



Project 7 General Process Evaluation – Final Report

Massachusetts Energy Efficiency Programs' Large
Commercial & Industrial Evaluation



Prepared for: Massachusetts Energy Efficiency Program Administrators
Submitted to: National Grid

Prepared by KEMA Inc and NMR Group

Madison, Wisconsin, February 16, 2011



Table of Contents

1. Executive Summary	1-1
1.1 Findings	1-2
1.1.1 Communications & Responsibilities	1-3
1.1.2 Identifying Potential Projects	1-4
1.1.3 Program Marketing & Project Recruitment.....	1-4
1.1.4 Improving Recruitment & Participation.....	1-5
1.1.5 Barriers to Program Participation.....	1-5
1.1.6 Account Executive Technical/Program Knowledge.....	1-6
1.1.7 Program Integration.....	1-7
1.1.8 Deep Energy Savings.....	1-8
1.2 Recommendations for Further Research	1-8
2. Introduction and Methodology	2-1
2.1 Program Staff Interviews.....	2-2
2.2 Account Executive Interviews	2-2
2.3 Technical Staff Interviews	2-3
2.4 The Sampling Approach	2-3
3. Positions & Roles.....	3-1
3.1 Program Staff.....	3-1
3.2 Account Executives.....	3-1
3.2.1 Account Executive Roles with Energy Efficiency Programs	3-2
3.2.2 Delineation of Responsibilities.....	3-3
3.3 Technical Staff	3-3
3.3.1 Delineation of Responsibilities.....	3-4
4. Communication	4-1
4.1 Program Staff Perspectives	4-1
4.2 Account Executive Perspectives	4-1
4.2.1 Interactions with Program & Technical Staff	4-2
4.3 Technical Staff Perspectives.....	4-3
4.4 Communication with Program Vendors.....	4-3
4.4.1 Program Staff Perspectives.....	4-3
4.4.2 Account Executive Perspectives.....	4-4



Table of Contents

4.4.3	Technical Staff Perspectives	4-5
5.	Identifying Projects.....	5-1
5.1.1	Program Staff Perspectives	5-1
5.1.2	Account Executive Perspectives.....	5-2
5.1.3	Technical Staff Perspectives	5-4
6.	Program Marketing & Recruitment	6-1
6.1	Knowledge, Tools, and Marketing Materials.....	6-1
6.2	Frequency of Customer Contact	6-2
6.3	Personal Relationships	6-3
6.4	Customer Knowledge & Questions	6-5
6.4.1	Customer Questions.....	6-6
6.5	Situations for Promoting Programs	6-7
6.6	Project Recruitment	6-8
6.6.1	Effective Recruitment Strategies	6-8
6.6.2	What Would Help Promote Programs.....	6-10
6.6.3	Benefits	6-11
6.7	Reasons for Not Participating	6-12
6.7.1	Program Staff Perspectives	6-12
6.7.2	Account Executive Perspectives.....	6-14
6.8	Increasing Program Participation	6-15
6.8.1	Program Staff Perspectives	6-16
6.8.2	Account Executive Perspectives.....	6-16
6.8.3	Technical Staff Perspectives	6-17
7.	Account Executive Knowledge	7-1
7.1	Assessment of Account Executive Knowledge.....	7-1
7.1.1	Program Staff Perspectives	7-1
7.1.2	Technical Staff Perspectives	7-2
7.2	Account Executive Technical Knowledge.....	7-3
7.2.1	Capability of Identifying Opportunities by End Use	7-4
7.2.2	Technical Resources.....	7-5
7.3	Account Executive Program Knowledge	7-6



Table of Contents

7.3.1	Orientation Training.....	7-7
7.3.2	Job Performance Structure.....	7-8
8.	Integration of Programs.....	8-1
8.1	Program Staff Perspectives	8-1
8.2	Account Executive Perspectives	8-3
8.3	Technical Staff Perspectives.....	8-4
9.	Deep Savings.....	9-1
9.1	Opportunities for Deeper Savings	9-1
9.1.1	Program Staff Perspectives.....	9-1
9.1.2	Technical Staff Perspectives	9-2
9.2	Barriers.....	9-3
9.2.1	Program Staff Perspectives.....	9-3
9.2.2	Technical Staff Perspectives	9-5
9.3	Efforts to Encourage Deeper Savings	9-7
9.3.1	Program Staff Perspectives.....	9-7
9.3.2	Technical Staff Perspectives	9-8
9.4	Customer Reception	9-9
9.4.1	Program Staff Perspectives.....	9-9
9.4.2	Technical Staff	9-10
10.	Recommendations for Further Research.....	10-1
Appendix A:	Program Staff Interview Guide	A-1
Appendix B:	Account Executive Interview Guide.....	B-1
Appendix C:	Technical Staff Interview Guide.....	C-1
Appendix D:	Final Project 7 Work Plan.....	D-1



Table of Contents

List of Exhibits:

Table 1-1: Number of Interviews by PA and Staff Position	1-2
Table 2-1: Number of Interviews by PA and Staff Position	2-4
Table 7-1: Account Executive Rating of Technical Knowledge, 0 to 10 Scale	7-3
Table 7-2: Account Executive Capability of Identifying Opportunities by End Use	7-4
Table 7-3: Account Executive Rating of Program Knowledge.....	7-7

1. Executive Summary

This report is the primary deliverable of the Project 7 General Process Evaluation of the Commercial and Industrial (C&I) energy-efficiency programs that are run by the Massachusetts Program Administrators (PAs). This research is sponsored by the PAs and the Energy Efficiency Advisory Council (EEAC). This General Process Evaluation was designed to look at ways to improve the design and delivery of Massachusetts C&I energy efficiency programs that would be applicable to multiple programs. Issues that the PAs and the EEAC were particularly interested in included how to increase program participation levels, how to obtain “deeper” energy savings from energy efficiency projects, how to improve the integration of electric and gas energy efficiency programs, and how to increase the general uniformity of program delivery across the state.

In order to develop a better understanding of these key program issues and to guide the development of the General Process Evaluation work plan, NMR conducted seven telephone interviews with lead Massachusetts C&I program staff. As discussed in the *Final Project 7 General Process Evaluation Work Plan* (July 19, 2010), the program staff interviews pointed to the critical roles that account executives play in recruiting projects and that technical staff play in providing technical support. The C&I program staff and the program evaluators were interested in learning more about:

- How account executives and technical support staff performed the key roles of project identification and approval;
- What barriers they faced in performing these roles; and
- What could be done to improve their effectiveness.

The C&I program staff and the program evaluators were also interested in obtaining the perspectives of the account executives and technical support staff on some of the key program issues mentioned above – such as how to improve program participation and how to obtain deeper energy savings.

Therefore, in September and October of 2010, NMR conducted a total of 15 telephone interviews with account executives (AEs) and six telephone interviews with program technical staff (Table 1-1). Audio recordings and transcriptions were made of all interviews in order to capture the full richness of the responses and enable accurate analysis.

Table 1-1: Number of Interviews by PA and Staff Position

Program Administrator	Program Staff	Account Executives	Technical Staff	Total
Cape Light Compact	0	2	0	2
National Grid	1	5	3	9
NSTAR	2	5	1	8
Unitil	1	1	1	3
WMECo	1	2	1	4
Berkshire Gas	1	0	0	1
New England Gas	1	0	0	1
Total	7	15	6	28

1.1 Findings

In this section we present a summary of the findings from the interviews with C&I program staff, account executives, and technical support staff.

Overall, program integration appears to be proceeding smoothly, with improved coordination among PA staff at all levels—program staff, account executives, and technical staff. On the whole, communication also appears to be good—internally at each PA, with vendors/trade allies, and among PAs; though some AEs would prefer more prompt responses to their internal technical requests. There are conflicting perspectives regarding the adequacy of AE technical and program knowledge—some program staff believe their level of knowledge is inadequate, while most AEs believe it is sufficient to perform their job.

In addition, interviewees—nearly across the board—reported that staffing levels are insufficient to support the expansion in savings goals. The staffing issue affects the programs at many levels—from program marketing and project recruitment by AEs to the technical review of projects by technical staff. Most interviewees cited the lack of capital on the part of customers as the primary obstacle to program participation, and some respondents

suggested increased incentive levels or financing options as a strategy to overcome this barrier.

Below is detailed summary of findings for each of the major topic areas.

1.1.1 Communications & Responsibilities

Our key findings concerning the effectiveness of communications and allocation of responsibilities among program staff, account executives, and technical support staff include:

- Most program staff members said that the staff organization is effective, and that the PA staffs are committed and professional. However, a few respondents would like to hire more staff in light of the increase in program savings goals.
- On the whole, communication appears to be good within and among PAs, and among PAs, trade allies and vendors, according to program staff. Several respondents mentioned that PA staffs have been meeting regularly since early 2009 in order to coordinate the development of statewide programs.
- The AEs reported good working relationships with program staff and technical staff. Some AEs reported that their technical support staff is located nearby in the same office, so they have frequent face-to-face meetings, as well as emails and phone calls as needed. However, some AEs appear frustrated with what they consider to be the slow response of technical staff to their questions.
- Most AEs reported that, for the most part, they do not ever fully hand off a project to program staff or technical staff. They remain involved in shepherding the project through the technical review process and communicating with the customer.
- Some technical staff respondents reported working directly with customers, while others reported working through account executives for all customer interactions. Universally, technical staff respondents said that the current process works well and that there was little room for improvement.
- All fifteen AEs reported that the equipment vendors help with recruiting projects. Many AEs also mentioned that they provide leads to the vendors as well. In general, technical staff members are not involved in outreach to vendors or trade allies but instead work with them on specific projects.

1.1.2 Identifying Potential Projects

Our key findings concerning the methods for C&I project identification include:

- According to program staff, the primary methods of identifying projects are through one-on-one communications, including face-to-face meetings, phone calls, and emails with program staff, account executives, and vendors.
- For identifying large C&I customers with energy efficiency projects, nine of the 15 AEs said they rely on their knowledge of their customers based on years of experience. In addition, six AEs said they receive calls from customers about potential projects, and five reported making calls to customers themselves. Three AEs said they email customers about special opportunities or hear about them from consultants or vendors. A couple of respondents also said they learn about projects through face-to-face meetings, facility visits, or utility service requests.
- All six of the technical staff respondents reported working with customers to help identify potential projects as part of their responsibilities. Universally, technical staff members reported that they visit customer sites as needed to walk through facilities and identify potential projects for further study.

1.1.3 Program Marketing & Project Recruitment

Our key findings concerning methods for C&I program marketing and recruitment include:

- Eight of the fifteen AEs said they have sufficient knowledge, tools, and marketing materials to effectively recruit for the large C&I programs. The seven AEs who thought something was lacking pointed to inadequate or insufficient marketing materials or tools. Another four AEs mentioned being too busy or lack of staff as an issue and two AEs mentioned the need for training or greater knowledge.
- AEs reported a variety of effective strategies for recruiting large C&I projects. The most-cited included face-to-face meetings and emails. Other techniques mentioned include phone calls, the MassSAVE website, simply continuing a dialogue with the customers, and reaching the key decision-maker.
- When asked to identify what might help make promotion of the programs more effective, six AEs mentioned increased staffing, with some specifically citing more

AEs or technical staff. A couple also mentioned more customer education and an improved economy.

- AEs reported that strong customer relationships are developed over the long term by handling a variety of everyday issues. When asked what could be done to improve these relationships, eight AEs said that more time or additional staffing would allow them to spend more time with customers, particularly for face-to-face meetings.

1.1.4 Improving Recruitment & Participation

Our key findings regarding ways to improve program participation included:

- When asked to identify what might help them more effectively recruit projects for the large C&I programs, six AEs mentioned the need for more staff or more time devoted to the programs. Another five AEs said that higher incentive levels would help, particularly given the poor economy. Several program staff respondents also said they were concerned about the incentive levels being too low.
- When asked what else could boost participation in the large C&I programs, seven AEs said increased incentives. In addition, two AEs emphasized the importance of reaching the appropriate decision-maker. Two AEs also said the programs should be simplified, while another said the programs should be more flexible.
- When asked for suggestions to boost large C&I program participation, four technical staff respondents mentioned a need to improve program marketing, two respondents mentioned streamlining the process, and one respondent mentioned increasing incentives.

1.1.5 Barriers to Program Participation

The key barriers to program participation cited by respondents included:

- All fifteen AEs said that customers cite lack of budget or capital when deciding not to participate in programs. Similarly, several program staff respondents and five AEs reported that the poor economy is the largest barrier preventing customers from adopting energy-efficient measures. In addition, three AEs mentioned concerns about payback periods as barriers to participation.

- Six AEs cited timing or logistical issues, such as projects that are already too far along or facilities that cannot afford to shut down spaces in order to install measures.

