

# **Massachusetts Non-Residential Small Business Direct Install Program: Multi-Tier Program Structure Assessment 2010 Process Evaluation**

Prepared for the Massachusetts Energy Efficiency Program Administrators:

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Berkshire Gas  
Cape Light Compact  
National Grid USA  
New England Gas  
NSTAR Electric & Gas  
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July 7, 2011

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# 1. Executive Summary

This report presents results from the process evaluation of the 2010 Non-Residential Retrofit Small Business Direct Install (DI) Program. Given the maturity of this program offering and at the request of the Energy Efficiency Advisory Council (EEAC), the 2010 process evaluation focused on statewide efforts to integrate the Small Business DI Programs being implemented across the state. In addition, the evaluation aimed to gather preliminary information on the level of interest in different incentive levels and financing options among small business customers – a key area of EEAC and Program Administrator (PA) program staff interest. The evaluation team will explore this research topic in greater detail in 2011 using discrete choice analysis. The evaluation findings, conclusions, and recommendations presented in this report are drawn from an array of data collection activities, including interviews with PA staff and implementers (vendors), as well as surveys of participating and non-participating customers.

## Statewide Integration

The PAs made great strides in terms of integrating the DI Programs in 2010. Each of the PAs was involved in this process, and the communication and coordination across PAs was effective in implementing the necessary changes in program structure and offerings, as well as preparing program partners to carry-out their role in program delivery. One of the most significant aspects of this process, the integration of gas and electric measures, also progressed smoothly as a result of sharing technical knowledge across PAs and the emphasis placed on training program vendors.

## Program Performance

Customer satisfaction with the DI Program is high. Participants give virtually all program components high satisfaction scores, including the measures installed through the program, the incentive amount, and the work of program vendors. In addition, program vendors report that customers are generally unaware of the recent program changes as a result of integration, which suggests the program experience has remained generally consistent and easy to understand for eligible customers.

Within the non-participant population, awareness of the DI Program is low. However, among those who have heard about the program, familiarity is high, indicating that program messaging, when reaching potential participants, is effective in conveying essential information about the program.

Across participants, non-participants, and partial participants (audit only)<sup>1</sup> incentive levels and project financing are important in the decision-making process. Participants are pleased with the current incentive levels, and those who received financing report it was very important in their decision to participate in the program. Further, non-participants and partial participants find the offer of zero percent interest for 12 months of financing an attractive inducement to participate. Non-participants are also willing to accept lower incentive levels than participants and partial participants.

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<sup>1</sup> Partial participants are customers who received an audit through the program, but decided not to install any of the recommended measures. These customers can also be described as non-closers or audit only participants.

## Recommendations

Based on the process evaluation, the evaluation team provides the following recommendation for the DI Program:

- **Use the DI Program audit as a mechanism for the dissemination of information on other PA programs.** The DI facility audit presents an opportunity both to document the condition of existing facility equipment and educate customers about other PA program offerings that may suit their energy efficiency needs in the future. As a result of the program's ability to engage with small business customers through the audit, program staff should consider whether a more systematic approach to disseminating program information during the facility audit is warranted. Part of this decision-making process could include an internal audit of the information circulated by the program vendors and a comparison across PAs to evaluate the breadth and depth of the materials currently provided. The program could also leverage future research as part of the process evaluation to determine the level of channeling taking place, and inform decision-making around the investment of program resources in this area. This research could involve a combination of data mining activities based on the full year of 2010 data, and research with participants to better understand the circumstances under which channeling is taking place.<sup>2</sup>

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<sup>2</sup> This type of research is under discussion as part of the 2011 evaluation planning process.

## 2. Introduction

### Program Description

The Small Business Direct Install (DI) Program offers Massachusetts' non-residential utility customers incentives for the installation of specific energy efficiency measures. The program, which is delivered by the state's Program Administrators (PAs), began uniformly targeting customers with less than 300 kW average peak monthly demand (referred to as demand or kW) in 2010. Prior to 2010, only National Grid, WMECO and Unitil all had an eligibility cap of 200 kW.<sup>3</sup> As a result, 2010 is the first year in which many of the PAs marketed the DI Program to customers in the 200-300 kW range.

The program provides free audits of customer facilities through which program vendors identify energy saving opportunities. Vendors then develop and provide the customer with a proposal for recommended facility upgrades and available financial incentives. Upon agreement on the scope of work, the vendor completes the installation of the energy efficient measures. The program's turn-key delivery is designed to simplify the participation process for small commercial customers who often lack the resources to investigate and implement energy efficiency projects on their own.

While the majority of measures installed through the program have traditionally been lighting measures, refrigeration and other non-lighting measures, such as variable frequency drives, are now included and installed more frequently. Further, beginning in 2010, the PAs began to integrate gas measures into the DI Program.

Both PA staff and program vendors play a role in promoting the program, although in general the vendors are the main channel through which the program recruits customers. Outreach strategies used by the vendors include in-person visits with existing customers and the distribution of brochures and other materials developed independently or in conjunction with the PAs.

At present, there is a statewide effort to integrate the Small Business DI Programs offered by the Massachusetts' PAs in terms of their program offerings and delivery. Key components of this effort include the standardization of the program's eligibility cap and incentive levels, as well as the availability of different financing options. During 2010, the PAs made significant strides towards standardizing the program across the state.

### Evaluation Questions and Activities

Based on program maturity and requests from the EEAC, the 2010 process evaluation focused on the integration process and gathered information related to program awareness and satisfaction, and interest in different program incentive and financing options. Overall, the evaluation sought to address the following research questions:

- What kind of program changes has each PA implemented? How is this process going? What are the challenges? How do customers and market actors view these changes?

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<sup>3</sup> Prior to 2010, Cape Light Compact had an eligibility cap of 100 kW and NSTAR had a cap of 300 kW.

- How is the integration of electric and gas progressing? What are the challenges? What is being done to overcome them?
- How has the workload of PA program staff and vendors changed as integration and standardization of the Small Business DI Program has moved forward?
- What is the level of program awareness and customer satisfaction with the program? What are the barriers to participation and what are the most important factors in participant decision making around participation?

In conducting the process evaluation, the evaluation team used two main data collection methods: in-depth interviews and telephone surveys. Table 1 provides an overview of the 2010 evaluation tasks.

**Table 1. Summary of 2010 Evaluation Tasks**

Evaluation Task	Details
Review of Program Materials	Provides insight into program design, participation processes, and marketing and outreach strategies.
Program Administrator Interviews (n=9)	Provides insight into program design and goals, participation, integration, marketing and outreach, and potential areas for improvement.
Program Vendor Interviews (n=10)	Provides insight into program processes and challenges, the integration process and its impact on the program.
Participant Survey (n=140)	Provides insight into program awareness, satisfaction, and participant decision-making.
Partial Participant Survey (n=70)	Provides insight into program awareness, satisfaction, participant decision-making and barriers to participation, energy efficiency behaviors, and the intent to take action among those who received an audit through the program, but declined to install the equipment recommended to them by the program vendor.
Non-Participant Survey (n=71)	Provides insight into program awareness, barriers to participation, energy efficiency behaviors, and the intent to take action among eligible non-participating customers.

## Structure of the Report

The methodology for the process evaluation is provided in Section 3 followed by the evaluation findings in Section 4. Section 5 contains recommendations and conclusions, and the appendices provide the data collection instruments used for this evaluation.

### 3. Evaluation Methods

The process evaluation used data from three data collection methods: in-depth interviews, structured quantitative telephone surveys, and review of secondary data. In-depth interviews provided the evaluation team with a comprehensive understanding of the program and progress towards statewide integration. In-depth interviews were conducted with 9 program managers and 10 program vendors. Additionally, three Computer Aided Telephone Interview (CATI) surveys were administered, one to a sample of 2009 and 2010 program participants, one to a sample of partial participants – those who received an audit through the program in 2010 but declined to implement the recommended measures – and the third to a sample of non-participating small non-residential customers. Secondary data received from the PAs and in-depth interviews provided context for the report while we analyzed the CATI surveys using descriptive statistics.

#### Telephone Surveys

The evaluation team implemented CATI telephone surveys with a sample of 2009 and 2010 program participants, as well as partial participants and non-participating small business customers. The sample of participant and partial participant projects was selected from data provided by the PAs in fall 2010. The evaluation team drew the non-participant sample from customer account data provided by the PAs around the same time. The following sections outline the sampling approach used for each survey effort.

#### Program Participant Survey

A telephone survey was completed by 140 program participants. The survey included completed interviews with 70 participants from 2009 and 70 participants from 2010. The survey focused on participant decision-making, the measure selection process, and program satisfaction. The survey was fielded in March and April 2011 and achieved a response rate of 8% with a cooperation rate<sup>4</sup> of 40%.

The sample of participants was based on the program-tracking files that the PAs provided. The sample frame included all unique program participants with valid contact information. A random sample was drawn using set survey quotas for each PA in proportion to their representation in the overall participant population to ensure that the sample was representative of the overall participant population touched by the program.

The total number of completed interviews, shown in Table 2, provides results at 90% confidence and 7% precision for the entire participant survey sample.<sup>5</sup> These interviews represent the following sectors: retail (36%), office (22%), warehouse (12%), and full service restaurant (10%).<sup>6</sup>

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<sup>4</sup> The cooperation rate reflects the percentage of participants who completed a survey after being contacted.

<sup>5</sup> Note that results are presented by sub-group. As a result, the precision level applies to all participant survey results.

<sup>6</sup> Other sectors include: automotive services (6%), grocery (5%), school (4%), and healthcare/hospital (2%).

**Table 2. Participant Survey Sample Design**

Year	Program Administrator	Population*	Sample Frame	Sample	Completed Interviews
2009	Cape Light	271	214	89	6
	National Grid	1,086	927	659	27
	NSTAR	1,516	1,142	375	32
	Unitil	48	40	16	1
	WMECO	196	155	65	4
2009 Sub-Total		3,117	2,478	852	70
2010	Cape Light	93	55	17	2
	National Grid	956	778	562	28
	NSTAR	1,271	998	326	35
	Unitil	17	5	5	-
	WMECO	235	132	44	5
2010 Sub-Total		2,572	1,968	1,306	70
<b>Total</b>		<b>5,689</b>	<b>4,446</b>	<b>2,158</b>	<b>140</b>

\*Population figures are based on unique account numbers whereas the sample frame is the number of unique phone numbers.

### Partial Participant Survey

A telephone survey was completed by 70 partial participants who received an audit in 2010. The survey focused on partial participant decision-making, interest in alternative program design options such as financing and incentive levels, and program satisfaction related to their experience. The survey was fielded in March and April 2011 and achieved a response rate of 5% with a cooperation rate of 20%.

The sample of partial participants was based on the program-tracking files that the PAs provided, and we included all unique partial participants with valid contact information in the sample frame. As shown in Table 3, only Cape Light Compact, National Grid, and WMECO maintain partial participant tracking data. As a result, only customers served by these PAs were interviewed.

Similar to the participant survey, a random sampling approach was implemented and survey quotas were set for each PA in proportion to their representation in the overall population to ensure that the sample was representative of the overall partial participant population. The total number of completed interviews provides results at 90% confidence and 10% precision.<sup>7</sup> Interview respondents represent the retail (33%), office (13%), healthcare/hospital (9%), automotive services (9%), and nonprofit (9%) sectors.<sup>8</sup>

<sup>7</sup> Note that partial participant results are presented by sub-group. As a result, the precision level applies to all partial participant survey results.

<sup>8</sup> Other sectors include: warehouse (7%), grocery (4%), full service restaurant (3%), hotel (3%), school (1%), and fast food restaurant (1%).

**Table 3. Partial Participant Survey Summary**

PA	Population*	Sample	Completed Surveys
Cape Light Compact	56	50	3
National Grid	1,298	1,101	59
WMECO	222	173	8
<b>Total</b>	<b>1,576</b>	<b>1,324</b>	<b>70</b>

\*Population figures are based on unique account numbers whereas the sample frame is the number of unique phone numbers.

### Non-Participant Survey

A telephone survey was conducted with a random sample of 70 non-participating small business customers (i.e., 300 kW or less). This survey focused on program awareness, barriers to participation, and interest in various program design options. The survey was fielded in March and April 2011 and achieved a response rate of 7% with a cooperation rate of 12%.

The sample of non-participants was based on the customer database files that the PAs provided, and customers were screened to only include those with 300 kW or less in annual demand. However, data related to customer demand was available only in some of the PA data files provided. The evaluation team attempted to estimate values for those customers where PA data was unavailable. Customers for whom a kW estimate could not be assigned were not included in our sample or analysis.

The total number of completed interviews shown in Table 4 provides results at 90% confidence and 10% precision.<sup>9</sup> Interview respondents represent the retail (33%), office (11%) and warehouse (13%) sectors.<sup>10</sup>

**Table 4. Non-Participant Survey Summary**

PA	Population*	Sample Frame	Sample	Completed Surveys
Cape Light Compact	27,448	11,349	106	5
National Grid	153,283	84,357	785	51
NSTAR	120,555	66,731	522	25
Unitil	4,309	2,228	17	1
WMECO	16,712	8,519	67	4
<b>Total</b>	<b>322,388</b>	<b>173,184</b>	<b>1,497</b>	<b>71</b>

\*Population figures are based on unique account numbers whereas the sample frame is the number of unique phone numbers.

<sup>9</sup> Note that non-participant results are presented by sub-group. As a result, this precision level applies to all non-participant survey results.

<sup>10</sup> Other sectors include: real estate or rental properties (16%), automotive service (7%), nonprofit organization (6%), full service restaurant (3%), fast food restaurant (3%), and healthcare/hospital (1%).

