

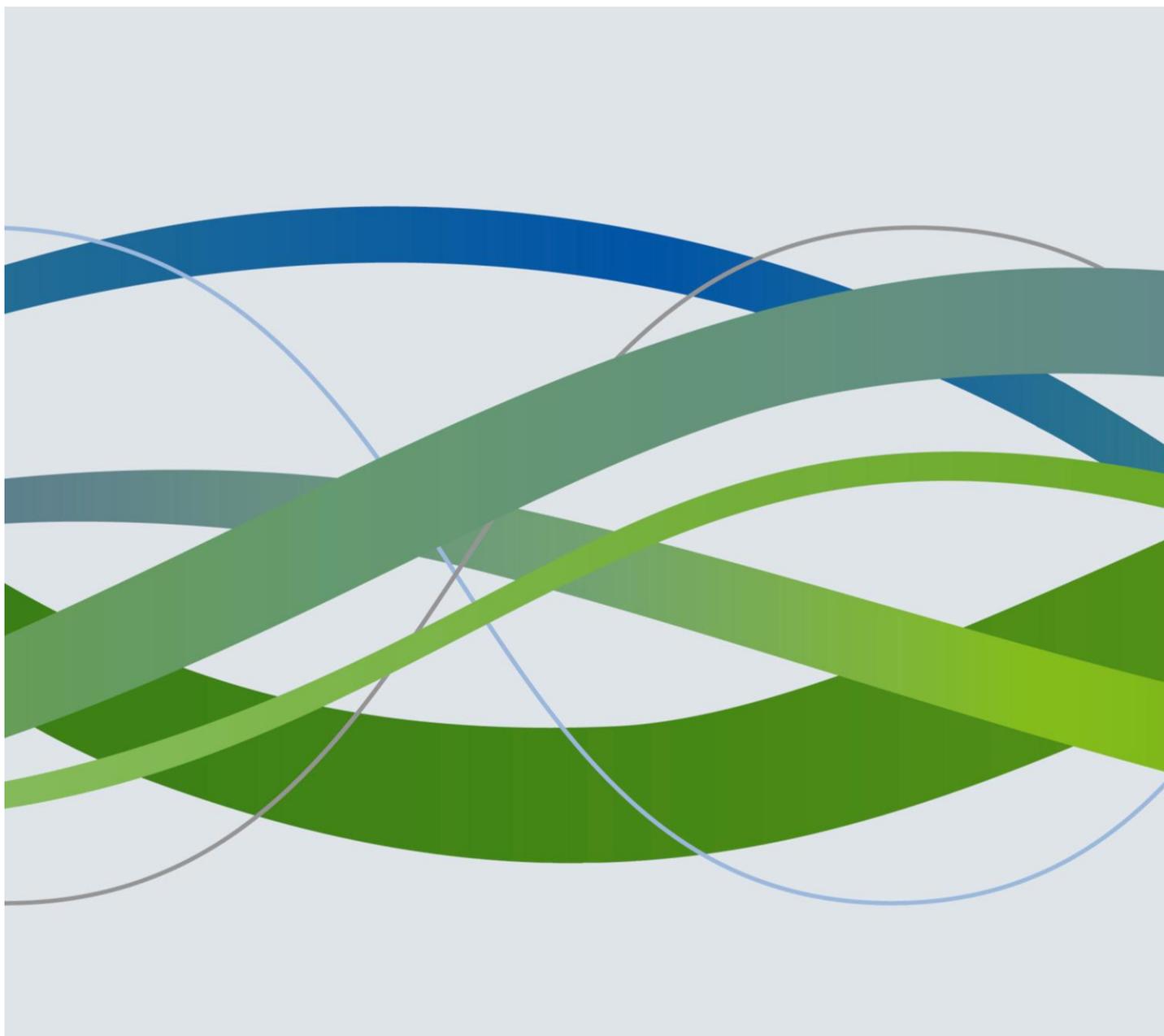
Memorandum

Mid-Sized Customer Needs Assessment – Interim Results

EEAC Consultants and Massachusetts Energy Efficiency Program Administrators

Prepared by KEMA, Inc.

June 28, 2013





1. Executive Summary

This Executive Summary provides a high level review of the preliminary results of analysis completed to date for the *Mid-sized Customer Needs Assessment* for the evaluation of the large commercial and industrial (C&I) programs operated by the Massachusetts Program Administrators (PA). A final report is planned for early fall, 2013. In this section, we state the study objectives, summarize the evaluation approach, and present key preliminary findings and recommendations.

1.1 Evaluation objectives

This research resulted from the Massachusetts Program Administrators, Energy Efficiency Advisory Council (EEAC) Consultants, and Department of Energy Resources (DOER) interest in understanding the extent to which current program offerings effectively serve the needs of mid-sized customers, and whether new program offerings or variations of existing program offerings would better serve mid-sized customers. Table 1-1 presents the research objectives identified in the November 15, 2012 work plan and DNV KEMA’s current status in addressing each objective. This study is divided into two stages. The preliminary results presented in this memorandum address the Stage I research objectives.

Table 1-1 Research objectives

| Stage | Research Objectives | Status |
|-------|---|-------------|
| I | Determine how Massachusetts PAs currently address mid-sized customers | Completed |
| | Estimate program participation rates for the largest, smallest, and mid-sized customers | Completed |
| | Identify and describe the population of mid-sized customers across PAs | Ongoing |
| II | Compare the experience of small, mid-sized, and large program participants | Forthcoming |
| | Perform gap-analysis/needs assessment for participants and non-participants | Forthcoming |
| | Recommend ways the PAs could optimally serve mid-sized customers | Forthcoming |



1.2 Overview of approach

This section provides a high level synopsis of the DNV KEMA approach to a Mid-sized Customer Needs Assessment. Figure 1-1 presents an overview of the two-stage research approach. The principal research steps in the approach are as follows:

Stage I

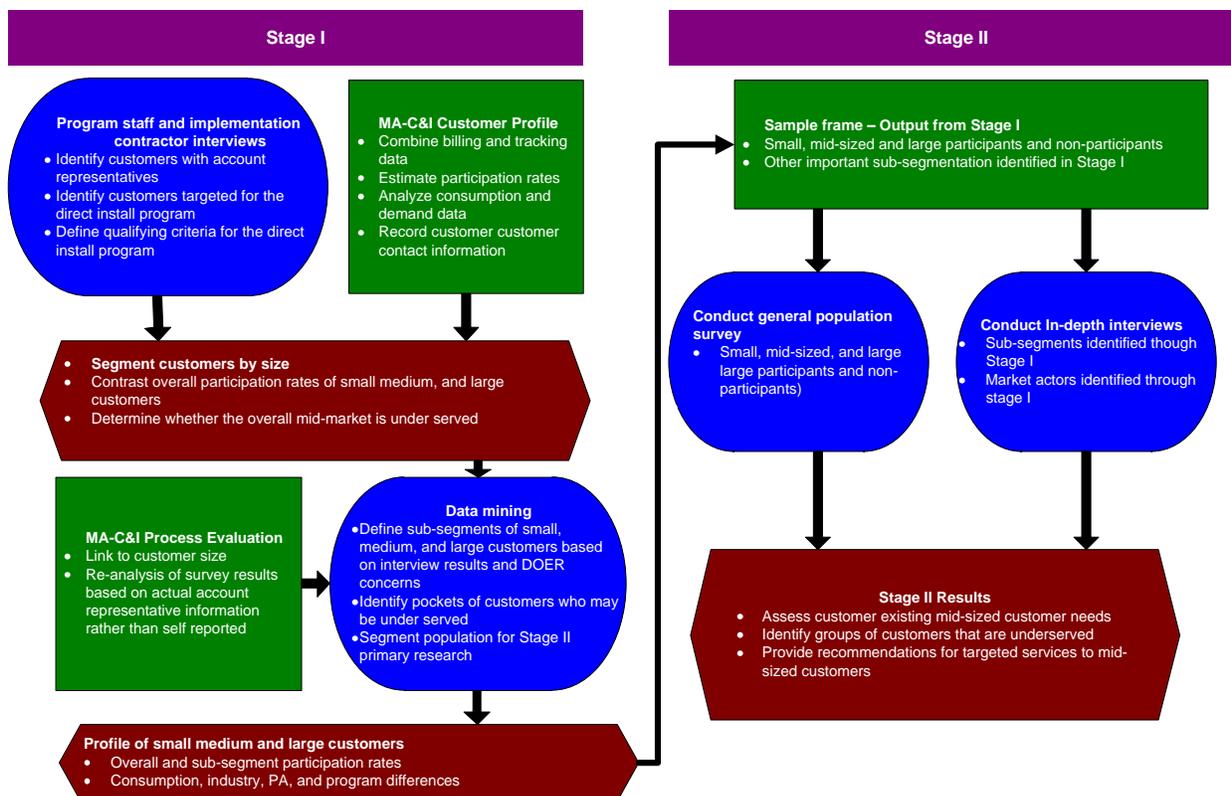
- Interview program staff and implementation contractors for C&I programs (Task Completed);
- Combine interview results with results from the MA-C&I Customer Profile Project ¹ to segment customers for analysis (Task Completed);
- Conduct data mining of exploratory data analysis of existing billing and tracking data, as well as re-analysis of previous survey data (Task In-Progress).

Stage II

- Design a sample frame for a survey of participants and non-participants using the Stage I results (Task In-Progress);
- Conduct a survey of participants and non-participants in the small, mid-sized, and large segments of the Customer Size Survey (Task Planned for July);
- Conduct in-depth interviews with specific sub-segments and market actors identified in Stage I (Task Planned for August);
- Based on the survey results, assess existing customer needs and identify underserved customer segments (Task Planned for September).

¹ MA-LCIEC (C&I) Customer Profile Project. Massachusetts Program Administrators, EEAC. Prepared by KEMA, Inc. January 7, 2013. As part of this research DNV KEMA merged billing and tracking records across all electric and gas PAs.

Figure 1-1 Overview of two stage research approach



1.3 Key findings to date

This section reports the preliminary findings of the in-depth interviews with the PAs and implementation contractors, and data analysis performed to date. The findings are organized by three topics:

- 1.) Approaches for marketing to customers within each size segment
- 2.) Effectiveness of existing energy efficiency programs serving mid-sized customer needs
- 3.) Estimating participation rates by account size segment

1.3.1 Approaches for marketing to customers within each size segment

This section reports on the PA use of differing approaches for marketing to customers within each size segment. Much of the work completed to date focuses on customer segmentation based on electric account information because this is currently how customers are identified and marketed in the Direct Install program.

- NStar classified all customers greater than 300 kW as mid-sized to large and assigned them to account management teams based on industry and consumption levels. The account management teams also included Project Expeditors, who were third party contractors that helped identify the



needs of the more diverse smaller accounts. NStar believed that the project expeditors, plus the industry specific account teams' focus, provided sufficient resources to address the large and mid-sized customer needs.

- National Grid distinguished between customers less than 750 kW, as they assigned account representatives to all customers greater than 750 kW, but only a select group of customers (“sweet spots”) if their demand is between 300 and 750 kW. They defined these sweet spots as customers in industries such as injection modeling, where energy was a relatively high cost consideration, and had load factors of 80%-90%. This was because the number of accounts with demand between 300 and 500 kW was too great for internal staff to handle. Furthermore, they suggested that implementation contractors were not trained comprehensively, to the extent necessary to adequately serve the needs of these customers. Participants who were not in an identified sweet spot were allocated to implementation contractors, who may not have had adequate training to offer the appropriate solutions.
- Unitol reported marketing to all large customers as a group, which they define as customers 200 kW or more. Given the relatively small customer base, they reported having intimate knowledge of their customers, and worked directly with them to develop solutions. PAs with smaller territories indicated that they typically do not subdivide the 300 kW and up customer group.
- For the electric Direct Install programs and small business gas programs, the PAs rely primarily on the Direct Install vendors and implementation contractors to market the programs and perform outreach.

1.3.2 Effectiveness of existing energy efficiency programs serving mid-sized customer needs

DNV KEMA asked a series of questions to understand PA's assessment of how well the mid-sized customer segment was being served by existing programs. Table 1-2 presents a summary of the results. These preliminary findings will be explored in greater detail through the Stage II Customer Size survey.



Table 1-2 Are existing energy efficiency programs effectively serving mid-sized and other customer segments?

| Electric/Gas PA | PA Name | Customer Size Discussed | PA impression of whether existing energy efficiency programs meet customer needs? | Explanation |
|--------------------------------|-----------------|-------------------------|---|--|
| PAs with both electric and gas | National Grid | Medium | Somewhat | National Grid notes that the need of this segment are more challenging to address because customers require more comprehensive solutions than smaller direct install customers. The solutions required by customers in this segment are often as complex and diverse as large C&I, but the number of customers in the segment make it difficult for internal staff to address the needs. They target select industries with high load factor (i.e. those in which energy is an important cost consideration) to be sure they are marketing to firms in which the projects have a high enough ROI. Alternatively, they rely on implementation contractors to market to these customers, however, they believe contractors are not as well trained in comprehensive solutions as internal staff. |
| | Nstar | All sizes | Yes | Nstar indicates that they see no gaps in program offerings for this customers. Their approach provides a team of account representatives to each customer segment by industry and consumption group. Customers requiring additional resources can use a project expeditor to help identify needs and design solutions. |
| | Unitil | Small | Don't know | Does not know whether the needs are being met. They have a small service territory. |
| PAs with electric only | Cape Light | Small | Yes | Small customers well served. The exception is very small customers (<12,000 kWh/year) |
| | | Medium | No | Mid-size customers often do not have the resources to take full advantage of the large C&I program. Customers could be better served by opening up the direct install program to customers with <700 kW peak demand. |
| | | Large | Yes | Large, sophisticated customers with energy managers make good use of the large C&I program. |
| PAs with gas only | Berkshire Gas | Medium | Gas-Yes | Reported gap in the electric energy efficiency programs between 300kW and 700 kW, based on anecdotal evidence. >300 kW customers currently do not qualify for the Direct Install program, but would like to have all commercial customers regardless of size are treated the same way; the same incentive structure is applicable to all of them. |
| | Electric-No | | | |
| | Columbia Gas | Medium | Yes | Medium and large sized customers are served in the same way and receive the same type of measures. |
| | New England Gas | Medium | No | There are insufficient prescriptive gas measures for mid-sized customers in the small business Direct Install and Project Expeditor programs as these are handled by the electric PAs. The gas PAs are not receiving enough qualified custom gas leads through the Direct Install or Project Expeditor programs. Some businesses do not participate in the custom program because of the cost of an engineering study. |

1.3.3 Estimating participation rates by account size segment

DNV KEMA examined participation rates for seven mutually exclusive categories of accounts² based on the following parameters:

- Peak demand – We distinguished between customers that had peak demand less than 300 kW, 300 to 750 kW, and greater than 300 kW;
- Account management – We identified customers who the PAs reported were and were not assigned to account representatives; and
- Multi-accounts – We counted the number of accounts tied to a customer name and identified customers who had more than five accounts. These were called multi-account customers.

We calculated three different participation rates for this analysis:

- 1.) Number of participants within a customer segment / the total number of customers in that segment;
- 2.) Sum of peak demand for all participants in a segment / the sum of peak demand for all customers in the segment;
- 3.) Sum of total yearly kWh usage for all participants in a segment / the sum of total yearly kWh usage for all customers in the segment.

Figure 1-2 presents the three participations rates for each of the seven size segmentation categories.

This analysis used low participation rates as preliminary evidence of the degree to which existing program offerings were addressing the needs of mid-sized customers. The preliminary analysis indicates:

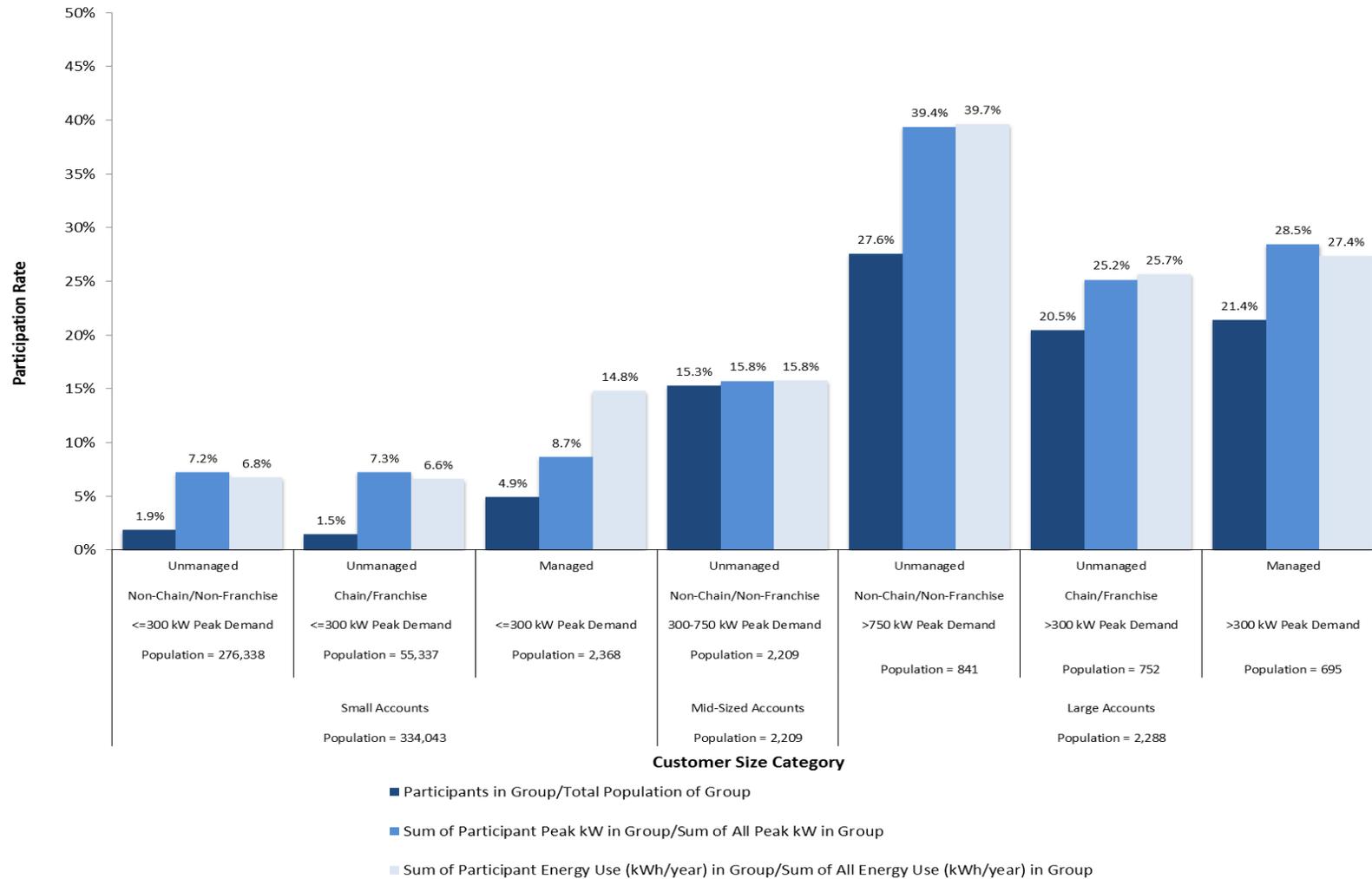
- Mid-sized customers had a lower account participation rate than all categories of large customers, but a higher participation rate than all categories of small customers.
- The PAs reported that most of the large customers should be managed; however, we found many accounts with demand greater than 750 kW that were not managed, and these unmanaged customers had a higher participation rate than large managed customers. Meanwhile, small managed customers had much higher participation rates than small customers that were not managed.