1.1.6 Account Executive Technical/Program Knowledge

One of the claims raised in the C&I program manager interviews was that some account executives lack the necessary technical knowledge for identifying deep energy savings¹ opportunities. Our key findings on this topic included:

- Thirteen of the fifteen AEs said their level of technical knowledge was sufficient to discuss potential energy efficiency opportunities and improvements with large C&I customers.
- All fifteen of the AEs said they are capable of identifying energy efficiency opportunities for lighting when visiting customers' facilities and thirteen said the same is true for motors. Nine of the AEs said they can identify opportunities for HVAC and eight said so for controls, particularly for EMS and occupational light sensors.
- Fourteen of the fifteen AEs reported that their in-house technical staff represents the primary technical resource available to them, and ten also mentioned program vendors or consultants. A few others mentioned various trainings, program managers, reference books, and the internet.
- Twelve of the fifteen AEs said that these technical resources could be better utilized. Several AEs reported that the technical staff is too busy, while others said they wished their technical staff had more time to visit facilities.

We also asked the account executives about their program knowledge and what incentives, if any, they have for increasing program participation. Our key findings included:

- All fifteen of the AEs said that their level of program knowledge is sufficient to discuss potential programs with large C&I customers.
- Nearly all the AEs reported that their job performance is linked to their success in recruiting efficiency projects, though the exact nature of the linkage varies by PA. Some PAs have annual kWh goals for each AE team. Other PAs may not have

¹ Deep energy savings was defined as "higher level of energy savings per project than typical."

specific savings goals, but are required to recruit a certain number of leads. Five of the fifteen AEs reported that the performance structure motivates them to recruit more projects, while four said maybe, and six said it does not. While the current performance structure may not pose a barrier to increasing participation, it may not be motivating AEs as intended either.

1.1.7 Program Integration

One of the key researchable questions for this General Process Evaluation is how the integration of energy efficiency programs across fuel types and PAs is going and how it could be improved. Findings from the in-depth interviews on these topics include:

- The integration of programs has gone smoothly according to nearly all seven program staff. The PAs have held semi-weekly meetings since early 2009 to coordinate and develop consistent program offerings. However, some respondents said that the smaller PAs have had more work to do in order to make their programs consistent with the statewide model.
- Coordination between gas and electric PAs on specific customer projects appears to be working well, and staff members are learning more about each other. Overall, program staff respondents did not cite any major issues remaining to be addressed to achieve program integration.
- Seven of the fifteen AEs reported that the integration of programs across PAs has enhanced their ability to recruit projects. These respondents reported that the new programs are more consistent and thereby simplify customer participation. Other respondents mentioned that the sharing of resources among PAs is beneficial.
- Nine of the fifteen AEs reported that the integration of programs across fuels has enhanced their ability to recruit projects, in that they can now synergistically look for both electric and gas opportunities.
- When asked if the integration of programs across PA has affected the provision of technical support, one-half of the six technical staff reported a positive impact. Positive impacts include: working together to perform audits, streamlining of applications and programs, uniformity of requirements and rules, and the sharing of resources through statewide technical committees.

1.1.8 Deep Energy Savings

Another key researchable question for the General Process Evaluation was how to obtain deep energy savings from energy efficiency projects. The following are the key findings from the interviews with program staff, AEs, and technical support staff:

- Program staff reported that it is difficult to persuade customers to implement additional measures with longer paybacks, rather than simply implementing the “low hanging fruit” (i.e., lighting retrofits). Given the poor economy, customers are looking for quick paybacks and not all measures identified in a comprehensive building audit will meet their payback criteria.
- Program staff also noted that it is difficult to persuade customers to adopt a long-term planning horizon for energy efficiency. They are more familiar with implementing individual projects, and energy efficiency is not their core business. Therefore, energy efficiency projects compete against other internal projects for access to capital investments.
- Technical staff members also recognized that the earlier they are involved with projects the more opportunities they will have to identify savings by bundling high-cost long-payback measures with low-cost quick-payback projects, thus avoiding “skimming the cream.” They noted that customers are open to deeper savings but keep a close eye on payback, costs and other financial metrics. If projects do not meet the financial requirements set by company management they do not move forward.
- Despite identifying financial barriers as the most important obstacle to deeper savings, technical staff reported that efforts to increase incentives to encourage deeper savings have not been effective. Instead, technical staff said comprehensive field inspections and more comprehensive program design are more effective at generating deeper savings.

1.2 Recommendations for Further Research

In light of the findings presented above, we suggest that the PAs consider pursuing further research into the following key issues identified in this study. We recognize that some of these issues are more relevant to certain PAs than others, but believe that a consistent statewide approach to these issues would benefit the entire MassSAVE program.

- **Staffing levels.** At nearly all PAs, the program staff, AEs, and technical staff cited the need for additional staff members to support the achievement of expanded program goals. However, several interviewees did note that some new staff has recently been hired. Reasons they cited for needing additional staff included:
 - Adding AEs will allow all AEs to spend more time communicating with customers, particularly in face-to-face meetings, which should help yield more projects.
 - Adding technical staff will allow all technical staff to more quickly conduct the technical analysis so it does not impede project progress, which was a common complaint from AEs. In addition, it will allow technical staff members to have more time to conduct facility visits, which are key to identifying projects and achieving deeper savings.
 - The increased number of technical staff should also reduce the need for AEs to be technically savvy, as there appears to be a range of technical expertise among AEs. The AEs can instead focus on maintaining the customer relationships and serving as the project liaison, and introduce technical staff earlier in the process in order to provide technical support.

- **Incentive levels.** Many interviewees recommended increasing incentives in order to recruit more projects and to achieve deeper savings. Of course, any increased incentives would need to pass program cost-effectiveness tests.
 - Many staff members said that the lack of capital is the primary obstacle to recruiting new projects, and that increasing incentive levels in order to reduce both the capital outlay and payback periods could boost participation. This increase would focus primarily on raising the limit on the cumulative incentive allowed per project.
 - The higher incentives will also encourage customers to install longer-payback measures, which are critical to achieving deeper savings and the expanded program goals. This increase would focus primarily on raising the maximum \$/unit (kWh or therm) incentive allowed.
 - However, it is worth noting that technical staff does not believe that increased incentives will achieve deeper savings, that instead field inspections and a more comprehensive program design will have greater influence.

- **Turnkey financing options.** As mentioned above, nearly all program staff members and AEs cite the lack of capital as the primary barrier preventing customers from moving forward with projects. Offering a turnkey financing program to provide financing for eligible efficiency projects would help address this barrier to participation. The PAs are preparing to launch several prescriptive loan products for C&I customers in early 2011 that will buy down the interest rate to 0%.
- **Customer forums.** One PA has had some success holding industry forums for large C&I customers in order to discuss the programs. These breakfast or lunch forums provide a venue for staff to discuss the programs with customers, for account executives to meet customers, and, of particular value, for customers to share their experiences with the programs. The customer-to-customer interaction provides concrete examples for customers on strategies for reducing energy usage, which has yielded several new projects.
- **Long-term commitments to energy efficiency.** At least one PA is developing multi-year non-binding agreements with the corporate management of their large C&I customers in order to establish specific energy savings goals. This approach may be suitable only for the top customers (in terms of size) but addresses one of the main obstacles to deeper savings: lack of planning for energy efficiency. Customers are more familiar with doing projects on an annual basis (if they have access to capital); however, an efficiency plan should lead to longer-term, consistent budgeting for energy projects, and because of its size over the years, draw the attention of higher-level management.
- **Design of marketing materials.** Several of the AEs reported that the marketing materials could be improved, with the following suggestions:
 - Make them more informative, simple, easy to understand, possibly including a checklist of ways to reduce energy costs;
 - Include more customer testimonials or case studies; and
 - Introduce technical concepts to customers.
- **Organization of account executives.** Some PAs organize their AEs by geography, while others organize them by industry sector. For the benefit of the programs, it may

be more productive to organize all AEs by industry sector, at least for the larger PAs. That way, AEs will only be responsible for understanding a select few industries which should improve their level of technical and business knowledge for those industries. While the results of this study did not find a substantial deficiency in AE knowledge of their customers, a deeper level of industry-specific knowledge should nonetheless facilitate the identification and recruitment of projects.

- **Structure of performance incentives for account executives.** While all PAs have some type of goals for energy savings or project leads worked into their job performance assessments, only one-third of the AEs reported that this performance structure clearly motivates them. While the current performance structure may not pose a barrier to increasing participation, it may not be motivating AEs to the degree intended. It may be more effective to incentivize AEs such that their bonus is tied to the level of savings achieved by the projects completed by their customers.
- **Management system for technical requests.** A common complaint among AEs was that technical staff members do not respond promptly to their requests for technical assistance. It would be useful to develop clear guidelines for responding to most technical requests within a certain timeframe so that AEs can notify their customers when to expect a response. AEs suggested establishing a central email inbox that technical staff can access and respond to questions. While this may be more of an issue for the PAs with more staff, it could also be beneficial for smaller PAs as well.

2. Introduction and Methodology

This report is the primary deliverable of the Project 7 General Process Evaluation of the Commercial and Industrial (C&I) energy-efficiency programs that are run by the Massachusetts Program Administrators (PAs). This research is sponsored by the PAs and the Energy Efficiency Advisory Council (EEAC). This General Process Evaluation was designed to look at ways to improve the design and delivery of Massachusetts C&I energy efficiency programs that would be applicable to multiple programs. Issues that the PAs and the EEAC were particularly interested in included how to increase program participation levels, how to obtain “deeper” energy savings from energy efficiency projects, how to improve the integration of electric and gas energy efficiency programs, and how to increase the general uniformity of program delivery across the state.

In order to develop a better understanding of these key program issues and to guide the development of the General Process Evaluation work plan, NMR conducted seven telephone interviews with lead Massachusetts C&I program staff. As discussed in the *Final Project 7 General Process Evaluation Work Plan* (July 19, 2010), the program staff interviews pointed to the critical roles that account executives play in recruiting projects and that technical staff play in providing technical support. The C&I program staff and the program evaluators were interested in learning more about how these account executives and technical support staff performed the key roles of project identification and approval, what barriers they faced in performing these roles, and what could be done to improve their effectiveness. They were also interested in getting the perspectives of the account executives and technical support staff on some of the key program issues mentioned above – such as how to improve program participation and how to obtain deeper energy savings. Therefore, in September and October of 2010, NMR conducted a total of 15 telephone interviews with account executives (AEs) and six telephone interviews with program technical staff. Audio recordings and transcriptions were made of all interviews in order to capture the full richness of the responses and enable accurate analysis.

The following subsections discuss the topics covered by these in-depth interviews as well as our sampling approach.

2.1 Program Staff Interviews

The evaluators asked the program staff about several key topics in order to develop an understanding of program issues and thus guide the development of the Project 7 work plan. These program issues included the following:

- Integration across PAs and Fuels
- Organization and communication
- Marketing
- Deep Savings

These interviews raised concerns as to whether all account executives had the necessary technical knowledge, or were being proactive enough, to find deeper savings in large C&I energy efficiency projects. In addition, both account executives and technical staff members play a key role in facilitating project participation. For these reasons, telephone interviews were conducted with account executives and technical staff.

2.2 Account Executive Interviews

The evaluators asked account executives questions primarily about marketing and recruitment, including the following topics:

- What is their experience in promoting the large C&I programs?
- What is the process for identifying and approving new energy efficiency projects?
- What is the relative frequency that projects coming to the program reactively (e.g. from outside the program via trade allies or end users) versus proactively (e.g., from the project identification efforts of account executives)?
- What are the barriers (e.g. technical, economic, structural, motivational) that account executives might be facing in trying to find deeper savings from large C&I projects?
- What ideas they might have about possible solutions for overcoming these barriers to obtaining deeper savings?
- What suggestions do they have about increasing program participation in general?
- What is their level of technical knowledge? How could it be improved?
- What technical resources they have within the utility and how these resources might be better utilized?

- What is their level of program knowledge? How could it be improved?
- What has worked well, and what has not? Why or why not?
- What do they need to more effectively promote the programs?
- Is their job performance evaluation linked to their success in recruiting projects? How so?

2.3 Technical Staff Interviews

The evaluators asked the program technical staff primarily about technical issues, including the following topics:

- What is the process for identifying and approving new energy efficiency projects?
- What is the process for determining whether projects require technical assistance?
- What are the opportunities to identify deeper energy savings during the utility project identification and review process?
- What other opportunities are there to achieve deeper savings with large commercial/industrial customers?
- What are the barriers (e.g. technical, economic, structural, motivational) faced in trying to find deeper savings from large C&I projects?
- What ideas they might have about possible solutions for overcoming these barriers to obtaining deeper savings?
- Which approaches to targeting deeper savings have proven to be most effective so far? Why?
- Which approaches have been less successful? Why?
- How have the efforts to target deeper savings been received by customers?
- What suggestions do they have about increasing program participation in general?
- What has worked well, and what has not? Why or why not?

