AVAILABLE
9	BASIC PROGRAM INFO/WHAT'S AVAILABLE/HOW TO GET STARTED
95	OTHER <b>[SPECIFY]</b>
96	REFUSED
97	DON'T KNOW

**[ASK Q16 IF Q13=4; ELSE, SKIP TO Q17]**

55. Earlier, you said you learned about the program through the program website. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with the *Commercial and Industrial Energy Efficiency* program website.

1	2	3	4	5	6	7	8	9	10	96	97
Extremely				Somewhat				Extremely		REF	DK
Dissatisfied				Satisfied				Satisfied			

**[ASK Q16a IF Q16<5; ELSE SKIP TO Q17]**

16a. Why do you feel that way? **[IF NEEDED, ASK: Why are you less than satisfied with the program website?]**

01 **[RECORD RESPONSE PROVIDED]**

96 REFUSED

97 DON'T KNOW

**[ASK Q17 TO ALL]**

56. Are you a member of any industry trade organizations or other industry groups?

1	YES
2	NO <b>[SKIP TO Q18]</b>
96	REFUSED <b>[SKIP TO Q18]</b>
97	DON'T KNOW <b>[SKIP TO Q18]</b>

56a. What is the name or names of the group(s) you belong to? **[RECORD FIRST FIVE MENTIONS ONLY]**

01 [RECORD RESPONSE PROVIDED]

2	ASHRAE
3	BOMA; Building Owners and Managers Association
4	NY State Building and Ground Association/Superintendents of Buildings and Ground of NY State
5	Association of Energy Engineers
6	NY State Restaurant Association
7	IFMA (International Facility Manager's Association)
8	Real Estate Board of NY/NY Real Estate Board
9	NYARM
10	Club Managers Association

96 REFUSED  
97 DON'T KNOW

[ASK Q18 TO ALL]

57. In the last year, have you contacted a representative at [Con Edison/Orange & Rockland] regarding its energy efficiency programs for businesses? I'm not talking about billing or service reliability matters, but business energy efficiency programs in particular.

1	YES
2	NO [SKIP TO Q59]
96	REFUSED [SKIP TO Q20]
97	DON'T KNOW [SKIP TO Q59]

58. On a scale of 1 to 10, where 1 is Extremely Dissatisfied, and 10 is Extremely Satisfied, please rate your satisfaction with your experience contacting a [a Con Edison/an Orange & Rockland] representative.

1	2	3	4	5	6	7	8	9	10	96	97
Extremely Dissatisfied				Somewhat Satisfied				Extremely Satisfied		REF	DK

[ASK Q19a IF Q19 < 5; ELSE SKIP TO Q20]

19a. Why weren't you satisfied with your experience with this contact?

- 01 [RECORD RESPONSE PROVIDED]
- 02 Lack of information
- 03 On hold too long; hard to get through to anyone
- 04 No follow-up
- 96 REFUSED
- 97 DON'T KNOW

PROGRAM [NON-] PARTICIPATION

59. When replacing equipment, what factors typically would motivate your organization to purchase energy efficient equipment? [DO NOT READ, SELECT ALL, PROBE FOR ADDITIONAL.]

1	IMPROVE PERFORMANCE/EFFICIENCY
---	--------------------------------

2	REDUCE ENERGY COSTS
3	TO GET LATEST TECHNOLOGY
4	TO PROTECT THE ENVIRONMENT
5	FINANCIAL INCENTIVES/PRICE/INITIAL COST OF EE EQUIPMENT
6	PAYBACK/ROI
7	QUALITY OF THE EQUIPMENT/LONGEVITY
8	DOES EQUIPMENT MEET OUR NEEDS/RIGHT SIZE/AVAILABLE
95	OTHER[SPECIFY]
96	REFUSED
97	DON'T KNOW

**[ASK Q21 IF Q41= 1 AND Q50 = 2, HIGH EFFICIENCY EQUIPMENT INSTALLED AND NO REBATE RECEIVED; ELSE SKIP TO Q22]**

60. Earlier you mentioned that you recently made some energy efficiency upgrades but you did not receive rebates or financial incentives for doing so. Why didn't you pursue energy efficiency program incentives for these efficiency improvements? **[DO NOT READ, SELECT ALL, PROBE FOR ADDITIONAL.]**

1	DON'T BELIEVE UTILITY/GOVERNMENT PROGRAMS ARE NEEDED
2	NO NEED – IMPROVEMENTS PAID FOR THEMSELVES WELL ENOUGH WITHOUT INCENTIVES
3	TOO MUCH HASSLE/PAPERWORK
4	INCENTIVES AVAILABLE AREN'T BIG ENOUGH TO MATTER OR OFFSET THE COST OF PARTICIPATING IN A PROGRAM
6	TO AVOID DISCLOSURE OF TRADE SECRETS
7	DIDN'T KNOW ABOUT PROGRAM(S)
8	EQUIPMENT NOT ELIGIBLE
95	OTHER [SPECIFY]
96	REFUSED
97	DON'T KNOW

**[ASK Q21a IF Q21=8]**

60a. Can you tell me why the equipment you installed wasn't eligible for any program incentives?