There was a tendency for customers with higher peak demand within their group, or with a higher average load factor, to participate. This implies that the programs were either attracting or promoting to higher load customers.

² See section 4.1.1.1 for a detailed description of the segmentation.



Figure 1-2 Account level participation rate by segment





1.4 Conclusions

This section integrates the findings of the interviews with our analysis of the available billing and tracking data to draw conclusions about whether the existing energy efficiency programs and services are optimally addressing the needs of mid-sized customers. This section ends with recommendations for PA and EEAC consideration.

No standard definition of ‘mid-sized’ customer

Through DNV KEMA’s interviews with PAs and implementation contractors, we have concluded that there is no consensus as to how small, mid-sized and large customers should be identified within each of the PA service territories. Each PA currently uses a unique methodology for making these distinctions. Some PAs only consider small and large customers, since they have so few large customers, with some large customers falling within the Direct Install program range.

Current customer data does not match PA account management claims

During our interviews, the PAs indicated that most accounts with >750 kW peak demand and customers with more than five locations should receive attention from an account representative. However, the available customer data indicates that many large customers are not managed, and many customers with lower peak demand, but who have more than five locations, are also not managed.

Current customer tracking systems could be improved for better marketing

While the PAs and implementation contractors were somewhat satisfied with their customer tracking systems for the purposes of program marketing, the interviewees suggested some improvements. There is a desire to easily link all accounts and locations for a customer to a parent name, which the data management systems cannot currently do. Also, both PAs and implementation contractors believe that marketing could be more targeted, and more successful, if they were able to more easily query information regarding customers within specific industries.

No consensus as to whether mid-sized customers are optimally served

Among the PAs and implementation contractors we spoke with, there was no consensus regarding whether mid-sized customers were underserved, or how better to serve mid-sized customers if they are underserved. Some contractors interviewed believed that one option for addressing mid-sized customers was to expand the Direct Install programs to customers with up to 750 KW peak demand. However, this belief was not shared by a number of the PAs. Some of the PAs indicated that contractors would require



greater training in comprehensive solutions to address the needs of the mid-sized market. Others stated that the existing model of using project expeditors to assist customers in finding solutions was adequate for meeting mid-sized customer needs.

Addressing mid-sized customers through expanded custom programs might be difficult. Mid-sized custom projects are often as complex and resource intensive as large custom projects but with lower potential payback to customers. Customers who would be classified as mid-sized based solely on peak demand, but who have particularly high levels of energy usage, already receive attention from account representatives and are considered large for marketing purposes. Mid-sized customers with 300-750 KW peak demand, but who have lower average load factors are likely to participate less often than other segments. The research team will need to confirm this through the Stage II customer survey.

The Gas PAs believe their mid-sized and large gas customers are not optimally served by the small electric Direct Install programs

The Gas PAs are concerned about the way small electric/large gas customers are handled by Direct Install vendors. They have no way of knowing if all appropriate prescriptive measures are installed by the electric contractors, or if their customers' buildings might be better suited to custom projects.

Based on participation rates, mid-sized customers appear underserved

Our analysis of participation rates by size category indicated that mid-sized customers participated in energy efficiency programs two-thirds as often as large customers. The overall populations of these groups were similar in size. This difference may indicate that mid-sized customers are underserved. Again, the research team will confirm this through the survey of the Massachusetts C&I customer participants and non-participants.

1.4.1 Preliminary recommendations

Based on the research completed to date DNV KEMA presents the following preliminary recommendations to the PA and EEAC for consideration. These preliminary recommendations may change upon completion of the data mining and Stage II primary research. The final recommendations will be presented in the final report.

- *Improve processes for linking multiple accounts to customers* – The PA's ability to accurately and consistently classify customers depends upon their ability to track multiple account customers within and across PAs. The PAs employ a range of tools to help them link customers; however, these tools did not provide sufficient support to enable the research team to link account representatives to the accounts they manage by account number. Moreover, we found large discrepancies between the



segments that the PAs felt they were managing and those we were able to match with account representatives.

- *Standardize classification and marketing approaches to multi-account customers* – Our research found that multiple account customers were treated differently across PAs, and also within a PA, across customers. The lack of standardized approaches for treating multiple account customers limits our ability to isolate segments of customers based on size and complicates the PA’s ability to effectively market to those customers.
- *Link electric and gas customers* – Because much of the identification and marketing to Direct Install customers is handled through the electric PAs, the gas-only PAs lose some autonomy regarding how their customers are marketed. Consequently, some large gas customers are not identified until after they receive Direct Install prescriptive solutions from installation contractors. Improved tracking systems across PAs would reduce the risk of this occurring. DNV KEMA found that the PA’s ability to link accounts across firms is constrained by legal privacy issues that must be addressed before this will be possible.

1.4.2 Limitations

The following identifies the current limitations of the research presented in this memorandum and identifies the on-going research designed to address some of those limitations.

- **Mid-sized Customer Needs Assessment research is on-going.** This memorandum provides preliminary results of this mid-sized customer needs assessment. The findings were limited to the in-depth interviews with PA staff and implementation contractors, and limited analysis of the MA-C&I Customer Profile Project database. The on-going research efforts include a detailed data mining exercise designed to investigate the relationship between the in-depth interview responses and the customer billing and program tracking records. We are in the process of implementing a survey of participants and non-participants to test various hypotheses developed based on the PA interviews and data analysis conducted to date.
- **Limitation in the program tracking systems.** The ability to effectively link accounts to customers limits our ability to develop standardized definitions of customer size. Moreover it restricts the analysis to electric customers because we cannot link the customer size that is established based on electric account information to the gas consumption. This was identified and discussed during the research design stage. In the customer survey customers will be asked to identify their gas utility and gas consumption in an effort to draw conclusions about the needs of large gas and small electric customers.



2. Introduction

This memorandum provides initial results of activities completed to date for Project 19, the Massachusetts Mid-Sized Customer Needs Assessment for commercial and industrial (C&I) customers. This project is part of an overall market characterization effort of energy efficiency programs in Massachusetts. The study is being conducted for the Energy Efficiency Advisory Council Consultants (EEAC) and the Energy Efficiency Program Administrators (PAs) by the independent consulting firm DNV KEMA. As described in the November 15, 2012 project work plan, this research effort is divided into two stages and six research objectives. The results presented in this memorandum address the three Stage I research objectives, as seen in Table 2-1 below.

Table 2-1 Research objectives

| Stage | Research Objectives | Status |
|-------|---|-------------|
| I | Determine how Massachusetts PAs currently address mid-sized customers | Completed |
| | Estimate program participation rates for the largest, smallest, and mid-sized customers | Completed |
| | Identify and describe the population of mid-sized customers across PAs | Ongoing |
| II | Compare the experience of small, mid-sized, and large program participants | Forthcoming |
| | Perform gap-analysis/needs assessment for participants and non-participants | Forthcoming |
| | Recommend ways the PAs could optimally serve mid-sized customers | Forthcoming |

This study resulted from the interest of Massachusetts Program Administrators, Energy Efficiency Advisory Council (EEAC) Consultants, and Department of Energy Resources (DOER) in understanding the extent to which current energy efficiency program offerings effectively served the needs of mid-sized customers. The study sponsors were also interested in knowing whether mid-sized customers or pockets of customers were not optimally served by existing program offerings. The study sponsors inquired whether variations to existing program offerings or additional services were needed to optimally serve those groups of customers.



A substantial portion of this memorandum describes the results of the research team's in-depth interviews with the PAs and with implementation contractors. DNV KEMA performed these interviews to gauge the effect of marketing and account management on customer participation. Previous research (e.g., the General Process Evaluation of the Commercial and Industrial (C&I) energy-efficiency programs) indicated that PAs that employ account representatives use these individuals to actively market energy efficiency programs to Large C&I customers. While the assignment of account representatives was not solely based on customer size, and assignment criteria vary among PAs, account representatives were believed to generally be assigned to Large C&I customers. During the scoping phase of this mid-sized customer needs assessment, we determined that a number of smaller PAs did not have account representatives, but used criteria to distinguish between larger key accounts and mid-sized customers. On the other hand, smaller C&I customers were targeted by the PAs and implementation contractors as potential participants for the Direct Install programs. In between these two customer groups were the mid-sized C&I customers. These customers were believed to be too large to qualify for the Direct Install Programs but did not have a dedicated account representative, and were not classified as key accounts. Our research investigated the actual criteria used by PAs to identify customers for the direct install program, assign account representatives, and identify small, mid-sized, and large customers.

While mid-sized customers may account for a substantial share of annual demand and energy consumption, the existing Massachusetts C&I program designs, and absence of dedicated account representatives, may result in a gap in service to this segment. Filling this gap could provide deeper energy efficiency savings to mid-sized customers who are already participating in the PA's C&I programs and new opportunities for mid-sized customers who are not.

The remainder of this memo presents the development of these conclusions.

The memo is structured as follows:

- **Section 3 Methodology:** Describes the methodology used for this study. This includes an overview of the entire study, a description of the Stage I research completed to date, and a description of the ongoing Stage I and forthcoming Stage II research.
- **Section 4 Preliminary Results:** Discusses the results of the Stage I research to date which includes a summary of the PA and implementation contractor in-depth interviews, preliminary participation rate analysis for small, mid-sized, and large customers, and data mining activities performed to date. This section also outlines the remaining research planned under the Stage I and II research agenda.
- **Appendices:** PA Interview Guide and Implementation Contractor Interview Guide

3. Methodology

3.1 Overview of approach

This section describes the two stage methodology for the full mid-sized customer needs assessment. Our description of the Stage I research activities includes both completed and on-going research tasks. We also discuss the approach to using the Stage I research findings to design primary research efforts in Stage II. The results presented in Section 4 report our findings from the Stage I research completed to date. Figure 3-1 presents an overview of the two-stage research approach. A more detailed description of each task is provided after the diagram. Our approach is as follows:

Stage I

- Interview program staff and implementation contractors for C&I programs;
- Use interview results in combination with results from the MA-C&I Customer Profile Project to segment customers for analysis;³
- Conduct data mining of exploratory data analysis of existing billing, tracking records, as well as re-analysis of previous survey data:
 - Exploratory data analysis – We will use data mining techniques to investigate the MA-C&I Customer Profile Project database. We will use this analysis to identify pockets of customers that may not be optimally served.
 - Reanalyze the results of the MA C&I Process Evaluation – We will re-examine survey results from the MA C&I Process Evaluation that compared responses from large and mid-sized customers. Our analysis will focus on contrasting the previous findings in which customer size was based on participants self-reporting whether they had an account representative, to new size criteria defined through the Stage I research⁴.

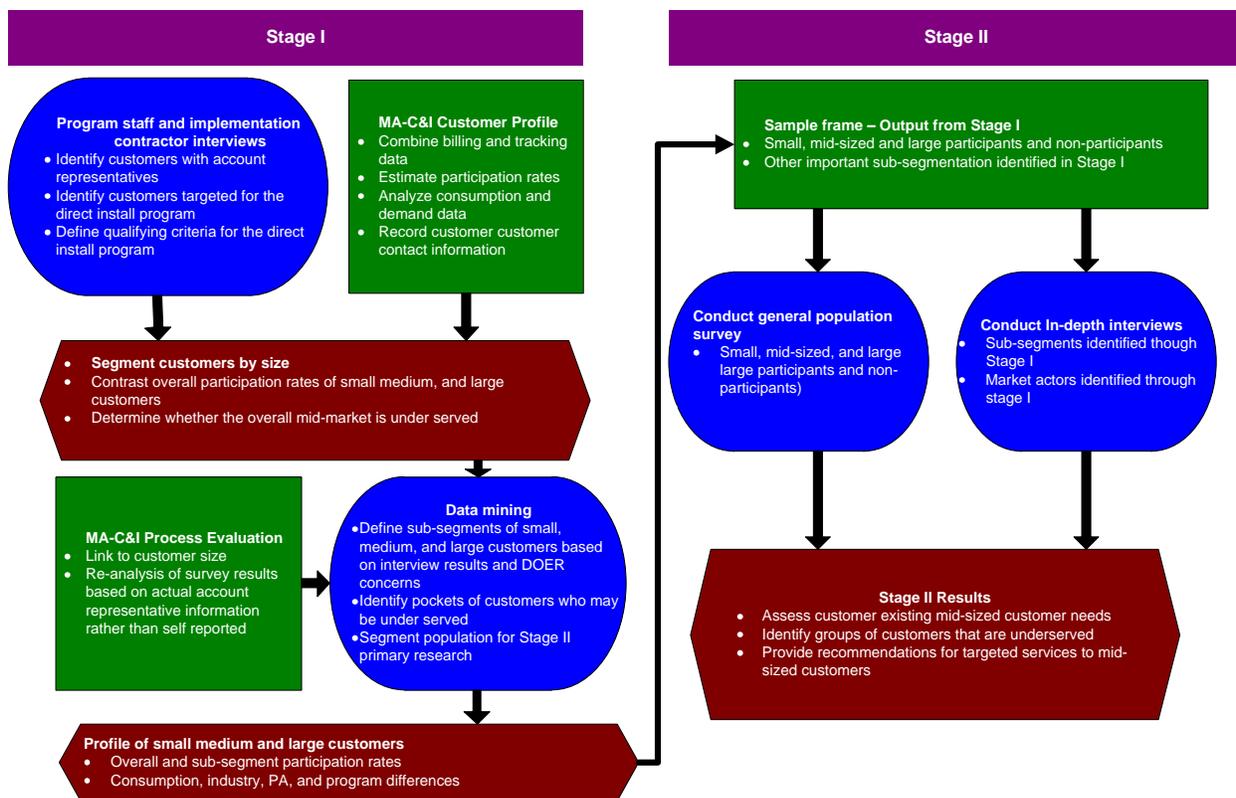
³ MA-LCIEC Customer Profile Project. Massachusetts Program Administrators, EEAC. Prepared by KEMA, Inc. January 7, 2013. This study provided the most comprehensive review of the Massachusetts PAs combined billing and tracking data to date. As part of this research DNV KEMA merged billing and tracking records across all electric and gas PAs. The resulting database provides the most robust source of account level data available to date.

⁴ Massachusetts Large Commercial & Industrial (C&I) Process Evaluation. Massachusetts Program Administrators, EEAC. Prepared by KEMA, Inc. July 20, 2012. This study included an investigation of process evaluation results for large and mid-sized customers. It defined large customers as those with self-reported account representatives and mid-sized customers as those without self-reported account representatives.

Stage II

- Design a sample frame for a survey of participants and non-participants using the Stage I results;
- Conduct a survey of participants and non-participants in the small, mid-sized, and large segments in the Customer Size Survey;
- Conduct in-depth interviews with specific sub-segments and market actors identified in Stage I;
- Based on the survey results, assess existing customer needs and identify customer segments that are not optimally served.

Figure 3-1 Overview of two stage research approach



The goal of our Stage I interviews was to gather information necessary to segment the population of C&I customers into small, mid-sized, and large groups in the same way that the Massachusetts PAs segment their customers. Additional interview objectives were to obtain marketing lists of customers targeted for the Direct Install (small C&I) programs, obtain lists of customers who have account representatives, and



to identify approaches used to market to mid-sized customers. We discuss the interview guides used for this task later in this memo. The complete guides have been attached as appendices.⁵

We have identified C&I program staff and implementation contractors, designed separate interview guides for program staff and implementation contractors, conducted the interviews, and estimated participation rates by customer size/segment. The research team is currently engaged in the data mining and re-analysis of MA-C&I Process Evaluation tasks that are part of Stage I. While not presented in this memo, we also drafted the Stage II survey and developed the survey's sample frame.

3.2 Stage I research

This section provides a detailed description of the Stage I research activities. We discuss the contacts used to conduct the PA and implementation contractor interviews, the in-depth interview guides, our approach for analyzing the interview findings, integration of interview findings with the customer profile database developed through the MA-C&I Customer Profile Project, estimation of participation rates by customer size, and ongoing data mining activities. Finally, we provide a brief summary of the forthcoming primary research activities planned for Stage II of this project.

3.2.1 In-depth interview sample frame

DNV KEMA coordinated with the PAs to identify the appropriate program staff and implementation contractors for in-depth interviews. In addition to program managers, DNV KEMA requested PA assistance in identifying the range of personnel within each PA who may have had experience with mid-sized customers through energy efficiency and/or non-energy efficiency related activities. The PAs provided contact information for individuals that had engaged small, mid-sized, and large customers through a range of roles including the following:

- *Energy efficiency consultants:* Some PAs used internal staff as program actors called energy efficiency consultants to help the program identify energy efficiency opportunities and guide them through the program approval process. These energy efficiency consultants were useful interview targets because, unlike the account representatives, they were focused on energy efficiency programs exclusively and they work with small and mid-sized businesses.
- *Project expeditors:* Some PAs employed groups of third-party contractors, selected via an RFP process. These firms were mostly lighting contractors, but some were starting to branch into other end uses. Project expeditors performed energy audits and prepared proposals for prescribed work. Since

⁵ See Appendix A for the PA interview guide and Appendix B for the implementation contractor interview guide.



these companies were very familiar with the PA's energy efficiency programs, they usually included program incentives with their proposals.

- *Account representatives:* Most, but not all, of the PAs had account representatives.⁶ These individuals traditionally focused on larger C&I customers. Due to their close relationships with customers, these individuals provided insights into the needs and potential service gaps of mid-sized, as well as large customers. Some customers who would be considered mid-sized based on their annual demand may still have designated account representatives. In addition, learning from the account representatives about the types of services they provide to large C&I customers should help the evaluators better understand those PA services that most of the mid-sized customers were not receiving.
- *Implementation contractors:* In addition to interviewing program staff, DNV KEMA targeted implementation contractors that were familiar with the marketing of the Direct Install program. These contractors suggested important criteria for targeting small customers, which we will use to define small businesses.