2.4 The Sampling Approach

The program staff members interviewed were identified by the PAs and evaluation team members as key staff. Because the Project 6 Comprehensive Design Assistance (CDA) evaluation also involved interviews with AEs and technical staff and because relatively few AEs work on CDA projects, the evaluation team asked PA staff to identify these AEs for their

interviews. The Project 7 team then contacted the remaining AEs for the Project 7 interviews. Table 2-1 displays the list of completed interviews by PA and position.

Table 2-1: Number of Interviews by PA and Staff Position

Program Administrator	Program Staff	Account Executives	Technical Staff	Total
Cape Light Compact	0	2	0	2
National Grid	1	5	3	9
NSTAR	2	5	1	8
Unitil	1	1	1	3
WMECo	1	2	1	4
Berkshire Gas	1	0	0	1
New England Gas	1	0	0	1
Total	7	15	6	28

3. Positions & Roles

This section provides an overview of the positions and roles of program staff, account executives, and technical staff. Overall, it appears that the perspectives of program staff, account executives, and technical staff generally coincide regarding their own roles and each others' roles. The respondents seem to have a clear understanding of their own responsibilities, and how to effectively work with other staff.

3.1 Program Staff

The seven staff members who participated in the telephone interviews were typically the directors or lead managers of the PAs' C&I programs, responsible for overseeing the entire suite of C&I programs for smaller PAs, or, in a few cases, a portion of the C&I suite for larger PAs. Their job responsibilities include supervising the program managers and overseeing vendors, as well as program design, technical support, and day-to-day operations.

Most program staff members believed that the staff organization is effective, and that the PA staff are committed and professional. However, a few respondents would like to hire more staff in light of the increase in savings goals. As one program staff member said "I do feel we're understaffed for the production goals. We need probably at least two or three more project engineers and probably about four or five more program managers."

3.2 Account Executives

The fifteen AEs reported that they serve as the primary point of contact for all utility related issues for their large C&I customers. They handle issues regarding billing, power quality, service requests, and energy efficiency. As one AE said "the primary role is to act as an advisor for their electric service and gas service in the way of energy conservation, in the way of new building construction, added load ... any questions that they may have of [us] as it affects their electric service or gas service."

Most AEs work with a specific segment of customers, usually based on either geography or customer sector, depending upon the organizational structure at the PA. Some AEs work with the largest accounts – regardless of sector - in a certain geographic region. In contrast, other

AEs may work solely with municipalities, colleges, or hospitals, etc., but across a broader geographic area.

3.2.1 Account Executive Roles with Energy Efficiency Programs

The AEs reported that they serve as the primary point of contact for customers regarding utility issues.² This includes the energy efficiency programs as well – they often serve as the primary liaison between the customer and the program. One AE described their role as follows:

“It’s like kind of one-stop shopping. I don’t pretend that I am the energy expert. Now the prescriptive track is pretty much stuff that I could deal with customers on a one-on-one basis. And so I would deal with the customer with those types of projects directly, meaning I introduce the concept, talk about the programs. And I can deal with the customer and the vendor, set up the application, and see it through to payment. However, since we’re dealing with large customers, probably at least half fall in this custom category. When they fall in the custom, that triggers all kinds of additional analysis, outside technical assistance. So the projects are complex, a lot of energy savings, typically a lot of incentive dollars go to them. So although I’m still the face of the project to the customer, in essence, I really have to rely on the technical assistance. So my role is still active, but I have a lot of reliance on those folks to do their analysis and drive the project technically.”

AEs reported spending, on average, about 50 percent of their time promoting the large C&I energy efficiency programs, ranging from a low of five percent to a high of ninety percent. Eleven of the AEs reported that the amount of time they spend on the programs has increased over the past year; two said it’s the same, and one said it has decreased. Those who reported an increase cite the rapid expansion of program budgets and savings goals over the past several years. They reported that there is substantial pressure to achieve the program goals. One respondent described their situation as follows:

² The one exception is CLC staff members, whose sole role is to serve the customers regarding the energy efficiency programs.

“We know we’ve got more money to spend. So we’ve been really trying to push it so that we make our budget ... that it was a big goal. It’s always been a part of ... whenever we talk to customers. But I think it’s more on our minds now than ever.”

Another respondent said “With the goals being as monumental as they are ... the demands that are placed on us now for attaining those goals are just crazy. So it now involves a tremendous amount more attention.”

One respondent, however, lamented the fact that management does not understand how much time is needed to spend on other issues besides the programs. “Upper management doesn’t really have a day-to-day understanding of our work. So that’s nice in a perfect world to say you should be spending 50 percent plus of your time on energy efficiency and the balance on gas sales. But there are so many non-energy-efficiency issues that we have to deal with customers that it takes away from our time.”

3.2.2 Delineation of Responsibilities

Ten of the fifteen AEs reported that there is a clear delineation in responsibilities between themselves and program staff in terms of recruiting projects. As one respondent said:

“[It is] more my function to recruit projects than theirs. Their function would be to review those projects that I have recruited, although they can help in this recruiting process. From a technical perspective they can advise customers as to the types of things that could be done. They could help me to get outside consultants. They could identify specific projects that the customer could pursue.”

The five AEs who reported that there is not a clear delineation between roles reported that both AEs and program staff are searching for projects and they work closely to coordinate their efforts.

3.3 Technical Staff

First and foremost, technical staff view their role as supporting the large C&I portfolio of programs. While project review was identified as their key responsibility, technical staff also

worked with stakeholder groups to identify projects, generate leads, and encourage customers to move forward with projects.

Not surprisingly, technical staff members universally characterized their responsibilities as supporting the large C&I programs and the various stakeholder groups involved with those programs. Stakeholders mentioned include the following: customers, vendors, trade allies, program managers, utility account executives, and other technical staff. When asked to identify their primary responsibilities, the majority of technical staff mentioned project review as their key responsibility. Technical staff also identified the following responsibilities: generating leads, staying updated on new technologies, attending training, commissioning, and assisting customers with paperwork, equipment selection, and engineering studies. One technical staff member said “[We] look at projects, evaluate them, if they are cost effective, [we] shepherd them through from beginning to end.”

When asked if there were specific technologies or programs that they work more closely with, the majority of technical staff members described themselves as working with a wide variety of measures across the entire large C&I programs. One respondent described working with “anything that can deliver electric savings of any substantial value. We sort of have to be a jack-of-all-trades and recognize opportunities from a lot of different measures.”

3.3.1 Delineation of Responsibilities

In general, technical staff members viewed the role of account executives as encompassing more than just energy conservation. While some technical staffers viewed the role of account executives more as “hand holding,” all of the technical staff seemed to see account executives as a valuable resource both for recruiting participants and interacting with customers during project implementation.

All of the technical staff respondents said that they have a clear understanding of their role with programs and believed there is at least some delineation of roles and responsibilities between technical support staff and other program staff. However, technical staff reported occasionally being pulled into areas outside of their primary responsibilities. While the roles of technical staff and account executives are generally clearly delineated, the process of working with account executives and “account-managed” projects varies widely across PAs, according to technical staff. Some technical staff reported working directly with customers and simply keeping account executives in the loop (copying them on emails and supplying them with



updates), while other technical staff respondents reported working through account executives for all customer interactions. Universally, technical staff respondents said that the current process works well and that there was little room for improvement. When customers do have an account executive, technical staff respondents said that account executives were particularly helpful in assessing project needs, handling problems with studies or assessments, and interacting with customers. As one respondent said “If I do have a problem with the study or problem with the assessment or something isn't going right, [the account executive] will take it upon themselves to talk to the customer so I don't have to.”

In cases when customers do not have an account executive, technical staffers find themselves filling that role as well as the role of technical support. Technical staff did not report this as a negative aspect of technical support but seemed to welcome the opportunity to work with customers directly.

4. Communication

This section discusses the communication practices among the interviewees. Overall, communication among program staff, account executives, and technical staff appears to operate smoothly, though some account executives are frustrated by the slow response time for technical requests.

4.1 Program Staff Perspectives

On the whole, communication appears to be good among and within PA organizations, and with trade allies and vendors, according to program staff. As several respondents mentioned, the various PA staffs have been meeting regularly since early 2009 in order to coordinate the development of statewide programs. One respondent suggested rotating the host for these semi-weekly meetings or selecting a more central location so that travel time is more equitable among PA staff. Respondents noted that the sharing of technical information among staff from different PAs and the joint PA outreach to trade allies as examples of how communication has improved.

4.2 Account Executive Perspectives

Most AEs reported that, for the most part, they do not ever fully hand off a project to program staff or technical staff. They remain involved in shepherding the project through the technical review process and communicating with the customer. One respondent described her role as follows:

“Most of the time, I stick with [the project] and we work together. But they have to do all the paperwork part of it and inspections. A lot of times I won’t go out on an inspection. But, I deliver the Letter of Agreement, usually, because it’s a positive thing to get in front of your customer with.”

However, this process varies depending upon the PA and the type of project, with the prescriptive projects typically requiring less continued involvement on the part of AEs. As one respondent said:

“Our job is to follow the projects and I serve in this capacity as a facilitator or expeditor. So we watch the project to see who is the next person who must

approve this project before it gets back to the customer, before we can send a commitment letter, or before we can pay the customer the rebate. And so one of my jobs is to make sure that the process doesn't bog down internally."

4.2.1 Interactions with Program & Technical Staff

The AEs reported good working relationships with program staff. One AE was very impressed with his technical support person:

"To sing the praises of the particular technical support consultant I have, the guy is just phenomenal. He's got a great demeanor in terms of dealing with customers. He's got a great technical background, and he's very engaging and very outgoing."

Some AEs reported that their technical support staff is located nearby in the same office, so they have frequent face-to-face meetings, as well as emails and phone calls as needed. These interactions usually revolve around the technical review of projects and eligibility questions.

In order to improve their communications with program technical staff, the AEs have the following suggestions:

"I just feel like energy-efficiency staff that we deal with requires follow up, follow up, follow up, follow up. And the problem is, when they delay, I'm on the chopping block. That's frustrating to me, because what happens is I oftentimes forget the issue, and then, all of a sudden, two weeks later I've got a customer calling me back screaming at me because they seemingly think that I've forgotten their issue. If I call so and so, I expect an answer, and I don't need to wait three or four days."

"If there was somebody there [to] just log the issue electronically. Where the questions go into a central mailbox, and it's administered by somebody, and you're going to get an answer back. I think that they are working in that direction. So maybe a really well-kept mailbox, if the person can't pick up the line so the AE knows that the support person will have to call back the account exec, within 1 day or 2 days. We need a system with clear expectations, it's understood that I've got to get back to this customer."

4.3 Technical Staff Perspectives

Technical staff reported communicating and interacting with four main stakeholder groups: customers, account executives, vendors, and trade allies. For the most part, technical staff members limit their interactions to specific projects, although in some cases they may be involved in outreach to customers to help identify opportunities for energy savings. It is important to note that technical staff differentiates projects based on whether or not the customer they are working with has an assigned account executive. For projects that do not have an account executive, technical staff members find themselves filling a similar role. In addition, some technical staff members have developed relationships with customers over the years and tap into those relationships to identify and develop projects. While interaction with vendors and trade allies are limited, technical staff members viewed them as important stakeholders and said that they do their best to work with them to identify energy saving opportunities, whether through enhancing existing projects or developing new ones.

4.4 Communication with Program Vendors

This section discusses the interactions of interview respondents with program vendors, consultants, and trade allies. The program vendors, consultants, and trade allies play key roles in facilitating customer participation given their expert knowledge and/or existing relationships with customers. Overall, interviewees reported that communications with vendors, consultants, and trade allies works well, though the programs have had more success working with some industries than others.

4.4.1 Program Staff Perspectives

One program staff member describes the outreach to vendors and trade allies as somewhat inconsistent, but improving:

“We’re definitely out there reaching out and talking all the time with our lighting distributors and vendors. We typically work quite a bit with the major HVAC companies ... like the Carriers, Trains. There’s probably more that could be done with the small- to mid-size HVAC and EMS contractors. We do now have an actual person who’s our trade ally coordinator. And we’ve done it haphazardly in the past, where we’ve done targeted outreach to all HVAC

contractors that install heating and air conditioning systems. But then we haven't done a similar thing with EMS vendors. Typically, we've had annual meetings with compressed air vendors. But most of the stuff is utility specific. But this year, because of the three-year plan, we started the year with rolling out three trade ally meetings where we invited all the vendors we had in our databases to come in and talk, to hear about the new programs. And so we've definitely been doing a lot more."