- 01 [RECORD RESPONSE PROVIDED]
- 96 REFUSED
- 97 DON'T KNOW

61. What factors would most influence the likelihood of your organization to participate in [Con Edison's/Orange & Rockland's] energy efficiency programs in the future? **[DO NOT READ, SELECT ALL, PROBE FOR ADDITIONAL BY ASKING 'Anything else?']**

1	INCENTIVE AMOUNTS/INITIAL INVESTMENT
2	FINANCIAL RETURN/COST SAVINGS/ROI
3	BEING ABLE TO GET INFORMATION ON HIGH-EFFICIENCY OPTIONS
4	THE PHYSICAL PROPORTIONS OR SIZE OF NEW EQUIPMENT ARE THE SAME AS THE EQUIPMENT IT REPLACED
5	SAME/LOWER MAINTENANCE REQUIREMENTS AND COST
6	BEING ABLE TO GET TRAINING ON OPTIMAL USE & MAINTENANCE OF HIGH-EFFICIENCY EQUIPMENT
7	WHETHER MY ORGANIZATION'S POLICY ENCOURAGES/PRIORITIZES

	EFFICIENCY IMPROVEMENTS
8	WHETHER THE MARKETING/ACCOUNT MANAGEMENT PROCESS CAN IDENTIFY AND ACCOUNT FOR IMPLEMENTING EFFICIENCY IMPROVEMENTS.
9	INCREASED PROGRAM MARKETING/AWARENESS/BETTER UNDERSTANDING OF THE PROGRAM
10	EASE OF USE
11	MUST BE BETTER THAN NYSEERDA/ALL OTHER PROGRAMS
12	REDUCING CARBON FOOTPRINT/BEING ENVIRONMENTALLY FRIENDLY
13	BETTER CUSTOMER SERVICE FROM CON EDISON
95	OTHER[SPECIFY]
96	REFUSED
97	DON'T KNOW

**[ASK Q23 TO ALL]**

62. On a scale of 1-10, where “1” means “Not at all likely” and “10” means “Extremely likely”, how likely are you to participate in one of [Con Edison’s/Orange & Rockland’s] energy efficiency programs in the next year, *based on what you know about them?*

1	2	3	4	5	6	7	8	9	10	96	97
Not at all				Neither Likely				Extremely		REF	DK
Likely				Nor Unlikely				Likely			

**[ASK Q23a IF Q23<7; ELSE SKIP TO INSTRUCTION BEFORE Q24]**

23a. Why aren't you very likely to participate in one of [Con Edison's/Orange & Rockland's] efficiency programs in the next year?

- 05 **[RECORD RESPONSE PROVIDED]**
- 06 Lack of awareness/don't understand what the programs offer
- 07 Lack of capital/can't afford up-front costs
- 08 Uncertain plans for future (moving/poor economy)
- 09 Considering another program
- 10 Too much paperwork/Con Edison program not organized
- 11 Takes too much time internally/need corporate/board approval
- 95 Other
- 96 REFUSED
- 97 DON'T KNOW

**MARKET PARTNER INTERACTIONS**

**[ASK Q24-25 TO CON EDISON SAMPLE ONLY]**

63. Are you aware of Con Edison’s Market Partner Network – contractors and other vendors who are trained to provide technical support to customers for the installation of energy efficient equipment and can assist with the program application process? **[DO NOT READ]**

1	YES
2	NO <b>[SKIP TO Q65]</b>
96	REFUSED <b>[SKIP TO Q65]</b>
97	DON'T KNOW <b>[SKIP TO Q65]</b>

64. Based on what you know about the Market Partner Network, what Market Partner skills and services are of greatest value to you? **[DO NOT READ, SELECT ALL, PROBE FOR ADDITIONAL RESPONSES BY ASKING ‘Anything else?’]**

1	FINANCIAL ANALYSIS
2	ENGINEERING SERVICES
3	MANUFACTURER TIES/SUPPORT
4	TRAINING ON OPTIMAL USE & MAINTENANCE OF HIGH-EFFICIENCY EQUIPMENT
5	“GO-TO” FIRM THAT COMPLEMENTS OTHER TRADES WE USE
6	KNOWLEDGE OF OUR BUSINESS AND ENERGY PROCESSES
7	PERFORMING ENERGY AUDITS
95	OTHER[SPECIFY]
96	REFUSED
97	DON'T KNOW

**OTHER PROGRAMS**

**[ASK Q26 IF Q5a≠1, ELSE SKIP TO INSTRUCTION BEFORE Q28]**

65. Have you heard of NYSERDA’s Existing Facilities Program? (IF NEEDED – NYSERDA is the New York State Energy Research and Development Authority)

1	YES
2	NO[SKIP TO Q69]
96	REFUSED [SKIP TO Q30]
97	DON'T KNOW [SKIP TO Q69]

**[ASK Q27 IF Q65=1(YES) AND Q41 = 1(YES); ELSE SKIP TO INSTRUCTION BEFORE Q28]**

66. Did you either consider participating or actually participate in the NYSERDA Existing Facilities Program for the project(s) we’ve been discussing during this interview?

1	CONSIDERED [SKIP TO Q35]
2	PARTICIPATED
3	NEITHER [SKIP TO Q69]
96	REFUSED [SKIP TO Q69]
97	DON'T KNOW [SKIP TO Q69]

**[ASK Q28 IF Q66 =2 OR Q5a=1; ELSE SKIP TO Q29]**

67. Why did you decide to participate in the NYSERDA program and not the [Con Edison/Orange & Rockland] program? **[DO NOT READ LIST, RECORD ALL RESPONSES]**

1	INCENTIVE AMOUNTS WERE HIGHER
2	THE NYSERDA MEASURES THAT GET INCENTIVES
3	TOO MANY INSPECTIONS FOR CON EDISON PROGRAM
4	INFORMATION/EDUCATION PROVIDED
5	APPLICATION PROCESS WAS SIMPLER
6	LIKED NYSERDA CONTACT BETTER
7	AMOUNT OF TIME IT TAKES TO BE PAID THE INCENTIVES
8	NYSERDA'S CUSTOMER SERVICE WAS BETTER MAKING PROGRAM EASIER TO USE THAN OTHERS
9	HEARD ABOUT THAT PROGRAM AND NOT ABOUT CON EDISON'S/O&Rs
10	HEARD ABOUT THAT PROGRAM BEFORE HEARING ABOUT CON EDISON'S/O&Rs
11	RECOMMENDATION
95	OTHER [SPECIFY]

96	REFUSED
97	DON'T KNOW

68. Did you find it confusing that there are similar programs offered by multiple organizations in which you could participate?