⁶ For example, Cape Light Compact does not have account representatives.



In Stage I we completed interviews with some of these program actors. Table 3-1 summarizes the number of PA representatives and implementation contractors we interviewed, and indicates whether the interview was conducted on-site or via telephone.

Table 3-1 In-Depth Interviews conducted with PAs and implementation contractors

| Program administrator/ implementation contractor | Number of individuals interviewed | On-site interview | Telephone interview |
|--|-----------------------------------|-------------------|---------------------|
| BERKSHIRE GAS | 1 | | x |
| CAPE LIGHT | 3 | | x |
| COLUMBIA GAS | 1 | | x |
| NEW ENGLAND GAS | 1 | | x |
| NATIONAL GRID | 5 | x | |
| NSTAR/WMECO | 2 | x | |
| UNITIL | 3 | x | |
| RISE Engineering | 1 | | x |
| CET | 1 | | x |
| National Resource Management | 1 | | x |
| Northern Energy | 1 | | x |
| Prism Energy Services | 1 | | x |

3.2.2 In-depth interview guide design

DNV KEMA developed separate in-depth interviews (IDIs) for program staff and implementation contractors. The primary objectives of program staff IDI include the following:

1. Identify criteria used to classify large customers with account representatives and small businesses (Direct Install prospects).
2. Explore whether there are differing marketing needs for customers within the distribution of large and small customers.
3. Identify approaches used to market to customers with differing needs, particularly those with and without account reps.
4. Obtain lists of customers with dedicated account representatives and lists of other PA staff that may provide valuable insights into this study.



The Implementation Contractor IDI Guide was used to obtain information that met the following objectives:

1. Identify criteria used to target businesses for the Direct Install (small business) and large C&I programs.
2. Explore differing customer needs within the distribution of small and large customers relative to program offerings
3. Identify approaches used to market to customers' differing needs.

Each guide contained the following^{7, 8}:

- *Call log*: Information about the respondent, pre-populated by the interviewer prior to the call.
- *Introduction*: Provides background information to the interviewees regarding the project.
- *Roles and background*: Obtains additional background information concerning the respondent in relation to energy efficiency programs.
- *Criteria used to target large and small customers*: Identifies metrics and threshold levels of those metrics used to establish criteria for segmenting customers by size.
- *Customer segmentation*: Identifies sub-segments within the range of small and large customers.
- *Marketing and Customer Acquisition Strategies*: Identifies approaches used to market energy efficiency programs to the range of small, large and mid-sized customers.

⁷ See Appendix A for the full program staff IDI guide

⁸ See Appendix B for the full implementation contractor IDI guide.



3.2.3 Analysis of interview results

DNV KEMA summarized the information provided by each PA and implementation contractor by interview topic. We first culled the information from each interview, providing summary tables by segmentation criteria. Then, we collapsed the descriptions of segmentation criteria into a uniform set of criteria to apply across the population of C&I customers.

3.2.4 Estimating participation rates by customer size segment

DNV KEMA classified the population of participant and non-participant electric accounts into small, mid-sized, and large customer size categories. The analysis was limited to electric customers and did not consider gas consumption in the definition of customer size. The evaluation team concluded that it was appropriate to base size definitions on electric consumption because this is the approach that is currently used to identify customers for the Direct Install and large C&I programs. Further, the PAs cannot currently link customers across electric and gas accounts, particularly in cases when the electric and gas providers differ.

To maintain consistency with the PAs current marketing approach, customer size was defined customer the account level. However, because the PAs do market some customers according to the aggregate demand across accounts, DNV KEMA did consider the number of accounts linked to the contact as a variable of interest in the segmentation. Further, previous research indicated that account representatives were assigned to large accounts, but information obtained from the PA interviews suggested that PAs assigned account representatives to all customer size groups. Therefore, we identified accounts within different demand categories that did and did not have a designated account representative. We also considered the number of accounts linked to the same customer name as a segmentation characteristic.

DNV KEMA applied the criteria used to segment customers by size to the program billing and tracking data provided by the PAs. The data consisted of 2011 tracking data for 7,550 electric accounts as well as billing data for all commercial and industrial customers for years 2009, 2010, 2011. These data had been compiled for the MA C&I Customer Profile project. The database contained 2010 billing data and 2011 tracking data for the matching customers based on the account/location number. The billing data contained information such as: account number, PA, customer name, address, phone number, annual kWh, monthly kWh usage, maximum KW demand, rate codes, and business types. The tracking data contained additional information such as: program type, program track, end use, gross kWh savings, summer KW savings, and winter KW savings. For the MA-C&I Customer Profile Project, we used 2010 billing data as a base to which 2011 savings were compared. However, 2011 billing data were not used for this project because projects completed in 2011 would have impacted 2011 usage levels.



DNV KEMA examined the distribution of participants and non-participants across a number of alternative definitions to determine the most logically consistent definition across all PAs. The application of some segmentation criteria varied across PAs, while others were relatively constant. Once we segmented customers according to their appropriate size category, we estimated participation rates for each overall size category. Our analysis to date explored whether there was a difference in the participation rate of mid-sized customers relative to small and large customers. A significantly lower participation rate for mid-sized customers would provide one piece of evidence that might indicate the segment was not optimally served relative to small and large customers. Section 4 provides a detailed description of the criteria examined for customer size segmentation and how those definitions impact participation rates by segment.

3.2.5 Data mining

The next step in the Customer Needs Assessment will be to conduct a data mining exercise in which we explore PA billing and tracking data and past survey research to determine whether there are segments, or sub-segments of under-served customers within the mid-sized customer group. This section details our data mining approach, which consists of two general steps. The first step will be to conduct exploratory data analysis of the customer size groups using the MA-C&I Customer Profile Project database. This analysis will investigate participation rates of pockets of customer by size to identify any under-served groups of mid-sized customers. The second step will be to reanalyze the MA C&I Process Evaluation survey data. This study developed a comparison of participant survey responses based on whether or not the respondents had reported having an account representative. Since the *Mid-sized Customer Needs Assessment* research is collecting more definitive information on which C&I customers actually have account representatives, we plan to re-analyze this MA C&I Process Evaluation comparison after we re-categorize the survey respondents based on whether they actually had account representatives according to the PA customer data. While both of these research efforts are on-going, we do describe the planned approach and present some high level results in Section 4 of this memo.

3.2.5.1 Exploratory data analysis

DNV KEMA will use existing billing, tracking, and survey data on the study population to construct a customer profile. While not complete at the time of this memo, this customer profile will identify pockets of underserved mid-sized customers. Our analysis will contrast the participation rates of customers with different characteristics to determine whether there are groups of customers with relatively low participation rates relative to customers within the same size category, and across size categories.



Constructing the *Mid-sized Customer Needs Assessment* customer analytics database

The first step in the exploratory data analysis was to construct the *Mid-sized Customer Needs Assessment* customer analytics database from the MA-C&I Customer Profile Project database. This database re-defined continuous variables in the MA-C&I Customer Profile Project database into categorical variables so they could be used to define customers according to different levels of each variable. The following describes our treatment of different variables for this analysis:

- *Rate code* – We converted the rate codes contained in the PA billing data to standard G1, G2, G3 rate codes.
- *Customer contact information* – We stripped all numbers, spaces, and special characters from Customer Names, and stored the names as a new variable ‘Normal_Cust_Name’. We used this variable to identify customers with multiple sites. For the participants, we used customer phone numbers from the tracking data rather than the billing information.
- *Zip Codes* – We captured the first 3-digits of the zip code, which represents the county level.
- *Measure level tracking data* – We constructed 8 distinct categories of end uses as variables based on the measure level data contained in the MA-C&I Customer Profile Project database. Each measure was assigned to one of the eight end use categories mentioned in the Massachusetts technical resource manual.
- *Accounts with multiple sites* – We matched accounts by account name and PA to approximate the number of accounts under a specific customer. We did not attempt to match customers across PA service territories.
- *Managed accounts* – National Grid provided managed accounts by account number. NStar and Unitil provided managed accounts by customer name. Cape Light provided a list of key large accounts by customer name.
- *National Accounts* – National Grid provided the name of their account representative who manages all National Accounts. For National Grid, we identified all accounts managed by that individual as National Accounts. Based on the interview results, we also considered all accounts in which more than five accounts linked to the same customer as a National Account. We did not investigate linked accounts beyond identifying the number of accounts that matched by customer name, as this was outside the scope of the present research.
- *Program administrator* – While the November 15, 2012 work plan did not specify PA level analysis, where possible we will identify whether the data provide sufficient evidence to suggest pockets of underserved customers at the PA level.



Identifying pockets of customers with low participation rates

Through our forthcoming work in the exploratory data analysis portion of the data mining research, we will use billing and tracking data to explore sub-pockets of small, mid-sized, and large customers to isolate groups that may have relatively low participation rates. Table 3-2 below presents segmentation variables we constructed in the *Mid-sized Customer Needs Assessment* Customer Analytics database.

Through the Stage I data mining exercise, we will contrast the following metrics across pockets of small, mid-sized and large customers to identify pockets of potentially underserved customers:

- Are there sub-groups of small, mid-sized, and large customers (i.e. managed/not managed, industry, level of demand, number of locations, load factor) that have lower participation rates relative to other groups within the same size segment or similar groups of other size segments? We will explore this research across measure groups as well as the participation by end use question using various definitions of participation rate, including:
 - Percent of accounts participating in a group
 - Participant energy consumption (kWh) as a percent of consumption
 - Participant demand (KW) as a percent of group demand
- Is there a difference in the savings ratio (program reported kWh savings to total kWh consumption) between pockets of small, mid-sized, and large customers relative to other groups within the same size segment, or similar groups of other size segments? We will make comparisons only among those who participated in the program.
- What is the distribution of probability of participation across all customers?
 - Are there variables in our database (if any) that significantly affect customers' probability of participation.
 - Are there groups of customers that have greater or lower expected savings?
 - Among customers with the lowest expected savings, is this result caused by a lower probability of participation, lower savings per participant, or both?
- Are there differences in the penetration rates for sub-groups of small, mid-sized, and large customers (i.e. managed/not managed, industry, level of demand, number of locations, load factor)? Using savings by end use for participants within different industries and size segments we will establish a baseline for addressable savings for all customers. We will then identify pockets of customers with relatively low penetration into their addressable savings levels.



Table 3-2 Segmentation variables for identifying pockets underserved customers

| Category | Levels | Definition[SMB1] |
|---------------------------|----------------------|--|
| Demand Size | Small | Peak demand <200 kW |
| | Medium | 200 kW <= Peak Demand <= 1099 kW |
| | Large | Peak demand >= 1100 kW |
| Managed account indicator | Account Manager | Has account manager |
| | No AM | Does not have account manager |
| Multiple site indicator | Multi | Num locations > 5 |
| | Not | Num location <= 5 |
| Load Factor Size | Low | Load Factor <= 0.3 |
| | Medium | Load Factor >0.3 and <= 0.5 |
| | High | Load Factor > 0.5 and <= 0.75 |
| | Very High | Load Factor > 0.75 |
| Program Type | New Construction | Defined using 2011 PA Tracking data |
| | Retrofit | |
| | Direct Install | |
| End Use | Lighting | |
| | HVAC | |
| | Refrigeration | |
| | Process | |
| | Motors_Drives | |
| | Comprehensive_Design | |
| | CHP | |
| Others | | |
| Program Track | Prescriptive | |
| | Custom | |
| Weather Sensitivity | None | Winter, Summer and Shoulder periods have similar usage |
| | Heating | More usage in winter |
| | Cooling | More usage in Summer |
| | Both | Both Summer and winter use more than shoulder period |
| Industry | EDUCATION | Industry assigned based on NAICS or SIC codes provide by the PAs |
| | FOODSALES | |
| | FOODSERVICE | |
| | HEALTHCARE | |
| | LODGING | |
| | MANUF/INDUS | |
| | OFFICE | |
| | OTHER | |
| | PUBLICASSEMBLY | |
| | RETAIL | |
| | UNCLASSIFIED | |
| | WAREHOUSE | |
| Rate Code | G1 | Classification based on visual inspection of detailed rate codes |
| | G2 | |
| | G3 | |
| | TOU1 | |
| | TOU2 | |
| Participant | Yes | Participated in EE program in 2011 |
| | No | Did not participate in 2011 |



3.2.5.2 Re-analysis of the MA C&I Process Evaluation results

As part of the MA C&I Process Evaluation report, DNV KEMA analyzed differences between “large” and “mid-sized” organizations who participated in the 2011 rebate programs. DNV KEMA categorized the MA C&I Process Evaluation survey respondents based on self-reports of whether they had dedicated account representatives with the program administrators. Part of the Mid-sized Customer Needs Assessment was to revisit these analyses using definitions of large, mid-sized, and small customers developed via the Stage I in-depth interviews and the data mining. We present the preliminary outcomes of this reanalysis as part of section 4.

3.3 Stage II research

This section summarizes the forthcoming Stage II research activities. The purpose of this research is to interview mid-sized participants and non-participants as well as select groups of large and small participants and non-participants to obtain information we will use to test hypotheses developed through the Stage I research. DNV KEMA will leverage the population information and program staff insights gathered by the Stage I activities to develop a sample frame of participants and non-participants and a Customer Size survey used to investigate whether the existing energy efficiency programs meet the needs of different groups of mid-sized customers relative to other mid-sized customers and comparable groups of small and large customers. In Stage II, we will also conduct in-depth interviews with mid-sized participants and non-participants. We will also include a sample of large and small participants and non-participants for comparison purposes. This will enable us to contrast survey results from different segments of mid-sized customers to those of comparable large and small customer segments. This analysis should identify pockets of customers with specific needs that are not met by current program offerings.



3.3.1 Overview of Primary Research Efforts

Groups targeted for in-depth interviews and interview content will be identified through the ongoing data mining activities.

Table 3-3 provides a summary of the Stage 2 proposed Customer Size survey. We will use data obtained through the Customer Size survey to construct a customer needs assessment, gap analysis, and estimate program participation rates. In addition, we will implement a series of in-depth interviews with targeted industry segments, vendors, implementation contractors, and other important market actors to develop a detailed understanding of effective strategies used to target and recruit new mid-sized participants and “pain points” of key industry players.

Groups targeted for in-depth interviews and interview content will be identified through the ongoing data mining activities.

Table 3-3 Overview of stage 2 primary research efforts

| Sample frame | | Data collected | Purpose |
|---|----------------------|--|--|
| Mid-sized Customers | Program participants | Sources of energy costs, awareness and attitudes toward energy efficiency and program support, sources of information, technology decision making process; | Identify non-participant needs and how program offerings can be enhanced to expand penetration into existing mid-sized customers |
| | Non-participants | | Identify non-participant needs and how existing programs can be enhanced to attract more mid-sized customers |
| Large Customers (selected group that either meets the demand threshold for mid-sized customers with an account rep, or exceeds the demand threshold and has no account rep) | Program participants | | Contrast findings with mid-sized program participants |
| | Non-participants | | Contrast findings with mid-sized non-participants |



4. Preliminary Results

This section presents the results for the research team's Stage I research activities to date.⁹

- In section 4.1, we present the results from our in-depth interviews with the PAs (Section 4.1.1) and implementation contractors (Section 4.1.2).
- In section 4.2, we develop standard definitions of customer size for our analysis based the information provided by the in-depth interviews.
- In section 4.3, we combine the customer size information with billing and tracking data to estimate participation rates for each of the customer size segments.
- Due to lack of unified definitions of customer size groups across PAs, we examined the impact of applying different definitions on the distribution of participants and non-participants. From this analysis, we selected a definition that was both aligned with the information provided by the interviews and logically consistent with our understanding.
- In section 4.4, we review the data mining research, which is on-going as of this memorandum.

4.1 In-Depth Interview Results

In the sections that follow, we present the PA interview and implementation contractor interview results.

4.1.1 PA interview results

The primary focus of the PA interviews was to define criteria used to categorize customers by size and obtain insights into the possible gaps in service to mid-sized customers relative to small or large customers. We first discussed how individual account and customer characteristics factored into their decision to designate an account or customer into a size segment, or assign an account representative. Next, we examined these characteristics in aggregate, relative to how each PA segmented accounts or customers. Finally, we reported on the PA's impression of whether the existing energy efficiency programs effectively serve the needs of different size customers.

⁹ Note: The data mining activities (Re-analysis of the MA C&I Process Evaluation data and exploratory data analysis) are still underway and will be presented in the draft report.



4.1.1.1 Segmentation criteria

The interviews revealed that the PAs employ differing approaches to classifying accounts and customers based on a range of characteristics at both the account and customer level. In this section, we explore the extent to which each PA identifies and markets to customers with multiple accounts including chains and franchises and national accounts. Next, we report on how each PA used account or customer level demand (kW) and energy (kWh) in segmenting customers. Finally we look at other segmentation criteria that include rate class and two special cases of multiple account customers municipal accounts and dual fuel customers. These segmentation criteria provide the basis for each PAs marketing approach by customer size segment discussed in Section 4.1.1.1.

4.1.1.1.1 Customers with multiple accounts

The PA interviews provided valuable insights into the treatment of chains and franchises in the definition of customer size segments and the marketing of energy efficiency programs to customers. The first consideration in the treatment of chains and franchises was to understand the extent to which the PAs actively link accounts and their corresponding energy and demand to distinct customers. This enables us to assess each PA's ability to actually employ different marketing approaches to customers at different levels of the organization. Once we identified the extent to which each of the PAs tied individual accounts to customers, we asked about the specific marketing at the customer verses the account level.

Ability to link customers with multiple accounts

Table 4-1 reports our interview findings regarding the PAs ability to identify multiple accounts that tie to the same customer in order to understand the degree to which PAs were able to implement size definitions at the customer level. Firms in many industries such as retail marketing, the financial services, and insurance industries employ specialized software known as Customer Relationship Management or specialized customer linking software to help them manage customers. There are also third party data vendors that specialize in database management that provide customer linking services for clients. We asked the PAs to discuss the tools they currently employ for tracking and linking accounts to individual customers.

Four of seven PAs interviewed indicated they attempted to link multiple accounts under a single customer for purposes of marketing energy efficiency programs whenever possible. However, the approaches used to link customers varied widely across PAs. The two large PAs, National Grid and NStar, both reported having fairly sophisticated CRM tools and Dun & Bradstreet data to link. These tools matched customers according to factors such as the Parent DUNS numbers, customer names and other contact information. However, they noted that this is not always feasible due to differences in the customer



contact information. DNV KEMA investigated. Even with these more sophisticated capabilities, DNV KEMA learned that there was room for improvement in the larger PA's ability to track and report customers, as NStar was only able to provide the Evaluation Team a list of managed accounts by customer name, and not account number. Furthermore, while National Grid did provide managed accounts by account number, DNV KEMA was not able to match a number of these accounts to the available billing and tracking data.