Another program staff member suggested that the PAs may want to reconsider their approach to working with some vendors:

"There's two ways of approaching trade allies. We get trade allies that their core business is our business, and that's working well. And then there's trade allies where we are a value add to their business. And I don't think that's working well. We've tried to leverage the value add in many different ways, many different strategies, and it doesn't really take hold. We really haven't had the success. So do we continue along that path? Or should we expand our core business and bring in more of those companies that our business is involved in. So for instance, HVAC contractors; we've worked trying to get efficiency, trying to get new equipment for a tune-up interwoven into their business model, and we can't gain their attention. They're focused on band-aids. Do we instead fill that gap ourselves? Create the mechanism through our current ESCOs, and compete with them and take that business away from them. That if they want that business, then they're coming to us instead of us going to them."

4.4.2 Account Executive Perspectives

All fifteen of the AEs reported working with vendors, consultants, or trade allies regarding potential or ongoing projects. One respondent described their interactions with vendors as follows:

"The vendors are frequent conversationalists because they're out soliciting jobs and trying to get things going. And, frequently, there are vendors that will be calling in saying, 'I was out talking to one of your customers. I'm looking to do project A, B, or C with them. Do you still have money available? How much can

I say that they're going to be getting back?' Send in an application, and we'll evaluate it."

Some PAs have qualified vendors who are approved to turnkey projects: "They're out there pounding the pavement themselves to the same people that I am. Sometimes they know ahead of me whether or not a customer is thinking of replacing something."

All fifteen AEs reported that the vendors/consultants/trade allies help with recruiting projects. Many AEs also mentioned that they provide leads to the vendors/consultants/trade allies as well. As one respondent said:

"So if I walk into a facility [and] I've identified it has multiple different type of opportunities, I will bring in a vendor that I think will do the best job for them and has the best in-house staff that's capable of handling all of the opportunities."

4.4.3 Technical Staff Perspectives

All of the technical staff respondents reported working with vendors or trade allies in some capacity. Interactions typically take place over the phone or through email and generally consist of working on specific projects. In general, technical staffers said they are not involved in outreach to vendors or trade allies but instead work with them on specific projects. When possible, some technical staff reported working with vendors and trade allies as early in the process as possible in order to capture as many savings opportunities as possible. As was the case for the account executives, the technical staff viewed vendors and trade allies as a valuable and important resource. As one respondent put it "We need the trade allies because they really help us promote our program[s]."

Technical staff said that when necessary, for complex or large projects, they are able to draw on outside resources to help evaluate projects. For the most part, outside consultants are only brought onto custom (non-prescriptive) projects that require more time and resources to evaluate. They said that outside consultants act as an additional resource for technical staff and help free up their time to work on other projects. However, technical staff reported that they monitor projects even when outside consultants are involved and works closely with the outside consultants to ensure their results are reasonable and accurate.

5. Identifying Projects

In this section, we provide an overview of how program staff, account executives, and technical staff identify potential projects for the programs. In general, interviewees mentioned a variety of methods for identifying projects; account executives most frequently cited their knowledge of customers, while the technical staff cited facility visits. This difference is likely due to the difference in respective roles. The account executives act as the primary liaison for the customer, while technical staff serves as the lead technical reviewers for program projects.

5.1.1 Program Staff Perspectives

According to program staff, the primary methods of identifying projects are through one-on-one communications, including face-to-face meetings, phone calls, and emails with program staff, account executives, and trade allies/vendors. One respondent categorized their approach by customer size:

“We have a direct install program for the bottom quartile. The third quartile we are mainly with trade allies. The second quartile is mainly account executive level. And first quartile is with the account executives to lead, but [with] corporate-to-corporate engagement. Account executives’ point of contact is a facility director. How we’re looking to address our largest customers is to still use the facility director as a champion, but get corporate signoff at [the] senior VP or above level for commitment towards energy efficiency ... with a specific goal.”

Some PAs have hosted breakfast meetings with key customer sectors; as one staff member said about such events:

“We’ve been doing focused customer groups, that we’ll take a customer segment and invite them in for breakfast and a presentation. We did it with large private schools ... very small turnout. However, it was a great interactive discussion, and we did get a couple projects initiated from it. So we’ve tried to replicate that with the plastics industry. We’ll try and group them in a customer segment that’s reasonably close to each other. One of the benefits was they got to talk to each other, which they seemed to think there was a benefit too.”

Other PAs have hosted seminars on specific energy efficiency topics, such as HVAC improvements. Several PAs conduct outreach to local chambers of commerce, while others use advertisements in local business publications or newsletter emails regarding program changes or new efficiency standards. Others hope that the statewide MassSAVE marketing campaign will generate greater awareness of the programs and thus lead to some large C&I projects.

5.1.2 Account Executive Perspectives

In order to identify large C&I customers with energy efficiency projects, nine of the 15 AEs reported that they simply know their customers based on years of experience. As one AE said, “It’s mutual friendship. I’ve dealt with most of these customers for over 20 years, so not only do I know a little bit of their business, I know about them.” In addition, six AEs said they receive calls from customers about potential projects, and five reported making calls to customers themselves. For example, one AE said “Many times it’s where you haven’t had any activity with a particular customer for a while on that particular front, you would put them on a rotating call, let’s bring this up.”

Others simply reported that projects are regularly discussed during conversations, with one AE saying “Talking with them, finding out what they’ve got going on, if they’re looking to make investments at any particular time in their organization and how we might be able to do that. It’s a constant topic of conversation whenever we do touch base with each other.”

A few AEs reported emailing customers about special opportunities (3 respondents) or hearing from consultants or vendors (3). Others said that they learn about projects through face-to-face meetings (2), facility visits (2), or utility service requests (2). Regarding new construction projects, a few respondents learned about them through articles or industry information.

One AE also mentioned that their organization uses customer forums:

“Customer forums - we have twice a year. We get all of our large C&I customers together in one room. And we talk about some of the things that are going on. The biggest piece of that, usually, is our conservation department getting up and talking about our programs. And they really like examples of other customers and what they’ve done, to give them examples of some of the

things other people are doing to help reduce their energy, and, of course, showing the energy savings that is possible.”

Another AE mentioned that he tries to develop three-year non-binding agreements with customers in order to encourage them to upgrade their equipment with energy efficiency products. Another AE preferred to use a vendor to initiate a technical study:

“Oftentimes I’ll recommend a technical assistance study by a third-party engineering firm to identify different items capable of being reviewed. At that point, the customer would proceed to get a proposal from a vendor.”

Eleven of the fifteen AEs reported that their marketing approach varies by the type of customer, with one saying:

“Determining what their buyer motivation is, what’s going to influence them to try and engage in that. I’ve got one customer who became engaged in the governor’s energy efficiency challenge. And since that point he’s opened his eyes to an awful lot of opportunities as far as increasing efficiencies within his plant.”

Several respondents said that they customize their message based on the level of customer expertise; customers with program experience or designated energy managers do not require the hand-holding that less experienced customers do. One respondent said:

“Well, some of them are very sophisticated. They’ve been doing this a while, so they don’t necessarily need the same handholding as someone that has never done any DSM. Also we have customers that were on the verge of bankruptcy, so they’re not going to be able to do a project that has a long payback. You have to look for something quick.”

Others reported that certain customers, such as hospitals, have long-term budgeting processes, and therefore AEs have to reach out to them far in advance of project initiation. Other AEs said that they focus on customers with stable financial conditions who have capital available that they are willing to invest in projects. One AE reported being more aggressive with the largest customers:

“I’m more tenacious with the bigger customers. But then, unfortunately, you reach a saturation point, and I’m at that point now with the biggest customers. There’s only so efficient that you can be. Unless there is a change in technology, then you can only change so much lighting, you can only change so many motors. It comes to a point where you’ve hit all the biggest customers. And then you start moving down to the next quartile of size of customers that are within the realm of the programs that we are responsible for.”

However, several AEs noted the staff shortages as an impediment to identifying projects:

“The bottlenecks in getting projects in and work done has to do with staffing. Not enough people to go out and get projects [for] the account executives. Not enough program managers to implement, and not enough evaluators. And we’ve just started hiring some engineering staff to evaluate, but the train is flying down the track already. So we’re grossly behind and understaffed to handle the goals that we’ve been given.”

“I think it does come down to a personnel issue in house. Maybe if we had more program managers [and] engineering staff [to] do projects a little faster to prove the benefits to the customers. Sometimes we have the applications from the customer, they are looking to do a project, and we have put it through the steps of what the savings are going to be and what the incentive is going to be. And that can sometimes take a little while to get done because we have so many jobs. And so sometimes a customer gets a little discouraged because of the time it takes. And if we had more personnel working on that end, I think, we could get these jobs out the door a little faster.”

5.1.3 Technical Staff Perspectives

All six technical staff respondents reported working with customers to help identify potential projects as part of their responsibilities. However, the degree to which the technical staff takes the lead with customers varied by respondent and by PA, with some technical staff taking a lead role and others supporting the account managers and account executives. The degree to which technical staff act as the primary contact for customers depends on whether or not the customer in question has an assigned account executive and the complexity of the project. In

addition, one respondent reported working directly with customers with whom he had developed relationships over time.

Universally, technical staff reported visiting customer sites as needed to walk through facilities to help identify potential projects for further study. One technical staff commented:

“As a technical support consultant, I frequently accompany account managers to customers. We talk about all the types of opportunities that they might have. Then I walk through the facility and identify projects that we could study that I, from my experience, know are good candidates for the program.”

According to respondents, the complexity and scale of projects identified during the initial walkthroughs determines the next steps required. Larger, more complex projects necessitate a formal more rigorous audit or feasibility study, whereas simple projects such as lighting retrofits can be developed without the need for further study.

6. Program Marketing & Recruitment

In this section we primarily discuss the experience of account executives in marketing and recruiting for the large C&I programs. This information is supplemented in places by information from the program staff and technical staff interviews.

6.1 Knowledge, Tools, and Marketing Materials

Eight of the fifteen AEs believe they have sufficient knowledge, tools, and marketing materials to effectively recruit for the large C&I programs. Another five AEs reported that they have some of these items, and two reported that they do not. When asked to identify what is lacking, seven AEs cited marketing materials or tools. Below is a sample of comments about the marketing materials:

“Marketing pieces could be a lot more customer-focused. Something that’s useful to the customer. Informative. Simple. Easy to understand. Almost, say, like a checklist of some sort - maybe what to look for, what are the best and the most beneficial things to do to reduce your utility costs and get the biggest, bang for your buck. Very simple, to the point. A lot of these people don’t have the time to plow through a lot of stuff.”

“I’m just not a big proponent of marketing stuff, because I don’t think customers have the time, and I don’t think that the concepts introduced to them are detailed, technical enough. If they were great documents, I would learn something from them. You could speak about something technical in layman’s terms, but what I think is our marketing materials scratch the surface. I wish they would come up with marketing materials that would introduce concepts. I don’t think they tell a customer very much, and certainly not much more than I could tell them.”

“Personally, I think testimonials or customer stories, when we share that with customers, they can relate. They did it over here in their facility. If we had more information like that showing them specific examples.”

Another four AEs mentioned being too busy or lack of staff as an issue. Two AEs mentioned training or better knowledge, with one saying “I always wish my knowledge base is greater

than it is to offer more to customers. We're being asked to dive deeper with customers and find complex offerings." One AE mentioned the need for more capable technical staff saying:

"We need good mechanical professional engineers. I can take it to a certain level, but to quantify the energy savings is very time consuming. I'm not a P.E. For me to do that it would take a long time, and I don't have time to do that, because I'm on to the next project. But if we had better, more technical representation in the form of mechanical PEs, that would make a big difference."

One AE mentioned financing, saying "I have a kind of depressed area of Massachusetts and a lot of them can't do the projects without the financing." Another AE laments the absence of state-of-the-art business technology, saying "We're many years behind the times in terms of technology that we should have - laptops, Blackberries, tools that the sales force typically would have that we do not have."

6.2 Frequency of Customer Contact

Generally, AEs reported that the level of contact with customers depends, to a large degree, on the particular customer and their situation. For example, they may be in contact with their largest or higher-maintenance customers several times per week, but may be in contact with their smaller or lower-maintenance customers only several times per year. In addition, if a customer is involved in a major construction project, involved in an energy efficiency project, or facing service problems, then they will be in touch on a more frequent basis. "Some of them I'll email ten times a week," said one respondent. "Others I might email once every three months. I have single customers that occupy twenty percent of my time. I have groups of customers that occupy five percent of my time. It depends on what is taking place at the site at any given time."

Several AEs mentioned that customers prefer to do the contacting, with one AE saying "Customers don't want me, generally, to initiate a sales meeting next Tuesday to talk about things. What they want me to do is to respond in the next 15 minutes to their email. So it's mostly reactive rather than, unfortunately, proactive." In addition, another AE said that many of his customers prefer to be left alone, saying "a lot of them [have a] 'don't call me, I'll call you' kind of attitude."