1	YES
2	NO <b>[SKIP TO Q69]</b>
96	REFUSED <b>[SKIP TO Q69]</b>
97	DON'T KNOW <b>[SKIP TO Q69]</b>

35a. What was confusing to you?

- 01 **[RECORD RESPONSE PROVIDED]**
- 02 Determining which program will be best for my organization
- 03 Bureaucracy/rules/eligibility
- 04 Determining validity of claims made by each program (how much they can save you, how high the rebates will be, what equipment is eligible)
- 05 Too many/no coordination
- 96 REFUSED
- 97 DON'T KNOW

69. To wrap up, I'd like to ask you some basic information regarding your business.

a. My records indicate that the physical address of your facility is: **[INSERT ADDRESS]**. Is that correct?

1	YES
2	NO – What is the address? <b>[RECORD ADDRESS GIVEN; STREET ADDRESS. CITY AND ZIP]</b>
96	REFUSED
97	DON'T KNOW

b. What type of facility is this? **[DO NOT READ]**

1	OFFICE,
2	RETAIL STORE,
3	FULL-SERVICE RESTAURANT,
4	QUICK-SERVICE RESTAURANT,
5	MEDICAL - HOSPITAL, CLINIC, OR DOCTOR'S OFFICE, NURSING HOME
6	REFRIGERATED WAREHOUSE,
7	UNREFRIGERATED WAREHOUSE,
8	MANUFACTURING PLANT, COMMERCIAL
9	KINDERGARTEN THROUGH HIGH SCHOOL
10	COLLEGE OR UNIVERSITY
11	RESIDENCE (APARTMENT, COOP, CONDO, RESIDENCE HALL, HOTEL)
12	PUBLIC ASSEMBLY (CHURCH, THEATRE, COMMUNITY CENTER)
95	OTHER [SPECIFY:]
96	REFUSED
97	DON'T KNOW

c. How old is this facility? **[DO NOT READ]**

1	LESS THAN 2 YEARS,
2	2 TO JUST UNDER 5 YEARS,
3	5 TO JUST UNDER 10 YEARS,

4	10 TO JUST UNDER 20 YEARS,
5	20 TO JUST UNDER 30 YEARS, OR
6	30 OR MORE YEARS OLD?
96	REFUSED
97	DON'T KNOW

- d. And what is the approximate square footage of this facility? **[IF NEEDED: Only the square footage of the portion of the building that your business occupies] [DO NOT READ]**

1	LESS THAN 5,000 SQ FT
2	5,000- JUST UNDER 10,000 SQ FT
3	10,000- JUST UNDER 20,000 SQ FT
4	20,000- JUST UNDER 30,000 SQ FT
5	30,000- JUST UNDER 40,000 SQ FT
6	40,000- JUST UNDER 50,000 SQ FT
7	50,000- JUST UNDER 100,000 SQ FT
8	100,000 SQ FT OR LARGER
95	OTHER
96	REFUSED
97	DON'T KNOW

70. Are you planning on making any energy efficiency improvements at this site in the next year?

- 01 YES
- 02 NO **[SKIP TO Q32]**
- 96 REFUSED **[SKIP TO Q32]**
- 97 DON'T KNOW **[SKIP TO Q32]**

31a. What type or types of improvements are you planning? **[DO NOT READ. RECORD ALL THAT APPLY]**

- 01 LIGHTING UPGRADES OR CONTROLS
- 02 NEW HEATING, VENTILATION OR AIR CONDITIONING
- 03 MOTORS OR VARIABLE FREQUENCY DRIVES
- 04 AN ENERGY MANAGEMENT SYSTEM
- 05 TUNE UP OF EXISTING EQUIPMENT
- 06 GAS BOILER OR OTHER GAS EQUIPMENT
- 07 COOLERS/COOLING TOWERS
- 08 SOLAR
- 09 BUILDING SHELL IMPROVEMENTS
- 10 COGENERATION/CH&P
- 95 OTHER **[SPECIFY]**
- 96 REFUSED
- 97 DON'T KNOW



71. Before we finish, do you have any other comments or thoughts you would like to share with [Con Edison/Orange & Rockland] regarding their business energy efficiency programs or how they could be improved?

01 **[RECORD RESPONSE PROVIDED]**

94 NO/NONE

96 REFUSED

97 DON'T KNOW

*Thank you for taking the time to complete this important survey. To what address should Con Edison mail the fifty dollar honorarium for your participation?*

*Name:*

*Street Address:*

*City:*

*State:*

*Zip Code:*

*96 – REFUSED INCENTIVE*

*Have a good day/evening!*



*Participating Trade Ally Interview Guide*

CON EDISON/O&R EEPS EVALUATION

**Commercial/Industrial PARTICIPATING TRADE ALLY Interview Guide**

October 12, 2011

**INTRODUCTION**

Hello, my name is \_\_\_\_\_, and I'm calling from Navigant Consulting on behalf of [DTE/MichCon]. Our firm is contacting contractors, distributors, suppliers and manufacturers who were involved with [DTE's/Mich Con's] incentive programs for Commercial and Industrial customers, to obtain feedback on the program. We need input from your company, to make the program as simple to use and as valuable as possible. May I please speak to [INSERT LISTED CONTACT NAME/IF NO NAME SAY: Whoever has been most involved with participating in the programs?

I have you listed as the primary contact for <COMPANY NAME> with respect to this program. Are you the appropriate person in your business to discuss your company's experiences with it?