## In-Depth Interviews

### **Program Administrator Interviews**

In-depth interviews with program staff were used to develop an understanding of program implementation and key processes, as well as to gather information related to the status of statewide integration. Interviews were completed with 9 program managers, one from each PA.

### **Program Vendor Interviews**

In-depth interviews were completed with 10 vendors from firms implementing the DI programs. Among those PAs who work with multiple vendors, companies were randomly selected. The interviews focused on current program processes, marketing and outreach, program changes, the introduction of gas measures, and recommendations for program improvement.

## 4. Findings

### Program Design and Administration

The goal of the Small Business Direct Install (DI) Program is to achieve energy savings through the direct installation of energy efficient measures and upgrades in customer facilities. The direct installation model reduces participation barriers due to cost and a lack of staff resources and expertise to identify energy efficiency opportunities.

### Vendor Relationship

Vendors play a significant role in program implementation. They are largely responsible for recruiting program participants and overseeing the scheduling of initial customer visits. Vendors also deliver all of the program services to participants such as performing the audit of customer facilities, developing proposals for recommended measures, and processing all paperwork required by the Program Administrators (PAs). As such, they are the central mechanism for implementing the DI Program.

All of the PAs use one or more vendors to implement the program within their service territory. While the larger electric PAs use between four and six different vendors, the smaller gas and electric PAs each use their own single vendor. There is also some overlap among the firms implementing the DI Program across the PAs. For example, companies such as RISE Engineering, National Resource Management, and PRISM work with both National Grid and NSTAR.

As part of the program implementation process, the PAs provide their vendors with training related to the program on a regular basis. Additional training sessions may also include specific technologies, as well as sales training in order to improve closure rates. Technology specific trainings may focus on LED and other new lighting measures, controls, or refrigeration measures.

### Intake Process

Customers enter the program through direct contact with a program vendor or may contact the PA program manager or vendor directly in response to program marketing, which could include brochures and flyers or information received at an event where program staff is present.<sup>11</sup> Once contact is made with the program, the program manager will either refer the customer to the appropriate vendor so that an audit appointment can be made, or the vendor will record the necessary information from the customer and schedule the audit of that customer's facility.

In cases where the PAs work with more than one vendor, vendors are assigned to customers by program managers based on the technical needs of the installation (e.g., lighting, refrigeration) and geographic location of the customer. PAs may also advise vendors on how long the audit process should take. For example, vendors are given a certain number of days to contact the customer, send the customer application to the PA for approval, complete the audit, and send the

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<sup>11</sup> Additional detail regarding program outreach and customer recruitment is provided in the Program Outreach and Awareness Section.

list of recommended measures back to the PA for approval. Vendors also have a certain number of days to install the equipment and complete a post-installation inspection.

### **Audit and Project Specification Process**

During the audit, the vendor will assess the facility and determine if there are opportunities to install more efficient equipment including lighting, refrigeration, or variable frequency drives (VFDs). In general, all program vendors provide services related to all end-uses. However, National Grid, NSTAR and Cape Light Compact share one vendor, which focuses on refrigeration and refrigeration lighting. The program's goal is to simplify the process for customers and eliminate the need for them to work with multiple vendors. As a result, multiple visits to a customer facility by different vendors would be unusual.

Following the audit, the vendor presents the customer with an audit report and proposal, which the customer will either agree to implement in part or in full, or decline. The report provided to the customer illustrates annual savings estimated as a result of installing the recommended measures. The vendor will also communicate with them about the 70% incentive level for the program and their responsibility to pay 30% of the total project cost.<sup>12</sup> In the event that the participant's PA offers on-bill financing, the vendor will also ask them to specify their preference in terms of repayment terms.

The vendor schedules a time to complete the installation upon reaching agreement to install the recommended measures and after receiving approval from the PA. Should a customer decline to install all of the measures, the vendor may retain a copy of the proposal presented to that customer. Some vendors and PAs track this information electronically and have access to it through their program tracking databases. However, this is not a universal practice. Further, there is no documentation of the reasons why the customer decided not to move ahead with the project.

### **Direct Installation Process**

During the installation appointment, the vendor installs the measures agreed to by the customer and PA. In some cases, this work can be done immediately following the audit; in other instances the vendor will schedule another time to return and complete the installation. The number of days required to complete the work varies depending on the scope of the project.

After the equipment is installed, the customer signs a document to certify that the installation was completed according to their specifications. Some PAs use additional recycling vendors to recycle the equipment removed from the customer's facility while other PAs such as Cape Light Compact, use the vendor that provided the DI services to customers for recycling. According to information obtained during in-depth interviews, National Grid specifically contacts recycling vendors after the installation to remove the old equipment.

### **Customer Payment**

As previously described, the customer is responsible for a portion of the cost associated with their energy efficiency project. With the exception of Cape Light Compact, which offers non-

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<sup>12</sup> Cape Light Compact provides an 80% incentive and requires customers to cover 20% of the project cost for non-municipal projects. Municipal projects have no co-pay and all projects are capped at \$150,000.

municipal customers a 20% co-payment and waives co-payment for municipal customers, participants pay 30% of the project cost. Depending on the PA, participants may have the option to include their contribution on their electric bill or on a separate bill provided by the PA. If the PA does not offer this type of financing, the customer will receive an invoice for payment from the PA or in the case of Cape Light Compact the customer pays the program vendor directly.

## Statewide Program Integration

In 2010, the PAs began transitioning to a uniform statewide delivery model to standardize program processes and offerings. The key program design components affected by this policy decision include: a standard eligibility cap and incentive level, the integration of prescriptive gas measures, and the availability of on-bill financing and specific repayment terms and discounts. In addition, the 2010-2012 Massachusetts Joint Statewide Three-Year Electric Energy Efficiency Plan (the three-year plan) calls on the PAs to develop a program option for mid-tier customers (300-750 kW) and pilot a Main Street program for the smallest commercial and industrial customers.

### Progress towards Integration

The PAs have made significant progress towards the integration goals over the course of 2010. Table 5 below presents the integration goals and a snapshot of advancement towards them as of fall 2010. At the time of the in-depth interviews with program staff, New England Gas was in the process of developing their DI Program and Columbia Gas (formerly Bay State Gas) still had their Partners in Energy Program in place, which provides an audit and select measures to small businesses, but is not turn-key in nature.

**Table 5. Overview of 2010 Integration Goals and Progress by PA**

Integration Goals <sup>13</sup> Program Administrator	Eligibility Cap	70% Incentive Level	Gas Measures	On-bill financing available	Other financing available	Discount for single payment	Flexible repayment terms	Negotiate billing of gas measures through electric PAs
Cape Light Compact*	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
National Grid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NSTAR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
WMECO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
Unitil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Berkshire Gas							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
New England Gas								
Columbia Gas								

\*Note: Cape Light Compact offers an 80% incentive level to participating customers.

The following sub-sections provide a more detailed description of the changes made to the program.

### Establishment of a Common Eligibility Cap

As part of the statewide effort to offer comprehensive services to small business customers, all the PAs instituted a common eligibility cap of less than 300 kW in annual demand. Prior to 2010, only NSTAR's eligibility cap was at 300 kW. All other PAs with existing DI Programs increased the cap for participation from either 200 kW or 100 kW in 2010. Prior to this change, each PA had maintained consistency in their company's eligibility criteria since at least 2008.

Vendor perceptions of the change in eligibility for the program are positive. For those offering services through the DI Program, the change provides a larger target population for the program and has been easy to implement. As noted by one vendor:

*Increasing it to 300 kW or 200 kW, there [were] no obstacles associated with that at all, because the pool of people who are eligible, you know only increased, so that was a great thing to increase that.*

<sup>13</sup> 2010-2012 Massachusetts Joint Statewide Three-Year Electric Energy Efficiency Plan. October 29, 2009.

Given that the larger customers now eligible for the DI Program were previously served by the large commercial and industrial (C&I) programs, there is interest in better understanding their experience with the DI model. In particular, the PAs would like to know what they perceive as the benefits and drawbacks of the model, as well as how they view the large C&I program offering. Conducting additional research in this area will allow the PAs to address any potential challenges associated with serving customers of this size.

### **Establishment of a 70% Incentive Level**

As illustrated in Table 5 above, all PAs with active DI Programs have succeeded in changing the incentive level offered through the program. As specified in the Three Year Plan, Cape Light Compact is exempt from this change in 2010 as a result of plans to negotiate the use of NSTAR billing services. However, given that negotiations have not been successful, Cape Light Compact will continue to use the 80% incentive level in 2011. Overall, the establishment of the 70% incentive level meant a significant increase for one PA, a slight increase for another, and consistency with existing levels for two other PAs. Key findings related to the change in incentive level include:

- There are different views among the PA staff on the preferred incentive level. While there has been an effort to align incentive levels, some PAs would like to raise the incentive level in the future. In contrast, other PA representatives commented that the 70% incentive may be too high. Additionally, for some PAs, the incentive amount for the DI Program has been declining over time and there is a recognition that it may need to fall below the 70% level at some point in the future in order for the program to reach a larger number of customers and meet increasing savings goals within the available budget.
- Implementing the new incentive level caused some challenges for vendors promoting the program and recruiting customers in the field. As noted by one vendor:

*Whenever you lower the incentive, it always becomes more difficult to sell. I mean there's a direct correlation between having a higher incentive and the number of people that participate and we know this because we participate in probably 20 different programs along the East Coast... The better the incentive, the more people participate. So when you go back and you present something after the incentive has gone down, it absolutely makes it more difficult to sell, and we kind of went through that bumpy period after it went from 80% to 70%.*

Customer perceptions of the incentive level offered through the program are described later in the report, but overall there are high levels of satisfaction with this aspect of the program.

## Identification and Addition of Prescriptive Gas Measures

The integration of gas and electric program offerings required the identification of measures to include in the program, the development of program processes and systems to handle projects containing these measures, and the training of program vendors to perform this work. As illustrated in Table 6, the PAs continued to offer a suite of electric measures through the program, but also added a number of gas measures in 2010.

**Table 6. Program Measures**

Program Measures
Compact fluorescent lamps
LED lighting
Linear fluorescent lighting
Metal halide lamps
LED exit signs
Occupancy sensors
Photocells
Chiller
ECM motors
Efficient fan motors
Variable speed drives
Evaporator fan and evaporator fan motors
Controls (door heater, freezer door heater, and fan etc.)
Boiler reset controls
Programmable thermostats
Time clocks
Refrigeration measures
Vending misers and controls
Spray valves
Faucet aerators

\*Source: 2010 PA tracking data through October 2010 and in-depth interviews.

The following are key findings based on our exploration of PA and vendor perceptions of these measure changes through in-depth interviews:

- In general, the integration of gas measures has progressed smoothly. The PAs identified measures to include in the program and program vendors have been trained on the identification of gas savings opportunities, as well as the measures now offered through the program. The assessment of both gas and electric measure options for the customer during the audit streamlines this process. In addition, the electric and gas PAs work together to administer the program to customers served by multiple PAs. This coordination ensures that customers with multiple PAs only have to interact with one of them in order to participate in the program.
- Providing training to program vendors has been a critical step in the integration process. In many cases, electric PAs have worked with their vendors for many years and the focus has consistently been on identifying and installing electric measures. As a result, the PAs

have worked diligently to organize training sessions and ensure their staff is equipped to implement this new aspect of the program. As PA staff noted during in-depth interviews:

*This year we've added gas measures to the program; we have seven gas measures. So what they wanted to do was make it so that when the vendors' auditors go out there, they want to make sure that they're very comprehensive, and they start adding gas measures to the customers locations, if they're served by natural gas.*

*I think the biggest challenge was to train the actual contractors to identify these gas measures. These are basically electricians going in...businesses and focusing on electric measures such as lighting and motors and air conditioning, but now they have to identify gas measures as well. I think the training has been going well.*

- National Grid and NSTAR have taken steps to establish the billing systems necessary to invoice gas PAs for the work performed through their vendors. In most cases, the program is delivered through the electric PAs who then invoice the individual gas PAs for the jobs conducted with their customers.
- Within Cape Light Compact territory, the DI Program vendor, RISE Engineering, handles all billing for gas measures as this vendor is also used by National Grid – the only company providing gas to customers served by Cape Light Compact.
- The addition of gas measures to the program has not had a significant impact on participation levels. However, National Grid staff report that customers who previously received electric measures through the program are coming back to take advantage of the gas measures available. The PAs ability to target past participants is one way in which the program may seek to increase participation in the coming years.

## Project Financing

The integration of the PA DI Programs also calls for a number of changes related to program financing options and mandates that certain options are available to participating customers. First, the PAs are looking to offer on-bill financing as part of the standardized direct install package. As indicated in Table 5, National Grid, WMECO and Unitil all offer on-bill financing.<sup>14</sup> In lieu of on-bill financing, NSTAR offers sundry billing through which customers receive financing through the PA, but pay off their project costs on a separate bill. In addition, New England Gas has plans to implement on-bill financing in 2011.

Among the gas PAs, the goal identified in the Three-Year Energy Efficiency Plan is to take the necessary actions to provide on-bill financing by 2011 or, as an alternative, negotiate arrangements with the electric PAs servicing their areas to bill gas measures through the electric bill. Gas PAs would then reimburse the electric PAs for measure and financing costs of projects completed by their customers. As they develop their DI Program offerings and coordinate with the electric PAs to administer the program, New England Gas and Columbia Gas will determine how to implement this program component.

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<sup>14</sup> As of 2011, the PAs now refer to on-bill financing offered through the DI Program as on-bill repayment.