Often, the face-to-face meetings occur at the customer's facility, but may also occur at chamber of commerce meetings or other business or community events. One AE said that he/she learned where the customers go to lunch in order to increase the chance of interacting with them.

Overall, AEs reported visiting customer facilities on average five to six times per year, with a median of four times per year. They also reported that the frequency with which they visit customers varies considerably depending on the particular customer and their circumstances. For example, the top customers may be visited regularly every few weeks, whereas smaller customers may be visited only once per year. Customers with multiple facility locations, such as municipalities, may receive visits more frequently. In addition, if a customer is having major construction work or facing service problems, then the AE may visit their facilities more often than otherwise.

6.3 Personal Relationships

As might be expected, all fifteen AEs believed that personal relationships are important in recruiting participants. AEs reported that establishing trust is crucial to securing program participation. Below is a sample of AE comments regarding the importance of personal relationships:

"It just makes everything easier. You can eliminate having to prove yourself. It takes away a lot of the uncertainty by the customer. When it's the guy they've dealt with for more than ten years, well, they've been here before".

"I think it's very important because if you don't have that relationship, a lot of times you can't get in there and talk to them about it. I think they trust you, and you're not the salesperson trying to sell them something. And I think that they're more apt to bring you in and show you their business and their challenges. And a lot of times the facilities person has difficulty sewing it up, and they want you to go to upper management and explain. So you're kind of their partner in trying to sell it to corporate or upper management."

"Energy efficiency is somewhat of an intangible, and to market intangible services is different than being able to hand them a product, say, here's a lamp. And they can see it and touch it and feel it and picture it on a desk. But if

you're saying your energy bill's going to be reduced, most of the people in the room [for a new construction project] could care less about the energy bill, because they're never going to even see it. And the owner isn't thinking about the energy bill six months into his operation. The whole focus is, I need to break ground, I need to get the permit, I need to get the bulldozer here. And so you have to be credible and assure them that it's worth their while to listen to you, it's worth their while to pursue what you're offering, and ultimately they will benefit."

AEs reported that strong customer relationships are developed through long-term working relationships with customers handling a variety of everyday issues. One AE said:

"A lot of those relationships are developed over the years through the core work. When the customer needs something - whether it's to explain a bill, a high bill complaint, a planned outage or an unplanned outage, and you get back to that customer in a timely fashion. And, whether it's good news or bad news, you always be up front and give them the news. The customer realizes that you're being honest with them, so over the years that builds up their trust with you."

Another elaborated on this:

"It's that day-to-day activity. So after awhile, the term 'trusted advisor' comes into play here, where they know that I'm not there just for the fast return, but rather to really help them, that this is a long term working relationship we have. And if I suggest something to them, then it ought to be credible enough that they ought to at least give it some consideration."

When asked what could be done to improve these relationships, eight AEs said that more time or additional staffing would allow them to spend more time with customers, particularly meeting face-to-face. As one AE said:

"We [are] grossly understaffed. To develop that personal relationship, you literally have to visit them face to face. And you cannot do that with a plate of responsibilities that's literally two full-time jobs, one being a sales force to convince customers to do energy efficiency, and what utilities really do, which

is put in electrical services and being project managers and key points of contact for our customers when they're building new buildings and wanting to get a meter put in. We literally have two full-time responsibilities and are grossly understaffed."

Another AE emphasized the importance of maintaining the operational side of the business:

"I think if we can give better answers to them on billing and on outages and core electric and gas issues, if we can give them better information and more timely information, our relationship with them would definitely be enhanced. There are three important things that we do for customers. And that's keep the lights on and the gas flowing, deliver a timely, accurate bill, and deliver the energy conservation programs and incentives. That's all we've got to do to keep these customers happy. Once we fall down on the first one, either not keeping the lights on, and the gas [not] always flowing, but once we fall down there, it undermines everything else. And once you start not giving an accurate or timely bill or an inaccurate bill that creates heartache. And it always takes precedence over your energy conservation efforts. It's service and continuity."

One AE suggested the following idea about account management structure:

"One thing the customers do not like is when the account manager changes and it's hard to build that relationship. And I do think that, perhaps, segmenting the customers so that you really know their business. Because, you have to know a little bit about every business in the model we're in right now for, so you may visit a hospital one day, and then the next day, we're at a school. Or the day after that, you're at the wastewater treatment plant. They're all very different."

6.4 Customer Knowledge & Questions

The fifteen AEs reported that, on average, about 80 percent of their customers are knowledgeable about the energy efficiency programs, ranging from a low of 10 percent to a high of 100 percent. Others noted that general awareness of the programs is higher than detailed knowledge of the programs. Several respondents indicate that it depends on the level of expertise of the customer:

“It varies by culture and focus. If they have an energy group, if their internal culture is directed that way, it’s an easier sell. If their internal culture is just bottom-line driven, it’s a tougher sell to get them to buy into and see the significance in the energy savings. And a lot of the larger customers have outside consultants that look after their supply procurement and, with that, look for opportunities for energy savings. So it’s definitely the more successful companies, the companies that have the ability to spend money on these resources. The one-man shops where the guy is running the facility, a lot of times it’s really tough to get their focus, because they’ve got so much on their plate. If the upper management in their organization doesn’t know about it and isn’t forcing it down on them, well, it’s not a priority for them.”

Another AE was concerned whether they are reaching the appropriate decision-maker. “Are those e-mails getting out to the right people within that facility that are familiar with energy efficiency and can make those decisions?” he/she wondered.

6.4.1 Customer Questions

All fifteen AEs reported that large C&I customers ask about the amount of incentives available for a particular project. As one AE said “What is the payback? That’s really what their concern is. What is my investment on this and how fast do I get it back? And, of course, what is the incentive. It’s all about the money.” Another AE elaborated on this concept:

“What’s the incentive, what’s the payback? The customer has an internal requirement that it be a payback of less than three years, or corporate office isn’t going to consider it. What can we do to meet those types of criteria? If financing is involved, how much and how long?”

Another seven AEs mentioned that customers ask whether or not specific measures are eligible for the program. Three AEs mentioned that customers ask about financing options. Other customers ask questions about the prescriptive vs. custom paths, documentation requirements, vendors, length of validity for offers, and how quickly incentives are paid.

6.5 Situations for Promoting Programs

Six of the fifteen AEs said they always promote the programs, while nine reported that there are specific situations where they do not promote the programs. AEs reported focusing on clients who are financially successful, who complain about high utility bills or are looking for ways to reduce costs. Another AE looked for opportunities when at the facility:

“A lot of times I get in to a customer site [because] they are looking to do a shutdown for maintenance [or] they’ve had issues with some voltage problems or some outages. So I’m in there talking to them about that. And at that point, I kind of peek around and see if I find ways that they can save energy. And then, of course, that just opens up a whole other meeting to go into and really start promoting it that way. I look at it just at a high level, and then if it does pan out, and they are interested, then I bring in the program manager that works for our team.”

One AE reported focusing on customers who need more convincing:

“Some of them have specific energy managers that I work with, and it’s their job to find these programs and to participate in them. I wouldn’t have to convince them as much to participate. And then there are other places where they just have facility managers. They don’t have somebody just with a specific energy focus. So I would try to guide the facility managers and the decision makers to be part of our program.”

The situations where AEs reported not promoting the program include organizations that are undergoing financial hardship - including bankruptcy or laying off employees – or that are experiencing electrical service problems. However, one AE said that financial circumstances can change rapidly:

“Even when I know customers are having capital issues ... it’s amazing sometimes. The money frees up and they’ll call you ... because a lot of these are corporate, you need to get it and spend it quick. So it’s always good to have the next project in their minds so that if it does free up, then a lot of times the survey work’s already done. A lot of times that happens at the end of the year, either beginning or end.”

Other AEs reported not promoting programs to customers who are already very familiar with the programs, or whose corporate offices will not allow them to participate.

6.6 Project Recruitment

When asked to identify what factors have successfully led to them recruiting projects for the large C&I energy efficiency programs, four AEs mentioned the program incentives and cost savings. One respondent said “The incentives. They would basically just do the low-hanging fruit, and the deeper projects would never get done.” In addition, three AEs each cited their knowledge and experience, their relationships with customers, the technical support staff, and the desire to be “green.” The respondents had the following to say about these factors:

“I think having the knowledge of what the programs are and which customers fit with which program instead of just throwing 1,000 programs at them [which have] nothing to do with their business, or they can’t use them. Experience is very important.”

“Conversation and timing, understanding what’s going on with the customer and being accessible to them. Working on building the relationships then they know that you’re earnest in understanding their business. There’s frequent contact points, so when an opportunity pops up, it’s easy enough for them to ask a question.”

“I think the push for green, because it’s always been on the minds of the facilities’ people. But over the years you learn that a lot of times the facilities’ people’s requests are the last thing that really are considered. And I think with the green push and that now corporate has goals to reduce energy. So I think that has made a big difference.”

Other AEs cited the importance having good customers in solid financial situations as well as simplifying program participation.

6.6.1 Effective Recruitment Strategies

AEs reported a variety of effective strategies for recruiting large C&I projects, including face-to-face meetings (5 respondents) and emails (4 respondents). As one AE said “I’m going to

say sit-down discussions about where are you at, what are you doing, what you are planning to do, that type of thing. The face-to-face is definitely the best thing, because you always come away with a list of things.” Another AE elaborated on this point:

“The one-to-one contact. Being in front of these people is the most effective way to get them involved, because if you shoot them just an e-mail, it’s easy for it to get buried in their inbox. If you just give them a phone call and leave them a voicemail, it’s easy to be forgotten. But if you’re having these meetings, and you have to command their attention, then I feel like that is the most effective. And then you can leave the peripherals, leave the brochures with them, tell them the website to look at, and you can even give them other industry contacts that have been part of the program that could speak to what it’s done for them.”

Another AE explained why he/she preferred email:

“The general e-mail where we in very succinct terms explain new programs that are available. And then we let them self-select as to whether they would like to participate or not. And then once they have indicated that they have interest, you try to respond as quickly as possible. That approach seems to be most successful to me.”

Two AEs mentioned phone calls, the MassSAVE website, simply continuing a dialog, and reaching the key decision-maker as effective strategies. As one AE said, it is important to “get to the decision makers. If you can get to that person that knows the finances behind it, you’re that much further along getting the project done versus if you’re talking just to a maintenance manager where all he’s going to see is [that] you’re just trying to create more work.”

Others mentioned facility walk-through, word of mouth, vendors, or filling out the application forms for customers as effective recruiting techniques. One AE preferred to use vendors:

“Probably one of the biggest drivers is when there’s another vendor that comes in for one of the products that may be included in the energy efficiency programs. I find customers get more engaged with that than anything I can do or say. All I can do is remind them that the programs are there, let them know that there is plenty of money available, that if they were to do something, here’s

what I would recommend to do. That tends to be a very slow and frequently painful process. However, if an outside vendor comes in and says ... 'Give me 20 minutes. Let me take a look at your lighting and make a recommendation about how I can save you some money'. I find that to be more of an impetus for customers to do things than anything else."

In terms of recruitment strategies that are less effective, AEs reported that customers may not read mail or email, therefore these methods generally garner a low response rate. However, one AE emphasized the importance of persistence: "We do mailings sometimes, and I don't think the response rate is all that good. Because, that's a piece of paper that just gets shuffled under everything. Persistence pays off, so anything short of persistence is not effective enough."

6.6.2 What Would Help Promote Programs

When asked to identify what might help them more effectively recruit projects for the large C&I programs, six AEs mentioned the need for more staff or more time devoted to the programs. One respondent said we need "some more people just to be able to take the time and really explain to the customers, do some more analysis for [customers], and let them see why they should [proceed with project]."

Another said that "It's just that [applications are] coming in large amounts, whether it's a small job or a big job. And like I said, until just recently, we've gotten some more bodies over there to help those people out, so it's starting to get better. But for a while, some projects just sat there."

Lastly, one AE said the following "Take more of the daily work away from us, the billing issues. Just giving us more time to work on becoming just straight energy efficiency people." One AE suggested assigning junior technical staff to partner with AEs:

"I would like to have [technical staff] with me to cover a certain territory so that with my knowledge of the customer and of that customer history, I could root out and direct that person to more efficiently use my time. And it would be definitely like a team approach, so I would say that the structure with the [technical staff] to give the account exec somebody else to delegate a prospect to at the beginning."