**YES Continue**

**NO Who at your company can best speak to this topic?**

**Record the new contact's name and telephone number in B. below.**

This discussion will not take much of your time. Is it possible for you to speak with me right now or would you prefer to schedule a more convenient date and time?

**YES (now is a good time) SKIP to "REMINDERS," below.**

**NO (not a good time) Schedule a date and time to call back and record it below.**

A. **Appointment Date and Time:** \_\_\_\_\_

B. **New Contact Name and Phone Number:**

**Name:** \_\_\_\_\_

**Phone:** ( \_\_\_\_ ) \_\_\_\_ - \_\_\_\_ , **Ext:** \_\_\_\_\_

**IF NEW CONTACT NOT AVAILABLE, SCHEDULE FOLLOW UP CALL.**

**REMINDERS**

Before I begin, I have a few important points.

- We'd like this to be an informal discussion about a number of key topics mostly related to experience with the program.
- As an independent research firm, Navigant Consulting will not report your specific responses in any way that would reveal your identity or that of your organization to [DTE/Mich Con].

- If it's ok with you I'd like to record our conversation so that I can make sure my notes are complete. It's difficult to take notes and talk on the phone at the same time. [SAY ONLY IF NECESSARY: If you'd prefer that I not record our conversation, that's fine.]

## **COMPANY BACKGROUND**

1. First, I'd like to talk about your business. How would you categorize your company? [**PROBE FOR: MANUFACTURER, DISTRIBUTER OR INSTALLER OF EQUIPMENT, ENGINEERING FIRM, CONSULTING FIRM. PROBE SUFFICIENTLY TO DETERMINE WHETHER RESPONDENT IS A EQUIPMENT SUPPLIER OR DESIGNER/INSTALLER.**]
  - a. What category would you say your **primary business** is: HVAC, lighting, motors, or something else?
2. What geographic area does your company service?
3. How many full-time employees, including you, work at this location? \_\_\_\_\_ # **full-time employees.**
  - a. Is this the company's only location? [**If NO, ask b. and c.**]
  - b. How many locations are there?
  - c. Approximately how many total employees are at the company?
4. How would you describe your position? [**PROBE FOR: OWNER, MANAGER, SALES PERSON, TECHNICIAN, ENGINEER**]

## **REBATED EQUIPMENT (ASK ALL)**

5. What of the following types of equipment do you [**FOR SUPPLIERS: "SELL"; FOR DESIGNERS/INSTALLERS: SPECIFY OR INSTALL**]? [**IF GENERAL CATEGORY ALREADY KNOWN, SKIP INAPPROPRIATE CATEGORIES**]
  - a. Lighting:
    - i. Light fixtures
    - ii. Lamps/light bulbs
    - iii. Lighting controls
  - b. HVAC:
    - i. Cooling equipment:
      1. Split and Packaged Air Conditioners
      2. Air Source Heat Pumps
      3. Chillers
      4. Other (i.e.) Thermal Ice Storage or other Specialty Measures

- ii. Variable frequency drives
  - iii. Electric heating equipment
  - iv. Gas-fired heating equipment
    - 1. Natural gas boilers
    - 2. Steam boilers
    - 3. Gas heating and water heating controls
  - c. Motors
  - d. Water Heating:
    - i. Water heating equipment
    - ii. Water heating controls
  - e. Compressed air systems
  - f. Controls and energy management systems
6. **[CON EDISON TRADE ALLIES ONLY]** Did your company sign up to be a Market Partner in Con Edison’s program? [IF NOT] Why not?
7. **[SKIP IF SUPPLIERS]** As of July 18th, our records show that your company submitted \_\_\_\_\_ rebate applications for **[TYPE OF EQUIPMENT]**. During the time between when you heard of Con Edison’s program and July 18, do these installations represent all, most, some or very few of your total installations of this type of equipment?

**[REPEAT FOR EACH TYPE OF EQUIPMENT REBATES THAT HAVE BEEN APPLIED FOR . . .]**

- Lamps/light bulbs \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)
- Light Fixtures \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)
- Lighting Controls \_\_\_\_\_ # APPLICATIONS/ (ALL/MOST/SOME/VERY FEW)
- Variable Frequency Drives \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)
- Natural Gas Boilers \_\_\_\_\_ # APPLICATIONS/ (ALL/MOST/SOME/VERY FEW)
- Steam Boilers \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)
- Gas Heating and Hot Water Controls \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)
- Motors \_\_\_\_\_ # APPLICATIONS/ (ALL/MOST/SOME/VERY FEW)
- Split and Packaged Air Conditioners \_\_\_\_\_ # APPLICATIONS/ (ALL/MOST/SOME/VERY FEW)
- Air Source Heat Pumps \_\_\_\_\_ # REBATES/ \_\_\_\_\_ (ALL/MOST/SOME/VERY FEW)
- Chillers \_\_\_\_\_ # REBATES/ \_\_\_\_\_ (ALL/MOST/SOME/VERY FEW)
- Other \_\_\_\_\_
- Compressed Air Systems \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)

Controls and Energy Management Systems \_\_\_\_\_ # APPLICATIONS/  
(ALL/MOST/SOME/VERY FEW)

Process Upgrades \_\_\_\_\_ # APPLICATIONS/(ALL/MOST/SOME/VERY FEW)

8. Are you familiar with the types and efficiency requirements of the energy equipment for which customers can get rebates from [Con Edison/O&R]? [IF YES, CONTINUE. IF NO, SUMMARIZE QUALIFYING EQUIPMENT OF THE TYPES THE RESPONDENT DEALS WITH]

9. **[FOR CON EDISON MARKET PARTNERS, ASK FOR EACH CATEGORY OF EQUIPMENT IDENTIFIED IN Q5 BUT NOT ADDRESSED IN Q7. FOR ALL CON EDISON/O&R OTHERS, ASK FOR ALL EQUIPMENT TYPES LISTED IN Q5]** In a typical year, roughly how many of each of the following types of equipment does your company [CHOOSE APPROPRIATE: specify or install in; install in; sell for installation in] commercial or industrial facilities? A general estimate or range is fine.

a. [ASK FOR ALL EXCEPT ENERGY MANAGEMENT SYSTEMS OR CONTROLS AND PROCESS UPGRADES] What percentage of the equipment that you install is high efficiency equipment, as defined by the [CON EDISON/O&R] program?