In addition, there is a statewide goal for those PAs that offer financing to participating customers to offer a common discount for a single customer payment. As of November 2010, when the evaluation team conducted PA interviews, National Grid was the only PA providing a discount of 15% when full payment is received at one time. PAs that offer financing must explore flexible repayment terms to produce a positive cash flow for customers beyond 24 months. Based on interviews with program managers, few PAs have developed a specific approach to meet this goal.

### **Customer Perception of Integration**

From the vendor perspective, changes to the program over the past year have generally been seamless for PA customers. Most vendors involved in the program note that businesses are unaware of recent modifications unless they had received a proposal from a program vendor prior to implementation of the change. Detailed findings about the experience of participating customers are provided in Section **Error! Reference source not found.** of this report.

### **Integration Processes - Communication and Coordination**

As part of the integration process, the PAs are in regular communication with one another and utilize monthly in-person meetings about all the PA C&I programs and as-needed email and phone communication to discuss changes to the program. To some extent, the larger PAs, such as NSTAR and National Grid, have led this effort, but all of the PAs appear engaged and those we spoke with are satisfied with the structure in place.

The PAs have also ensured that their coordination extends to the vendor community implementing the DI Program throughout the state. As one program manager noted, the practice of regular interaction on the implementations side was particularly helpful when larger program changes were made in 2010.

*One of the other points of integration are the workshops that we have with the vendors themselves where there will be - I believe it's at least quarterly meetings, and all the vendors for the direct install program come together, get updates on the program, meet whoever's joined the group, discuss program direction, discuss changes in the program, and then for the program year 2010 there were significant changes that the PAs had to learn and integrate into their delivery. That's especially so for the gas side. Typically we met - the electric side was concerned with the electric, and gas with the gas [side], but now everyone's at the same table, vendors and PAs.*

While the integration process has gone smoothly, PA program managers did identify some minor challenges encountered through this process. First, the different internal decision making processes and timelines at each PA made it difficult for PAs to institute changes to the program simultaneously. Second, on the administrative side, some program managers noted that determining how to allocate training costs across the PAs was difficult.

## Program Participation

### Participating Customers and Partial Participants

As of September 2010, 5,689 unique Massachusetts small business customers participated in the DI Program across all of the PAs in 2009 and 2010.<sup>15</sup> The majority of participating customers (65%) own and occupy the facility in which the program measures were implemented. In addition, all participating customers are responsible for paying the electric bill while a slightly lower percentage of the customers (91%) are responsible for paying the gas bill.

Significantly fewer partial participants (51%) own the facility where they received the audit when compared to participants (65%). Similar to participants, all partial participants pay their company's electric bill and most (91%) pay their gas bill.

### Non-Participant Profile

Forty-four percent of non-participants own and occupy their facilities, while 35% rent their facilities and 21% own the facility, but rent it to someone else. Nearly all (94%) pay their electric bill and 71% pay their gas bill.

Over half of the non-participants who do not own their facility (58%) indicate that the building is managed by another entity such as the building owner or a property manager. These customers have varying levels of decision-making authority related to the installation of energy efficient equipment at their facilities. For example, while more than half of these non-participants (60%) make decisions about installing refrigeration equipment, slightly less than half make decisions about the installation of lighting measures (48%) or fan motors (42%).

The fact that many non-participating customers do not make decisions about these types of energy efficient equipment installations illustrates the importance of working with property managers and building owners to explain the value of energy efficient equipment and ensure that building tenants have the support they need to make facility improvements encouraged by the program.

## Program Outreach and Awareness

### Overview of Marketing and Outreach Activities

The PAs and vendors use a combination of marketing and outreach strategies targeted to the small business population. While the marketing and outreach activities used for the program vary by PA, the programs generally focus their promotional efforts in the following areas:

- **Direct outreach by program staff and vendors.** This includes in-person visits by vendors to customer facilities, as well as the PAs maintaining a presence at community and business association events.
- **Targeted mailings and communications.** PA program staff and vendors develop and distribute marketing collateral to eligible customers through direct mail and email. Most

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<sup>15</sup> The total number of unique participants listed reflects the population in the PA databases provided to the evaluation team in fall 2010 and is based on unique account number.

PAs rely on their vendors to implement outreach efforts, and they frequently provide vendors with brochures and fliers for distribution to potential customers.

Some PAs also promote the program through coordination with local organizations active in their service territory in order to reach a broader audience of potential participants. For example, Cape Light Compact uses its relationship as a liaison to the Cape Cod Chamber of Commerce to raise awareness of the program. Cape Light Compact has also worked collaboratively with the Chamber of Commerce to implement the Cape and Islands Green Initiative, which provides information about energy conservation and encourages business customers to participate in energy efficiency programs.

In general, the use of statewide marketing materials by the DI Programs is limited. Program staff at New England Gas mentioned the use of MassSave.com as part of their marketing plan for the program. However, there has generally been limited use of statewide materials within this market segment given the difficulty in reaching these customers, as well as the success of direct outreach.

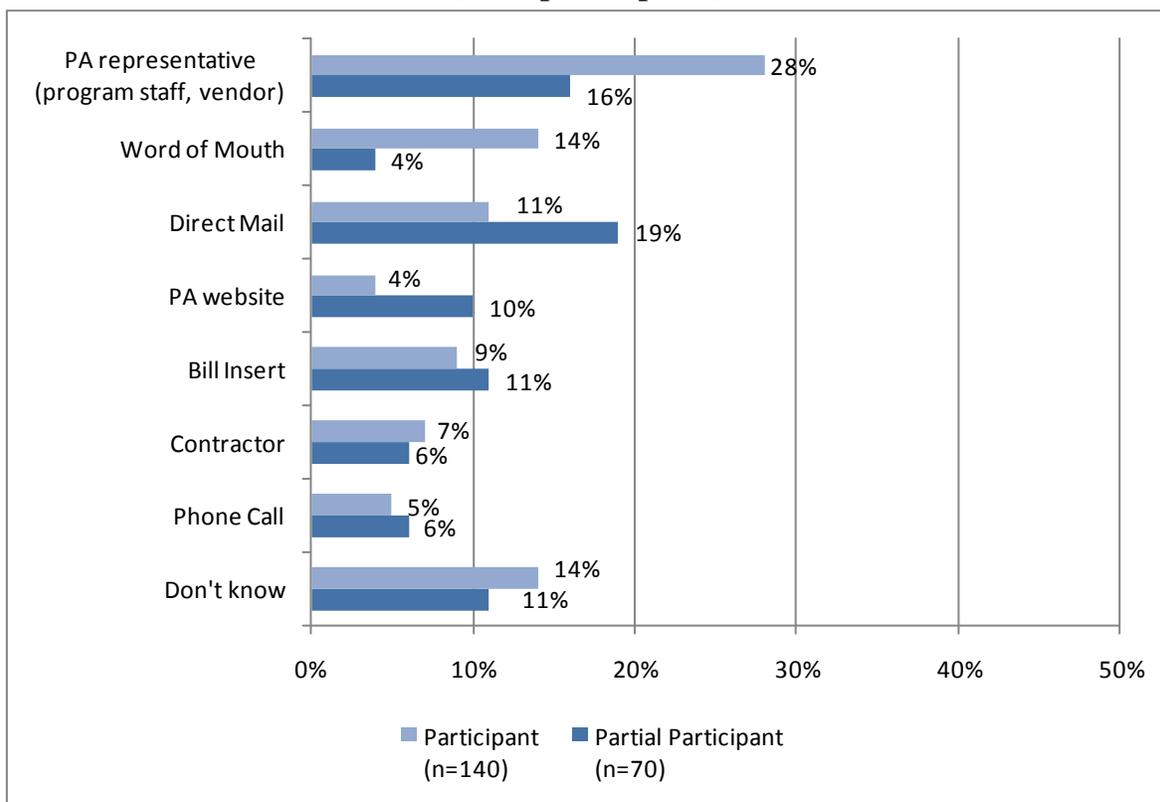
The marketing and outreach mechanisms used by the program have generally been effective in educating small business customers about the program and its benefits. While program awareness cannot be directly correlated with marketing and outreach activities conducted within the framework of the program, research results suggest that many program participants and partial participants learn about the program through the program's primary marketing channels: PA/vendor representatives and direct mail.

### **Customer Outreach**

Both PA program staff and vendors perform marketing and outreach for the program, although their role and level of involvement varies by PA. Vendors may educate potential participants about the program through regular visits with their current customers or by disseminating marketing materials such as brochures and letters. A number of the larger PAs also attend business expos and community events to engage with customers and educate them about program offerings. Customer outreach is also slightly different among the gas PAs, which are in the early stages of developing and implementing DI Programs. For these PAs, if marketing takes place, it is mainly done through the electric PAs.

The communication channels mentioned by both program participants and partial participants generally match the strategies employed by the PAs. In particular, program participants most often report learning about the program through PA representatives (28%), who could be a PA staff member, customer service representative, or a vendor representing the program. Among participants word of mouth (14%) is also a common way for businesses to learn about the program. As illustrated in Figure 1 partial participants most often learn about the program through direct mail (19%) or a PA representative (17%).

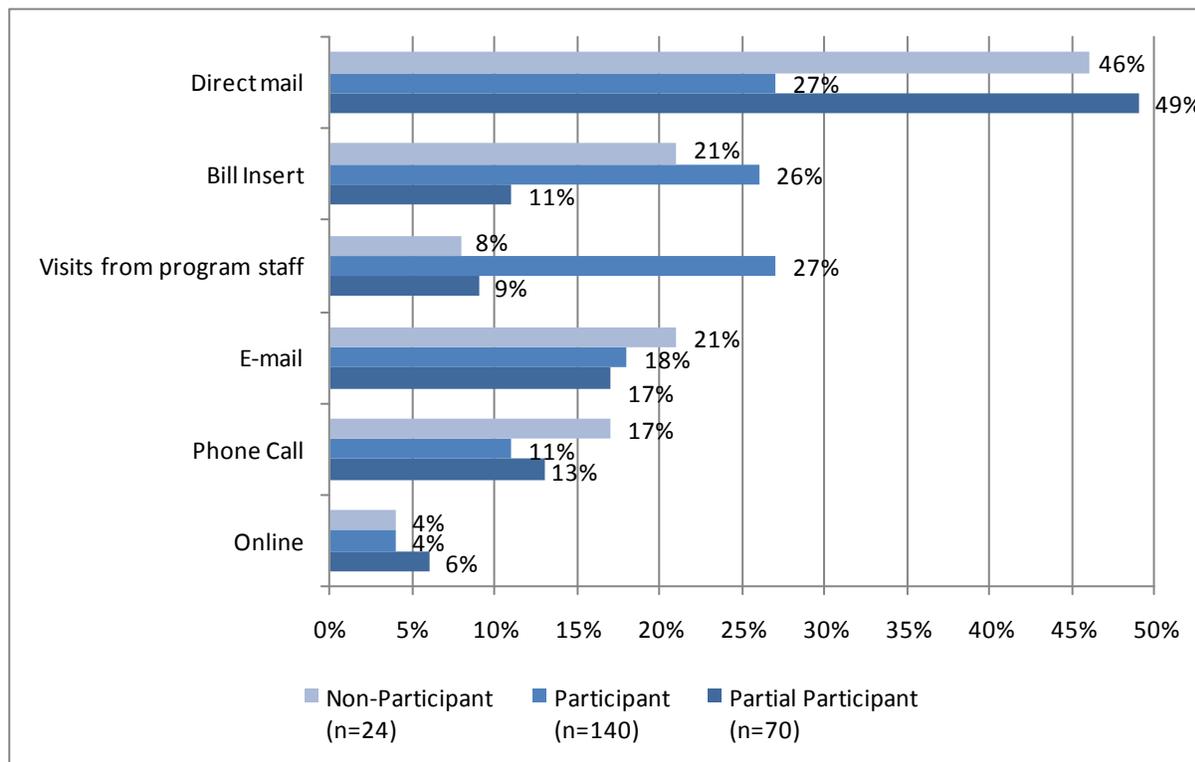
**Figure 1. How Participants and Partial Participants Learned about the Program (Multiple Response)**



Across all of the groups surveyed, small business customers report that direct mail is the best way to reach them with information about energy efficiency program opportunities. However, partial participants (49%) and non-participants (46%) are more likely to provide this response than participants (27%). In contrast, participants (27%) are more likely to say that visits from program staff or vendors are the best way to provide information about programs like the DI Program than partial and non-participants (9% and 8%, respectively).

As illustrated in Figure 2, bill inserts (26%) and visits from program staff (27%) are also popular suggestions among participants while email (17%) and phone (13%) are the next most frequently cited methods by partial participants.

**Figure 2. The Best Way to Reach Companies with Information about Energy Saving Opportunities like the DI Program (Multiple Response)**



While direct mail already plays a role in program outreach efforts, it appears that this marketing tactic could make a larger contribution. Based on interviews with PA staff, three of the five electric PAs report using direct mail to reach customers with information about the DI Program, but to a limited extent:

- NSTAR does not send letters or direct mail to potential customers, but does provide vendors with brochures and fliers so that they can send DI Program information along with their own marketing materials.
- Cape Light Compact works with vendors to implement outreach efforts. This PA collaborates with a small marketing team at RISE Engineering to prepare targeted mailings that include brochures with DI Program information for potential customers.
- WMECO does send letters to customers that describe the program, but this activity is a small part of the overall marketing and outreach strategy for the DI Program. According to the program manager, most WMECO program participants learn about the program through program vendors.
- National Grid has sent direct mail to Massachusetts customers in general, but not as a specific aspect of the DI Program marketing strategy. The PA also sent direct mail to previous C&I program participants in the fall of 2010; and targeted mailings to the

communities of Athol and Lowell in November 2010 as part of hybrid Main Streets program approach.<sup>16</sup>

- Unitil does not send any form of direct mail to potential customers.