Another five AEs mentioned that higher incentive levels would help, particularly given the poor economy. One respondent said “given the economy, if the incentives were a little bit higher, where you could bring down that payback period for the customer.” Three AEs mentioned the poor economy as a major obstacle, with one respondent saying:

“There’s a number of companies around here that have money and want to invest the money, but because they’re not sure where things are going, they’re sitting on the cash. They’re not putting it back into the business yet. They will do what they need to do for maintenance, but when it comes to expansion or improvement, unless they’re feeling very secure about the economy, it becomes a real struggle.”

In addition, AEs also cited a variety of other issues, including better technical knowledge on their part and holding industry meetings to discuss the programs. Other AEs mentioned program design changes, such as offering new technologies, responding to requests more quickly, targeted marketing campaigns, offering more prescriptive measures, and stabilizing the program funding levels.

6.6.3 Benefits

Fourteen of the fifteen AEs emphasize the benefits of cost savings when trying to convince customers to participate. As one AE said:

“Well, number one is the savings. Where are you going to invest money where you have an ROI of two years? [The] average life span of our projects is approximately 11-1/2 years, so if you have a pay back of 2 years, for the next 9-1/2 years that’s all profit. And also by doing a lot of these bigger projects, you also cut down on maintenance costs because now you’re putting in brand new systems that require a lot less maintenance.”

Another six AEs reported emphasizing reduced maintenance costs and five mentioned the incentives. Two AEs each mentioned increased competitiveness, it’s the right thing to do, and that the customers pay into the program funding. Other AEs mentioned improved productivity and comfort as selling points. As one AE said “We try not harp on the incentive, because you want to give them the long-term benefits of reducing their carbon footprint and lowering their bill and helping the environment, and the incentive is just a piece to buy down the payback.”

One AE said that he/she tries to link the benefits to corporate goals as follows:

“Depending on the customer that you're going to, whatever their corporate initiatives or corporate goals are, you tend to remind them that, you're doing this, and this is going to help you to attain your goals. And that's one of the things that I use - I'll go to their website and find out what their corporate initiatives are for sustainability. I literally went to a customer and I threw down their corporate initiative for being a green company and sustainability, and I looked at the plant manager and said is this one of your goals? He goes, 'oh, yeah'. I said, well, that's why I'm here, to help you attain that one goal. So it's using what their initiatives are to better help sell what we have to sell.”

6.7 Reasons for Not Participating

This section discusses the reasons that customers choose not to participate in the programs, from the perspective of program staff and account executives. There was a consensus among interviewees that the poor economy and lack of capital are the primary obstacles to program participation.

6.7.1 Program Staff Perspectives

Several program staff respondents reported that the poor economy is the largest barrier preventing customers from adopting energy efficient measures. As two respondents said:

“Right now, it's not only the actual state of the economy, but the general conception that now is not the time to act for any capital investment. It's just I got to keep the doors open. I got to attract new business. I cannot focus on saving energy. Even when I have a facilities manager in front of me who says, I agree with this, I'm ready to pull the trigger. It's just if I go to my senior management and say the utility company is willing to make a very attractive funding offer, their response is going to be, do we have orders in the hopper to support a capital investment? Unless the answer is absolutely yes, we're going to limp along with what's there. Now it's improved over the last year, but that's still a major barrier.”

“The issue seems to be that the incentive levels, in some areas, [do not reflect the] economic straits our customers are in. Formerly, if you showed someone there was an investment with a three-year payback, you could tell by the body language right away: ‘Yes, I’m all over this’. Whereas, now, customers we work with over the years who have always done a nice project a year are now saying it doesn’t matter how good the payback is. I need to confirm my doors are going to be open next month and I’m meeting payroll. I’m not in a position to make capital investments.”

Another program staff member elaborated on this lack of capital:

“In order to achieve the ambitious goals that we have I think the barrier is the availability of capital. You can have the best program in the world ... and you can have some great information about the energy savings or the impact to production. If a client does not have the access to capital, they’re not going to implement anything. It’s the most critical piece of the equation. You can get them to do that first measure that’s really attractive, and it can save a bunch of dollars. But they’re not going to implement that third, fourth, fifth measure without realizing those energy savings first, because they need access to capital.”

Several program staff respondents are concerned about the incentive levels; one reported that some customers are looking for six-month paybacks. Another respondent believed that current incentive levels are insufficient to move customers to implement measures with longer paybacks because, as he said:

“Here’s my example for you. You go to a client and you do an audit ... and you identify four or five measures at that plant. If you are the customer, in order to implement all five of those measures, which is really what we need to do in order to achieve these goals, you’re going to require a lot of capital. As a client, you’re going to want to get the most value for your dollar, and you’re going to want to implement the measure that’s going to give you the best paybacks. In order to entice a customer to do more than that, the incentives would have to be larger because the client needs better payback in order to push it through management. If I’m a client, and if I have a corporate policy that says I don’t do

anything [with] less than a two-year payback, well, that might be something you can do for the first measure, maybe that second measure that you've identified. But that third, fourth, and fifth measure, even with the incentive that you're offering, is not going to get it within his restrictions."

In addition, a few respondents cited customers' lack of knowledge of energy efficiency. As one respondent said:

"Their focus is making widgets. Their focus is not how can I make widgets more efficiently or effectively. Their focus is I make widgets, and they depend on everybody else to help them find a way to do it better, quicker, faster, or cleaner. And because of that, it slows down the decision-making, because they aren't familiar with it, they don't have a lot of confidence in people, so basic challenge is to get them moving through it."

6.7.2 Account Executive Perspectives

All fifteen AEs reported that customers cite lack of budget or capital when deciding not to participate in programs. As one AE said "Unfortunately, it's a financial thing. A lot of these hospitals are struggling right now and hotels are struggling financially, so they don't have extra money to be doing it. So you have to think of ways to help them financially."

In addition, other AEs mentioned financial reasons, including the economy (5), the payback period (3), and lack of financing (3). Six AEs cited timing or logistical issues, such as projects that are already too far along or facilities that cannot afford to shut down spaces in order to install measures. However, another AE cited the need for new technologies, as the customers with successful projects may not have any opportunities remaining:

"You cannot repeal the laws of diminishing returns. If we've done lighting, if we've done our chillers, if we've done variable-speed drives and motors, what's left? We're going to the same group of customers that have been very successfully working with us for years with basically the same programs, and we haven't had in the past any new things to capture the imagination. And I understand that this is a major challenge. But that's what we're going to have to try to do if we expect to continue to ramp up our programs with these

customers. We have to have new offerings, new things that can save substantial amounts of energy and are very cost effective.”

Nine of the fifteen AEs believe that the reasons why customers do not participate in programs is consistent across customer type and size. As one AE said “I think [that] lack of capital doesn't discriminate between type of project, nor does it discriminate on the class of customer, whether it's a commercial, industrial, or municipal, or state. All are suffering from that lack of capital.” However, six AEs did believe that the reasons do vary, depending upon the customers level of sophistication and industry. For example, some organizations utilize different payback criteria, while others, such as municipalities, have long planning timeframes. One AE cited the fact that some organizations prefer to stick with technologies they are familiar with:

“If you come up with a new technology, the customer may say, we'd rather stick with the horse that brought us. Even though this may save energy, we need to get the product out the door, so we're going to stick with this. We'd rather have control of our own destiny, because there's too much at stake. I'd say the pharmaceuticals may be a little tougher to get to do more exotic measures, because the risks are too great for them. If the measure fails, if they lose a batch of something, so they save \$1,000 on their energy bill but lose \$1 million because they lost research or a couple of batches of product. I would say the pharmaceuticals, maybe the electronics people - the wafer-type people - those types of organizations that are producing very expensive, delicate products, those are the toughest. It's got to be just right for them.”

6.8 Increasing Program Participation

This section discusses strategies to increase program participation, from the perspective of program staff, account executives, and technical staff. The program staff and account executives believe that increased incentives or capital funding will boost participation, while technical staff primarily cited improved marketing/outreach.

6.8.1 Program Staff Perspectives

In order to boost participation, one program staff member suggested that incentive levels be tied to a national economic indicator; he noted that there was an incentive bonus this year for projects submitted by June 30 and completed by September 30. However, he would like to see this bonus broadened or expanded. He also noted that current MassSAVE incentive levels for lighting are less attractive than what was offered by his PA last year; consequently, they have seen far fewer large lighting projects. Another respondent believed that developing financing options is important:

“Just like we have an industry set up and working for ESCOs, we need an industry on the financial end that is set up and can respond in the same way. We’re a facilitator. We don’t have the same market as, [for example] a customer says, “I want to do some energy efficiency. How do I start?” ... “Here’s a whole list of people you can go to. They’ll hand-hold you through the entire process.” I don’t have the same thing on the financial side.”

However, another staff member questions whether the drive to achieve program goals is in the best interest of customers:

“What I’m afraid of is that the rush to try to achieve the goals will have a negative impact on these programs and on the customers who we are serving. So it’s not just about the goals. It’s about how to deliver a product that’s going to benefit the customer. And you want to make sure that you are actually the energy advisor to the customer that you’re setting up a strategic plan for them in order to succeed. You don’t want to leave the customer in a place where it might not be the best for him, but it’s going to be the best for you, in order for you to be able to get more kWh.”

6.8.2 Account Executive Perspectives

When asked what else could boost participation in the large C&I programs, seven AEs responded with increased incentives. One AE explained this suggestion “increase our incentives, which would reduce their capital outlay to do some of these projects. Definitely we would see an increase. But, it’s got to be cost beneficial to us to do these projects.” Another four AEs mentioned an improved economy, with one saying “In a good economy, I could sell

ice to an Eskimo, literally. You walk in, the project costs X amount of dollars, we're going to give you 15 percent to 20 percent. It all has to do with economics. And we're in a horrible economy, and there is little or no capital funds available." Two AEs recommend continuous recruiting, with one saying:

"Just be persistent and get in front of these people. Sometimes you have to beat it over their heads, because I've worked very closely with facility managers throughout my career, and if what you can offer them isn't spelled out clearly in front of them, and you don't follow up and be diligent, then they may not participate."

In addition, two AEs emphasized the importance of reaching the appropriate decision-maker. Two AEs also believed that the programs should be simplified, while another thought the programs should be more flexible, saying:

"I think we've got to be able to be flexible with the rules that if the project makes sense, and it's going to take, for instance, the stimulus and the on-bill financing to do it, we'll have to use both. If it takes extending the deadline to do something, using all our own internal guidelines, we've got to be flexible with that and make one-time decisions, and don't be afraid to set that precedent. So I think with our own program guidelines, we need to continue to be flexible as we have been this year."

One AE also suggested that technical staff should move faster on requests.

6.8.3 Technical Staff Perspectives

When asked for suggestions to boost large C&I program participation, four technical staff respondents mentioned a need to increase or improve program marketing, two respondents mentioned streamlining the process to ensure that the program does not impede projects, one respondent mentioned increasing the amount of available incentives, one respondent identified a need for market research to identify remaining opportunities, and one respondent said there was no need to increase program participation at this time.

Increasing or Improving Marketing. In general, comments about increasing or improving marketing for the programs consisted of informing customers and vendors in order to solicit participation. Indeed, technical staff respondents valued the work of vendors in creating

projects and bringing them to the program. Among technical staff respondents, there is a feeling that in the past MassSAVE has been associated primarily with residential aspects and that they do not see a lot of advertisements about specific large C&I conservation programs. However, technical staff respondents also commented that marketing has improved and that most customers seem to know about the programs. The real issue with marketing seems to be moving customers from awareness to action—vendors and site evaluations were viewed as the primary drivers of action.

Streamlining Program Processes. Since vendors provide a crucial service to the programs - creation of projects - it is not surprising that two technical staff respondents suggested streamlining program processes so that they do not, as one respondent put it, “impede the sales process.” One respondent suggested that, “in the past [program participation] may have been another hurdle to a sale.” Moving to one application and consolidating programs across the state were generally thought to be good steps towards creating a program free from such impediments.

Increasing Available Incentives. One technical staff respondent mentioned increasing incentives as a strategy to increase program participation. This respondent said that in their experience when programs “buy down the project to a one-year payback” more companies moved forward with projects. He went on to say that they currently do that for some special cases but that customers rarely see a one-year payback because of stipulations or incentive caps. In addition, this respondent noted that “every time we have specials and we offer more money for the customers then everybody comes flocking to the door.”

Market Research. One technical staff member mentioned a need to identify remaining opportunities and concentrate marketing efforts on those opportunities. He went on to say:

“We offer all of our programs to all of our customers all the time. What I’m hoping is that with the vast information base that we’ve built, we can now turn that into more of a market penetration-type study. We’ve got a lot of customers who have gone through our programs for lighting. The measure life for lighting can be 10 to 20 years and once you do the lighting once you know that facility is pretty much shut down for offering lighting opportunities for a substantial amount of time.”

7. Account Executive Knowledge

This section discusses the knowledge level of account executives from the perspective of program staff, technical staff, and the account executives themselves.