Light fixtures \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Lighting controls \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Lamps/light bulbs \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Variable Frequency Drives \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Natural Gas Boilers \_\_\_\_\_ # \_\_\_\_\_ % high efficiency **[Ask for Con Edison only]**

Steam Boilers \_\_\_\_\_ # \_\_\_\_\_ % high efficiency **[Ask for Con Edison only]**

Gas Heating and Hot Water Controls \_\_\_\_\_ # \_\_\_\_\_ % high efficiency **[Ask for Con Edison only]**

Motors \_\_\_\_\_ # \_\_\_\_\_ % high efficiency **[Ask for Con Edison only]**

Split and Packaged Air Conditioners \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Air Source Heat Pumps \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Chillers \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Compressed Air Systems \_\_\_\_\_ # \_\_\_\_\_ % high efficiency

Controls and Energy Managements Systems \_\_\_\_\_ #

Process Upgrades \_\_\_\_\_ #

10. **[DON'T ASK OF SUPPLIERS]** Have you completed any projects that qualify for [Con Edison/O&R] rebates but for which a rebate application was not submitted to [Con Edison/O&R]? **[IF YES, ASK Why?]**

11. **[DON'T ASK OF SUPPLIERS]** Do you typically submit the rebate application, or do your customers? **IF CUSTOMERS SUBMIT, ASK:** What factors drive the decision for your customers to submit the application?
12. We're trying to understand the circumstances under which qualifying equipment is and is not installed. For which types of situations is high-efficiency equipment that would qualify for a [Con Edison/O&R] rebate typically installed? **(PROBE IF NECESSARY:** Is it for certain types of customers only? For certain types of equipment only?) Why?
13. Similarly, under what circumstances is high-efficiency equipment installed that DOES NOT qualify for a [Con Edison/O&R] rebate? **[PROBE ACROSS EQUIPMENT TYPES INSTALLED]**
14. **[ASK IF RESPONDENT HAS INDICATED THAT NOT ALL OF HIS/HER INSTALLATIONS QUALIFY FOR THE PROGRAM]** What could [Con Edison/O&R] do, or how could the program be changed, so that a much greater percentage of installations of the types of equipment you [CHOOSE APPROPRIATE: SELL; SPECIFY OR INSTALL] would receive rebates? **[IF THE RESPONSE IS "OFFER HIGHER REBATES" SAY]** I realize that offering higher rebates would help, but what else could be done? If the rebates go up, that might put pressure on rates to go up, too. Might a third-party financing option help drive customers to install high efficiency equipment? **[PROBE ACROSS EQUIPMENT TYPES INSTALLED]**
15. What do you see as the benefits of the [Con Edison/O&R] program for companies like yours? And what are the drawbacks, if any?
16. Not all contractors are currently installing equipment that qualifies under the [Con Edison/O&R] program. Why do you think these contractors aren't installing qualifying equipment? **[LISTEN FOR SIGN UP PROCESS REQUIRES TOO MUCH TIME/EFFORT; DON'T NEED THIS PROGRAM, WE'RE BUSY ENOUGH ALREADY; TOO MUCH HASSLE; PROBABLY BECAUSE THEY HAVEN'T HEARD ABOUT IT, ETC.]**
  - a. What could the utility do to better promote participation?
  - b. From your perspective, what do these non-participating contractors have in common? What types of contractors are participating? What types aren't? **[PROMPT IF NECESSARY:** Are they contractors of a certain size? Do they serve a certain market? Are there certain business characteristics that encourage or discourage contractor participation?]
17. In your opinion, does this program have any effect on the equipment that businesses install? Is the program moving people from non-qualifying units to qualifying ones, or are people just installing what they would normally install anyway? **[PROBE FOR EXTENT TO WHICH EACH OF THESE IS HAPPENING FOR EACH TYPE OF EQUIPMENT THE COMPANY SELLS/SPECIFIES/INSTALLS. TRY TO GET AN ESTIMATED PERCENTAGE.]**

18. In your opinion, does the rebate amount provided by [Con Edison/O&R] cover enough of the additional cost of installing high efficiency equipment?
19. Do you think that high efficiency equipment is a good value for the customer, even without a rebate? Explain.
20. How much of the market is purely driven by cost? What proportion of your customers would tend to select the energy efficient alternative if its price is slightly or somewhat above the price of the baseline equivalent product?
21. [LIGHTING ONLY] What's hot in efficient lighting these days? Are you doing much business in LEDs? What's the market like for LEDs these days?
22. [ELECTRIC HVAC ONLY] Are you doing much business in adjustable or variable speed drives? What's the market like for this equipment these days? Are there any other high efficiency technologies that are gaining traction out there?
23. [ELECTRIC AND GAS INSTALLERS ONLY] Do you do much business in [CHOOSE APPROPRIATE: AIR CONDITIONING/FURNACE OR BOILER] tune-ups? What high efficiency technologies are gaining traction out there?
24. [GAS EQUIPMENT INSTALLERS AND SUPPLIERS ONLY] What efficiency levels are going into large commercial and industrial facilities these days? What's standard? How much is high efficiency, like at the levels we've shown you? What high efficiency technologies are gaining traction out there?
25. Do you have suggestions for additional equipment for commercial or industrial facilities that you think [Con Edison/O&R] should be rebating? **[IF NECESSARY, LIST ELIGIBLE EQUIPMENT FOR RESPONDENT]** Any ideas for different eligibility requirements? Explain.