While the smaller PAs also attempt to link accounts to customers, they had a wider range of capabilities for achieving this goal. Unitil used Microsoft Access to construct a database for linking accounts, but they did not mention using third party data, such as Dun & Bradstreet to assist in the process. Cape Light receives their data from NStar, so their capabilities match NStar's prior to contacting customers. The three gas PAs also vary considerably regarding the tools they use to track customers, with the small PAs using less sophisticated tools and Columbia having greater capability.

Having a consistent approach for linking accounts and customers is essential for accurately identifying customers that belong to key segments such as National Accounts or local chains & franchises. Our analysis shows that the PAs have differing capabilities in this regard, which impacts their ability to accurately classify customers by size at organizational levels that depend upon the aggregation of individual accounts.



Table 4-1 Segmentation criteria: Customers with multiple accounts (ability to link accounts to unique customers)

| Electric/Gas PA | PA Name | Interview Results |
|--------------------------------|-----------------|--|
| PAs with both electric and gas | National Grid | National Grid maintains a database at the customer level using Customer Relationship Management (CRM) software to link customers together by name and other qualifying information. They also maintain Dunn & Bradstreet data that contains parent – child relationships that can be used to describe customers. □ |
| | NSTAR | NSTAR reported having extensive data management capabilities , but the respondents did not know the specifics regarding approaches used to link customers together across locations. NSTAR also handles all customer information and billing for CLC. |
| | Unitil | Unitil uses an in-house tracking system based on Access. Electric and Gas account were not linked – they are in two separate systems. |
| PAs with electric only | CLC | Uses information provided by NSTAR for marketing. For their direct install program, RISE Engineering maintains a separate system to track customers. |
| PAs with gas only | Berkshire Gas | Berkshire Gas did not report on their tracking system. |
| | Columbia Gas | Columbia Gas is able to track customers by usage and link multiple accounts together by name, but they cannot segment or query by industry. Energy efficiency project data is maintained in an Excel spreadsheet. |
| | New England Gas | Uses Excel to track customer information and current energy efficiency projects. |



Marketing approaches to customers with multiple accounts

DNV KEMA asked PAs how multiple account customers were treated in marketing energy efficiency programs. For example, if the PAs typically classified electric accounts with demand of less than 300 KW as small, thereby handled by the Direct Install program, the segmentation could change depending upon whether they considered the aggregate demand across linked accounts or each account separately. Customers with many smaller buildings could, therefore, be segmented as mid-sized or large, even though they are small at the individual account level.

Table 4-1 presents our findings concerning whether the PAs link multiple accounts and aggregate demand when determining customer size. Of the PAs who indicated they link customer accounts, Unitil, NStar and National Grid have specific marketing practices designed around the aggregate demand of the linked accounts. However, the treatment of linked accounts appears to vary across these three PAs and within the organizations as well. National Grid reported that marketing was typically done at the account level, but they did attempt to identify National Accounts, which they treat as large customers. As a rule of thumb, National Grid reports they consider customers with 6 or more accounts as national accounts and assigned them a special account representative who handles all National Accounts. Smaller chains and franchises may be classified at the account or customer level, depending upon their ability to identify a centralized purchasing agent. NStar reported they frequently linked all accounts to customers then aggregated the demand from each location before classifying the customer by size, but customers were not always segmented according to their aggregate demand. These findings show that even within the largest PAs, there either was not a standardized approach for treating multiple account customers, or the data management capabilities were insufficient to implement such an approach. Meanwhile, two of the five smaller PAs reported separate marketing approaches for chains and franchises than for single location customers.

DNV KEMA believes that the PAs require more standardization regarding the treatment of multiple account customers in order to establish a unique set of criteria for establishing uniform definitions for customer size segments. Because linking accounts to customers was outside the scope of this project, our analysis will employ only basic criteria for linking accounts to customers and establishing and incorporating the linked account information into a standard definition of customer size.

Demand and energy

Demand was the most common criteria identified for segmenting customers by size and differentiating marketing approaches. However, DNV KEMA found the PA's marketing approaches varied with respect to how customers with different demand characteristics were treated. Table 4-2 presents our interview



findings regarding how the PAs use electric demand to establish customer size, while Table 4-3 presents the results for how the PAs regard energy in establishing customer sizes.

Demand was most commonly used as the upper bound for the Direct Installation program, which most PAs reported to be 300 KW and considered the defining characteristic of the small customer segment. National Grid, NStar and Cape Light all use this threshold to define small customers. NStar indicated that this threshold may vary from year to year due to weather sensitive loads, but generally speaking, 300 KW was the dividing line between small and medium to large customers. Consequently, this was the same definition used by Cape Light. National Grid also reports 300 KW was the cutoff for small customers. Unutil indicated that they use the G3 rate code, which was set at 200 KW to distinguish between small, /medium and large customers; however, they do note that 300 KW was used by some at the company. Unutil considers the G2 rate to be the distinguishing characteristic separating small and medium customers.

National Grid reported that they typically assigned account representatives to all customers greater than 750 KW as well as identified National Accounts, which they defined as customers with more than 5 accounts linked to a customer. Within the 300 to 750 KW range, National Grid indicated that the number of accounts and complexity of the customer needs requires that they limit their attention to customers with high likelihood of participation, which they refer to as “sweet spots.” They noted that a number of “sweet spots” included manufacturing facilities such as injection molding. Generally speaking, they searched for industries and customer groups for which energy was an important cost consideration, with typical load factors ranging from 80% to 90%. Conversely, smaller hotels were typically not easy to convert to participants because they do not usually have many financial resources and energy simply is not that large of a cost consideration.

Alternatively, NStar reported that all accounts greater than 300 KW were managed as medium to large customers with marketing segmented by industry and annual consumption level. Accounts were assigned to teams based on industry, then divided among account representatives based on annual kWh. Teams also included Project Expeditors, who were third party contractors that helped identify the needs of the more diverse smaller accounts. While smaller managed customers were likely to be handled by less experienced team members, the use of the expeditor was believed to provide additional assistance where necessary.

The gas PAs reported that Direct Install customers were identified by the electric PA, but they each had their own consumption thresholds for customer sizing.



Table 4-2 Segmentation factors: Peak demand (KW)

| Electric/Gas PA | PA Name | Interview Results |
|--------------------------------|-----------------|---|
| PAs with both electric and gas | National Grid | <ul style="list-style-type: none"> • Uses peak demand as part of account segmentation • Limits Direct Install to customers with less than 300 kW peak demand • Mid-size customers generally 300-750 kW peak demand • Large customers generally greater than 750 kW peak demand |
| | NSTAR | <ul style="list-style-type: none"> • Uses peak demand as part of account segmentation • For customers with multiple accounts, demand is aggregated across accounts • Limits Direct Install to customers with less than 300 kW peak demand • Mid-size customers generally 300-750 kW peak demand • Large customers generally greater than 750 kW peak demand |
| | Unitil | <ul style="list-style-type: none"> • Uses peak demand as part of account segmentation, but the rate class (based on demand) is the primary driver • Large customer generally greater than 200 kW peak demand (120,000 kWh per month) Opinions vary though - some say 300 KW - these are G3 customers • Medium customers are grouped with small - (G2 customers) • Small customer generally less than 200 kW peak (120,000 kWh per month) - Outside G3 |
| PAs with electric only | CLC | <ul style="list-style-type: none"> • Uses peak demand as part of account segmentation • Limits Direct Install to customers with less than 300 kW peak demand • Large customers generally greater than 300 kW peak demand |
| PAs with gas only | Berkshire Gas | <ul style="list-style-type: none"> • Uses peak demand as part of electric account marketing • Limits Direct Install to customers with less than 300 kW peak demand • Mid-size to large customers generally greater than 300 kW peak demand. No formal break between mid-size and large |
| | Columbia Gas | <ul style="list-style-type: none"> • Peak demand was not reported as an aspect of account tracking or marketing. |
| | New England Gas | <ul style="list-style-type: none"> • Peak demand was not reported as an aspect of account tracking or marketing. |



Table 4-3 Segmentation factors: Energy usage (kWh or therms)

| Electric/Gas PA | PA Name | Interview Results |
|--------------------------------|-----------------|--|
| PAs with both electric and gas | National Grid | <ul style="list-style-type: none"> • Energy consumption was not reported as an aspect of account tracking or marketing. |
| | NSTAR | <ul style="list-style-type: none"> • Customer consumption groups are broken into quartiles by average monthly kWh for tracking and marketing. |
| | Unitil | <ul style="list-style-type: none"> • Small customers generally consume less than 850 kWh per month. • Large customers consume more than 850 kWh per month. |
| PAs with electric only | CLC | <ul style="list-style-type: none"> • Energy consumption was not reported as an aspect of account tracking or marketing. |
| PAs with gas only | Berkshire Gas | <ul style="list-style-type: none"> • Energy consumption was not reported as an aspect of account tracking or marketing. |
| | Columbia Gas | <ul style="list-style-type: none"> • Small customers generally consume less than 40,000 therms per year • Mid-sized customers generally consume 40,000 to 250,000 therms per year • Large customers generally consume more than 250,000 therms per year |
| | New England Gas | <ul style="list-style-type: none"> • Small customers generally consume less than 3,000 therms per year • Mid-sized customers generally consume 3,000 to 20,000 therms per year • Large customers generally consume more than 20,000 therms per year |



Table 4-4 summarizes findings for three additional segmentation criteria covered by the interviews. From the table we see that Unitil and New England Gas use rate class to segment customers by size. For electric customers, this translates directly into segmenting them by peak demand. For gas customers, rate class corresponds to the annual consumption (therms). However, New England Gas noted that segmentation for the marketing of energy efficiency programs was done by the electric PA and the gas PA was simply invoiced by the implementation contractor for services received by their customers.

The two additional segmentation criteria covered in the table are the treatment of municipal accounts and dual fuels, or electric and gas customers.

- *Municipal Accounts* – Municipal accounts reflect a special case of a multiple account customer. Several PAs indicated treating municipal accounts differently from private sector accounts. NStar operated a separate “Municipal” program to handle these customers, which offered different incentive levels, and was managed by its own account management team. National Grid and Unitil classified municipal accounts as large customers and assigned an account representative. None of the gas-only PAs had such criteria. Because of the potential magnitude of the combined load across all municipal facilities, DNV KEMA concluded that municipal accounts should not be included in the mid-sized market segment.
- *Gas and Electric Customers* – The interviews revealed that businesses with a pronounced imbalance between the electric and gas size classification of accounts represent an area of concern for the gas PAs. Because direct install program participants were identified by the electric PAs and typically handled by implementation contractors, the gas only PAs report that they found some customers were marketed as Direct Install customers based on their electric demand (i.e. < 300 kW), but were, in fact large gas users. Alternatively, customers could be large electric users, but small from the gas perspective, but the Gas PAs were somewhat more concerned about the way small electric/large gas customers were handled by the Direct Install vendor because they were not involved in the marketing process, they had no way of knowing if all appropriate prescriptive measures were being installed by the electric contractor, or if the building might be better suited to a custom project. One gas PA indicated initiating training for implementation contractors serving Direct Install program customers to identify all areas where prescriptive gas measures could be used and to install those measures. None of the PAs use special criteria to segment or target customers who were either small electric/large gas users or large electric/small gas users.



Table 4-4 Other Segmentation Factors: Rate class, municipal accounts, and dual fuel (electric and gas) customers

| Segmentation Factors and Capabilities | Electric/Gas PA | PA Name | Interview Results |
|---------------------------------------|--------------------------------|-----------------|---|
| Rate Class | PAs with both electric and gas | Unitil | <ul style="list-style-type: none"> • Customers in G1 rate class tracked and marketed as small • Customers in G1 rate class tracked and marketed as large |
| | PAs with gas only | New England Gas | <ul style="list-style-type: none"> • Customers in G41 and G51 rate class tracked and marketed as small • Customers in G42 and G52 rate class tracked and marketed as mid-size • Customers in G43 and G53 rate class tracked and marketed as large |
| Municipal Accounts | PAs with both electric and gas | National Grid | <ul style="list-style-type: none"> • Municipal accounts are assigned an account representative. |
| | | NSTAR | <ul style="list-style-type: none"> • Municipal accounts are assigned to a municipal account team. |
| | | Unitil | <ul style="list-style-type: none"> • There is a municipal representative responsible for outreach to all municipal buildings for energy audits and energy efficiency projects. Unlike other accounts, municipal accounts are marketed through this representative, not on the basis of rate class. |
| | PAs with electric only | CLC | <ul style="list-style-type: none"> • No specific marketing criteria for municipal accounts. Does provide higher incentives to participating municipal accounts. |
| Dual Fuel Accounts | PAs with both electric and gas | National Grid | <ul style="list-style-type: none"> • CLC markets to accounts based on electric demand regardless of gas usage. |
| | PAs with electric only | CLC | <ul style="list-style-type: none"> • CLC markets to accounts based on electric demand regardless of gas usage. |
| | PAs with gas only | Berkshire Gas | <ul style="list-style-type: none"> • Berkshire Gas currently markets to small electric accounts through the electric PA's Direct Install program. All small electric accounts would go through this program regardless of gas consumption size. |
| | | Columbia Gas | <ul style="list-style-type: none"> • Columbia Gas currently markets to small electric accounts through the electric PA's Direct Install program. All small electric accounts would go through this program regardless of gas consumption size. |
| | | New England Gas | <ul style="list-style-type: none"> • New England Gas currently markets to small electric accounts through the electric PA's Direct Install program. All small electric accounts would go through this program regardless of gas consumption size. |

4.1.1.2 Account Segmentation and Marketing

DNV KEMA utilized the program staff and program implementation contractor interview results to establish criteria for separating customers into small, mid-sized and large customer segments. During the scoping phase of this project, the evaluation team proposed defining small customers as those targeted for the Direct Installation (or small business) programs and defining large customers as those who have dedicated account representatives. We suggested that mid-sized customers would consist of customers that were neither small nor large. Based on the information provided by the PA interviews, we were able to refine these criteria to be consistent with the PAs current marketing practices. While the information presented in Section 4.1.1.1 showed that the PAs use a variety of criteria and techniques for segmenting customers by size, we were able to collapse these practices into the same general attributes in an effort to develop a standardized size definition for our analysis.



Table 4-5, Table 4-6, and Table 4-7 present our analysis of how each PA classifies customers into small, mid-sized, and large segments based on the segmentation criteria discussed above. The tables show that the most commonly used segmentation criteria for identifying Direct Installation customers is account level demand. Specifically, the electric PAs identify customers as small if their peak demand is 300KW or less. This distinction was made based on electric demand, and did not take into account the customer's gas consumption. However, NStar and Until did note that the cut-off of 300 KW may be as low as 200 KW due to rate class or year to year variations in temperature sensitive loads.

We found that criteria used to assign account representatives varies across PAs that employ such individuals. The smaller PAs did not assign account representatives. Therefore, basing the definition of large customer on the presence of an account representative would not be sufficient. Once again, we found that demand was the most consistent criteria for separating mid-sized and large customers, namely, 750 KW. However, this finding was not universal across all PAs.



Table 4-5 Segmentation and Marketing Criteria: Small accounts

| Electric/Gas PA | PA Name | Factor Influencing Account Segmentation | | | | | | | | | | Customer Segmentation Criteria and Marketing |
|---------------------------------|-----------------|---|-------------------------|-------------|--------------|------------|---------------------------|-----------------------|--------------------|--------------------|--|---|
| | | Tracking Level | | Peak Demand | Energy Usage | Rate Class | PA Account Representation | Chains and Franchises | Municipal Accounts | Dual Fuel Accounts | | |
| | | Track Accounts to Unique Customers | Customer Level Tracking | | | | | | | | | |
| PAs twith both Electric and Gas | National Grid | | x | x | | | x | x | x | | | -Accounts with <300 kW peak demand -Small customers do not have a corporate parent, are not municipal accounts, and have five or fewer accounts. Accounts with these attributes are treated as mid-sized or large, even if peak demand <300 kW -Implementation contractors market to these customers.No specific business types targeted. |
| | NSTAR | | x | x | x | | x | x | x | | | -Accounts with <300 kW peak demand -Demand is aggregated accross accounts. Aggregate demand under a single customer accross accounts <300 kW -Small customers do not have a corporate parent, are not municipal accounts, and have five or fewer accounts. -Implementation contractors market to these customers. No specific business types targeted. |
| | Unitil | | x | x | x | x | x | x | x | | | -Any accounts that qualify for direct install -Markets small programs to accounts in rate class G1 -Municipal accounts are assigned to a municipal account representative |
| PAs with electric only | CLC | x | | x | | | | | | | | -Accounts with <300 kW peak demand -RISE Engineering markets to these customers. No specific business types targeted. |
| PAs with gas only | Berkshire Gas | | | | | | | | | | | -Accounts with <300 kW peak demand qualify for the electric PA Direct Install programs. -For gas programs, no specific segmentation or marketing. Incentives are the same for all customers. -Receives leads from electric PAs and their designated Implementation Contractors; also works with implementation contractors CET, Hesnor, EDM and RISE Engineering. |
| | Columbia Gas | | x | | x | | | | x | | | -For gas energy efficiency programs, small customers consume less than 40,000 therms per year. -Small customers are marketed to by RISE Engineering. |
| | New England Gas | x | | | x | x | | | | | | -For gas energy efficiency programs, small accounts consume less than 3,000 therms per year. -Small accounts are in rate classes G41, G42, G51 or G52 |