While many partial participants note that direct mail is a good way to reach them about program opportunities like the DI Program, this type of outreach may not always reach the key decision-makers at customer facilities. As a result, while partial participants find this form of marketing attractive, the PAs should use direct mail efforts as a supplemental recruitment strategy in conjunction with direct outreach in their efforts to reach eligible small business customers in the future. In addition, based on feedback from participants, the program should continue to use the direct outreach model to target potential participants and inform them about energy efficiency programs.

### **Program Awareness**

Over half (54%) of non-participating customers are aware that their PA offers programs to help small business customers save energy.<sup>17</sup> However, after being read a description of the DI Program, 66% of respondents said they had not heard anything about it. Given the program's use of in-person contact and the fact that information about the program is often disseminated by word of mouth, it is not surprising that marketing messages have not reached a larger proportion of non-participating customers.

Among those aware of the DI Program, familiarity is relatively high: half (50%) of non-participants who have heard about the program consider themselves somewhat familiar with it, while 17% consider themselves very familiar. This finding suggests that program marketing efforts are effective in educating customers about the program when they are reached.

## **The Participation Process**

### **Missed Opportunities**

While the audit process provides a valuable opportunity to educate customers about other PA program offerings, it appears that there is limited dissemination of information as part of this process. For example, only 26% of participants received information about other PA programs available to commercial and industrial customers through their engagement with the program.<sup>18</sup>

Overall, program participants also demonstrate limited awareness of the fact that program vendors can identify custom projects while at their facility. Fifty-five percent of program participants were not aware of this opportunity, suggesting that the PAs could better leverage the contractor visits to identify custom projects and channel customers into other PA-sponsored programs. National Grid program staff note that their vendors do complete some custom lighting work at participant facilities, although these projects are rare.

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<sup>16</sup> Main Streets is a component of the DI Program aimed at serving the smallest business customers.

<sup>17</sup> As outlined in the Methodology Section, non-participants served by Cape Light Compact, National Grid, NSTAR, Unitil, and WMECO were included in the survey.

<sup>18</sup> The majority of those who got additional information believe the PAs developed these materials (60%) as opposed to the program vendor (40%).

## Drivers of Program Participation

Lower energy bills and financial support from the program were the biggest motivating factors for participation in the program. As shown in Table 7, slightly more than two-thirds (67%) of participating customers indicate that the expectation of reduced energy bills most influenced their decision to install new energy efficient equipment at their facility while another 18% of participating customers indicate that the program incentive level was the most influential factor.

**Table 7. Motivation for Program Participation**

Reasons to Participate	Percentage of Customers (n=140)		
	#1 Reason	#2 Reason	#3 Reason
Reduce my energy bills	67%	23%	8%
The incentive level	18%	28%	31%
Equipment helps my company's impact on the environment	5%	28%	39%
Access to financing on a separate bill*	5%	3%	10%
Access to financing on my electric bill*	4%	12%	13%
Don't know	1%	1%	7%

\*Note: We asked only those participants served by a PA offering this program component whether it was important.

## Reasons for Non-Participation

Partial participants decide not to move beyond the audit stage as a result of monetary and management constraints. For example, when asked why they decided not to install the equipment recommended to them by the program vendor, partial participants cited the cost of the equipment (22%) and the need for corporate approval (11%) as two of the biggest reasons. As a result, when asked what, if anything, their PA could have done to cause them to install the equipment, 19% said lower the cost or provide financing. Thirty-five percent said there was nothing the program could have done that would make a difference in their decision.

Partial participants also note that current program processes are clear and therefore not a contributing factor in the decision not to participate. Over three quarters of partial participants (89%) felt the process for participation was explained well.

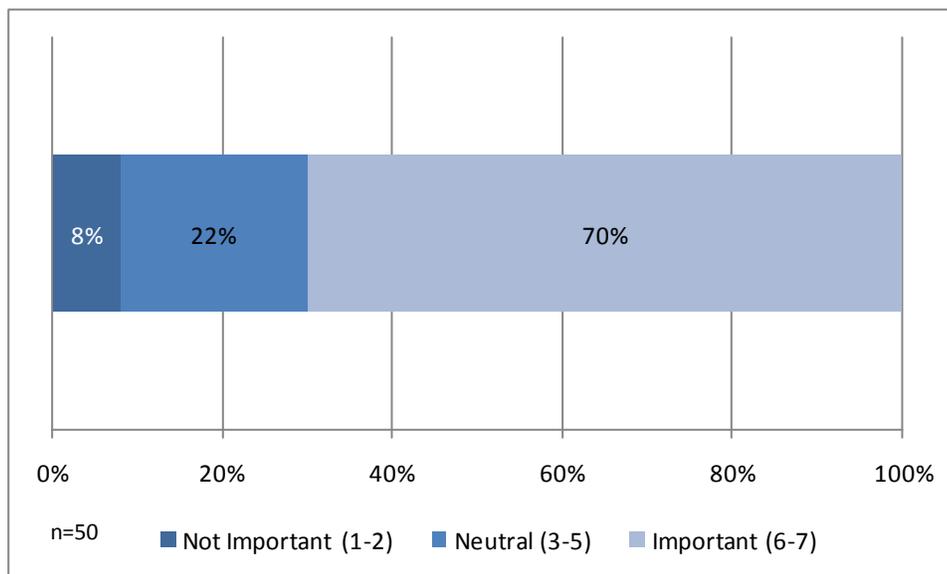
## The Role of Financing in Participant Decision-Making

The evaluation team further explored the influence of financing on customer participation in the program. In general, there are two types of financing available to participants across the state; on-bill financing and financing provided on a separate bill. National Grid, WMECO, and Unitil customers are eligible for on-bill financing while NSTAR customers are eligible for financing that involves paying off project costs on a separate bill. In total, 97% of survey respondents were eligible for some form of financing.

Overall, a moderate number of participants take advantage of financing. For example, close to 40% of the surveyed participants (39%) report receiving financing in some form. The availability of the zero interest financing provided by the program plays an important role in customers' decision to participate in the program. Among all participants who received financing of either type, more than half (52%) report that it was extremely important in their decision to install

equipment through the program (a score of 7 on a 1 to 7 scale, where 1 is “not at all important” and 7 is “extremely important”). In addition, nearly half of participants who received financing off-bill (48%) would have been unlikely to install the energy efficient equipment (a score of 1 or 2 on a scale of 1 to 7, where 1 is “not at all likely” and 7 is “extremely likely”) if financing had not been available; 40% are indifferent (a score of 3 to 5).

**Figure 3. Importance of Zero Interest Financing on Customer’s Participation Decision**



In general, on-bill financing is particularly popular among those participants who were eligible to receive it. Of the eleven 2010 participant respondents, ten took advantage of and reported high satisfaction with the on-bill financing terms. The mean satisfaction rating provided was 6.1 on a scale from 1 to 7 where 1 is “extremely dissatisfied” and 7 is “extremely satisfied”.

### Measure Selection

In terms of selecting the measures to install through the program, almost all participants (94%) report that they installed all of the equipment recommended to them by the program vendor.<sup>19</sup> Among the seven interviewed participants who explained why they did not install all the equipment proposed, three said the contractor did not have the appropriate equipment or was not prepared at the time, three said someone else made the decision not to install the equipment, and one was not sure the measure would lower energy use.

In addition, over two-thirds (70%) of participants are satisfied with the equipment offered by the program (a rating of 6 or 7 on a scale from 1 to 7 where 1 is “extremely dissatisfied” and 7 is “extremely satisfied”) while 28% are neutral (a rating of 3 to 5 on the same scale). When asked an open-ended unprompted question about what other types of energy efficient equipment they would like to install in the future, 35% of participants said they were not interested in anything in

<sup>19</sup> While the evaluation team did not have data on recommended versus installed measures to compare with these responses, both the vendors and program staff we spoke with indicated that most participants install everything that is recommended to them.

addition to what the contractor recommended. Partial participants had a similar response with 30% indicating there are no additional measures of interest outside the program. Across both groups, respondents mentioned HVAC most frequently as an end-use they are interested in.

**Table 8. Type of Equipment Participants Are Interested in Installing in the Future\***

Equipment of Interest	Participants (n=140)	Partial Participants (n=70)
Nothing in addition to program offerings	35%	30%
HVAC equipment	22%	26%
Solar/Alternative Energy Equipment	9%	5%
Insulation	6%	2%
Energy-Saving Appliances	4%	-

\*Note: The evaluation team asked respondents: “Aside from what the contractor recommended after your energy audit, what other types of energy efficient equipment would your company like to install in the future?”

In response to the same open-ended question, participants and partial participants also expressed an interest in end-uses currently included in the program. For example, respondents say they are interested in installing refrigeration equipment (9% participants and 16% partial participants), lighting, and occupancy sensors (8% participants and 21% partial participants). Customers may not be aware that this equipment is included in the program if it was not part of the package recommended to them by the program vendor. However, there is no indication that vendors are not providing comprehensive recommendations.

## Program Satisfaction

### Participant Satisfaction

In general, satisfaction with the DI Program is high. Around half of participants (53%) are extremely satisfied with the program (a rating of 7) and mean satisfaction ratings are high across all program elements, as well as for the sponsoring PAs.

**Table 9. Participant Mean Satisfaction Ratings by Program Element**

How would you rate your satisfaction with...?	Participants (n=140)	Partial (n=70)
The incentive level	6.2	-
The equipment offered through the program	6.0	5.2
The program overall	6.1	5.4
The PA	6.1	5.5

\*Note: Scale is from 1 to 7 where 1 is “extremely dissatisfied” and 7 is “extremely satisfied.”

In terms of program delivery, both participants and partial participants gave high marks to the contractors performing the work and their level of professionalism. While still high overall, participants ranked program metrics related to the timeliness of project work the lowest of the program components. However, customers who participated in the program during 2009 are

more likely to be satisfied (a score of 6 to 7) with the length of time it takes to install the equipment than those who participated in 2010 (81% and 64%, respectively).<sup>20</sup>

**Table 10. Participant Mean Satisfaction Ratings for Program Delivery Components**

How would you rate your satisfaction with...?	Participants (n=140)	Partial (n=70)
The overall professionalism of the contractor(s)	6.2	6.1
The facility audit	6.1	5.8
The proposal from the contractor	6.0	5.4
Length of time to install the equipment	6.0	-
The knowledge of the contractor performing the audit	-	5.8
The amount of time between audit and installation	5.6	-

\*Note: Scale is from 1 to 7 where 1 is “extremely dissatisfied” and 7 is “extremely satisfied.”

Only 16% of participants expressed dissatisfaction over any program components (a score of 1 or 2). The leading drivers of dissatisfaction were: a time lag between the audit and the installation (n=11), issues with the vendor (n=9), not informed of additional measures (n=5), poor communication/explanation (n=4).

### Vendor Satisfaction

All of the interviewed vendors also expressed satisfaction with the program. The vendors are particularly positive about the integration of gas measures and increased training opportunities over the past year. Vendors indicate that the integration of gas measures has gone smoothly and note that the PAs provide training opportunities to ensure standardization and technical efficacy.

### Suggestions for Program Improvement

Around three quarters of participants (73%) and 68% of partial participants offered suggestions for improving the program and the leading suggestions were the same among both groups. The most common suggestions include offering additional qualifying equipment, which could entail more equipment within a specific end-use as well as a wider range of end-uses (22% participants and 15% partial), higher incentives (16% participants and 11% partial), better communication and follow-up from contractors and the PAs (13% participants and 16% partial), and better explanation of the work from the PAs (10% participants and 15% partial).

Participating vendors note that they are interested in additional PA-driven mailings and advertisements to eligible small business customers. One vendor also commented that listing the actual incentive level on such advertisements could increase business for vendors, and thus increase future program participation levels.

<sup>20</sup> While differences in satisfaction may be the result of multiple factors, the inclusion of gas measures as part of the program could have an impact on the installation time. However, 2009 participants may have a different recollection of the installation time given the length of time since their participation in the program.

## Barriers to Participation

A third of non-participating customers with knowledge of the DI Program (5 of 15) do not believe there are any barriers to participating, while among those who identified potential barriers, there is little consensus on the drawbacks to participating in the DI Program. For example, three out fifteen non-participants with some familiarity with the program think their facility is already energy efficient or that the program is not applicable to their facility. Individual respondents also mentioned burdensome paperwork, a feeling that the incentive is not high enough, the need for corporate approval to participate, or that there is uncertainty about how long they will be at their current location.

Partial participants mention the cost of equipment (24%) most frequently as a barrier to participation in the program. Other barriers cited by this group include the need to obtain corporate approval (7%), poor communication from the program (7%) and the incentive level (6%), which is not perceived as high enough.