7.1 Assessment of Account Executive Knowledge

First, we begin with the program staffs' and technical staffs' assessment of account executive knowledge. In general, the program staff appears to be somewhat more critical of the account executives level of knowledge than were technical staff, though interviewees recognized that account executives are diverse group.

7.1.1 Program Staff Perspectives

Several program staff members reported that some account executives' lack of technical knowledge and/or lack of proactive efforts are obstacles to program recruitment efforts. As one respondent said:

“There’s definitely [account executives] that are much more in tune with the program than others. One of the key things is keeping in touch with all their customers. Whenever a new program or new offering comes out, he just emails all his customers right away. Where others aren’t quite as active; they do more of the one-on-one customer marketing, as they see a need for a particular customer. But I think the constant communications and service ... because of our internal structure, it’s worked best for us. If you know you have the right contact in your customer’s facility, and you’re on a one-on-one, first-name basis with them, they know to call you whenever there’s an opportunity. So that’s what’s worked best for us. The more effective ones are the ones that know their customers more intimately.”

Another program staff member elaborated on this point:

“[If account executives have] a technical background [and are] able to talk about the impact of certain technologies. Being able to just look at the situation they’re in and ask probing questions based on their experience and their knowledge of energy efficient technologies and building systems. I think maybe there’s one or

maybe two [account executives] who may do a pretty decent job with that. But I don't think that's really sufficient. Now what they do have a resource is my team of program managers who are very knowledgeable, who can ask those questions and who do a fantastic job in project development. They [account executives] need to enhance their skill sets."

In addition, other program staff members noted the value of knowledgeable account executives, saying:

"[They] don't have to know the programs in and out. I mean, that's what we do. But just to be able to go into a facility [and] identify potential areas of improvement, and making sure that they give out appropriate information for that customer to get in touch with us, and then we take it from there."

While program staff were somewhat critical of the AE's level of knowledge, it is important to point out that, while recruiting for the energy efficiency programs is an important part of the AE's job, they also have other responsibilities. Therefore, it may not be reasonable to expect all AEs to possess the level of program or technical knowledge that program staff may hope for.

7.1.2 Technical Staff Perspectives

When asked if they find some account executives more effective than others in identifying and recruiting large C&I energy efficiency projects, only two respondents were able to identify what characteristics make some account executives more effective: knowledge, background and familiarity with technologies and measures. As one respondent said:

"There are some people that are better at recognizing opportunities, because they know more about how buildings operate because of their background. Some folks are engineers. Some folks have business backgrounds. So, an engineer may have an easier time finding opportunities than a businessperson, and that businessperson may need to bring somebody in to help out. I think you're going to find that some people are going to be better than others, and some people just need to use more outside resources."

7.2 Account Executive Technical Knowledge

The AEs generally gave themselves high marks in terms of their technical knowledge regarding energy efficiency, with an average rating of 7.0 where zero means ‘not at all knowledgeable’ and 10 means ‘very knowledgeable’ (Table 7-1). Most respondents provided this rating because of their job experience. As one respondent said, he learned from “the background that I have and the involvement over the years of going out with vendors and listening to them and learning from them. It has to do with my background in the core part of the utility business. When you do a job like this for over 20 years, you learn how different things operate.”

Table 7-1: Account Executive Rating of Technical Knowledge, 0 to 10 Scale

Rating	Count
Eight to Ten	6
Four to Seven	9
Zero to Three	0
<i>Average</i>	<i>7.0</i>
<i>Median</i>	<i>7.0</i>
Number of respondents	15

Another AE said he tries to keep up on technical issues:

“Things keep changing on a continuous basis. But I think I try to be as technically versed as I feel I need to be, given that I’m always supported by technical people, who have to oversee the projects and approve them from a technical basis anyway.”

A few others reported that their knowledge is higher for common measures such as lighting and motors, but lower for more complex measures. As one AE said:

“You’re looking at basics like kW per ton for chillers or watts saved for lighting, or you’re going to control things for these many hours, and you know what energy costs. But when you get underneath that - control points or set points or CO₂ levels - when you get to that level that takes a particular industry expertise.”

Thirteen of the fifteen AEs consider their level of technical knowledge sufficient to discuss potential energy efficiency opportunities and improvements with large C&I customers. As one AE said “improvement can always be made, but it’s my job to be knowledgeable about that program.” However, another respondent said their knowledge level for manufacturing processes could be improved.

One AE noted that the technical staff will review all the projects anyway. However, the one respondent who did not believe that his technical knowledge was sufficient said the following “I think some of them [account executives] have less knowledge base than I do and are happy with their less knowledge base, because they know they have the folks that can backfill and support them on projects.”

7.2.1 Capability of Identifying Opportunities by End Use

All fifteen of the AEs believed that they were capable of identifying energy efficiency opportunities for lighting when visiting customer facilities, and nearly all (13 respondents) believed the same was true for motors (Table 7-2). Nine of the AEs believed they can identify opportunities for HVAC and eight believed so for controls, particularly for EMS and occupational light sensors.

Table 7-2: Account Executive Capability of Identifying Opportunities by End Use

End Use	Count		
	Yes	Somewhat	No
Lighting	15	0	0
HVAC	9	4	2
Motors	13	2	0
Controls	8	5	2
Number of respondents	15	15	15

As one respondent said “The one weakness is I’m not a mechanical engineer, so there are places where I see opportunities but may not be able to quantify the value of the opportunity. And that’s when I’ll call somebody else in to do an evaluation and say is it worth it for us to do something on that? But those are few and far between.” Regarding HVAC opportunities, one respondent said this:

“I’m not going to go out and inspect the HVAC system and then come back to the customer and say you might have an opportunity here. I would not approach it that way. I would always say to a customer, how old is your HVAC system? Have you thought about replacing it? Do you think that it might make some sense? And if a customer says yes, I’d say, maybe we can get a proposal for you from an outside consultant if you don’t already have one, and let’s talk to you about the rebates that we would have available.”

7.2.2 Technical Resources

Fourteen of the fifteen AEs reported that the PA technical staff represents the primary technical resources available to them, and ten also mentioned program vendors or consultants. A few others mentioned various trainings (4), program managers (3), reference books (3), and the internet (2). Below is a sampling of their comments:

“First and foremost is ... technical support consultant. That’s the single most important way of identifying a project, having that expertise available to you.”

“We have technical people, but we just don’t have enough. [They] can sit in a room and walk around a hotel or a hospital or any building and tell them within ten minutes what opportunities are there.”

“Instead of me just walking through using a thumbnail sketch saying if we do this to that machine, you’re going to save about 20%, I can have an engineering firm come in and say, we’re going to do this to the machine, and you’re going to save 37.2%. So it brings a different level of credibility to the project.”

“I get all kinds of primers and booklets sent to me. I don’t find the time to read them.”

Twelve of the fifteen AEs believed that these technical resources could be better utilized. Several AEs reported that the technical staff is too busy and mentioned the negative effect of this understaffing on projects, with one saying “Just give me an answer quicker. That’s what a customer wants. He wants an answer, and he wants it now. And when I tell him it’s going to be six weeks, he doesn’t want to hear it.” Others wished that their technical staff had more time to visit facilities:

“Have them walk around in the facility, and they find a lot of [opportunities]. They can go out there but some of them are not a salesperson, so they don’t really want to go out there in front of the customer.”

Another AE would like to see more training:

“We really need to get out there and do a little more training of the AEs. Like the whole-building audits, and I would say more on LEDs. For me, process and the molding machines and those types of things ... new technologies in the energy efficient arena. We have a couple vendors that are very informative and teach you as they’re doing it.”

Another AE lamented the lack of time, saying:

“It would be nice to sit and read the study results, and try to understand the projects a little bit more. I wish I could skim these studies and really understand them a little bit more, understand the process. But the job isn’t really set up to allow you to do that. It’s just all about sales and numbers and just racing from one thing to the next.”

7.3 Account Executive Program Knowledge

AEs believed that their knowledge of the energy efficiency programs is very good, with all rating themselves a seven or higher on a scale where zero means ‘not at all knowledgeable’ and 10 means ‘very knowledgeable’. The average rating was 8.8. The AEs provided these high ratings because part of their job is to be knowledgeable about the programs. As one respondent said “I’ve been doing this a long time. They don’t change that much. They change at the beginning of the year and you learn them and you go on.”

Another AE said “There are some nuances in the language of the programs that I’m not wholly familiar with. I focus on the nuts and bolts.” However, one AE was still struggling to understand the differences between the new constructions and retrofit programs under MassSAVE.

Table 7-3: Account Executive Rating of Program Knowledge

Rating	Count
Eight to Ten	14
Four to Seven	1
Zero to Three	0
<i>Average</i>	<i>8.8</i>
<i>Median</i>	<i>9.0</i>
Number of respondents	15

All fifteen of the AEs believed that their level of program knowledge was sufficient to discuss potential programs with large C&I customers. One respondent said “It’s the technical stuff behind the program that I feel deficient on. But the concept of the program and introducing that concept to the customer, that’s not that difficult.” However, one AE said:

“I’d like to know the program more towards the January timeframe instead of the March timeframe, because you’re missing a lot in the beginning, so as soon as they know about a program change to let us know. It kind of drags out sometimes and just making sure that the website is always up to date and the SharePoint [site too]. But sometimes the information is old.”

7.3.1 Orientation Training

Nine of the ten AEs who recalled attending the orientation training last summer for the new MassSAVE programs found them useful. As one respondent said:

“It was actually nice to have all the representing utilities in one room to go over the program together at the same time. And just the fact that there was a new website, where to go to look for the information, the handouts, the presentation. Everything was good. And you could go back and use it for a reference later. I think it helped the customers ... some of our customers have multiple buildings in different parts of the state, so now they have the same programs.”

Another respondent said “Especially the gas side. I’m more from the electric background, but I learned quite a bit about gas, whether it be boilers or controls, etc.”

However, a few AEs questioned the value of the trainings, with one saying it was “It was somewhat useful. The networking is always useful. Whether it was a good use of my time in that kind of a format, I’m not sure that it was. But obviously I gained something from it, just by meeting with my customers there.”

7.3.2 Job Performance Structure

Nearly all fifteen AEs reported that their job performance is linked to their success in recruiting efficiency projects, though the exact nature of the linkage varies by PA. Some PAs have annual kWh goals for each AE team, with specific goals for new construction and retrofit projects. Other PAs may not have specific saving goals, but are required to recruit a certain number of leads.

Five of the fifteen AEs reported that the performance structure motivates them to recruit more projects, while four said maybe, and six believe it does not. One AE who believed the structure does provide motivation said “This is the all encompassing goal it seems for everyone in our group. And this takes precedence over everything. So this is pretty clear that this is the priority.” However, another AE said:

“I think our goal is an unrealistic goal this year, quite honestly. Everybody can work their butts off, and in theory, I could have my best year that I’ve ever had in terms of goal achievement, but it’s way under this huge unrealistic target I have. But I’m being held to that target, and anything short of that target is failure.”

Those AEs who do not believe the structure motivates them had the following to say:

“It’s not a big percentage of our overall goals. It’s weighted maybe around 20% of our overall performance to provide the leads. But at the same time, we certainly want our customers to be able to take advantage of whatever they can, so from that point of view, I think we’re motivated to make sure they get the benefit of the incentive programs. Our biggest focus is managing the accounts, keeping them happy.”

“I think it could be strengthened. I think if you go back to early in this decade and certainly the last decade, it was clear we had very, very specific quantitative goals, and we had a magic number for us, and we knew where we stood relative

to all our peers. And if you were number one, your compensation would be according to that. Now that's not so clear. There was never any ambiguity at that time as to where we stood on our goals."

"Basically, sales groups are supposed to be incentivized by the more they sell, the more money they make, right? A true sales force, if you're going to be incentivized to sell more, every kilowatt-hour you sell, you get a certain percentage, period. But as of the way we are ... we have decent salaries. We get a decent bonus at year-end. So I'm not complaining, I think it's great for what it is. A true salesperson might be able to sell more if they saw the different goals in front of them. You know, if you knew that you were going to get X amount of dollars for each kilowatt-hour that you sold, that would incentivize certain people. Other people wouldn't care"

Another AE said the motivation is to return dollars to customers, saying "my motivation for recruiting projects is because we have X amount of money in the funds, and we as an organization want to find customers that we can return those incentive dollars to."

8. Integration of Programs

In this section we discuss the integration of programs across PAs and fuels, from the perspective of program staff, account executives, and technical staff. Interviewees generally agreed that the integration of programs has facilitated greater coordination among PAs and a uniform program design, which has benefited customers.