Table 4-6 Segmentation and Marketing Criteria: Large accounts

| Electric/Gas PA | PA Name | Factor Influencing Account Segmentation | | | | | | | | | Customer Segmentation Criteria and Marketing |
|---------------------------------|-----------------|---|-------------------------|-------------|--------------|------------|---------------------------|-----------------------|--------------------|--------------------|--|
| | | Tracking Level | | Peak Demand | Energy Usage | Rate Class | PA Account Representation | Chains and Franchises | Municipal Accounts | Dual Fuel Accounts | |
| | | Track Accounts to Unique Customers | Customer Level Tracking | | | | | | | | |
| PAs twith both Electric and Gas | National Grid | | x | x | | | x | | | | <ul style="list-style-type: none"> -Accounts with >750 kW peak demand - All accounts assigned representatives |
| | NSTAR | | x | x | x | | x | x | x | | <ul style="list-style-type: none"> -Accounts with >750 kW peak demand -Accounts assigned to an account group -Customers with multiple accounts have demand aggregated. If demand is between >750 kW, the customer is treated as large. -NSTAR segments this demand category into quartiles based on energy consumption for marketing. -Municipal accounts are assigned to an account group' |
| | Unitil | | x | x | x | x | x | x | x | | <ul style="list-style-type: none"> -Large gas accounts are in rate class G2 -Large electric accounts have >4 kW peak demand and consume more than 850 kWh per year -Segmentation and marketing based on rate class, not demand or consumption. -Municipal accounts are assigned to a municipal account representative |
| PAs with electric only | CLC | x | | x | | | | | | | <ul style="list-style-type: none"> -Accounts with >300 kW peak demand -CLC markets their programs through face to face contact with customers in their area..., as well as through industry and trade associations. Apart from this, they have no marketing strategies specific to medium or large programs. |
| PAs with gas only | Berkshire Gas | x | | x | | | | | | | <ul style="list-style-type: none"> -For gas programs, no specific segmentation or marketing. Incentives are the same for all customers. |
| | Columbia Gas | | x | | x | | x | x | | | <ul style="list-style-type: none"> -Large gas accounts consume more than 250,000 therms per year -Large gas accounts are managed by a PA account representative |
| | New England Gas | x | | | x | x | x | | | | <ul style="list-style-type: none"> -Large gas accounts are in rate classes G42, G43, G52 or G53 -Large gas accounts consume more than 20,000 therms per year -Large gas accounts are managed by a PA account representative |



Table 4-7 Segmentation and Marketing Criteria: Mid-sized accounts

| Electric/Gas PA | PA Name | Factor Influencing Account Segmentation | | | | | | | | | Customer Segmentation Criteria and Marketing |
|--------------------------------|-----------------|---|-------------------------|-------------|--------------|------------|---------------------------|-----------------------|--------------------|--------------------|--|
| | | Track Accounts to Unique Customers | Customer Level Tracking | Peak Demand | Energy Usage | Rate Class | PA Account Representation | Chains and Franchises | Municipal Accounts | Dual Fuel Accounts | |
| PAs with both Electric and Gas | National Grid | | x | x | | | x | x | x | | <ul style="list-style-type: none"> -Accounts with 300-750 kW peak demand -Accounts assigned representatives on an account by account basis based largely on industry and load factor -Customers with more than five accounts or a corporate parent are considered national accounts and assigned an account representative -Municipal accounts are assigned and account representative |
| | NSTAR | | x | x | x | | x | x | x | | <ul style="list-style-type: none"> -Accounts with 300-750 kW peak demand -Accounts assigned to an account group and given opportunity to use directed to project expiditers. -Customers with multiple accounts have demand aggregated. If demand is between 300-750 kW, the customer is treated as mid-size. -NSTAR segments this demand category into quartiles based on energy consumption for marketing. -Municipal accounts are assigned to an account group' |
| | Unitil | | | | | | | | | | |
| PAs with electric only | CLC | | | | | | | | | | Does not classify accounts as mid-size. |
| PAs with gas only | Berkshire Gas | x | | x | | | | | | | -For gas programs, no specific segmentation or marketing. Incentives are the same for all customers. |
| | Columbia Gas | | | | | | | | | | <ul style="list-style-type: none"> -For gas energy efficiency programs, mid-sized customers consume between 40,000 - 250,00 therms per year. - CET acts as a supplemental vendor for some mid-sized customers, Mid-sized customers are served by PA account reps and CET. |
| | New England Gas | x | | | x | x | x | | | | <ul style="list-style-type: none"> -Large gas accounts are in rate classes G42 or G52 -Large gas accounts consume more than 3,000 therms per year -No specific marketing to mid-size customers |



The results presented in the preceding tables indicate the PAs use differing strategies for marketing to customers within each size segment. The two largest PAs use differing approaches for marketing to mid-sized customers. NStar classified all customers greater than 300 KW as mid-sized to large and assigned them to account management teams based on industry and consumption levels. These teams also included Project Expeditors, who were third party contractors that helped identify the needs of the more diverse smaller accounts. NStar believed the project expeditor, plus the industry specific focus, provided sufficient resources to address the large and mid-sized customers' needs.

In contrast, National Grid did distinguish between customers from 300 KW to 750 KW and those greater than 750 KW, as they assigned account representatives to all customers greater than 750 KW, but only a select group of customers (sweet spots) if their demand is between 300 and 750 KW. This was because the number of accounts with demand between 300 and 500 KW was too great for internal staff to handle. Furthermore, they suggested that implementation contractors were not trained comprehensively, to the extent necessary to adequately service the needs of these customers. They noted a number of "sweet spots" in which they focused their internal marketing efforts, including manufacturing facilities such as injection molding. Generally speaking, they searched for industries and customer groups for which energy was an important cost consideration, with typical load factors ranging from 80% to 90%. Participants who were not in an identified sweet spot were left to implementation contractors, who may not have adequate training to offer the appropriate solutions.

For the electric Direct Install programs and small business gas programs, the PAs rely primarily on the Direct Install vendors and implementation contractors to market the programs and perform outreach. The PAs run advertisements, and information regarding the programs is available on each of their websites (as well as MassSave), but targeted marketing efforts are delegated to the vendors. One PA indicated that vendors for the Direct Install program were not given any specific business size or type to which to market the program. They are provided with a savings goal and allowed to reach that goal using their own strategy; however, this was not mentioned or confirmed by other PAs.

Unitil reported that they market to all large customers as group. They define large customers as those with 200 KW or more in demand. Given the relatively small customer base, they reported having intimate knowledge of their customers, and work directly with them to develop solutions. PAs with smaller territories indicated that they typically do not subdivide the 300 KW and up customer group.

It is important to note the fact that PAs appear to market some customers according to aggregate demand across accounts, while marketing others at the individual account level, obscures our ability to accurately define customer size segments.



4.1.1.3 Effectiveness of Existing Energy Efficiency Programs Serving Mid-sized Customer Needs

This section discusses results of PA interviews related to whether existing programs effectively serve the needs of mid-sized customers. DNV KEMA asked a series of questions to understand PAs' assessment of how well the mid-sized customer segment was being served by existing programs. Table 4-8 presents these results. These preliminary findings will be explored in greater detail through the Stage II Customer Size survey.

The table shows that the PAs had differing opinions on whether the existing energy efficiency programs are serving the needs of their customers. NStar, for example, felt that their marketing approach adequately serves the needs of all customers. However, National Grid indicated that there are simply too many mid-sized customers with needs that are not suitable for prescriptive measure programs, requiring more comprehensive solutions. The relatively small number of internal staff to assist in implementation and lack of training of contractors in comprehensive solutions, creates a potential gap in servicing the needs of the mid- market. In general, the findings indicate that there was sufficient evidence to suggest there may be pockets of mid-sized customers whose needs might be better served from more tailored program offerings, and further research was warranted.



Table 4-8 Are existing energy efficiency programs effectively serving mid-sized and other customer segments?

| Electric/Gas PA | PA Name | Customer Size Discussed | PA impression of whether existing energy efficiency programs meet customer needs? | Explanation |
|--------------------------------|-----------------|-------------------------|---|--|
| PAs with both electric and gas | National Grid | Medium | Somewhat | National Grid notes that the need of this segment are more challenging to address because customers require more comprehensive solutions than smaller direct install customers. The solutions required by customers in this segment are often as complex and diverse as large C&I, but the number of customers in the segment make it difficult for internal staff to address the needs. They target select industries with high load factor (i.e. those in which energy is an important cost consideration) to be sure they are marketing to firms in which the projects have a high enough ROI. Alternatively, they rely on implementation contractors to market to these customers, however, they believe contractors are not as well trained in comprehensive solutions as internal staff. |
| | Nstar | All sizes | Yes | Nstar indicates that they see no gaps in program offerings for this customers. Their approach provides a team of account representatives to each customer segment by industry and consumption group. Customers requiring additional resources can use a project expeditor to help identify needs and design solutions. |
| | Unitil | Small | Don't know | Does not know whether the needs are being met. They have a small service territory. |
| PAs with electric only | Cape Light | Small | Yes | Small customers well served. The exception is very small customers (<12,000 kWh/year) |
| | | Medium | No | Mid-size customers often do not have the resources to take full advantage of the large C&I program. Customers could be better served by opening up the direct install program to customers with <700 kW peak demand. |
| | | Large | Yes | Large, sophisticated customers with energy managers make good use of the large C&I program. |
| PAs with gas only | Berkshire Gas | Medium | Gas-Yes | Reported gap in the electric energy efficiency programs between 300kW and 700 kW, based on anecdotal evidence. >300 kW customers currently do not qualify for the Direct Install program, but would like to have all commercial customers regardless of size are treated the same way; the same incentive structure is applicable to all of them. |
| | | | Electric-No | |
| | Columbia Gas | Medium | Yes | Medium and large sized customers are served in the same way and receive the same type of measures. |
| | New England Gas | Medium | No | There are insufficient prescriptive gas measures for mid-sized customers in the small business Direct Install and Project Expeditor programs as these are handled by the electric PAs. The gas PAs are not receiving enough qualified custom gas leads through the Direct Install or Project Expeditor programs. Some businesses do not participate in the custom program because of the cost of an engineering study. |



4.1.2 Implementation contractor interview results

This section presents findings from the 5 in-depth interviews with implementation contractors. These firms were selected based on recommendations by PAs. The PAs report that these firms represent a subset of the contractors that implement the majority of energy efficiency programs in Massachusetts. They work with all of the Massachusetts electric and gas PAs and serve a range of customer sizes from small to mid-sized. Table 4-9 presents the list of implementation contractors interviewed as well as relevant segmentation criteria for targeted customers.

Table 4-9 In-Depth Interviews Conducted with Select Implementation Contractors

| Implementation Contractor | Gas or Electric | Customer Size | KW | kWh/month or therms/year |
|------------------------------|------------------|---------------|---------|------------------------------|
| RISE Engineering | Electric and Gas | Small | <300 KW | N/A |
| | Electric and Gas | Large | >300 KW | N/A |
| | Gas | All sizes | N/A | N/A |
| CET | Gas | Mid-sized | N/A | 40,000 – 250,000 therms/year |
| National Resource Management | Electric | Small | <300 KW | N/A |
| Northern Energy | Electric and Gas | Small | <300 KW | N/A |
| | Electric and Gas | Large | >300 KW | N/A |
| Prism Energy Services | Electric | Small | <300 KW | N/A |
| | Electric | Mid-sized | >300 KW | N/A |

4.2 Development of account size categories

DNV KEMA used an iterative process to develop three sets of segmentation criteria to group accounts for analysis. The goal was to, as correctly as possible, reflect the definitions of account size provided by the interviews, while allowing the data to demonstrate whether implementation of the identified criteria resulted in segments that were logically consistent. It is important to recognize that any definitions of customer segmentation will not be accurate for all PAs. Each PA uses criteria for customer segmentation that is entirely different from every other PA, given differences in numbers and types of customers. Given this, the research team’s segmentation effort best matches that of the largest electric Program Administrators. Table 4-10 summarizes the results of this effort.

We began with a simple, load based definition of small, mid-sized and large customers. Small accounts were all those that qualified for Direct Install programs, or any account with <300 KW peak demand.



Mid-sized accounts were those with peak demand between 300 and 750 KW, and large accounts were those with peak demand >750 KW, the level at which an account would generally be assigned an account representative. This simple definition of account size did not fully capture the segmentation and marketing efforts of the PAs as described in our in-depth interviews. Capturing this nuance required a second set of criteria.

For the second set of criteria, small, mid-sized, and large accounts generally remained defined by their peak load, based on the same definitions of our first set of criteria. However, all managed accounts and all accounts that were part of a chain or franchise with more than five locations were classified as large. This decision was based on PA statements that accounts that are managed and accounts that are part of a chain or franchise with more than five locations are treated as large for the purposes of marketing energy efficiency programs. For this and the following size definition, accounts are only placed in the ‘chain/franchise’ category if they are not managed. This definition increased the pool of potential large customers to over fifty thousand, due to a large number of small accounts that are part of a chain or franchise with more than five locations. This made it difficult to draw meaningful comparisons between the small, mid-sized, and large groups, leading to a final set of criteria.

The final customer size definition considers large customers to be all of those with >750 KW peak demand, or those with 300-750 KW peak demand who are either managed or have more than 5 locations. We based the criteria for the number of locations on National Grid’s rule of thumb for identifying National Accounts. Mid-sized customers are those with 300-750 KW peak demand, who are not managed, and have fewer than 6 locations. Small customers are all those with less than 300 KW peak demand. Managed small customers and small customers with more than 5 locations remain in this group; however, these subcategories are split out for comparison. These segmentation criteria are used in the estimation of participation rates by customer segment in the next section.

Table 4-10 Customer Segmentation Criteria – Three Definitions

| Customer Size Definition | Small Customers | Mid-sized Customers | Large Customers |
|--------------------------|---|--|--|
| First | <300 KW | 300-750 KW | >750 KW |
| Second | <300 KW and Not managed and <=5 locations | 300-750 KW and Not managed and <=5 locations | >750 KW or Any size managed or Any size >5 locations |
| Third | All Accounts <300 KW | 300-750 KW that are Not Managed And have <=5 Locations | >750 KW or 300-750 KW that are either managed or have KW >5 locations |

4.3 Estimating Participation Rates by Account Size Segment

Based on the final segmentation criteria described in Section 4.1.1.1, DNV KEMA examined participation rates for seven categories of account:

- *Small, unmanaged, non-chain/non-franchise* – These customers have peak demand of less than 300 KW, do not have a PA provided account representative, and have five or less accounts.
- *Small, unmanaged, chain/franchise* – These customers have peak demand of less than 300 KW, do not have a PA provided account representative, but have more than five accounts, National Grid’s rule of thumb for National Accounts.
- *Small, managed* – These accounts have peak demand of less than 300 KW and are on a PA managed account list. Customers in this category may have any number of accounts.
- *Mid-sized* – These customers have peak demand between 300 and 750 KW. They do not have a PA provided account representative and have five or less accounts.
- *Large, unmanaged, non-chain/non-franchise* – These customers have peak demand above 750 KW. They do not have a PA provided account representative and have five or less accounts.
- *Large, unmanaged, chain/franchise* – These customers have peak demand greater than 300 KW. They do not have a PA provided account representative, but have more than five accounts, National Grid’s rule of thumb for National Accounts.
- *Large, managed* – These customers have peak demand greater than 300 KW and are on a PA managed account list. Customers in this category may have any number of accounts.

We calculated three different participation rates for this analysis:

- Number of participants within a customer segment / the total number of customers in that segment;
- Sum of peak demand for all participants in a segment / the sum of peak demand for all customers in the segment;
- Sum of total yearly kWh usage for all participants in a segment / the sum of total yearly kWh usage for all customers in the segment.

Our goal in this analysis was to use low participation rates as preliminary evidence of the degree to which existing program offerings were addressing the needs of mid-sized customers. While participation rates alone would not imply directly that the programs do not adequately serve customers, they provide a first step in addressing this issue. Therefore, we examined the participation rates of customers within each size segment to determine whether the participation rates of mid-sized customers differs from either small or large customers. We examined participation rates calculated in terms of the number of participating accounts relative to the population of accounts in the respective size group, as well as the participants peak demand (KW) and energy consumption (kWh) relative to the size segment demand and energy



consumption, respectively. While lower participation rates would directly translate to a segment being underserved, they will provide evidence that further investigation would be warranted.

Do mid-sized customers have lower participation rates than small and large customers?

Based on the participation rate graph, mid-sized customers had a lower account participation rate than all categories of large customer, but a higher participation rate than all categories of small customer.

However, the percentages alone did not capture the differing populations within the small, mid-sized and large groups. For instance, while unmanaged, small customers had a participation rate of only 1.9%, this participation rate was out of a population of 276,338. It is difficult to draw any conclusions between small, mid-sized and large customers regarding whether a population required targeted services.

Although the participation rate for small C&I accounts was much lower than for mid-sized and large accounts, this rate represents 6,131 participants. Given the size of the population and resource constraints, a 1.9% participation rate could indicate that small customers' needs were met by the existing program offerings. We did not have the information to reach that conclusion, and since the small customer population was so different from the mid-sized and large populations, any comparison should focus on the difference between mid-sized and large customers.

Comparing mid-sized and large customers was more plausible, since the group populations were nearly the same size. Even though the populations were the same size, participation rates among large customers were between 5% and 12% greater than for mid-sized customers depending on whether a large customer was managed or has more than five locations. Based on this, it appeared that mid-sized customers would benefit from additional service offerings to attract more participants

Do account representatives lead to higher participation rates?

Our interviews with the PAs indicated that most of the large customers should be managed; however, based on the available customer data, 841 customers with peak demand of >750 KW are unmanaged. Moreover, these customers have a higher participation rate than large customers who are managed or who have more than five locations. The opposite is true for small customers, where being in the group of managed customers results in much higher participation rates than for the general population. We believe that this finding may be the result of matching accounts to account representatives by customer name.

How does participation vary by peak demand and yearly energy consumption?