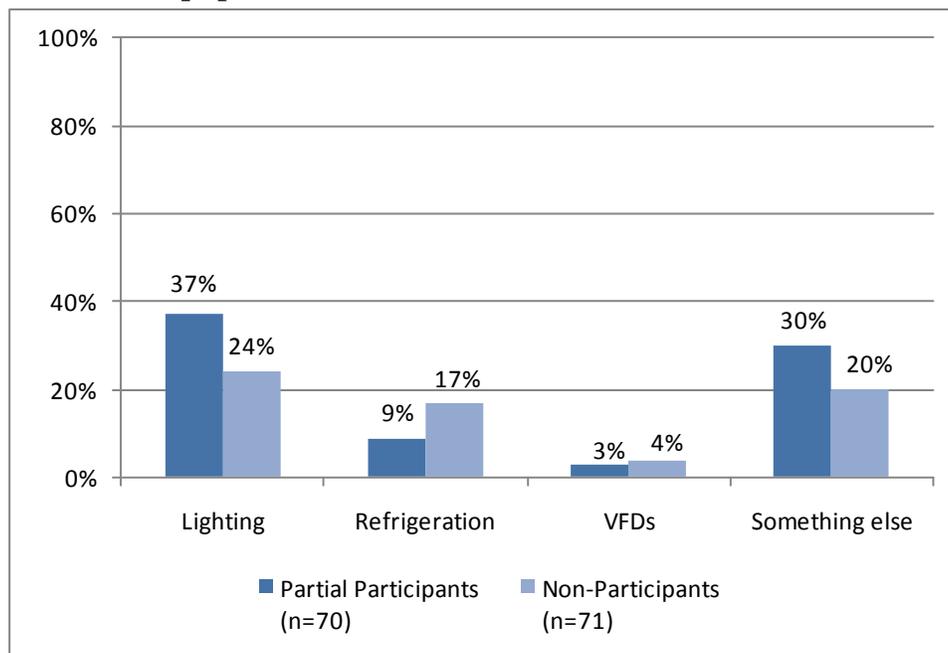
## Energy Efficiency Behaviors among Partial and Non-Participants

### Equipment Selection and Installation

To explore opportunities for program participation among partial participants and non-participants, the surveys included questions about equipment installation over the past two years and planned installations in the next 12 months. Overall, 61% of partial participants and 38% of non-participants installed some type of equipment in the past two years.

Lighting was the most common measure group, with 37% of partial participants and 24% of non-participants having installed lighting equipment over the past two years. Installation of refrigeration equipment and VFDs was relatively uncommon, but one third (30%) and one fifth (20%) of partial and non-participants, respectively, also installed some other type of non-lighting equipment. The other types of equipment most frequently installed include: new HVAC equipment (43% partial and 36% non-participant), energy efficient motors (14% partial and 7% non-participant), and hot water heaters (10% partial and 29% non-participants).

**Figure 5. Partial Participant and Non-Participant Equipment Installations over the Past Two Years**



Three quarters of partial and non-participants (75%) indicate they are likely to install equipment at their facility within the next year. Lighting is the most frequently cited type of equipment that partial (47%) and non-participants (23%) might install at their facilities. Both groups of respondents are less likely to install refrigeration equipment (19% partial and 13% non-participant) or VFDs (17% partial and 13% non-participant).

In general, partial participants say they are likely to install high efficiency as opposed to standard efficiency equipment. All of the respondents likely to install refrigeration equipment said they would install high efficiency equipment while 94% of respondents likely to install lighting say it will be high efficiency. Over half of non-participants (68%) also indicated they would likely install high efficiency lighting, instead of standard lighting, while less than half (42%) said they were likely to install high efficiency refrigeration equipment lighting.

The installation behavior of partial and non-participants indicates that there are viable opportunities for the program to reach these customers. While some respondents report they are likely to install high efficiency equipment outside of the program, this percentage is likely to fall when customers are confronted with the cost associated with the equipment and the need to manage installation independently.

## Analysis of Incentive and Financing Levels

As the savings goals for the DI Program increase, program staff must reach a greater number of customers within a set implementation budget. Within this context, program staff are considering changes in program design, specifically incentive level and financing options. Customer reaction to a number of potential modifications is presented in the following sections.

## Participating Customers

The evaluation team asked a series of questions related to financing levels and payment arrangements to two groups of participant respondents in order to assess their willingness to participate in the program under different conditions:

- 2010 participants who received on-bill financing:** Within this group, the evaluation team tested the impact that changes in financing options would have on the decision to install energy efficient equipment through the program. The changes that we assessed have the potential to make participation more costly and labor intensive.
- 2009 participants served by those PAs that offer on-bill financing<sup>21</sup>:** The evaluation team asked this group of program participants about the likelihood they would participate again given a number of financing options. Similar to the questions posed to 2010 participants, the scenarios presented program modifications that would increase customer costs and require a different form of repayment. These questions were asked of 2009 participants from PAs that offer on-bill financing irrespective of whether they received financing in the past.

### 2010 Program Participants

As expected, participants who received zero interest, on-bill financing are not receptive to changes in program financing options. As shown in Table 11, potential program modifications to both the interest rate and mechanism for payment reduce the likelihood of participation among this group. The evaluation team tested these scenarios with participants who received on-bill financing and report they would have been unlikely (3 of 10 respondents) to install or neutral (4 of 10 respondents) about installing equipment through the program if on-bill zero interest financing was not available.

**Table 11. Participant Response to Different Interest Levels and Payment Options (Among those Unlikely or Neutral about Installing Equipment without On-bill Financing)**

	Number of Participants	
	5% Interest (n=7)	Payment on a separate bill (n=7)
Less likely to participate	5	4
Wouldn't make much of a difference	2	3

### 2009 Participants

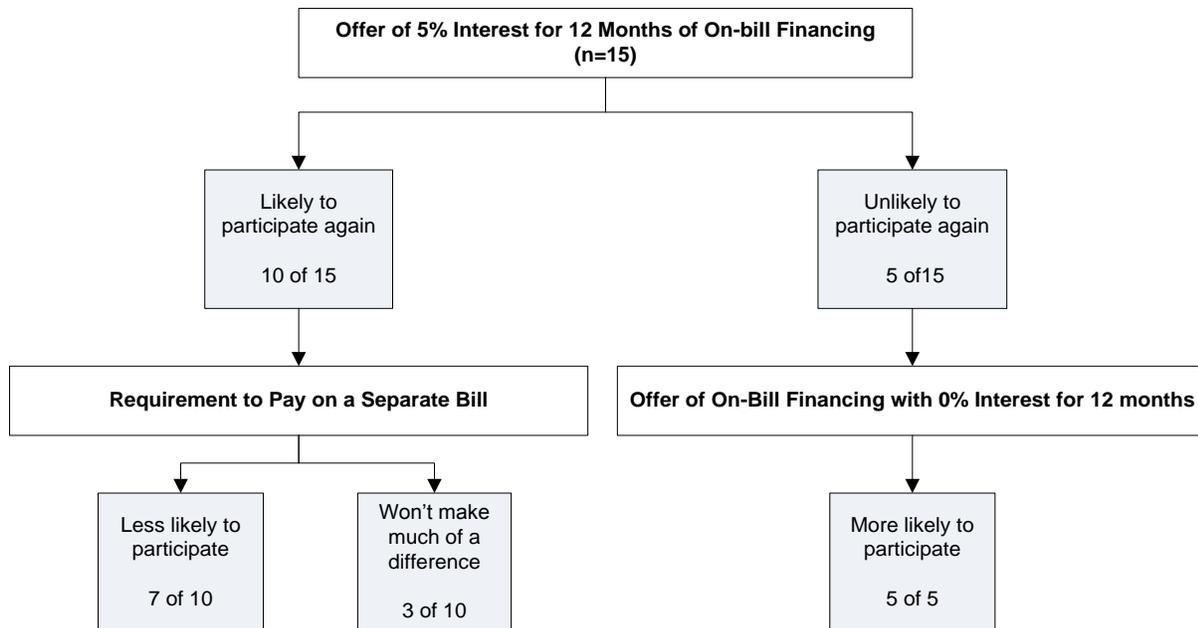
Overall, the majority of 2009 past participants are receptive to an offer of 5% interest for 12 months of on-bill financing. However, respondents are less likely to participate again if they have to pay on a separate bill. As illustrated in Figure 3, 7 out of 10 respondents said this change would make them less likely to participate in the program.

Among those who said they are unlikely to participate if offered 5% interest for 12 months of on-bill financing, all said that an offer of zero percent interest would make them more likely to participate in the future. Collectively these results demonstrate the monetary calculus behind

<sup>21</sup> Some electric PAs did not offer on-bill financing in 2009. In addition, beginning in 2010 some gas PAs with DI programs put systems in place to allow for the billing of gas measures through a customer's electric bill.

participant decision making and also the desire for the simplified payment process associated with on-bill financing.

**Figure 3. Likelihood of Participants to Participate Again Under Different Scenarios**



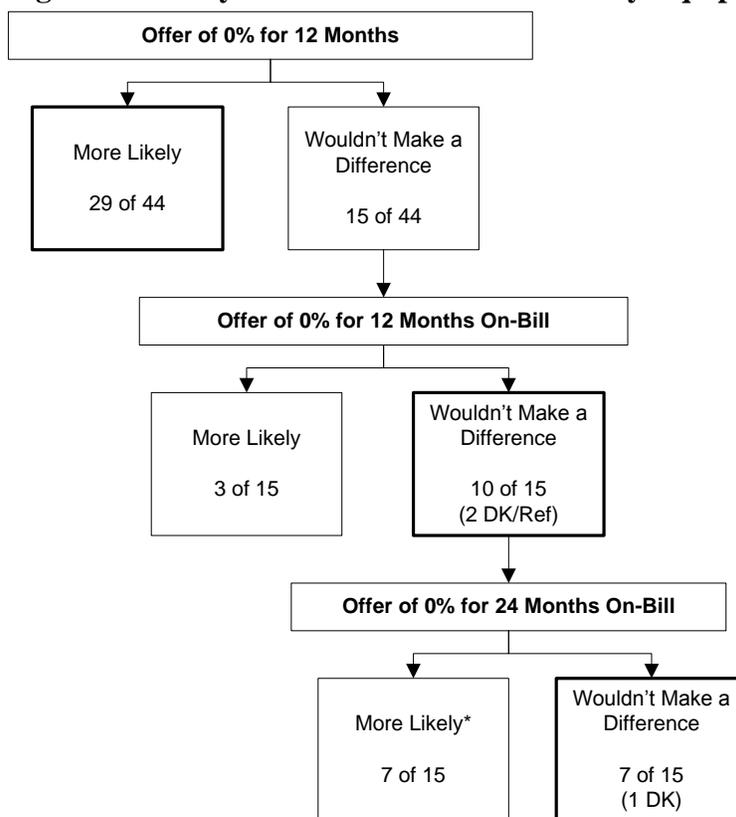
## Partial and Non-Participants

### Financing Options

Feedback from both partial and non-participants also indicates that the DI Program should continue to provide zero interest financing as part of the program. For example, across both partial participants and non-participants, an offer of zero interest financing for twelve months is generally attractive and an effective inducement to encourage the installation of energy efficient equipment. As shown in Figure 4, 66% of respondents are more likely to install energy efficient equipment if presented with this option by their PA.

Offering zero interest on-bill financing for 24 months is also a program modification that has the potential to encourage those customers not motivated by interest free financing alone to install energy efficient equipment. For example among those who are not more likely to install energy efficient equipment when offered interest free financing, few are swayed by the additional offer of payment on-bill for twelve months (3 of 15), although twenty-four months is an inducement for over half (7 of 12).

**Figure 4. Partial Participant and Non-Participant Interest in Financing Options  
(Among Those Likely to Install Standard Efficiency Equipment)**



\*This figure reflects the assumption that those more likely to participate at 0% interest and 12 months of on-bill financing would also be more likely to participate at this level.

These findings suggest that there are some potential participants for whom an extension of the financing terms and an offer of on-bill financing do not matter. As a result, the PAs may want to focus their efforts on the provision of zero interest financing for twelve months as opposed to providing additional benefits that are unlikely to have a large impact on the recruitment of participants.

**Incentive Level Variation**

In addition to financing options, the evaluation team asked a number of questions about incentive levels to those partial and non-participant respondents who indicate they are likely to install lighting or refrigeration equipment in the next year, but are unlikely to install high efficiency equipment. In general, partial participants are very responsive to a higher incentive level than currently offered while non-participants are more likely to install high efficiency equipment at a lower incentive level. More specifically:

- Among partial participants – those exposed to the program’s current incentive level – all indicated that a free audit and 80% incentive would make them more likely to install high efficiency equipment.<sup>22</sup>
- Seven out of nine non-participants – those with no prior involvement in the program – indicate that a 50% incentive level would make them more likely to install energy efficient equipment. Both respondents unlikely to install energy efficiency equipment at a 50% incentive said that they are likely to participate in the program at a 60% incentive level.

While the number of responses to these questions is small, the findings indicate that an incentive level below the current offering may be attractive to non-participants.<sup>23</sup> As a result, this group is likely willing to participate at current incentive levels making it important for the program to reach them with information and engage them in a discussion about possible facility upgrades.

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<sup>22</sup> Given that Cape Light Compact currently offers and 80% incentive, this question was not asked of their customers.

<sup>23</sup> The evaluation team will conduct a more detailed analysis of incentive level variation and financing options as part of the 2011 evaluation effort. In particular, the team has proposed the use of discrete choice analysis to determine the most attractive program options.

## 5. Conclusions and Recommendations

### Conclusions

The Direct Install (DI) Program is effective in smoothly providing information and services to participating customers and in helping to overcome the cost constraints associated with the installation of energy efficient equipment, which many of these firms face. Further, vendors and customers report high levels of satisfaction with the program illustrating its success in achieving high quality program delivery.

It is clear that incentive levels, as well as zero interest and on-bill financing options are important in the decision-making process. Participants are pleased with the current incentive levels, and those who received financing report it was very important in their decision to participate in the program. Among partial and non-participants the offer of zero percent interest for 12 months of financing is an attractive inducement to participate, although they are willing to accept lower incentive levels than customers who have participated in the past.

There are also opportunities for the program to reach additional customers and encourage the installation of energy efficient equipment going forward as the majority of partial and non-participants indicate they are likely to install equipment available through the program over the next year. However, one challenge associated with increasing participation is the fact that within the non-participant population, awareness of the DI Program is low.