### **REBATE PROGRAM**

26. How did you hear about the [IF Con Edison: "Commercial and Industrial Rebate Program", if O&R: "Commercial and Industrial Existing Buildings Program"]?
27. **[ASK ONLY OF CON EDISON RESPONDENTS WHO SAID THEY WERE MARKET PARTNERS IN Q6]** Have you had any difficulty signing up to be a Market Partner?
28. **[ASK ONLY OF CON EDISON RESPONDENTS WHO SAID THEY WERE MARKET PARTNERS IN Q6]** What do you see as the benefits of becoming a Market Partner for companies like you? And what are the drawbacks, if any?
29. **[ASK ONLY OF CON EDISON RESPONDENTS WHO SAID THEY WERE MARKET PARTNERS IN Q6]** Are you satisfied with your participation in the Market Partner program?

### **COMPANY PRACTICES (ASK ALL)**

30. Before participating in this Rebate Program, did your company recommend high-efficiency products to your customers?

**[IF YES, CONTINUE WITH A, B AND C]**

- a. What typically is the customer's reaction? Are they open to the possibility?
- b. What advantages of high efficiency products do you mention when promoting such products to your customers? **[PROBE FOR: PAYBACK, UTILITY BILL SAVINGS, ENVIRONMENTAL BENEFITS, IMPROVED EQUIPMENT PERFORMANCE]**
- c. In your opinion, does marketing high-efficient products and services to potential customers provide your company with a competitive advantage?
- d. Why? or Why not?

**[IF NO, ASK]: Why not?**

31. Thinking of the entire Rebate Program, how has it affected the way your company does business, if at all?
- a. Do you recommend this program to your customers? Why/Why not?
  - b. Do only certain employees at the company promote participation in the [Con Edison/O&R] program or does everyone at the company promote it? Explain.
32. Have any of your customers *approached your company* regarding the Commercial and Industrial Rebate Program?
33. What types of customers are most likely to participate? Does participation make sense for everyone? Are there some customers whom you do NOT suggest this program to?
34. **[CONTRACTORS/INSTALLERS ONLY]** Do you typically help your customers figure out how to take advantage of current tax credits for installation of energy efficient products, or do you not get into that? Why/Why not?

### **MARKETING**

35. Is the Rebate Program something that you explicitly advertise? If so, how do you sell it?
36. What are the strongest selling points for persuading your customers to **[IF DESIGNER/INSTALLER: participate in the program] [IF SUPPLIER: "promote the program to their customers"]?**
37. **[DESIGNERS/INSTALLERS ONLY]** Who on the customer's side typically makes the decision to buy the high efficiency equipment that you sell or install? Is it the same decision-maker(s) for all of the equipment you sell?

38. **[FOR CON ED TRADE ALLIES ONLY]:** Have you used any of the following collateral materials provided by Con Edison?
- a. Co-branded Program Brochure?
  - b. Program Presentation?
  - c. Webinar Presentations?
  - d. Market Partner Certificates?
  - e. Anything else?
  - f. What has been most useful? What has been least useful? Any suggestions for additional materials?
39. Have you had any difficulty gaining access to any of the program materials (such as the rebate forms)? **[IF YES, PROBE]:** Do you have access to the internet?
40. Do you find the program website to be useful?
41. Is there any information you'd like to find on the website that isn't currently available?

**PROGRAM SATISFACTION**

42. Please rate your overall satisfaction with the program on a scale of 1 to 5, with 5 being "very satisfied," and 1 being "very dissatisfied."

<u>Satisfied</u>	<u>Dissatisfied</u>		<u>Neutral</u>		<u>Very Satisfied</u>
1	2	3	4	5	

- a. If 42 is <4, ask: What problems have you have with the program?
43. What changes could be made to improve the program?

**PROGRAM OVERLAP**

44. Are you aware of or are you involved with any other energy efficiency rebate programs? **[NOTE WHICH PROGRAMS AND FROM WHAT ENTITIES.] NGrid, NYSEDA**

**[ASK FOR EACH PROGRAM MENTIONED]:** Is this program easier or more difficult to participate in than the Con Edison/O&R Commercial and Industrial Rebate Program? **[PROBE FOR SPECIFIC AREAS OF DIFFICULTY OR DIFFERENCE.]**

45. In your opinion, do you think this Commercial and Industrial Rebate Program overlaps with programs being offered to the same customers by other agencies or organizations?

**[IF YES]: Which programs/organizations? Is there any customer confusion because of this overlap?**

**[IF NYSERDA IS NOT MENTIONED PROBE]: How about NYSERDA, have you heard of similar programs offered by an organization called NYSERDA, or the New York State Energy Research and Development Authority? Is there any conflict or confusion from your perspective? How about among your customers? Under what circumstances do you or your customers participate in NYSERDA's program instead of the Con Ed/O&R programs?**

46. Before we wrap this discussion up, do you have any other thoughts or insights you would like to share regarding Con Edison's/O&R's Commercial and Industrial Rebate Program, or how it might be improved?

Those are all of the questions I have. Thank you very much for your time and input. Have a good day.