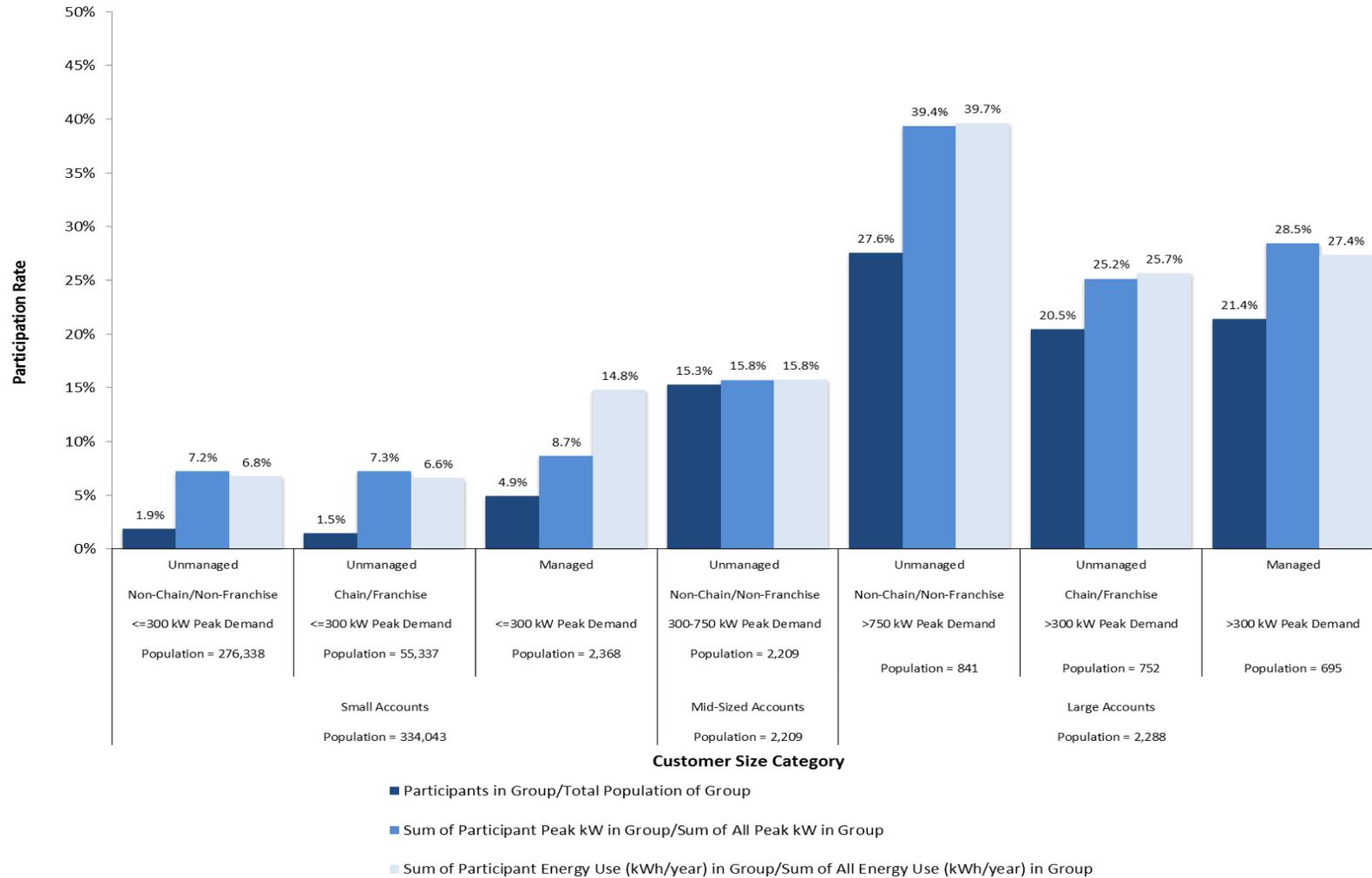
Examining the other two participation ratios, aside from mid-sized customers, there was a tendency for participants with higher peak demand within their group or with a higher average load factor to participate. Implying the programs were either attracting or promoting higher load customers. For example, while only 1.9% of the small, unmanaged customers participated in energy efficiency programs, customers representing 7.2% of the peak load and 6.8% of the yearly energy usage participated. Likewise, while only 21.4% of managed, large customers participated, customers representing 28.5% of the peak



load for this group and 27.4% of total energy usage participated. For mid-sized customers, the pattern does not hold. The percent of customers who participated is nearly equal to the percent of peak load and yearly energy usage affected by the energy efficiency programs.



Figure 4-1 Account Level Participation Rate by Segment



4.4 Data Mining

This section presents the results of the data mining activities to date. As discussed above, the data mining analysis is on-going and includes two components. The exploratory data analysis will take a closer look at the MA-C&I Customer Profile Project data.

4.4.1 Exploratory data analysis

The research findings for the exploratory data analysis to date are limited to the segmentation analysis presented in Section 4.3.

4.4.2 Re-analysis of the MA C&I Process Evaluation Results

This section provides the results of the re-analysis of the MA C&I Process Evaluation survey data that examined differences in survey responses between customers who reported they did and did not have a designated account representative. Due to time and resource constraints, the MA C&I Process Evaluation identified large customers as those who reported having an account representative while those who did not were identified as small. In the re-analysis of these data, we segmented customers into large and mid-sized using two different approaches:

1. We repeated the definition from the MA C&I Process Evaluation, defining customers who self-reported having an account representative as large customers and all others were mid-sized; and
2. We used the definition of mid-sized customers presented in Section 4.3, 300 to 750 KW with less than 5 accounts per customer and no PA-assigned account representative.

4.4.3 Matching Data Sets

In order to apply the customer size definitions presented above to the MA C&I Process Evaluation survey respondents, we first linked the new customer sizes to the survey respondents based on account number. DNV KEMA was able to match 289 of the 354 completed participant surveys from the MA C&I Process Evaluation to the MA-C&I Customer Profile Project database. We then assigned the new customer size definitions to survey respondents, as defined according to the criteria listed above. Most (45) of the surveys could not be matched because DNV KEMA could not locate electric billing data for them.

4.4.3.1 Applying New Company Size Definitions to the MA C&I Process Evaluation Survey Data

As part of the MA C&I Process Evaluation, DNV KEMA compared survey results of “large-” and “mid-sized” organizations. This analysis was done as part of the MA C&I Process Evaluation in anticipation of



the current Mid-sized Customer Needs assessment, and to give the PAs an early look at differences between large and mid-sized organizations. The MA C&I Process Evaluation did not have the budget to include a robust investigation of how each PA defined large and mid-sized, so DNV KEMA used a proxy measure. We defined large as any survey respondent that self-reported having an account manager with their electricity or gas provider. We defined mid-sized as any respondent who did not self-report having an account manager. This section reviews the MA C&I Process Evaluation data to see how well the proxy of self-reported account manager matched the new definitions of small, mid-sized, and large to make a recommendation for whether DNV KEMA should reanalyze the MA C&I Process Evaluation data using the new definitions.

DNV KEMA's conclusion is that the proxy of self-reported account manager does not correlate well with the new definitions of small, mid-sized, and large. It does particularly poorly at identifying mid-sized organizations. Therefore, we recommend a reanalysis of the MA C&I Process Evaluation data with the new definitions.

DNV KEMA formed this conclusion based on the following results:

- The self-reported account manager variable was not very accurate. It matched the tracking data¹⁰ only 39 percent of the time. Most of the inaccuracies came from organizations who said they had an account manager, but who did not have one on record in the tracking data.
- About half (47%) of the organizations that the self-reported account manager variable categorized as large would be categorized as large with the new definitions.
- Only 12 percent of the organizations that the self-reported account manager variable categorized as mid-sized would be categorized as mid-sized with the new definitions.

¹⁰ These are account managers as reported in the business program tracking data sent from the electricity and gas providers. No expeditor provided tracking data.



5. Conclusions

This section describes our preliminary conclusions for the mid-sized customer needs assessment, based on the Stage I research completed so far.

No standard definition of ‘mid-sized’ customer

Through DNV KEMA’s interviews with PAs and implementation contractors, we have identified that there is no consensus as to how small, mid-sized and large customers should be identified within each of the PAs service territories. Each PA currently uses a unique methodology for making these distinctions. For this project, the research team suggests the following definition of customer size as the closest match to current PA size definitions:

- Mid-sized customers as those with peak demand of between 300 and 750 KW, who do not have an account representative, and who have fewer than six locations;
- Small customers are those who qualify for a Direct Install program; and
- Large customers are those with peak demand greater than 750 KW, or greater than 300 KW if they have an account representative or more than five locations.

It is important to remember that this definition is meant to encompass PA marketing techniques, on average. Due to different customer bases, the PAs together do not have a single definition for a mid-sized customer. For instance, some PAs only consider small and large customers, since they have so few large customers, with some large customers falling within the legal Direct Install program range. Our definition may have less relevance when looking at the smaller PAs individually.

Current customer data does not match PA account management claims

During our interviews, the PAs indicated that most accounts with >750 KW peak demand and many customers with more than five locations should receive attention from an account representative. However, the available customer data indicates that many large customers are not managed, and many customers with lower peak demand, but who have more than five locations, are also not managed.

Current customer tracking systems could be improved for better marketing

While the PAs and implementation contractors were somewhat satisfied with their customer tracking systems for the purposes of program marketing, the interviewees suggested some improvements. There is a desire to easily link all accounts and locations to a customer to a parent name, which the data management systems cannot currently do. Also, both PAs and implementation contractors believe that



marketing could be more targeted, and successful, if they were able to more easily query specific information regarding customers within specific industries.

No consensus as to whether mid-sized customers are underserved

Among the PAs and implementation contractors we spoke with, there was no consensus regarding whether mid-sized customers were underserved, or how better to serve mid-sized customers if they are underserved. Some contractors interviewed believed that one option for addressing mid-sized customers was to expand the Direct Install programs to customers with up to 750 KW peak demand. However, this belief was not shared by a number of the PAs. Some of the PAs felt that contractors would require greater training in comprehensive solutions to address the needs of the mid-market. Others felt that the model of using project expeditors to assist customers in finding solutions was adequate for meeting mid-sized customer needs.

The PAs with smaller customer bases are more concerned with having additional small businesses participate than they are with targeting mid-sized customers. For them, these small customers are the hardest to engage.

Addressing mid-sized customers through expanded custom programs might be difficult; mid-sized custom projects are often as complex and resource intensive as large custom programs, but with lower potential payback. Those customers who would be classified as mid-sized based solely on peak demand, but who have particularly high levels of energy usage, already receive attention from account representatives, and are considered large for marketing purposes. Underserved mid-sized customers are likely those with 300-750 KW peak demand, but who have lower average load factors. The research team will need to confirm this through the Stage II customer survey.

The Gas PAs believe their mid-sized and large gas customers are underserved by the small electric Direct Install programs

The Gas PAs are concerned about the way small electric/large gas customers are handled by Direct Install vendors. They have no way of knowing if all appropriate prescriptive measures are installed by the electric contractors, or if their customers' buildings might be better suited to custom projects.

Based on participation rates, mid-sized customers appear underserved

Our analysis of participation rates by size category indicated that mid-sized customers participated in energy efficiency programs two-thirds as often as large customers. The overall populations of these groups were similar in size. We believe this difference may indicate that mid-sized customers are underserved. Again, the research team will confirm this through our survey of the Massachusetts C&I customers participants and non-participants. The results to date provide us with sub-populations on which to focus that survey.



5.1 Preliminary Recommendations

The *Mid-sized Customer Needs Assessment* Team presents the following preliminary recommendations to the PA for consideration. These preliminary recommendations may change upon completion of the data mining and Stage II primary research. The final recommendations will be presented in the final report.

- *Improve processes for linking multiple accounts to customers* – The PAs ability to accurately and consistently classify customers depends upon their ability to track multiple account customers. The PAs employ a range of tools to help them link customers; however, these tools did not provide sufficient support to enable the research team to link account representatives to the accounts they manage by account number. Moreover, we found large discrepancies between the segments that the PAs felt they were managing and those for whom we were able to match to account representatives.
- *Standardize approaches classifying and marketing to multi-account customers* – Our research found that multiple account customers were treated differently across PAs, and also within a PA, across customers. The lack of standardized approaches for treating multiple account customers limits our ability to isolate segments of customers based on size, and complicates the PA’s ability to effectively market to those customers.
- *Link electric and gas customers* – Because much of the identification and marketing to Direct install customers is handled through the electric PAs, the gas only PAs lose some autonomy regarding how their customers are marketed. Consequently, some large gas customers are not identified until after they receive Direct Install prescriptive solutions from installation contractors. Improved tracking systems across PAs would reduce the risk of this occurring. DNV KEMA found that the PA’s ability to link accounts across firms is constrained by legal privacy issues that must be addressed before this will be possible.

5.2 Limitations

- This memorandum provides preliminary results of the mid-sized customer needs assessment. The findings we discussed were limited to the in-depth interviews with PA staff and implementation contractors and limited analysis of Customer Profile database. Our ongoing research efforts will provide for more robust analysis. The on-going research efforts include a detailed data mining exercise designed to investigate how the insights obtained from the in-depth interviews play out in the actual customer billing and program tracking records. We are in the process of implementing a survey of participants and non-participants to test various hypotheses developed based on the PA interviews and data analysis conducted to date.
- The ability to effectively link accounts to customers limits our ability to develop standardized definitions of customer size. Moreover, it restricts the analysis to electric customers only because we cannot link the customer size that is established based on electric account information to gas consumption. Through the Stage II survey, we will ask customers to identify their gas utility and



inquire about their gas consumption in an effort to draw conclusions about the needs of large gas and small electric customers.



A. PA Interview Guide

MA LCIEC –MID-SIZED CUSTOMER NEEDS ASSESSMENT

IN-DEPTH INTERVIEW GUIDE FOR PROGRAM MANAGERS AND OTHER PROGRAM STAFF OF MASSACHUSETTS DIRECT INSTALL AND LARGE C&I PROGRAMS

Program Manager/Staff In-Depth Interview Guide

Introduction

PRIMARY PROJECT GOAL:

Determine whether there is a need for targeted energy efficiency programs to meet the needs of mid-sized C&I customers in Massachusetts.

PRIMARY INTERVIEW OBJECTIVES:

Identify criteria used to identify large (customers with account reps) and small businesses (direct install prospects).

Explore whether there are differing marketing needs for customers within the distribution of large and small customers.

Identify approaches used to market to customers' differing needs, particularly those with and without account reps.

Obtain list of customers with dedicated account representatives and other PA staff that may provide valuable insights into this study.

LEAD-IN:

Hello, my name is [NAME]. I work for DNV KEMA, an energy consulting firm. We have been hired by the Massachusetts Energy Efficiency Program Administrators to conduct research on energy efficiency programs serving commercial and industrial customers.

Today, we would like to talk with you about your experience implementing programs for your customers. This conversation will cover:

Your responsibilities concerning C&I energy efficiency programs in Massachusetts.



Criteria used to segment Massachusetts C&I customers by size, identifying customers targeted for the small business (direct install) and large C&I programs.

Understanding the effectiveness of existing energy efficiency programs at meeting the needs of customers and encouraging them to take action.

Understanding approaches used to market energy efficiency programs to the diverse needs of C&I firms.

RB. Roles and Background

I would like to start by asking you a few questions about your position at <COMPANY>. This is to put the rest of your answers in context.

RB1. What is your job title at <COMPANY>? How long have you been in this role?

RB2. How many years of experience do you have with energy efficiency program implementation/management?

RB3. What are your primary job responsibilities?

[IF NOT INDICATED IN PRIMARY JOB RESPONSIBILITIES IN RB3 ASK RB4]

RB4. Which commercial and industrial programs do you work on in Massachusetts?

RB4a. [PROBE] Are you involved in the Direct Install and/or large C&I programs?

RB4b. [PROBE] What programs do you work on most frequently?

RB4c. [PROBE] Which equipment or measure types are you most familiar with?

RB5. What types of customers do you work with in Massachusetts?

[IF NOT INDICATED IN RB3 or RB5, ASK RB5a-RB5e]

RB5a. [PROBE] Are you involved with small and/or large C&I commercial accounts?

RB5b. [PROBE] Where in Massachusetts are your customers located? [Try to get metro areas, north, east, south, west, or counties]

RB5c. [PROBE] Which programs and equipment types are you most familiar with? (Direct Install, Cool Choice, etc.)



RB5d. **[PROBE]** Which industries and building types are you most familiar with? **[IF NOT MENTIONED:** Do you work with customers in any of the following industries: commercial real estate, hotels, and small hospitals?]

RB5e. **[PROBE]** How would you characterize the ownership structure of the firms with whom you are most familiar? Are they single or multi-site facilities, chains/franchises, sole proprietorships, public or privately held firms?

RB6. With which types of market actors do you work? Implementation contractors, project expeditors, energy service providers, building owners, developers, (CEOs, CFOs), property/ facilities managers, architects, engineers, others?

RB7. What is your relation to other PA staff that assist with C&I programs? Specifically, do you work with account reps, energy efficiency consultants, others?

RB8. **[IF WE DO NOT HAVE IT ALREADY]** Can you provide a list of managed accounts?

MP. Marketing Process

[PLEASE READ] *For this section, I would like to ask about the process for marketing to potential participants in small programs, specifically Direct Install.*

IF STAFF WORKS WITH SMALL CUSTOMERS

MP1. How does <PA> market the Direct Install program? Please describe the process, starting with customer or account lists.

MP1a. **[PROBE]** Do you primarily market the program by account? What about by customer (if multiple accounts)? Or by individual location? By energy usage? By lists labeling customers either small or large? By geography/location? By industry segment?

MP1b. **[IF NOT MENTIONED]** What about customers with multiple accounts? Does that change the marketing process? In what way? Do you link accounts? If so, how? (By name, by phone number? etc.) How frequently is this done? (PROBE: always, frequently, sometimes, never)?

MP1c. **[IF NOT MENTIONED]** What about customers with multiple properties? Does that change the marketing process or strategy? In what way(s)?

MP1d. **[IF NOT MENTIONED]** What about small electric but large gas users? For marketing purposes, do you treat an **[ACCOUNT/CUSTOMER]** differently if they are considered a “small” electric user (e.g. < 300 kW) but categorized as a “large” gas **[ACCOUNT/CUSTOMER]**?



MP2. How do you define a customer with multiple properties versus a customer that is part of a chain or franchise? Are they the same in some instances? Different in others?

MP2a. Do you use these definitions to segment/market to customers? In what ways?

MP3. What happens when an [ACCOUNT/CUSTOMER] is eligible for incentives but does not qualify for the Direct Install program? [PROBE: Contact information given to implementer; connect to a designated contact? Unsure what happens?] Does this vary? For what reason(s)? (e.g. energy usage; industry type; geographic location)?]

MP3a. [PROBE] How do you market to customers who do not qualify for the Direct Install program but are eligible for other energy efficiency incentives?

MP4. [For PAs that use implementation firms] How do your implementation contractor(s) market the Direct Install program? Are marketing efforts based on account, location, customer, industry segment, etc.?

MP5. What type of system does <PA> have in place to track marketing efforts for the Direct Install program?

MP5a. [IF NOT MENTIONED] Do you use marketing or tracking software? If yes, what type/brand?

MP6. [For PAs that use implementation firms] For the Direct Install program, do your implementation contractors track how they market the program? If yes, how? [PROBE: software/tracking system used?]

IF STAFF WORKS WITH LARGE CUSTOMERS

[PLEASE READ]

For this next section, I would like to ask about the process for marketing to potential participants in large program.

MP7. How does <PA> market the energy efficiency programs to large customers? Please describe the process, starting with any customer/account lists.

MP7a. Do you primarily market the energy efficiency programs by the list of managed accounts? Do any of the following play a major role: energy usage? Customers with multiple accounts? PA lists labeling customers either small or large? Geography/location? Industry segment? Building type? Other?



MP7b. [\[IF NOT MENTIONED\]](#) What about customers with multiple accounts? Does that change the marketing process? In what way? Do you link accounts? If so, how? (By name, by phone number? etc.) How frequently is this done? (PROBE: always, frequently, sometimes, never)?