As a result, a key challenge for the program is reaching eligible customers with information about program offerings and the process for participation. Based on survey results, it is clear that the direct outreach conducted by program staff and vendors is central in reaching customers who ultimately chose to participate in the program. Continuing to supplement this tactic with bill inserts and direct mail is one way the program can further raise awareness of the DI Program.

Over the past year, the PAs have also taken a series of steps in moving towards statewide integration to provide a more-streamlined program to their small business customers. One of the most significant aspects of this program change, the integration of gas and electric measures, appears to have been implemented effectively from a process standpoint as PA staff have worked collaboratively and have prioritized the training of program vendors.

### Recommendations

Based on the 2010 process evaluation, the evaluation team makes the following recommendation for the DI Program:

- **Use the DI Program audit as a mechanism for the dissemination of information on other PA programs.** Less than a third of program participants received information about other PA programs available to commercial and industrial customers through their engagement with the program. While it is unclear to what extent the DI Program channels customers into other PA programs, program staff should consider whether a more systematic approach to disseminating program

information during the audit is warranted. In determining whether such an approach is desirable, program staff could conduct an internal audit of the information circulated by the program vendors and a comparison across PAs to evaluate the breadth and depth of the materials. The program could also leverage future research as part of the process evaluation to determine the level of channeling taking place, and inform decision-making around the investment of program resources in this area. This research, which is currently under discussion as part of the 2011 evaluation planning process, could involve a combination of data mining activities and research with participants to better understand the circumstances under which channeling is taking place.

In an effort to take full advantage of this onsite opportunity, program vendors could also note specific pieces of equipment soon in need of replacement and tailor their program recommendations to these customer needs. Therefore when faced with the decision of what to replace existing equipment with, past participants will have some awareness of the incentive program offerings available to them through the PAs.

## Appendix A: Telephone Survey Instruments

### Massachusetts Small C&I Direct Install Program

#### PARTICIPANT ENERGY EFFICIENCY OPPORTUNITIES SURVEY

*This survey is intended for small business customers that have participated in the Small C&I program. The goal of the survey is to assess how customers decide to participate in the program and which measures to install, awareness of and satisfaction with the program, and identify barriers to participation.*

#### INTRODUCTION

[IF CONTACT=1]

Hello, may I speak with (NAME FROM DATABASE).

[ALL]

My name is \_\_\_\_\_ and I'm with Opinion Dynamics, an independent research firm, calling on behalf of [PA NAME]. We are conducting research on behalf of [PA NAME] to help them develop programs to better serve their small business customers. This is not a sales call.

Our records show that you participated in a [PA NAME] program for small businesses where you received a free energy audit, recommended improvements and an incentive to cover installation and equipment costs associated with the energy saving equipment. We would like to speak with you about your experience with the Small Business Program and get your feedback on areas for improvement.

Are you the person most knowledgeable about the project your company completed through the program? Is that correct? [IF NOT, ASK TO BE TRANSFERRED TO THE MOST KNOWLEDGEABLE PERSON. RECORD NAME AND NUMBER]

[IF NEEDED: Our records showed that <COMPANY> recently installed energy saving <ENDUSE> equipment and received an incentive from [PA NAME].]

This survey will take about 15 minutes. [IF NO, SCHEDULE CALL-BACK]

#### SCREENER

S0a. Just to confirm, between 2009 and 2010 did <COMPANY> participate in [PA NAME]'s Small Business Program at <ADDRESS> where your business received a free energy audit and incentive for installing select energy saving equipment such as lighting?

1. (Yes, participated as described)

2. (Yes, but participated at another facility)
3. (No, did NOT participate)
98. (Don't know)
99. (Refused)

[IF S0b=1, ASK TO BE TRANSFERRED TO THAT PERSON. IF NOT AVAILABLE, THANK AND TERMINATE. IF AVAILABLE GO BACK TO S0a.]

[IF SOa=2, 3, 98, 99 OR SOb=2, 3, 98, 99: THANK AND TERMINATE. RECORD DISPO AS "COULD NOT CONFIRM PARTICIPATION"]

## VERIFICATION

[SKIP TO S2 IF BTYPE FLAG=0]

- S1. Our records show your facility located at <ADDRESS> is classified as a [BUSINESS TYPE]. Is this correct?
1. Yes
  2. No
  98. (Don't know)
  99. (Refused)

[SKIP IF S1=1]

- S2. What type of business do you operate at <ADDRESS>?
1. (Small Office)
  2. (K-12 School)
  3. (University)
  4. (Fast Food)
  5. (Full Service Restaurant)
  6. (Hotel)
  7. (Motel)
  8. (Grocery)
  9. (Warehouse)
  10. (Hospital)
  11. (Small Retail)
  12. (Other, Specify)
  98. (Don't know)
  99. (Refused)

## PROGRAM AWARENESS

I'd now like to ask you a few general questions about your participation in the [PA Name] Small Business Program.

- A1. How did you learn about [PA NAME]'s Small Business Program?
1. ([PA NAME] representative)

2. ([PA NAME] website)
3. (Contractor)
4. (Friend/colleague)
5. (Bill insert)
00. (Other, specify)
98. (Don't know)
99. (Refused)

A2. What would you say is the best way of reaching companies like yours with information about energy saving opportunities like the Small Business program?  
[MULTIPLE RESPONSE]

1. (Visits from program representatives/program staff/vendors)
2. (Bill inserts)
3. (Target owners/upper management)
4. (E-mail)
5. (Direct Mail)
6. (Phone)
00. (Other, specify)
98. (Don't know)
99. (Refused)

A3. During your participation in the Small Business Program, did you receive information about OTHER [PA NAME] energy efficiency programs available to commercial and industrial customers?

1. (Yes)
2. (No)
98. (Don't know)
99. (Refused)

[ASK IF A3=1, ELSE SKIP TO A6]

A3a. What type of information did you receive? [OPEN END; ACCEPT UP TO 3]

00. (Other, specify)
98. (Don't know)
99. (Refused)

A3b. To the best of your knowledge, who produced this information? For example, was it your contractor, utility or program provider, or someone else?

1. Contractor
2. Utility/program provider
3. Other, specify
98. (Don't know)
99. (Refused)

[ASK IF A3=1]

A4. On a 1 to 7 scale where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied' how satisfied were you with the amount of information you received about

OTHER program opportunities offered by [PA NAME]? [1-7, 97=NA, 98=DK, 99=REF]

[ASK IF A4<4]

A5. Would you like to receive more information about program offerings or less?

1. More
2. Less
98. (Don't know)
99. (Refused)

A6. Were you aware that the program contractors can identify custom projects for additional energy savings at your facility?

1. (Yes)
2. (No)
98. (Don't know)
99. (Refused)

## **PARTICIPANT DECISION MAKING**

Now I would like to ask you some questions about your decision to install energy efficient equipment through the program.

D1a. I'm going to read you five factors that might have encouraged you to install energy efficient equipment through the Small Business Program. After I read through the list, please tell me which factor had the most influence on your decision to install equipment through the program.

D1b. Which is the second most important reason you decided to participate?

D1c. Which of the following is the third most important reason?

[Randomize list]

- a. The incentive level offered by [PA Name]
- b. [SKIP IF PA NAME= CLC, NSTAR] Access to financing as a line item on my electric bill
- c. [SKIP IF PA NAME <> NSTAR] Access to financing that appears on a separate bill
- d. The new equipment helps my company's impact on the environment
- e. The new equipment reduces my company's energy bills
- f. Some other reason (specify)

D2. Did you receive financing for the project you completed through the program?

1. Yes
2. No [SKIP TO D6]
98. (Don't know) [SKIP TO D6]
99. (Refused) [SKIP TO D6]

[ASK IF D2=1 AND YEAR=2010 AND PA NAME= NGRID, WMECO, Unitil OR BERKSHIRE GAS, ELSE SKIP TO D3]

D2a. Did you finance your part of the project cost on your electric bill?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[ASK IF D2a=1]

D2b. On a scale from 1 to 7 where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied', how satisfied were you with the financing terms you received? [SCALE 1-7; 96=NA, 98=Don't Know, 99=Refused]

D3. On a scale from 1 to 7 where 1 is "not at all important" and 7 is "extremely important", how important was the zero interest financing you received in your decision to install energy efficient equipment through the program? [1-7; 98=DK, 99=Ref]

[ASK IF D2a=1, ELSE SKIP TO D4]

D3a. If on-bill, zero interest financing had **NOT** been available, how likely is it that you would have installed the recommended energy efficient equipment? Please use a scale from 1 to 7 where 1 is "not at all likely" and 7 is "extremely likely". [1-7; 98=DK, 99=Ref] [IF Needed: On-bill financing helps qualified Small Business customers pay for energy-efficient equipment by offering low interest rates on loans which can be paid off incrementally on a customer's utility bill.]

[SKIP TO D4 IF D3a=5, 6, 7]

D3b. If you were charged 5% interest to finance the project instead of zero interest, would you have been less likely to install the energy efficient equipment or would 5% interest not make much of a difference in your decision to install the equipment?

1. Yes less likely
2. Wouldn't make much of a difference
99. (Refused)
98. (Don't know)

D3c. What if you had been required to pay off the loan on a separate bill? Would you have been less likely to install the energy efficient equipment?

1. Yes less likely
2. Wouldn't make much of a difference
99. (Refused)
98. (Don't know)

[SKIP IF D2a=1]

D4. If there was no financing available (either through [PA Name] or another entity), how likely is it that you would have installed the recommended equipment? Please use a scale from 1 to 7 where 1 is "not at all likely" and 7 is "extremely likely". [1-7; 98=DK, 99=Ref]

[ASK IF YEAR=2009 AND PA NAME= NGRID, WMECO, Unitil, ELSE SKIP TO D6]

D5a. Looking ahead, if [PA Name] offered financing with 5% interest for 12 months that you could pay on your electric bill, how likely would you be to participate in the program again?

1. Very unlikely
2. Somewhat unlikely
3. Somewhat likely
4. Very likely
5. (Not applicable)
98. Don't know
99. Refused

[ASK IF D5A=1, 2 ELSE SKIP TO D5C]

D5b. What if [PA Name] offered on-bill financing with **zero** interest for 12 months? Would you be more likely to participate again or would the interest free on-bill financing not make much of a difference in your decision?

1. Yes more likely
2. Wouldn't make much of a difference
99. (Refused)
98. (Don't know)

[SKIP IF D5b=1, 2]

D5c. What if you had to pay off the cost of the energy efficient equipment on a separate bill, would you be less likely to participate again?

1. Yes less likely
2. Wouldn't make much of a difference
99. (Refused)
98. (Don't know)

**MEASURE SELECTION**

The next set of questions is about the equipment you installed through the program.

[SKIP IF PROPOSED=1]

- D6. First, did you have the contractor install all of the energy saving equipment recommended to you?
1. Yes
  2. No
  98. (Don't know)
  99. (Refused)

[ASK IF D6 =2 ELSE SKIP TO D11]

- D7. Which type of equipment did you decide not to install? [MULTIPLE RESPONSE; UP TO 5]
1. (Lighting)
  2. (Time clocks)
  3. (Photo cells for outdoor lighting)
  4. (Occupancy sensors)
  5. (Programmable thermostats)
  6. (Cooler controls)
  7. (Pipe and duct insulation)
  8. (Pre-rinse spray valves)
  9. (Boiler reset controls)
  10. (Low flow showerheads)
  11. (Faucet aerators)
  00. (Other, Specify)
  98. (Don't know)
  99. (Refused)

- D8. Why did you decide **NOT** to install this particular type of equipment? [OPEN END; 98=Don't know, 99=Refused]

[SKIP TO D11 IF PROPOSED=0]

- D10. Based on our records, you decided not to install the [RMEAS1, RMEAS2] recommended to you by the contractor. Can you briefly explain why you decided not to install this equipment? [OPEN END; 98=Don't know, 99=Refused]
- D11. Aside from what the contractor recommended, what other types of energy efficient equipment would your company like to install in the future? [OPEN END]
96. (None)
  98. (Don't know)
  99. (Refused)

### Program Satisfaction

I'd now like to ask you a few questions about your satisfaction with various aspects of the Small Business Program.

PP1. On a 1 to 7 scale where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied' how satisfied were you with... [1-7, 97=NA, 98=DK, 99=REF]

- a. [PA NAME] overall
- b. The program overall
- c. The incentive level
- d. The energy saving equipment offered by the program
- e. The length of time needed to install the equipment

[ASK PP2a IF PP1a<4]

PP2a. You indicated some dissatisfaction with [PA NAME] overall, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

[ASK PP2b IF ANY PP1b-e<4]

PP2b. You indicated some dissatisfaction with the program, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

[ASK IF PP1e>3]

PP4c. If [PA Name] offered more types of energy efficient equipment through the program, how likely would you be to have the contractor onsite for an additional one to two days?

1. Very unlikely
2. Somewhat unlikely
3. Somewhat likely
4. Highly likely
5. Not applicable
99. Refused
98. Don't know

We are also interested in your satisfaction with some other aspects of the program.

SA1. Again on a 1 to 7 scale where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied' how satisfied were you with... [SCALE 1-7 98=Don't Know, 99=Refused]

- a. The audit of your facility
- b. The proposal you received from the contractor
- c. The amount of time between the audit and the installation
- d. The overall professionalism of the contractors

[ASK SA2 IF ANY SA1a-d<4]

SA2. You indicated some dissatisfaction with these program components, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

SA3. How could [PA NAME]'s Small Business program be improved? [MULTIPLE RESPONSE, UP TO 4]

1. (Higher incentives)
2. (More financing options)
3. (More qualifying equipment)
00. (Other, specify)
96. (No recommendations)
98. (Don't know)
99. (Refused)

## FIRMOGRAPHICS

I just have a few questions left.