*Non-Participating Trade Ally Interview Guide*

CON EDISON EEPS EVALUATION

**Commercial/Industrial NON-PARTICIPATING Trade Ally Interview Guide**

October 12, 2011

**INTRODUCTION**

Hello, my name is \_\_\_\_\_, and I'm calling from Skumatz Economic Research Associates on behalf of [Consolidated Edison/Orange & Rockland]. We're contacting contractors and other energy equipment installers that serve customers in the [Con Edison/O&R] service territory to discuss the types of energy efficiency products and services that they offer to commercial and industrial customers. We'd also like to discuss some current Commercial and Industrial rebate programs sponsored by local utility companies, and how they might impact your business. We need input from your company to make the program as attractive and as useful to contractors as possible. May I please speak to someone at your company who would know the most about the types of energy efficiency equipment your company installs and why?

Are you the appropriate person in your business to discuss your company's experiences with the energy-related products and services that you offer?

**YES Continue**

**NO Who at your company can best speak to this topic?**

**Record the new contact's name and telephone number in B. below.**

This discussion will not take much of your time. Is it possible for you to speak with me right now or would you prefer to schedule a more convenient date and time? We're offering \$50 in appreciation of the time that you'll spend on this discussion.

**YES (now is a good time) SKIP to "REMINDERS," below.**

**NO (not a good time) Schedule a date and time to call back and record it below.**

If they indicate that they are willing to participate but cannot accept the honorarium, indicate that we could also provide a donation of \$50 to the charity of their choice. (If they don't want or can't handle the honorarium, don't push it. Just continue.)

Charity Name:

**C. Appointment Date and Time:** \_\_\_\_\_

**D. New Contact Name and Phone Number:**

**Name:** \_\_\_\_\_

**Phone:** ( \_\_\_\_ ) \_\_\_\_ - \_\_\_\_ , Ext: \_\_\_\_

**IF NEW CONTACT NOT AVAILABLE, SCHEDULE FOLLOW UP CALL.**

## **REMINDERS**

Before we begin, I have a few important points.

- We'd like this to be an informal discussion about a number of key topics mostly related to the types of energy efficiency products and services you offer.
- As an independent research firm, Skumatz Economic Research Associates will not report your specific responses in any way that would reveal your identity or that of your organization to [Con Edison/Orange and Rockland].
- If it's ok with you I'd like to record our conversation so that I can make sure my notes are complete. It's difficult to take notes and talk on the phone at the same time. [SAY ONLY IF NECESSARY: If you'd prefer that I not record our conversation, that's fine.]

## **COMPANY BACKGROUND**

47. First, I'd like to talk about your business. How would you categorize your company? [**PROBE FOR: MANUFACTURER, DISTRIBUTER OR INSTALLER OF EQUIPMENT, CONSULTING FIRM, OR SOMETHING ELSE. PROBE SUFFICIENTLY TO CONFIRM RESPONDENT IS A DESIGNER/INSTALLER/CONTRACTOR.**]
- a. What category would you say your **primary business** is: HVAC, lighting, motors, or something else?
48. What geographic area does your business service?
49. How many full-time employees, including you, work at this location? \_\_\_\_\_ # **full-time employees.**
- a. Is this the company's only location? [If NO, ask b. and c.]
  - b. How many locations are there?
  - c. Approximately how many total employees are at the company?
50. How would you describe your position? [**PROBE FOR: OWNER, MANAGER, SALES PERSON, TECHNICIAN, ENGINEER.**]
51. In a typical year, roughly how many of each of the following types of equipment does your company install in commercial or industrial facilities? A range is fine.
- Lamps only
- Light fixtures \_\_\_\_\_#
- Lighting controls \_\_\_\_\_#

- Variable Frequency Drives \_\_\_\_\_ #
- Natural Gas Boilers \_\_\_\_\_ # [Ask for Con Edison only]
- Steam Boilers \_\_\_\_\_ # [Ask for Con Edison only]
- Gas Heating and Hot Water Controls \_\_\_\_\_ # [Ask for Con Edison only]
- Motors \_\_\_\_\_ #
- Split and Packaged Air Conditioners \_\_\_\_\_ #
- Air Source Heat Pumps \_\_\_\_\_ #
- Chillers \_\_\_\_\_ #
- Compressed Air Systems \_\_\_\_\_ #
- Controls and Energy Management Systems \_\_\_\_\_ #
- Process Upgrades \_\_\_\_\_ #
- Other \_\_\_\_\_ # i.e. Thermal Ice Storage, and Specialty Measures
52. What percentage of the equipment that you install is high efficiency equipment? \_\_\_\_\_ % (A range is fine)
- Is this number changing? How? Why?
  - What prevents you from installing [more] high efficiency equipment?
  - Do you think that high efficiency equipment is a good value for the customer, even without a rebate? For some types of equipment only? Explain.
53. How much of the market is purely driven by cost? What proportion of your customers would tend to select the energy efficient alternative if its price is slightly or somewhat above the price of the baseline equivalent product?

**REBATE PROGRAM AWARENESS**

54. Have you heard about the [Con Edison Commercial and Industrial Energy Efficiency Program/Orange & Rockland Commercial and Industrial Existing Buildings Program]? How did you hear about the program?
55. Has your Company been involved with an installation of equipment that was rebated under the program?
56. **[ASK IF AWARE OF PROGRAM]** Can you tell me what you know about the program? [Note extent of knowledge about:
- Equipment types included:
  - Rebates and rebate levels:

- Qualifying criteria for equipment and for contractors (if any):
- Program application process or program requirements]

**[SUMMARIZE THE [CON EDISON/O&R] PROGRAM, THE EQUIPMENT REBATED, REBATE LEVELS, AND THEIR EFFICIENCY REQUIRMENTS]**

57. From what you now know about the program, are you likely to promote it to our customers at some point in the future? **[IF YES]** In what way/for what types of equipment?
58. **[ASK ALL]:** We're very interested in understanding why some contractors promote the program to their customers and others do not, and how to get more contractors to promote the program and get more high-efficiency equipment installations in commercial and industrial facilities. Why haven't you participated? **[IF Q8 REVEALS PARTICIPATING TRADE ALLY, ADD: "or participated more fully?]** **[LISTEN FOR: REBATE APPLICATION REQUIRES TOO MUCH TIME/EFFORT; DON'T NEED THIS PROGRAM, WE'RE BUSY ENOUGH ALREADY; BECAUSE THEY HAVEN'T HEARD ABOUT IT, ETC.]** What could the utility do to better promote participation by contractors like you?
59. **[CON EDISON ONLY]** Are you familiar with Con Edison's Market Partner Network, a listing of contractors and other service providers that is made available to customers? **[IF FAMILIAR]** Did you sign up to be a Market Partner? **[IF NOT]** Why not?
60. **[ASK ALL]** Have any of your customers approached you about applying for rebates under this program? What was the result?