MP7c. [\[IF NOT MENTIONED\]](#) What about customers with multiple properties? Does that change the marketing process or strategy? In what way(s)?

MP7d. Does marketing to large accounts located in Stretch Energy Code communities differ in any way from marketing to large accounts in other communities?

MP8. [\[PROBE\]](#) How do you define a customer with multiple properties versus a customer that is part of a chain or franchise? Are they the same in some instances? Different in others?

MP8a. Do you use these definitions to segment customers? In what ways?

MP9. What type of system does your organization have in place to track marketing efforts? Please describe how the tracking process works. [\[IF NOT MENTIONED: Do you use marketing or tracking software? If yes, what type/brand? Do you share tracking system/software with any implementers/contractors?\]](#)

MP10. [\[For PAs that use implementation firms\]](#) In what ways do your implementation contractors market the energy efficiency programs? Is it based on account, location, customer, industry segment?

MP11. [\[For PAs that use implementation firms\]](#) In what ways do implementation contractors track how they market the program? Whom do they market to?

CT. Criteria used to target large and small customers

[\[PLEASE READ\]](#) *Now, I'd like to discuss how customers are targeted for C&I programs*

[IF RESPONDENT WORKS WITH SMALL CUSTOMERS ASK:](#)

CT1. Please describe the general process by which customers/accounts are identified as “small” for the Direct Install C&I programs.

CT1a. [\[PROBE\]](#) What role does the PA play in identifying potential energy efficiency customers?

CT1b. [\[PROBE\]](#) Do other 3rd parties play a role? Who? Describe.

CT1c. [\[PROBE\]](#) Does this differ by customer types? How?

CT1d. [\[PROBE – IF PA5 / PA6 / PA7 ASK\]](#) How does the process work for customers who have both gas and electric utilities? (i.e. large electric and small gas or small electric and large gas?)



CT1e. [\[PROBE\]](#) How does this process differ for single and multi-site firms (i.e. chains and franchises)?

CT2. What criteria are used to determine whether a customer/account is small? Is it based on demand, consumption, employee size, square footage, or other metric? Does it vary? How so?

CT3. What are the specific upper and lower bound cut-off values for those criteria?

Lower Bound Upper Bound

Demand

Consumption

Employee Size

Square footage

Other

CT3a. [\[IF DEMAND IS A CRITERION, ASK\]](#) Some have suggested 75 KW or 300 KW; do these values represent meaningful cut-off values for small businesses? Are there better ones? If yes, what are they? Why?

CT3b. [\[FOR ALL CRITERIA MENTIONED ASK\]](#) Do the cut-off values differ by customer type or some other factor? How?

CT3c. [\[IF NECESSARY PROBE\]](#) How do these criteria differ by the following?

Industry?

Building type?

Does the number of locations of a firm factor into this classification? Are multi-site firms treated the same way within the efficiency programs at your organization? Across other PAs?

How do you handle customers with both gas and electric utilities with different PAs for each fuel? With the same PA for each fuel?

CT4. Do you feel that this approach for identifying small businesses correctly identifies customers/accounts you consider to be small? Why do you say that?

[\[IF STAFF WORKS WITH LARGE CUSTOMERS ASK\]](#)

[\[IF THE PA HAS ACCOUNT REPS ASK\]](#)



CT5. Now, I'd like you to describe the general process by which customers are assigned account reps.

CT5a. [PROBE] What role does the PA play in identifying customers who require account reps?

CT5b. [PROBE] What is your role in this process?

CT5c. [PROBE] Do other 3rd parties play a role? Who? Describe.

CT5d. [PROBE] Do the account representatives play a role in identifying large customers?

CT5e. [PROBE] How does this process differ for single and multi-site firms (i.e. chains and franchises)?

CT5f. [PROBE] How are national accounts identified?

CT5g. [PROBE] How are national accounts treated compared to other large, managed accounts?

[IF THE PA DOES NOT HAVE ACCOUNT REPS ASK]

CT6. Now, I'd like you to describe the general process by which customers/accounts are identified as "large" for the Large C&I programs?

CT6a. [PROBE] What role does the PA play in identifying customers for large C&I efficiency programs?

CT6b. [PROBE] What is your role in this process?

CT6c. [PROBE] Do other 3rd parties play a role? Who? Describe.

CT6d. [PROBE] How does this process differ for single and multi-site firms (i.e. chains and franchises)?

CT6e. [PROBE] How are national accounts identified?

CT6f. [PROBE] How are national accounts treated compared to other large, managed accounts?

CT7. What criteria are used to determine whether customers/accounts have account reps (or are large)? Is it based on demand, consumption, employee size, square footage, or other metric?

CT8. What are the specific upper and lower bound cut-off values for those criteria?

Lower Bound Upper Bound

Demand

Consumption



Employee size

Square footage

Other

CT8a. [\[IF DEMAND IS A CRITERIA, ASK\]](#) Some have suggested 300 KW or 750 KW, are appropriate lower bounds for large customers. Do these values represent meaningful cut-off values for large businesses? Are there better ones? If yes, what are they? Why?

CT8b. [\[FOR ALL CRITERIA MENTIONED ASK\]](#) Do the cut-off values differ by types of customer? How?

CT8c. How do these cut-off values differ by the following?

Industry?

Building type?

Does the number of locations of a firm factor into this classification?

Are multi-site firms treated consistently by a single PA? Across PAs? Across fuel types?

[\[IF PA is PA5 / PA6 / PA7 ASK\]](#) How do you handle customers who are both gas and electric? With the same PA? With different PAs for each fuel?

CT9. [\[IF THE PA HAS ACCOUNT REPS ASK\]](#) Do you feel that the assignment of an account representative correctly identifies customers you consider to be large? Why do you say that?

CT9a. [\[IF THE PA DOES NOT HAVE ACCOUNT REPS ASK\]](#) Do you feel that these criteria correctly identify customers you consider to be large? Why do you say that?

CS. Customer Segmentation

[\[PLEASE READ\]](#)

Next, I'd like to talk to you about sub-segments of C&I energy efficiency program participants that may have differing needs, and how well the programs are doing at meeting the range of needs across those segments.

Small Customers

[IF STAFF WORKS WITH SMALL CUSTOMERS ASK:](#)



CS1. First, does the Direct Install program meet the needs of small businesses? Why do you say that?

CS2. Are there certain segments (or groups) of small businesses whose needs are consistently met by the program?

CS2a. Which groups of customers? Can you describe them by:

Size?

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Number of locations/ownership structure?

Other?

CS2b. What needs are consistently met by the program?

How do these needs vary by customer type (size, industry, number of locations, other)?

CS3. Are there certain segments (or groups) of small businesses whose needs are not consistently met by the program?

CS3a. Which groups of customers? Can you describe them by:

Size?

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Number of locations/ownership structure?

Other?

CS3b. What needs?

How do these needs vary by customer type (size, industry, number of locations, other)?

CS4. For participating small customers/accounts, are there barriers that prevent them from going ahead with installation of recommended measures or going for deeper energy savings [PROBE: too costly? Split incentives? Installation too disruptive or takes too much time? Not enough \$\$ savings to bother?]

CS5. [IF BARRIERS FOUND] Do the barriers differ depending on the industry type, size, ownership structure, or other factors?



CS6. Earlier you suggested that small customers/accounts are best defined using [CRITERIA]. Looking at the range of small customers/accounts from smallest to largest, according to [CRITERIA], is there some size at which you start seeing a greater number of customers/accounts whose needs fall outside the Direct Install program offerings? (In other words, is there level where you can split small customers/accounts into smaller-small and larger-small customers/accounts?)

CS6a. How would you define that size break? Why do you say that? What are the underserved needs of these customers?

CS6b. Are there noticeable differences in those size breaks by and their needs by:

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Building type?

Number of locations (Chains & Franchises verses single sites)

Other?

Large Customers

IF STAFF WORKS WITH LARGE CUSTOMERS ASK:

CS7. First, how well do the large C&I programs do at meeting the needs of large customers/accounts? Why do you say that?

CS8. Are there certain segments (or groups) of large customers/accounts whose needs are consistently met by the program?

CS8a. Which groups of customers? Can you describe them by:

Size?

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Number of locations/ownership structure?

Other?

CS8b. What needs?

How do these needs vary by customer type (size, industry, number of locations, other)?



CS9. Are there certain segments (or groups) of large customers/accounts whose needs are consistently not met by the programs?

CS9a. Which groups of customers? Can you describe them by:

Size? (small large vs. large-large)

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Number of locations/ownership structure?

Other?

CS9b. What needs?

How do these vary by customer type (size, industry, number of locations, other?)

CS9c. Does having a dedicated account representative impact the likelihood of the large C&I programs meeting the needs of participants? How?

CS10. For participating large customers, are there barriers that prevent them from going ahead with installation of recommended measures or going for deeper energy savings [PROBE: too costly? Split incentives? Installation too disruptive or takes too much time? Not enough \$\$ savings to bother?]

CS11. [IF BARRIERS FOUND] Do the barriers differ depending on the industry type, size, ownership structure, or other factors?

CS12. Earlier you suggested that large customers/accounts are best defined using [CRITERIA]. Looking at the range of large customers/accounts from largest to smallest, according to [CRITERIA], is there some size at which you start seeing a greater number of large customers/accounts whose needs fall outside the large C&I program offerings? (In other words, is there level where you can split large customers into small-large and large-large customers?)

CS12a. How would you define that size break? Why do you say that? What are the underserved needs of these customers?

CS12b. Are there noticeable differences in those size breaks and their needs by:

Industry?

Building type?



Number of locations (Chains & Franchises verses single sites)?

Whether or not a customer has a dedicated account representative?

Other?

Mid-sized customers

[ASK STAFF THAT DEAL WITH EITHER SMALL OR LARGE PROGRAMS](#)

CS13. How would you describe the lower bound of a mid-sized customer/account – A customer that is too large to be small and too small to be large?

CS14. How would you describe the upper bound of a mid-sized customer/account – A customer that is too large to be small and too small to be large?

CS15. Can you describe this group of customers/accounts in terms of:

CS15a. The concentration of firms by industry type?

CS15b. The concentration of firms that are single site verses multi-site (ownership structure)?

CS15c. Other important characteristics?

CS16. Do you think the program needs of mid-sized customers/accounts differ from small C&I customers? Why do you think so?

CS17. Similarly, do you think the program needs of mid-sized customers/accounts differ from large C&I? Why do you think so?

CS18. Do the existing C&I programs effectively serve the needs of mid-sized customers/ accounts in your opinion? Why or why not?

CS19. In what ways could mid-sized customers/ accounts be better served? (By industry, size, ownership type, method of outreach, type of incentives?)

MC. Marketing and Customer Acquisition Strategies

Now, I'd like to discuss the marketing process for C&I programs

[IF STAFF WORKS WITH SMALL CUSTOMERS ASK:](#)

MC1. Can you please describe the general process for marketing the Direct Install C&I programs?



MC1a. What role does the PA play?

MC1b. [PROBE] What is your role in this process? (Account reps, project expeditors)

MC1c. [PROBE] Under what circumstances and how do other 3rd parties play a role?

Implementation Contractors

Energy Service Providers

Energy Efficiency consultants

Who? Describe.

MC1d. [PROBE – IF PA5 / PA6 / PA7 ASK] How does the process work for customers who have both gas and electric utilities? (i.e. large electric and small gas or small electric and large gas?)

MC1e. [PROBE] How does this process differ for single and multi-site firms (i.e. chains and franchises)?

[IF STAFF WORKS WITH LARGE CUSTOMERS ASK:](#)

MC2. Now, I'd like you to describe the general process for marketing the Large C&I programs.

MC2a. [PROBE] What role does the PA play?

MC2b. [PROBE] What is your role in this process? (Account reps, project expeditors)

MC2c. [PROBE] Under what circumstances and how do other 3rd parties play a role?

Implementation Contractors

Energy Service Providers

Energy Efficiency consultants

Who? Describe.

MC2d. [PROBE] How does this process differ for single and multi-site firms (i.e. chains and franchises)?

MC2e. [PROBE] How are national accounts identified and treated?

[IF STAFF WORKS WITH SMALL CUSTOMERS ASK:](#)



[READ] Next, I'd like you to discuss the specific marketing practices used to handle the diverse needs of customers within the Direct Install program.

MC3. What happens when a customer's/account's needs are not met by program offerings?

MC4. What factors may contribute to a customer's/account's needs not being addressed? (i.e. they become too complicated to serve or are lost in the process).

MC4a. Is this more likely to happen below or above a certain size? What size?

MC5. Define the roles of contractors, the PAs, and other third parties in marketing to customer /accounts with needs that fall outside the program design.

MC5a. When do energy efficiency consultants or project expeditors get involved?

MC6. Are some of their needs picked up by the program, while others are handled by other programs? Under what circumstances will this happen? Who gets involved?

MC7. Are there needs that are handled outside of the program? By whom?

MC8. Are small-small customers/account's handled differently than large-small customers/accounts? How so? [REMINDEE RESPONDENT OF DEFINITION OF SMALL-SMALL AND LARGE-SMALL FROM CUSTOMER SEGMENTATION SECTION, IF NEEDED]

MC9. How do PAs market to customers/accounts who have both electricity and gas – particularly if they are small electric but large gas users?

MC10. Do you have a prospecting list of customers you target for any of these small C&I programs you mentioned earlier? (e.g. Direct Install, etc.)

IF STAFF WORKS WITH LARGE CUSTOMERS ASK:

Next, I'd like you to discuss the specific marketing practices used to handle the diverse needs of customers within the Large C&I programs.

MC11. What happens when a large customer's/account's needs are not met by program offerings?

MC12. What factors may contribute to a customer's/account's needs not being addressed? (i.e. they become too complicated to serve or are lost in the process).

MC12a. Is this more likely to happen if the customer does not have an account representative?

MC12b. Is this more likely to happen below or above a certain size? What size?



MC13. Define the roles of contractors, the PAs, and other third parties in marketing to customer/accounts with needs that fall outside the program design.

MC14. Are some of their needs picked up by the program, while others are handled by other programs? Under what circumstances might this happen? Who gets involved?

MC15. Are there needs that are handled outside of the program? By whom?

MC16. Are small-large customers/accounts handled differently than large-large customers? How so?

MC17. How do they market to customers/accounts who have both gas and electric utilities – particularly if they are large electric but small gas users?

[ASK STAFF THAT DEAL WITH EITHER SMALL OR LARGE PROGRAMS](#)

MC18. Among these programs serving small and large C&I customers/accounts, do any programs or program activities more effectively serve mid-sized customers/accounts, according to the definition you gave earlier?

[YES/NO]

MC18a. [IF YES] Which programs?

MC18b. Why do you think that?

MC19. Have any programs conducted target marketing to mid-sized customers/accounts, according to the definition you gave earlier? [YES/NO]

MC19a. [IF YES] Which program(s)? Please describe the marketing or customer acquisition process employed by this program. [e.g. marketing channels used, key messages, which customer group type targeted, and whether includes commercial real estate, hotels and small hospitals]?

MC19b. Which marketing activities targeting mid-sized customers generated the most program participation?

MC19c. Why do you think this/these were successful? [Probe: program attractiveness, marketing channel used, key message(s), event/strategy timing, etc.]

MC19d. Which marketing activities targeting mid-sized customers/accounts generated the least program participation?

MC19e. Why do you think this/these generated the least? [Probe: program attractiveness, marketing channel used, key message(s), event/strategy timing, etc.]



MC20. On a scale of 1 to 10, where 1 is low and 10 is high, how successful do you think the existing programs have been in serving these mid-sized customers/accounts in terms of customer participation? Why do you think so?

MC21. Are there any specific groups of mid-sized customers/accounts that you think these programs serve better?

MC21a. [PROBE] Industries (note if following industries mentioned: commercial real estate, small hospitals and hotels)? Why or why not?

MC21b. [PROBE] Chains and franchises? Why or why not?

MC21c. [PROBE] Other segments? Why or why not?

MC22. Do you think [PA NAME] should add program(s) specifically for mid-sized customers? [YES/NO]

MC22a. [IF YES] Which type of programs?

MC22b. To increase mid-sized customer participation, what changes or improvements would you suggest to the existing energy efficiency programs?

MC23. In terms of reaching non-participants, or customers who do not currently engage in the efficiency programs, how can program support be improved or expanded to capture their needs?

MC24. Are there other program improvements that would help to better serve mid-sized customer needs? [e.g. staffing levels/type, marketing focus, etc.]

MC25. Any other recommendations you have to more effectively serve mid-sized customers' program needs that we haven't already discussed?

Closing Comments

CC1. Do you have any other input regarding needs, program participation, or marketing for mid-sized customers that we haven't already discussed?

Those are all the questions I wanted to ask. Thank you for your time and participation.



B. Implementation Contractor Interview Guide

MA LCIEC –MID-SIZED CUSTOMER NEEDS ASSESSMENT

IN-DEPTH INTERVIEW GUIDE FOR ENERGY EFFICIENCY PROGRAM

FOR IMPLEMENTATION CONTRACTORS

Implementer/Contractor In-Depth Interview Guide

Introduction

PRIMARY PROJECT GOAL:

Determine whether there is a need for targeted energy efficiency programs to meet the needs of mid-sized C&I customers in Massachusetts.

PRIMARY INTERVIEW OBJECTIVES:

Identify criteria used to target businesses for the direct install (small business) and large C&I programs.

Explore differing customer needs within the distribution of small and large customers relative to program offerings

Identify approaches used to market to customers' differing needs.

LEAD-IN:

Hello, my name is [NAME]. I work for DNV KEMA, an energy consulting firm. We have been hired by the Massachusetts electric and gas utilities' Energy Efficiency Program Administrators to conduct research on energy efficiency programs serving commercial and industrial customers.

Today, we would like to talk with you about your experience implementing programs. This conversation will cover:

Your responsibilities concerning C&I energy efficiency programs in Massachusetts.

Criteria used to segment Massachusetts C&I customers by size, identifying customers targeted for the small business (direct install) and large C&I programs.

Understanding the effectiveness of existing energy efficiency programs at meeting the needs of customers and encouraging them to take action.



Understanding approaches used to market energy efficiency programs to the diverse needs of C&I firms.

RB. Roles and Background

I would like to start by asking you a few questions about your position at <COMPANY>. This is to put the rest of your answers in context.

RB1. What is your job title at <COMPANY>? How long have you been in this role?

RB2. How many years of experience do you have with energy efficiency program implementation/management?

RB3. What are your primary job responsibilities?

[IF NOT INDICATED IN PRIMARY JOB RESPONSIBILITIES IN RB3 ASK RB4]

RB4. Which commercial and industrial programs do you work on in Massachusetts?