F1. Which of the following best describes this facility? This facility is...

1. My company's only location
2. One of several locations owned by my company
3. The headquarter location of a company with several locations
98. (Don't know)
99. (Refused)

F2. Which of the following best describes the OWNERSHIP of this facility? My company...

1. Owns and occupies this facility
2. Owns this facility but it is rented to someone else
3. Rents this facility
98. (Don't know)
99. (Refused)

[ASK IF F1<>1, ELSE SKIP TO F4]

F3. Is your company independently-owned or is it part of a franchise or chain of businesses?

1. Independent
2. Part of franchise or chain
98. (Don't know)
99. (Refused)

[SKIP F4 IF F2=1]

F4. Does your company pay the electric bill?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[SKIP F5 IF F2=1]

F5. Does your company pay the gas bill?

- 1. Yes
- 2. No
- 98. (Don't know)
- 99. (Refused)

*Those are all the questions I have. Thanks for your participation.*

## Massachusetts Small C&I Direct Install Program

### PARTIAL PARTICIPANT ENERGY EFFICIENCY OPPORTUNITIES SURVEY

*This survey is intended for small business customers that received an audit through the Small C&I program, but decided not to install any incented equipment through the program. The goal of the survey is to assess awareness of and satisfaction with the program, explore participant interest in current and new equipment, as well as identify barriers to participation.*

#### INTRODUCTION

[IF CONTACT=1]

Hello, may I speak with (NAME FROM DATABASE).

[ALL]

My name is \_\_\_\_\_ and I'm with Opinion Dynamics, an independent research firm, calling on behalf of [PA NAME]. Our records show that you received a free energy audit and list of recommended improvements through [PA Name]'s small business program. We would like to speak with you about your experience and get your feedback on areas for improvement.

We are conducting research on behalf of [PA NAME] to help them develop programs to better serve their small business customers. This is not a sales call.

Are you the person most knowledgeable about your firm's initial participation in this program? [IF NOT, ASK TO BE TRANSFERRED TO THE MOST KNOWLEDGEABLE PERSON. RECORD NAME AND NUMBER]

This survey will take about 15 minutes. [IF NO, SCHEDULE CALL-BACK]

#### SCREENER

S0a. Just to confirm, between 2009 and 2010 did <COMPANY> receive a free energy audit and list of recommended improvements through [PA NAME]'s Small Business Program at <ADDRESS>, but have NOT installed the recommended measures?

1. (Yes, participated as described)
2. (Yes, but participated at another facility)
3. (Yes, but I also installed the recommended measures)

- 4. (No, did NOT participate)
- 98. (Don't know)
- 99. (Refused)

[IF SOa=2, 4, 98, 99 THANK AND TERMINATE. RECORD DISPO AS "COULD NOT CONFIRM PARTICIPATION"]

[ASK IF SOa=3]

S0b. Did you install the recommended measures yourself or did the contractor who performed the energy audit **also** install the recommended measures? (INTERVIEWER NOTE: Enter code 2 "The program contractor installed the measures" only if the contractor who conducted the audit also installed the measures, enter code 1 "I installed the measures" if someone other than the contractor who conducted the audit installed the measures)

- 1. I installed the measures
- 2. The program contractor installed the measures
- 98. (Don't know)
- 99. (Refused)

[IF SOb=2, 98 or 99, THANK AND TERMINATE. IF SOb=2 RECORD DISPO AS "PARTICIPANT" AND TERMINATE AND IF SOb=, 98, 99 RECORD DISPO AS "COULD NOT CONFIRM PARTICIPATION"]

## VERIFICATION

[SKIP TO S2 IF BTYPE FLAG=0]

S1. Our records show that your facility located at <ADDRESS> in <CITY> is classified as [BTYPE]. Is this correct?

- 1. Yes
- 2. No
- 98. (Don't know)
- 99. (Refused)

[SKIP IF S1=1]

S2. What type of business do you operate at <ADDRESS>?

- 1. (Small Office)
- 2. (K-12 School)
- 3. (University)
- 4. (Fast Food)
- 5. (Full Service Restaurant)
- 6. (Hotel)

7. (Motel)
8. (Grocery)
9. (Warehouse)
10. (Hospital)
11. (Small Retail)
12. (Other, Specify)
98. (Don't know)
99. (Refused)

## PROGRAM AWARENESS

I'd now like to ask you a few general questions about your interaction with the [PA Name] Small Business Program.

- A1. How did you learn about [PA NAME]'s Small Business Program?
1. ([PA NAME] representative)
  2. ([PA NAME] website)
  3. (Contractor)
  4. (Friend/colleague)
  5. (Bill insert)
  00. (Other, specify)
  98. (Don't know)
  99. (Refused)
- A2. What would you say is the best way of reaching companies like yours with information about energy saving opportunities like the Small Business Program?  
[MULTIPLE RESPONSE]
1. (Visits from program representatives/program staff/vendors)
  2. (Bill inserts)
  3. (Target owners/upper management)
  4. (E-mail)
  5. (Direct Mail)
  6. (Phone)
  00. (Other, specify)
  98. (Don't know)
  99. (Refused)

- A3. During your audit and discussions with the program contractor, did you receive information about OTHER [PA NAME] energy efficiency programs available to commercial and industrial customers?
1. (Yes)
  2. (No)
  98. (Don't know)
  99. (Refused)

[ASK IF A3=1, ELSE SKIP TO A6]

- A3a. What type of information did you receive? [OPEN END; ACCEPT UP TO 3]
00. (Other, specify)
  98. (Don't know)
  99. (Refused)

- A3b. To the best of your knowledge, who produced this information? For example, was it your contractor, utility or program provider, or someone else?
1. Contractor
  2. Utility/program provider
  3. Other, specify
  98. (Don't know)
  99. (Refused)

[ASK IF A3=1]

- A4. On a 1 to 7 scale where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied' how satisfied were you with the amount of information you received about OTHER program opportunities offered by [PA NAME]? [1-7, 97=NA, 98=DK, 99=REF]

[ASK IF A4<4]

- A5. Would you like to receive more information about program offerings or less?
1. More
  2. Less
  98. (Don't know)
  99. (Refused)

- A6. Were you aware that the program contractors can identify custom projects for additional energy savings at your facility?
1. (Yes)
  2. (No)
  98. (Don't know)
  99. (Refused)

**PARTICIPANT DECISION MAKING & BARRIERS TO PARTICIPATION**

Now I would like to ask you some questions about your decision **not to** install energy efficient equipment through the program.

[SKIP IF PROPOSED=1]

- D1. In thinking about your decision-making process, what were the most important factors in your decision **not** to install any of the energy efficiency equipment recommended through the program? [MULTIPLE RESPONSE; UP TO 4] (If needed: we want to know why you didn't have the contractor who performed the audit install the recommended measures)
1. (The incentive level)
  2. (The availability of financing)
  3. (The type of financing available (ex. on-bill vs. off-bill))
  4. (Time needed to install the equipment)
  5. (Time required for the energy savings to pay for my share of costs)
  6. (Concerns about equipment performance)
  7. (Too expensive)
  8. (Could not get corporate approval)
  9. (Wasn't worth the required effort and planning)
  10. (Didn't have time to install the equipment)
  11. (Disruption to business during equipment installation)
  00. (Other, specify)
  98. (Don't know)
  99. (Refused)

[SKIP TO D10 IF PROPOSED=0]

- D10. Based on our records, you decided not to install [RMEAS] recommended to you by the program contractor. Can you briefly explain why you decided not to install this equipment? [OPEN END; 98=Don't know, 99=Refused]

- D12. Is there anything that [PA Name] or the program could have done that would have caused you to install the energy efficient equipment? [OPEN END]

- BA5. In general, what do you see as the drawbacks or barriers to participating in the Small Business program? [MULTIPLE RESPONSE, UP TO 3]
1. (Paperwork too burdensome)
  2. (Incentive level not high enough/not worth the effort)
  3. (Cost of equipment)
  4. (Not sure how long we will stay in business/at location)
  5. (Don't believe in energy efficiency)
  00. (Other, specify)
  96. (None)

- 98. (Don't know)
- 99. (Refused)

BA6. On a scale from 1 to 7 where 1 is "not at all likely" and 7 is "extremely likely", how likely are you to participate in the Small Business Program in the future? [1-7, 98=DK, 99=Ref]

[SKIP IF BA6<5]

BA7. Why are you likely to participate in the program? [OPEN END]

[SKIP IF BA6>4]

BA8. Why are you **unlikely** to participate in the program? OPEN END]

### Recent Energy Efficiency Behaviors & Intent to Take Action

Now I would like to ask you some questions about the energy consuming equipment at your facility.

- E1. Within the past 2 years, has your company installed any of the following energy consuming equipment at this location? [1=Yes, 2=No, 98=Don't know, 99=Ref]
- a. Lighting
  - b. Variable Frequency Drives/VFDs [IF NEEDED: Variable frequency drives might be installed on fans within your ventilation system as a way to save energy by allowing the volume of air moved to match the amount energy needed by the ventilation system.]
  - c. Refrigeration equipment
  - d. Any other equipment

[ASK IF E1d=1, ELSE SKIP TO E3]

- E2. Can you please describe the other equipment you installed? [OPEN END]
- 98. (Don't know)
  - 99. (Refused)

- E3. Now thinking about improvements you might make at your facility within the next 12 months, how likely are you to replace or upgrade any of the following equipment at this location? Are you not at all likely, not very likely, somewhat likely, or very likely?
- a. Lighting
  - b. Variable Frequency Drives/VFDs
  - c. Refrigeration equipment
- 4. Not at all likely
  - 3. Not very likely

- 2. Somewhat likely
- 1. Very likely
- 98. (Don't know)
- 99. (Refused)

#### Classify Equipment

IF E3a=1, 2, MEASL=1, ELSE MEASL=0

IF E3c=1, 2, MEASR=1 ELSE MEASR=0

- E4. How likely are you to install high efficiency as opposed to standard efficiency...?
- a. [SKIP IF MEASL=0] Lighting
  - b. [SKIP IF MEASR=0] Refrigeration equipment
- 
- 4. Not at all likely
  - 3. Not very likely
  - 2. Somewhat likely
  - 1. Very likely
  - 98. (Don't know)
  - 99. (Refused)

[ASK IF ANY E4a-b = 1 or 2 AND PA NAME<>CLC]

E4d. If [PA Name] provided a free energy audit of your facility and an incentive that covered 80% of the cost of purchasing and installing **high efficiency** equipment, would you be more likely to install the high efficiency equipment or would an 80% incentive not make much of a difference in your decision to install the equipment?

- 1. Yes more likely
- 2. Incentive won't make much of a difference
- 99. (Refused)
- 98. (Don't know)

I would also like to ask you about your interest in financing for future energy efficiency projects.

E4e. Thinking about the same facility improvements you mentioned above, if [PA Name] offered **zero** interest financing for 12 months for the portion of your project costs not covered by the program incentive, would you be more likely to install the energy efficient equipment or would 12 months of interest free financing not make much of a difference in your decision to install the equipment?

1. Yes more likely
2. Won't make much of a difference
99. (Refused)
98. (Don't know)

[SKIP TO PP1 IF E4e=1]

E5a. If [PA Name] offered **zero** interest financing for 12 months **AND** you could pay this on your electric bill, would you be more likely to install the energy efficient equipment or would 12 months of financing and on-bill repayment not make much of a difference in your decision to install the equipment?

1. Yes more likely
2. Won't make much of a difference
99. (Refused)
98. (Don't know)

[SKIP TO PP1 IF E5a=1]

E5b. How about if [PA Name] provided 24 months of **zero** interest financing that you could pay on your electric bill? Would you be more likely to install the energy efficient equipment or would 24 months of financing not make much of a difference in your decision to install the equipment?

1. Yes more likely
2. Won't make much of a difference
99. (Refused)
98. (Don't know)

## PROGRAM PROCESS AND SATISFACTION

I'd now like to ask you a few questions about your satisfaction with those aspects of the Small Business Program you experienced.

- PP1. On a 1 to 7 scale where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied' how satisfied were you with... [1-7, 97=NA, 98=DK, 99=REF]
- a. [PA NAME] overall
  - b. The program overall
  - d. The energy saving equipment offered by the program

[ASK PP2a IF PP1a<4]

PP2a. You indicated some dissatisfaction with [PA NAME] overall, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

[ASK PP2b IF ANY PP1b-d<4]

PP2b. You indicated some dissatisfaction with the program, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

PP3. Was the process for participating in the program clearly explained to you?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[SKIP TO SA1 IF PP3<>2]

PP4. Can you describe which part of the process was not clearly explained to you?

00. [OPEN END]
01. (The audit process)
02. (The installation process)
03. (The financing options available)
98. (Don't know)
99. (Refused)

We are also interested in your satisfaction with some other aspects of the program.

SA1. Again on a 1 to 7 scale where 1 is 'extremely dissatisfied' and 7 is 'extremely satisfied' how satisfied were you with... [SCALE 1-7; 97=N/A. 98=Don't Know, 99=Refused]

- a. The audit of your facility
- b. The proposal you received from the contractor
- c. The knowledge of the contractor performing the audit
- d. The overall professionalism of the contractor

[ASK SA2 IF ANY SA1a-d<4]

SA2. You indicated some dissatisfaction with these program components, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

SA3. How could [PA NAME]'s Small Business program be improved? [MULTIPLE RESPONSE, UP TO 4]

1. (Higher incentives)
2. (More financing options)
3. (More qualifying equipment)
00. (Other, specify)
96. (No recommendations)
98. (Don't know)

99. (Refused)

D11. Aside from what the contractor recommended after your energy audit, what other types of energy efficient equipment would your company like to install in the future? [OPEN END]

96. (None)

98. (Don't know)

99. (Refused)

## FIRMOGRAPHICS

I just have a few questions left.