**REBATED EQUIPMENT**

61. We're trying to understand the circumstances under which contractors do and do not install high efficiency equipment. For which types of situations do you install high-efficiency equipment **[IMPORTANT: REFERENCE APPROPRIATE UTILITY'S REBATE REQUIREMENTS FOR CLARIFICATION OF "HIGH EFFICIENCY" IF NECESSARY. WE DON'T WANT THE RESPONDENT THINKING OF A STANDARD EFFICIENCY LEVEL BUT RATHER OF THE PROGRAM-QUALIFYING EFFICIENCY LEVELS,]** **[PROBE IF NECESSARY]:** Is it for certain types of customers only? For certain types of equipment only? Why?
62. Similarly, under what circumstances do you install standard efficiency equipment? **[PROBE ACROSS EQUIPMENT TYPES INSTALLED]**
63. **[ASK IF RESPONDENT HAS INDICATED THAT NOT ALL OF HIS/HER INSTALLATIONS WOULD QUALIFY FOR THE PROGRAM]** What could [Con Edison/Orange & Rockland] do to increase the percentage of your energy efficient installations? **[IF THE RESPONSE IS "OFFER REBATES", CAPTURE RESPONSE AND THEN SAY] I realize that offering rebates would help, but what are some other options, in your opinion? [PROBE ACROSS EQUIPMENT TYPES INSTALLED]**

**COMPANY PRACTICES (ASK ALL)**

64. Does your company's marketing strategy or sales practices emphasize high-efficiency products and services? **[IF YES, ASK]:** How is this done? What messages are given to the customer?

**[IF YES (EE is part of marketing strategy: continue with a., b. and c.)**

- a. What high-efficiency products and services are promoted?
- b. What typically is the customer's reaction? Are they open to the possibility?
- c. What advantages do you use to promote high-efficiency products to your customers?  
**[PROBE FOR: PAYBACK, UTILITY BILL SAVINGS, ENVIRONMENTAL BENEFITS, IMPROVED EQUIPMENT PERFORMANCE]**
- d. Do your customers ever ask you about high-efficiency options?
- e. In your opinion, does marketing high-efficiency products and services to potential customers provide your company with a competitive advantage?
- f. Why? **OR** Why not?

**[IF NO EE in marketing strategy, ASK]: Why not?**

65. How much of the market is purely driven by cost? What proportion of your customers would tend to select the energy efficient alternative if its price is slightly or somewhat above the price of the baseline equivalent product?
66. Do you think participation in the Rebate program I've been talking about would impact your business? Positive/Negative? Why?
  - a. What type of customer do you think would respond to this program?
  - b. Would you recommend this program to your customers? Why/Why not? Under what circumstances?
67. Do you think the economy has had an impact on customer desire for high-efficiency products and services? How?
68. **[LIGHTING ONLY]** What's hot in efficient lighting these days? Are you doing much business in LEDs? What's the market like for LEDs these days?
69. **[ELECTRIC HVAC ONLY]** Are you doing much business in adjustable or variable speed drives? What's the market like for this equipment these days? Are there any other high efficiency technologies that are gaining traction out there?

70. [ELECTRIC AND GAS INSTALLERS ONLY] Do you do much business in [CHOOSE APPROPRIATE: AIR CONDITIONING/FURNACE OR BOILER] tune-ups? What high efficiency technologies are gaining traction out there?
71. [GAS EQUIPMENT INSTALLERS ONLY] What efficiency levels are going into large commercial and industrial facilities these days? What's standard? How much is high efficiency, like at the levels we've shown you? What high efficiency technologies are gaining traction out there?
72. Do you have suggestions for additional equipment that [Con Edison/O&R] should include in this program? **[IF NECESSARY, LIST ELIGIBLE EQUIPMENT FOR RESPONDENT]**
73. Do you typically help your customers figure out how to take advantage of current tax credits for installation of energy efficient products? Why/Why not?
74. Are you aware of or do you participate in any other rebate programs? **[NOTE WHICH PROGRAMS AND FROM WHAT ENTITIES.] NGrid, NYSERDA, Other**
- [FOR EACH PROGRAM MENTIONED, ASK]:** Why do you participate in this program but not [Con Edison's/O&R's] program?
75. In your opinion, do you think the Commercial and Industrial Rebate Program overlaps with programs being offered to the same customers by other agencies or organizations?
- [IF YES]: Which programs/organizations? Is there any customer confusion because of this overlap?**
- [IF NYSERDA IS NOT MENTIONED PROBE]:** How about NYSERDA, have you heard of similar programs offered by an organization called NYSERDA, or the New York State Energy Research and Development Authority? Is there any conflict or confusion from your perspective? How about among your customers?
76. Before we wrap this discussion up, do you have any other thoughts or insights you would like to share regarding the Commercial and Industrial Rebate Program, or how it might be improved either to encourage contractors like you to participate or to encourage customers to participate?

Those are all of the questions I have. Thank you very much for your time and input. We greatly appreciate it. Have a good day.