RB4a. [PROBE] Are you specifically involved in the Direct Install and/or large C&I programs?

RB4b. [PROBE] For which PAs do you work most frequently?

RB4c. [PROBE] Which equipment or measure types are you most familiar with?

[IF NOT INDICATED IN PRIMARY JOB RESPONSIBILITIES IN RB3 ASK RB5]

RB5. What types of customers do you work with in Massachusetts?

RB5a. [PROBE] Are you specifically involved in small and/or large C&I commercial accounts? For which PAs?

RB5b. [PROBE] How frequently do you serve dual fuel (electric and gas) customers? How about dual fuel customers with different PAs for each fuel?

RB5c. [PROBE] Where in Massachusetts are your customers located? [Try to get metro areas, north, east, south, west, or counties]

RB5d. [PROBE] Which programs and equipment types are you most familiar with? (Direct Install, Cool Choice, etc.)

RB5e. [PROBE] Which industries and building types are you most familiar with? [IF NOT MENTIONED:] Do you work with customers in any of the following industries: commercial real estate, hotels, and small hospitals?]



RB5f. **[PROBE]** How would you characterize the ownership structure of the firms with whom you are most familiar? Are they single or multi-site facilities, chains/franchises, sole proprietorships, public or privately held firms?

[IF NOT INDICATED IN PRIMARY JOB RESPONSIBILITIES IN RB3]

RB6. With which types of market actors do you work? **[Examples include building owners, property managers, PA staff (account reps, program managers, energy efficiency consultants), CEO's, CFO's), property/ facilities managers, energy service providers, contractors, architects, engineers, developers, other trade allies.]**

MP. Marketing Process

IF RESPONDENT(S) WORKS WITH SMALL CUSTOMERS ASK:

[PLEASE READ] *For this section, I would like to ask about the process for marketing to potential participants in small programs, specifically Direct Install.*

MP1. How does <implementation contractor> market the Direct Install program? Please describe the process, starting with any customer or account lists received from the PA.

MP1a. **[PROBE]** Do you primarily market the program around accounts? Or by individual location? By customer, with multiple accounts? By PA lists labeling customers either small or large? By energy usage? By geography/location? By industry segment?

MP1b. **[IF NOT MENTIONED]** What about customers with multiple accounts? Does that change the marketing process? In what way? For these customers, do you link accounts for marketing purposes? If so, how? (By name, by phone number? etc.) How frequently are customer accounts linked? **[PROBE: always, frequently, sometimes, never]?**

MP1c. **[IF NOT MENTIONED]** What about customers with multiple properties? Does that change the marketing process or strategy? In what way(s)?

MP1d. What about small electric but large gas users? For marketing purposes, do you treat an **[ACCOUNT/CUSTOMER]** differently if they are considered a "small" electric user (e.g. < 300 kW) but categorized as a "large" gas **[ACCOUNT/CUSTOMER]**?

MP2. **[PROBE]** How do you define a customer with multiple properties versus a customer that is part of a chain or franchise? Are they the same in some instances? Different in others?

MP2a. Do you use these definitions to segment/market to customers? In what ways?



MP3. What happens when an [ACCOUNT/CUSTOMER] is eligible for incentives but does not qualify for the Direct Install program? [PROBE: Contact information given to PA or to a designated contact? Unsure what happens?] Does this process vary? For what reason(s)? (e.g. energy usage; industry type; geographic location)?]

MP3a. [PROBE] Does your firm market to customers who do not qualify for the Direct Install program but are eligible for other energy efficiency incentives? How so?

MP4. What type of system does your organization have in place to track how you market the Direct Install program?

MP4a. [IF NOT MENTIONED: Do you use marketing or tracking software? If yes, what type/brand? Do you share tracking information with the PA?

IF RESPONDENT(S) WORKS WITH LARGE CUSTOMERS:

[PLEASE READ] *For this section, I would like to ask about the process for marketing to potential participants in large programs,*

MP5. How does <implementation contractor> market the energy efficiency programs to large customers? Please describe the process, starting with any customer/account lists received from the PA.

MP5a. Do you primarily market the energy efficiency programs by PAs list of managed accounts? Do any of the following play a major role: energy usage? Customers with multiple accounts? PA lists labeling customers either small or large? Geography/location? Industry segment? Building type? Other?

MP5b. [IF NOT MENTIONED] What about customers with multiple accounts? Does that change the marketing process? In what way? Do you link accounts? If so, how? (By name, by phone number? etc.) How frequently is this done? (PROBE: always, frequently, sometimes, never)?

MP5c. [IF NOT MENTIONED] What about customers with multiple properties/multiple businesses? Does that change the marketing process or strategy? In what way(s)?

MP5d. Does marketing to large accounts located in Stretch Energy Code communities differ in any way from marketing to large accounts in other communities?



MP6. [PROBE] How do you define a customer with multiple properties versus a customer that is part of a chain or franchise? Are they the same in some instances? Different in others?

MP6a. Do you use these definitions to segment customers? In what ways?

MP7. What type of system does your organization have in place to track marketing efforts to large customers? Please describe.

MP7a. [IF NOT MENTIONED: Do you use marketing or tracking software? If yes, what type/brand? Do you share tracking system/software with the PA?]

CT. Criteria used to target large and small customers

IF CONTRACTOR WORKS WITH SMALL CUSTOMERS ASK:

[PLEASE READ] *Now, I'd like to discuss how customers/ accounts are targeted for C&I programs.*

CT1. Please describe the general process by which customers/ accounts are identified as "small" for the Direct Install C&I programs.

CT1a. [PROBE] What role does the PA play in identifying potential energy efficiency customers/ accounts?

CT1b. [PROBE] What is your role in this process?

CT1c. [PROBE] Do other 3rd parties play a role? Who? Please describe.

CT1d. [PROBE] How does this differ by PA?

CT1e. [PROBE] How does the process work for customers who have both gas and electric utilities? (i.e. large electric and small gas or small electric and large gas?)

CT1f. [PROBE] How does the identification process for energy efficiency customers differ for single versus multi-site firms (i.e. chains and franchises)?

CT2. What criteria are used to determine whether a customer/ accounts is small? Is it based on demand, consumption, employee size, square footage, or other metric?

CT3. What are the specific upper and lower bound cut-off values for those criteria?

Lower Bound Upper Bound

Demand



Consumption

Employee Size

Square footage

Other

CT3a. [\[IF DEMAND IS A CRITERION, ASK\]](#) Some have suggested 75 kW or 300 kW; do these values represent meaningful cut-off values for small businesses? Are there better ones? If yes, what is it? Why?

CT3b. [\[FOR ALL CRITERIA MENTIONED ASK\]](#) Do the cut-off values differ by PA? How?

CT3c. [\[FOR ALL CRITERIA MENTIONED ASK\]](#) How do these criteria differ by the following?

Industry? How?

Building type? How?

The number of locations of a firm factor into this classification? Are multi-site firms treated consistently within a PA? Across PAs?

How do you handle customers/ *accounts* who receive natural gas and electricity from different PAs? From the same PA?

CT4. Does the PA designation of small businesses correctly identify customers you consider to be small? Why do you say that?

[IF CONTRACTOR WORKS WITH LARGE CUSTOMERS ASK:](#)

CT5. Now, I'd like you to describe the general process by which customers are identified as "large" for the large C&I programs.

CT5a. [\[PROBE\]](#) What role does the PA play in identifying potential energy efficiency customers/ *accounts*?

CT5b. [\[PROBE\]](#) What is your role in this process?

CT5c. [\[PROBE\]](#) Do other 3rd parties play a role? Who? Describe.



CT5d. [PROBE] Do the account representatives play a role in identifying large customers/*accounts*?

CT5e. [PROBE] How does this process differ for PAs that do and do not have account representatives?

CT5f. [PROBE] How does this process differ for single and multi-site firms (i.e. chains and franchises)?

CT6. What criteria are used to determine whether a customer/*accounts* is large? Is it based on demand, consumption, employee size, square footage, or other metric?

CT7. What are the specific upper and lower bound cut-off values for those criteria?

Lower Bound Upper Bound

Demand

Consumption

Employee size

Square footage

Other

CT7a. [IF DEMAND IS A CRITERIA, ASK] Some have suggested 300 KW or 750 KW, are appropriate lower bounds for large customers. Do these values represent meaningful cut-off values for large businesses? Are there better ones? If yes, what are they? Why?

CT7b. [FOR ALL CRITERIA MENTIONED ASK] Do the cut-off values differ for PAs with and without account representatives? How?

CT7c. [FOR ALL CRITERIA MENTIONED ASK] How do these criteria differ by the following?

Industry? How?

Building type? How?

The number of locations of a firm factor into this classification? Are multi-site firms treated consistently by a single PA? Across PAs? Across fuel types?

How do you handle dual fuel customers? With the same PA? With different PAs for each fuel?



CT8. Does the PA assignment of account representatives correctly identify customers you consider/ *accounts* to be large? Why do you say that?

CS. Customer Segmentation

[PLEASE READ]

Next, I'd like to talk to you about sub-segments of C&I energy efficiency program participants that may have differing needs, and how well the programs are doing at meeting the range of needs across those segments.

Small Customers

IF CONTRACTOR WORKS WITH SMALL CUSTOMERS ASK:

CS1. First, how well does the Direct Install program do at meeting the needs of small businesses? Why do you say that?

CS2. Are there certain segments (or groups) of small businesses whose needs are not consistently met by the program?

CS2a. Which groups of customers/ *accounts*? Can you describe them by:

Size?

Industry? [See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.]

Number of locations/ownership structure?

Other?

CS2b. What needs are consistently met by the program?

How do these needs vary by customer type (size, industry, number of locations, other)?

CS3. Are there certain segments (or groups) of small businesses whose needs are not consistently met by the program?

CS3a. Which groups of customers/ *accounts*? Can you describe them by:

Size?



Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Number of locations/ownership structure?

Other?

CS3b. What needs?

How do these needs vary by customer type (size, industry, number of locations, other)?

CS4. For participating small customers/ *accounts*, are there barriers that prevent them from going ahead with installation of recommended measures or going for deeper energy savings [PROBE: Too costly? Split incentives? Installation too disruptive or takes too much time? Not enough savings to bother?]

CS5. [IF BARRIERS FOUND] Do the barriers differ depending on the industry type, size, ownership structure, or other factors?

CS6. Earlier you suggested that small customers/ *accounts* are best defined using [CRITERIA]. Looking at the range of small customers/ *accounts* from smallest to largest, according to [CRITERIA], is there some size that you start seeing a greater number of customers/ *accounts* whose needs fall outside the Direct Install program offerings? (In other words, is there level where you can split small customers/ *accounts* into smaller-small and larger small customers/ *accounts*?)

CS6a. How would you define that size break? Why do you say that? What are the underserved needs of these customers?

CS6b. Are there noticeable differences in those size breaks and their needs by:

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Building type?

Number of locations (C&F verses single sites)

Other?

Large Customers



IF CONTRACTOR WORKS WITH LARGE CUSTOMERS ASK:

CS7. First, how well do the large C&I programs do at meeting the needs of large businesses? Why do you say that?

CS8. Are there certain segments (or groups) of large customers whose needs are consistently met by the program?

CS8a. Which groups of customers? Can you describe them by:

Size?

Industry? (See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.)

Number of locations/ownership structure?

Other?

CS8b. What needs?

How do these needs vary by customer type (size, industry, number of locations, other)?

CS9. Are there certain segments (or groups) of large customers/ *accounts* whose needs are consistently not met by the programs?

CS9a. Which groups of customers/ *accounts*? Can you describe them by:

Size? (small large vs. large-large)

Industry? [See if they name: Commercial real estate, small hospitals, and small hotels, if not suggest them.]

Number of locations/ownership structure?

Other?

CS9b. What needs?

How do these vary by customer type (size, industry, number of locations, other)?

CS9c. Does having a dedicated account representative impact the likelihood of the large C&I programs meeting the needs of participants? How?



CS10. For participating large customers, are there barriers that prevent them from going ahead with installation of recommended measures or going for deeper energy savings [PROBE – too costly? Split incentives? Installation too disruptive or takes too much time? Not enough \$ savings to bother?]

CS11. [IF BARRIERS FOUND] Do the barriers differ depending on the industry type, size, ownership structure, or other factors?

CS12. Earlier you suggested that large customers are best defined using [CRITERIA]. Looking at the range of large customers from largest to smallest, according to [CRITERIA], is there some size that you start seeing a greater number of large customers whose needs fall outside the large C&I program offerings? (In other words, is there level where you can split large customers into smaller-large and larger-large customers?)

CS12a. How would you define that size break? Why do you say that? What are the underserved needs of these customers?

CS12b. Are there noticeable differences in those size breaks and their needs by:

Industry?

Building type?

Number of locations (Chains & Franchises verses single sites)?

Whether or not a customer has a dedicated account representative?

Other?

Mid-sized customers

[ASK CONTRACTORS THAT DEAL WITH EITHER SMALL OR LARGE PROGRAMS](#)

CS13. How would you describe the lower bound of a mid-sized customer/ *account* – a customer that is too large to be small and too small to be large?

CS14. How would you describe the upper bound of a mid-sized customer / *account* – A customer that is too large to be small and too small to be large?

CS15. Can you describe this group of customers / *accounts* in terms of:



CS15a. Industries?

CS15b. Single verses multi-site (ownership structure)?

CS15c. Other important characteristics?

CS16. Do you think the program needs of mid-sized customers differ from small C&I customers? Why do you think so?

CS17. Similarly, do you think the program needs of mid-sized customers differ from large C&I? Why do you think so?

CS18. Do the existing C&I programs effectively serve the needs of mid-sized customers in your opinion? Why or why not?

CS19. In what ways could mid-sized customers be better served? (By industry, size, ownership type, method of outreach, type of incentives?)

MC. Marketing and Customer Acquisition Strategies

IF CONTRACTOR WORKS WITH SMALL CUSTOMERS ASK:

Next, I'd like you to discuss the specific marketing practices used to handle the diverse needs of customers within the Direct Install program.

MC1. What happens when a customer's needs are not met by the Direct Install program offerings?

MC2. What factors may contribute a customer's needs not being addressed? (i.e. they become too complicated to serve or are lost in the process).

MC2a. Is this more likely to happen below or above a certain size? What size?

MC3. Define the roles of contractors, the PAs, and other third parties in marketing to customer with needs that fall outside the program design.

MC3a. When do energy efficiency consultants or project expeditors get involved?

MC4. Are some of their needs picked up by the program, while others are handled by other programs? Under what circumstances will this happen? Who gets involved?

MC5. Are there needs that are handled outside of the program? By whom?



MC6. Are smaller-small customers handled differently than larger-small customers? How so? [REMINDEE RESPONDENT OF DEFINITION OF SMALLER-SMALL AND LARGER-SMALL FROM CUSTOMER SEGMENTATION SECTION, IF NEEDED]

MC7. How do the PAs market to customers who have both electricity and gas— particularly if they are small electric but large gas users?

MC7a. How does your firm market to customers who have both electricity and gas— particularly if they are small electric but large gas users?

MC8. Do you have a prospecting list of customers you target for any of these small C&I programs you mentioned earlier? (e.g. Direct Install, etc.)

[IF CONTRACTOR WORKS WITH LARGE CUSTOMERS ASK:](#)

Next, I'd like you to discuss the specific marketing practices used to handle the diverse needs of customers within the Large C&I programs.

MC9. What happens when a large customer's / account's needs are not met by the program offerings?

MC10. What factors may contribute a customer's / account's needs not being addressed? (i.e. they become too complicated to serve or are lost in the process).

MC10a. Is this more likely to happen if the customer does not have an account representative?

MC10b. Is this more likely to happen below or above a certain size? What size?

MC11. Define the roles of contractors, the PAs, and other third parties in marketing to customers / accounts with needs that fall outside the large customer program design.

MC12. Are some of their needs picked up by the program, while others are handled by other programs? Under what circumstances might this happen? Who gets involved?

MC13. Are there needs that are handled outside of the program? By whom?

MC14. Are smaller-large customers handled differently than larger-large customers? How so?

MC15. How do you market to customers/ accounts who have both gas and electric utilities – particularly if they are large electric but small gas users?

[ASK CONTRACTORS THAT DEAL WITH EITHER SMALL OR LARGE PROGRAMS](#)



MC16. Among these programs serving small and large C&I customers, do any programs or program activities more effectively serve mid-sized customers / accounts, according to the definition you gave earlier? [YES/NO]

MC16a. [IF YES] Which programs?

MC16b. Why do you think that?

MC17. Have any programs conducted target marketing to mid-sized customers, according to the definition you gave earlier?

[YES/NO]

MC17a. [IF YES] Which program(s)? Please describe the marketing or customer acquisition employed by this program. [e.g. marketing channels used, key messages, which customer group type targeted, and whether includes commercial real estate, hotels and small hospitals]?

MC17b. Which marketing activities targeting mid-sized customers / accounts generated the most program participation?

MC17c. Why do you think this/these were successful? [Probe: program attractiveness, marketing channel used, key message(s), event/strategy timing, etc.]

MC17d. Which marketing activities targeting mid-sized customers generated the least program participation?

MC17e. Why do you think this/these were unsuccessful? [Probe: program attractiveness, marketing channel used, key message(s), event/strategy timing, etc.]

MC18. On a scale of 1 to 10, where 1 is low and 10 is high, how successful do you think the existing programs have been in serving these mid-sized customers/ accounts in terms of customer participation? Why do you think so?

MC19. Are there any specific groups of mid-sized customers that you think these programs serve better than others?

MC19a. [PROBE] Industries (particularly commercial real estate, small hospitals and hotels)? Why or why not?

MC19b. [PROBE] Chains and franchises? Why or why not?

MC19c. [PROBE] Other segments? Why or why not?



MC20. Do you think Massachusetts PAs should add program(s) specifically for mid-sized customers? [\[YES/NO\]](#)

MC20a. [\[IF YES\]](#) Which type of programs?

MC20b. To increase mid-sized customer participation, what changes or improvements would you suggest to the existing energy efficiency programs?

MC21. In terms of reaching non-participants, or customers who do not currently engage in the efficiency programs, how can program support be improved or expanded to capture their needs?

MC22. Are there other program improvements that would help to better serve mid-sized customer needs? [\[e.g. staffing levels/type, marketing focus, etc.\]](#)

MC23. Any other recommendations you have to more effectively serve mid-sized customers' program needs that we haven't already discussed?

Closing Comments

CC1. Do you have any other input regarding needs, program participation, or marketing for mid-sized customers that we haven't already discussed?

Those are all the questions I wanted to ask. Thank you for your time and participation.