F1. Which of the following best describes this facility? This facility is...

1. My company's only location

2. One of several locations owned by my company

3. The headquarter location of a company with several locations

98. (Don't know)

99. (Refused)

F2. Which of the following best describes the OWNERSHIP of this facility? My company...

1. Owns and occupies this facility

2. Owns this facility but it is rented to someone else

3. Rents this facility

98. (Don't know)

99. (Refused)

[ASK IF F1<>1, ELSE SKIP TO F4]

F3. Is your company independently-owned or is it part of a franchise or chain of businesses?

1. Independent

2. Part of franchise or chain

98. (Don't know)

99. (Refused)

[SKIP F4 IF F2=1]

F4. Does your company pay the electric bill?

1. Yes

2. No

98. (Don't know)

99. (Refused)

[SKIP F5 IF F2=1]

F5. Does your company pay the gas bill?

1. Yes

2. No

98. (Don't know)

99. (Refused)

*Those are all the questions I have. Thanks for your participation.*

## Massachusetts Small C&I Direct Install Program

### NON-PARTICIPANT ENERGY EFFICIENCY OPPORTUNITIES SURVEY

*This survey is intended for small business customers that have not participated in the Small C&I Direct Install Program. The goal of the survey is to assess awareness of the program, barriers to participation, intent to take action and interest in specific program components such as incentive levels and financing options.*

#### INTRODUCTION

[IF CONTACT=1]

Hello, may I speak with (NAME FROM DATABASE). My name is \_\_\_\_\_ and I'm with Opinion Dynamics, an independent research firm, calling on behalf of [PA NAME]. We are conducting research on behalf of [PA NAME] to help them develop energy efficiency programs to better serve their small business customers. This is not a sales call.

May I speak with the person responsible for making energy decisions for the company? (IF NECESSARY: I'm looking to speak with someone who might be involved in any decisions to improve the efficiency or reduce the cost of the energy consuming systems your business uses such as lighting or air conditioning.)

This survey will take about 15 minutes. [IF NO, SCHEDULE CALL-BACK]

[IF CONTACT=0]

Hello my name is \_\_\_\_\_ and I'm with Opinion Dynamics, an independent research firm, calling on behalf of [PA NAME]. May I speak with the person responsible for making energy decisions for the company? (IF NECESSARY: I'm looking to speak with someone who might be involved in any decisions to improve the efficiency of the energy consuming systems your business uses such as lighting or air conditioning.)

We are conducting research on behalf of [PA NAME] to help them develop programs to better serve their business customers. This is not a sales call.

I'm going to be asking you questions about the building located at <ADDRESS>. Are you the person who is most familiar with the facility's lighting, heating and other energy using equipment?

This survey will take about 15 minutes. Is now a good time?

S2. What type of business do you operate at <ADDRESS>?

1. (Small Office)
2. (K-12 School)
3. (University)
4. (Fast Food)
5. (Full Service Restaurant)
6. (Hotel)
7. (Motel)
8. (Grocery)
9. (Warehouse)
10. (Hospital)
11. (Small Retail)
12. (Other, Specify)
98. (Don't know)
99. (Refused)

F2. Which of the following best describes the OWNERSHIP of this facility? My company...

1. Owns and occupies this facility
2. Owns this facility but it is rented to someone else
3. Rents this facility
98. (Don't know)
99. (Refused)

[SKIP TO PA1 IF F2= 1, 2]

S3. Does your company manage the operation of the building(s) you occupy at this location or is it managed by another entity?

1. My company manages
2. Managed by another entity
98. (Don't know)
99. (Refused)

S4a. Who makes decisions about the lighting installed in your space? Does your company make these decisions or is that done by the building owner or a property management firm on behalf of the owner?

1. My company makes the decisions
2. Owner makes the decisions
3. (Both company and owner)
4. (Property management firm)

5. (Franchise management)
6. (Other, specify)
98. (Don't know)
99. (Refused)

S4b. Who makes decisions about the refrigeration equipment installed in your space? Does your company make these decisions or is that done by the building owner or a property management firm on behalf of the owner?

1. My company makes the decisions
2. Owner makes the decisions
3. (Both company and owner)
4. (Property management firm)
5. (Franchise management)
6. (Not applicable)
7. (Other, specify)
98. (Don't know)
99. (Refused)

S4c. Who makes decisions about motors like fans or ventilation installed in your space? Does your company make these decisions or is that done by the building owner or a property management firm on behalf of the owner?

1. My company makes the decisions
2. Owner makes the decisions
3. (Both company and owner)
4. (Property management firm)
5. (Franchise management)
6. (Other, specify)
98. (Don't know)
99. (Refused)

## **PROGRAM AWARENESS**

PA1. Are you aware that [PA NAME] offers programs to help their small business customers save energy?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[SKIP TO PA4 IF PA1<>1]

PA2. Which programs have you heard of? [OPEN END]

- 98. (Don't know)
- 99. (Refused)

PA3. How did you hear about these programs? [MULTIPLE RESPONSE; UP TO 5]

- 1. (PA promotional materials)
- 2. (PA website)
- 3. (Email from PA)
- 4. (Colleague, business associate)
- 5. (Contractor)
- 6. (Utility bill insert)
- 7. (Presentation, event)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

PA4. [PA NAME] offers a free energy audit and incentives to small business customers for the installation of high efficiency lighting, refrigeration, motors, and other equipment. Have you heard anything about this Small Business program?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

[SKIP TO E1a IF PA4=2, 8, 9]

PA5. How familiar are you with this program? Would you say you are...?

- 1. Not at all familiar
- 2. Not very familiar
- 3. Somewhat familiar
- 4. Very familiar
- 98. (Don't know)
- 99. (Refused)

[SKIP TO A1 IF PA5<>3 OR 4]

BA5. What do you see as the drawbacks or barriers to participating in the Small Business program? [MULTIPLE RESPONSE, UP TO 3]

- 1. (Paperwork too burdensome)
- 2. (Incentives not high enough/not worth the effort)
- 3. (Cost of equipment)
- 4. (Not sure how long we will stay in business/at location)
- 5. (Don't believe in energy efficiency)
- 00. (Other, specify)
- 96. (None)

- 98. (Don't know)
- 99. (Refused)

BA6. On a scale from 1 to 7 where 1 is "not at all likely" and 7 is "extremely likely", how likely are you to participate in the Small Business Program in the future? [1-7, 98=DK, 99=Ref]

[SKIP IF BA6<5]

BA7. Why are you likely to participate in the program? [OPEN END]

[SKIP IF BA6>4]

BA8. Why are you **unlikely** to participate in the program? [OPEN END]

## MARKETING AND OUTREACH

[SKIP TO E1 IF PA4<>1]

A1. How did you learn about the [PA NAME] Small Business Program?

- 1. ([PA NAME] representative)
- 2. ([PA NAME] website)
- 3. (Contractor)
- 4. (Friend/colleague)
- 5. (Bill insert)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

A2. What is the best way of reaching companies like yours with information about energy saving opportunities like the Small Business program? [MULTIPLE RESPONSE]

- 1. (Visits from program representatives/program staff/vendors)
- 2. (Bill inserts)
- 3. (Target owners/upper management)
- 4. (E-mail)
- 5. (Direct Mail)
- 6. (Phone)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

## Recent Energy Efficiency Behaviors & Intent to Take Action

Now I would like to ask you some questions about the energy consuming equipment at your facility.

- E1. Within the past 2 years, has your company installed any of the following energy consuming equipment at this location? [1=Yes, 2=No, 98=Don't know, 99=Ref]
- a. Lighting
  - b. Variable Frequency Drives/VFDs [IF NEEDED: Variable frequency drives might be installed on fans within your ventilation system as a way to save energy by allowing the volume of air moved to match the amount energy needed by the ventilation system.]
  - c. Refrigeration equipment
  - d. Any other equipment

[ASK IF E1d=1, ELSE SKIP TO E3]

- E2. Can you please describe the other equipment you installed? [OPEN END]
98. (Don't know)
  99. (Refused)

- E3. Now thinking about improvements you might make at your facility within the next 12 months, how likely are you to replace or upgrade any of the following equipment at this location? Are you not at all likely, not very likely, somewhat likely, or very likely?
- a. Lighting
  - b. Variable Frequency Drives/VFDs
  - c. Refrigeration equipment
1. Not at all likely
  2. Not very likely
  3. Somewhat likely
  4. Very likely
  97. (N/A, Don't have this type of equipment)
  98. (Don't know)
  99. (Refused)

Classify Equipment

IF E3a>2, MEASL=0, ELSE MEASL=1

If E3c>2, MEASR=0 ELSE MEASR=1

- E4. How likely are you to install high efficiency as opposed to standard efficiency...?
- a. [SKIP IF MEASL=1] Lighting
  - b. [SKIP IF MEASR=1] Refrigeration equipment
    1. Not at all likely
    2. Not very likely
    3. Somewhat likely
    4. Very likely
    98. (Don't know)

99. (Refused)

[ASK IF ANY E4a-b = 1 or 2, ELSE SKIP TO BA1]

E5a. If [PA Name] provided a free energy audit of your facility and an incentive that covered 50% of the cost of purchasing and installing **high efficiency** equipment, would you be more likely to install the high efficiency equipment or would a 50% incentive not make much of a difference in your decision to install the equipment?

1. Yes, more likely
  2. Won't make much of a difference
98. (Don't know)  
99. (Refused)

[SKIP IF E5a= 1]

E5b. If [PA Name] provided a free energy audit of your facility and an incentive that covered 60% of the cost of purchasing and installing **high efficiency** equipment, would you be more likely to install the high efficiency equipment or would a 60% incentive not make much of a difference in your decision to install the equipment?

1. Yes, more likely
  2. Won't make much of a difference
98. (Don't know)  
99. (Refused)

[SKIP IF E5b= 1]

E5c. How about if the incentive covered 70% of the cost?

1. Yes, more likely
  2. Won't make much of a difference
98. (Don't know)  
99. (Refused)

[SKIP IF E5c=1]

E5d. How about if the incentive covered 80% of the cost?

1. Yes more likely
  2. Incentive won't make much of a difference
99. (Refused)  
98. (Don't know)

I would also like to ask you about your interest in financing for future energy efficiency projects.

E6a. Thinking about the same facility improvements you mentioned above, if [PA Name] offered **zero** interest financing for 12 months for the portion of your project costs not covered by the program incentive, would you be more likely to install the energy efficient equipment or would 12 months of interest free financing not make much of a difference in your decision to install the equipment?

1. Yes more likely
2. Won't make much of a difference
99. (Refused)
98. (Don't know)

[SKIP TO BA1 IF E6a=1]

E6b. If [PA Name] offered **zero** interest financing for 12 months **AND** you could pay this on your electric bill, would you be more likely to install the energy efficient equipment or would 12 months of financing and on-bill repayment not make much of a difference in your decision to install the equipment?

1. Yes more likely
2. Won't make much of a difference
99. (Refused)
98. (Don't know)

[SKIP TO BA1 IF E6b=1]

E6c. How about if [PA Name] provided 24 months of **zero** interest financing that you could pay on your electric bill? Would you be more likely to install the energy efficient equipment or would 24 months of financing not make much of a difference in your decision to install the equipment?

1. Yes more likely
2. Won't make much of a difference
99. (Refused)
98. (Don't know)

## **BARRIERS TO PARTICIPATION**

[ASK BA1-BA3 IF E1a-c=1, AND PA5=3 OR 4, ELSE SKIP TO BA4]

BA1. Thinking back to the equipment you installed over the past 2 years, did you consider participating in the [PA NAME] Small Business Program when you purchased your new equipment?

1. Yes
2. No
98. (Don't know)
99. (Refused)

[SKIP TO BA3 IF BA1=1]

BA2. Why did you not consider it? [MULTIPLE RESPONSE, UP TO 3]

1. (Did not think my business qualified)
2. (Did not have the time to find out about it)
3. (Did not include the equipment I planned to purchase)
4. (Incentive levels are not high enough to deal with it)
00. (Other, specify)
98. (Don't know)
99. (Refused)

[SKIP TO BA4 IF BA1<>1]

BA3. Why did you decide not to participate in the program? [MULTIPLE RESPONSE, UP TO 3]

1. (Not aware of the program)
2. (Did not think my business qualified)
3. (Did not have the time to find out about it)
4. (Did not include the equipment I planned to purchase)
5. (Incentive levels are not high enough to deal with it)
00. (Other, specify)
98. (Don't know)
99. (Refused)

BA4. How much input do you have into facility improvements, specifically the installation of new equipment? Please use a scale from 1 to 7 where 1 is "no input" and 7 is "significant input".

- |          |                   |    |     |
|----------|-------------------|----|-----|
| 1        | 7                 | 98 | 99  |
| No input | Significant input | DK | Ref |

## FIRMOGRAPHICS

I just have a few final questions.

F1. Which of the following best describes this facility? This facility is...

1. My company's only location
2. One of several locations owned by my company
3. The headquarter location of a company with several locations
98. (Don't know)

99. (Refused)

[ASK IF F1<>1, ELSE SKIP TO F3]

F2a. Is your company independently-owned or is it part of a franchise or chain of businesses?

3. Independent

4. Part of franchise or chain

98. (Don't know)

99. (Refused)

F3. Does your company pay the electric bill?

1. Yes

2. No

98. (Don't know)

99. (Refused)

F4. Does your company pay the gas bill?

1. Yes

2. No

98. (Don't know)

99. (Refused)

*Those are all of the questions I have. Thank you for participating.*