8.1 Program Staff Perspectives

The integration of programs has gone smoothly according to nearly all program staff respondents. The PAs have held semiweekly meetings since early 2009 to coordinate and develop consistent program offerings. As one respondent said “A lot of progress has been made, in a short period of time too.” Another program staff member elaborated on this point:

“The gas-electric integration is absolutely great. I now walk into a plant and say let’s take a look at your boiler. And I’m not going to tell you what the gas company incentive is, but I can tell you there is an incentive. I’m very excited about [the technical collaboration]. I now have access to technical resources beyond my wildest dreams.”

However, some AE’s said that the smaller PAs have had more work to do in order to make their programs consistent with the statewide model. As one program staff member described:

“[We] had a necessary but heavy burden in adopting programs that were all new to us. There’s a learning curve for both my people here and the customers. And I believe that’s showing in our 2010 performance. So there’s a lot of learning curve that I believe is detracting from our implementation.”

Another respondent believed that a study of the implementation plan would have been useful:

“The implementation, I believe, could have benefited from an evaluation of what are the impacts of going to a statewide program. It’s just perhaps that implementing that model immediately, all in one gulp, was not the most appropriate for the smaller utilities.”

One program staff member had an issue with the collaboration process:

“What’s not working well ... [is to] have a uniform program offering prior to having a uniform way of calculating energy savings. I’m on several committees that are working to develop uniform methods. The process is going well. It’s just that in my opinion that process should have been in place prior to and not after [implementation]. So we have this rather awkward situation where my people are using something I can’t actually document because I borrowed this from someone who loaned it to me. I would have really preferred an evaluation of what are the implications to each program administrator of combining programs.”

Coordination between gas and electric PAs on specific customer projects appears to be working well, and staff members are learning more about each other. As one program staff member said “It made it easier in the marketplace for vendors working with one set of very clear, defined rules, [and] one set of paperwork.” Another respondent reported that the account executives from the electric and gas PAs are now sharing phone numbers.

Several respondents praised the centralization of information on the MassSAVE website. Compared to prior programs, others reported that the online application process is easier as well as providing more transparent and consistent documentation.

Overall, program staff respondents did not cite any major issues that remain to be done in terms of program integration. As one respondent said “A lot of work has been done, and it looks great on paper. And I think we are going to learn a lot in the next year or so, and I’m sure we’ll have some tweaks. But it will be a challenge.” Another respondent reported that there are still some gray areas:

“I deal with policies on a daily basis, people calling and saying, ‘well, what about this?’ Because there’s always gray areas. And we try and get as much information spelled out in the applications, but there’s always these what-ifs. In a program administrator’s meeting, we were dealing with how should we be splitting technical assistance costs. There’s still things that are constantly coming up and will continue to.”

Another respondent would like to see MassSAVE payback software:

“I would love a very straightforward payback tool. I’d like to see a Mass Save statewide [version]. Just simple payback has its place. And when you try to go to net present value or anything else, unless you have some kind of name-brand recognition, the customer has to say I don’t understand, or you need to talk to my accounting department. But I’d like to see a tool blessed by ... something with name-brand recognition. Even when you’re talking to that company who believes that they need to postpone the energy investment, if you showed them that the implications of waiting one year or two years or three years [would] perhaps exceed their cost of the project.”

8.2 Account Executive Perspectives

Seven of the fifteen AEs reported that the integration of programs across PAs has positively affected their ability to recruit projects. These respondents reported that the new programs are more consistent and thereby simplify customer participation:

“[Program integration is] for the better I think because of the fact that the programs are mostly uniform. So if a company has a factory or a location in [PA] territory, it’s affected us for the better, because they say, well, we’ve done this in Dorchester, so can we do it in Andover.”

Another AE said “At least the [applications] are consistent. And that has made it easier, even though the forms are still not extremely customer friendly. That’s the feedback, that it’s so much easier to have one form than multiple.”

Other respondents mentioned that the sharing of resources among PAs is beneficial: “I feel that now it’s easier to get the same technical resources. I can call up an account exec and ask them questions, and they’re more likely to answer me now than I feel like they would have prior to the integration.”

However, one respondent cited the additional administrative burden: “[It has] added another level of management oversight to our programs, which might make us in some respects even less nimble to make program changes that are necessary to achieve our goals.” Another AE believed the MassSAVE website is difficult to navigate: “There’s so many nuances and angles

and routes that these programs take that it would take a customer far too long to drill down and try to get a feeling and understanding of our programs.”

Nine of the fifteen AEs reported that the integration of programs across fuels has affected their ability to recruit projects. As one respondent said “Now you can look at everything from a synergistic approach instead of ... that’s just electric, that’s just gas.” Another AE said:

“It’s helpful, because sometimes the gas program administrator will be there and say “let’s bring [PA] in, because they also have stuff to offer you on the electric side.” When they have those face-to-face meetings, their default is always to get us involved and vice versa. When I’m the only account exec at a meeting, I say, have you talked to [other PA].”

One AE pointed out that it has improved relationships among the PAs, as it has fostered relationships between utilities that didn't previously exist. However, one respondent said:

“It’s still work in progress. The gas company doesn’t really know electric, and the electric doesn’t really know the gas side of the house. And to talk intelligently, I think that’s the challenge. So you don’t feel comfortable, and, therefore you don’t promote it as much as you probably should if you feel more comfortable. That’s why we try to say let’s go together more.”

8.3 Technical Staff Perspectives

When asked if the integration of programs across PAs has affected the provision of technical support, one-half of the technical staff reported little to no impact from the integration and one-half reported a positive impact. Positive impacts include: working together to perform audits, streamlining of applications and programs, uniformity of requirements and rules, and the sharing of resources through statewide committees composed of technical staff from various PAs.

9. Deep Savings

In this section we discuss the efforts to achieve deeper savings from the perspective of program staff and technical staff.

Staff recognized the need to pursue deeper energy savings on each and every project in order to meet the energy savings goals for the large C&I programs. Technical staff also recognized that the earlier they are involved with projects the more opportunities they have to identify savings and avoid “skimming the cream” by bundling high-cost long-payback measures with low-cost quick-payback projects. They noted that customers are open to deeper savings but keep a close eye on payback, costs and other financial metrics. If projects do not meet the financial hurdles set by companies they do not move forward. Despite identifying financial barriers as the most important barrier to deeper savings, technical staff reported that efforts to enhance or increase incentives to encourage deeper savings have not been effective. Instead, technical staff said comprehensive field inspections and more comprehensive program design are more effective at generating deeper savings. The inability of increased incentives to generate deeper savings is likely due to the fact that, despite the higher incentives, customers are still unable to meet their financial requirements or hurdles—financial criterion like payback, return on investment or cash requirements.

9.1 Opportunities for Deeper Savings

In this section we discuss the opportunities for deeper savings from the perspective of program staff and technical staff.

9.1.1 Program Staff Perspectives

Regarding deep savings, one program staff member noted the importance of developing plans, saying that:

“Instead of just going in and saying ‘what do you need today, what would you like to look at today?’ we’re trying to put in a long-term plan with the customer, to say, ‘let’s talk about all your opportunities, and let’s make a list of them, and let’s prioritize that list, and let’s do the things that you can do now this year and then which things you want to plan to do next year.’ Try and get them to look more

long term and holistically about doing energy efficiency. There's a lot more emphasis on that."

Another program staff member emphasized targeting all available opportunities:

"You might go in and see a lighting project that pays back in six months. But if we see some shell measures and insulation that may have a three-year payback ... let's package the whole thing up, get all the savings, as much as we can on the first visit, and maybe the average is a one and a half- or two-year payback. And I think, sometimes we went in and just wanted to get the quick hit. This time we need to spend a little more time in each facility and really try to look and capture all the savings opportunities that are there, and hopefully have the customer sign on."

However, two program staff members questioned the technical analysis supporting the concept of deep savings, with one respondent saying that "deeper savings is much more of a buzz word than having anything that you can put your finger on and say what it really means. So we are in the process of trying to identify what deeper savings means, how to go about it."

9.1.2 Technical Staff Perspectives

When asked to identify the opportunities to achieve deeper savings with large C&I customers, technical staff respondents mentioned working in the field to perform comprehensive evaluations, getting involved in projects early, identifying and bundling low-cost high-savings projects with projects with longer paybacks, recognizing what other measures may be available when applications come in and re-visiting former participants to identify additional measures. In particular, one respondent mentioned that they try to avoid "skimming the cream" by going into a facility and looking past just lights, motors and VFDs. This respondent went on to identify process improvements and re-designing systems as areas for potential deeper savings:

"If you look at the process and you know how to improve the process that usually results in much bigger savings. For commercial buildings that would involve looking at redoing their HVAC system. Usually all we're doing is fixing the symptoms or taking a fixed volume air handling system and putting a drive on to make it variable volume. But if we looked at it more comprehensively we can redesign [the] HVAC system to make it more efficient."

Other respondents mentioned concentrating efforts on identifying multiple measures when visiting customer sites and trying to build projects that package together multiple measures. One respondent mentioned visiting customer sites and performing inspections are especially important for “recognizing other opportunities that allow you to dig a little deeper.” This respondent went on to explain the value of technical staff in trying to dig deeper rather than simply approving projects proposed by customers:

“If you get a proposed project in, and you give it to one of us along with our tech support folks, we can sometimes say, I see what you’re looking to do here, but have you thought about doing this or adding on some extra storage or maybe putting in a variable frequency drive to control that. You’ll get more savings, and it’ll qualify for about a \$3,000 incentive.”

9.2 Barriers

In this section we discuss the barriers to achieving deeper savings from the perspective of program staff and technical staff.

9.2.1 Program Staff Perspectives

According to interview respondents, the primary obstacle to achieving deeper savings is the cost. As one program staff member said:

“The easiest answer is money. It comes down to if a customer doesn’t have capital, they got to get a positive cash flow. And if they do have capital, which is tough these days with the economy, people that do have capital set aside each year for facility improvements. That’s where financing is a big help.”

Another staff member elaborated on this point:

“I think if it’s packaged correctly and there’s a financing component to it, the savings are going to offset some of those costs. It’s good to see savings right away, and you can do that. But they also need to realize that if you’re going to invest in a large efficiency project, there may be a longer payback period, but those savings after they’re paid for, whether it be 4 years or 5 years, are going to be there for another 20 or 30 years. So that, to me, I think is a very important

message. A lot of times with the large C&I customer, you may be dealing with a plant in Massachusetts, but the parent's in Michigan. And in order for something to pass when they propose a project, the corporate office says this is the payback period. Don't even send it if it's more than two years. So I think we need to somehow get over that."

One respondent noted that customers are not familiar with the deep savings approach:

"We know our largest customers really well. We have [Company ABC]. The facilities manager there is just great, we know them almost as a personal friend. He knows what we can do. We know what he can do. I could probably sell one good size efficiency project a year if it's very attractive. And you say it doesn't matter how attractive it is, I probably can't sell two. But when we start with the deeper savings ... I can walk in to replace one antiquated system, if the benefits are phenomenal, but to say you want to package two more with that, it's just not in the culture of this company. Even with you offering what you might believe is an attractive incentive, he said, I have a barrier that my management is saying, why would I want to replace two things that aren't as attractive? Why are you packaging? It's just not the way we've done it in the past, and I don't see a reason to change. We haven't given the corporate culture a reason to say going deeper is better. And quite frankly . . . skimming the lowest-hanging fruit is attractive, and trying to get to the upper-reaching fruit is less attractive. We haven't, in my opinion, given them enough reason to act on it. An incentive alone, although it's important, is not the only reason. We have to stress all the other benefits, all the competitive benefits."

Others mentioned the lack of technical knowledge on the part of account executives and technical staff:

"Probably the biggest thing that would get better savings is making sure that the reps are aware of the broad technologies that are available, that you don't have somebody who's got a background in variable frequency drives and that's all they know. The reps have to have a broad range of what's available and be able to talk intelligently about that with customers."

9.2.2 Technical Staff Perspectives

When asked to identify the barriers faced in trying to achieve deeper savings from large C&I projects, technical staff universally identified financial barriers as the number one most important obstacle. In addition to financial barriers, technical staff also identified: time required for study, incentives available and types of measures available as barriers.

Financial Barriers. Technical staff respondents mentioned the following financial barriers: payback, cost, cash flow, low incentives, and the slow economy. One respondent summed up the financial barrier aptly, saying that if the project does not meet the financial requirements of a customer “it doesn’t matter that the opportunity exists the customer is probably not going to pursue it.”

Concerning payback, technical staff reported customers require a one year payback to consider projects (after incentives). In addition to payback requirements, overall cost and cash flow were barriers mentioned by two respondents. One respondent commented that customers are closely monitoring what cash they have available on hand for projects. Another respondent commented that even though a customer may be attracted to the lifetime savings for a measure they may be cash strapped and may not be able to move forward on a project that otherwise makes sense. In addition to cash flow issues, companies have been responding to the slow economy with belt tightening and as one respondent commented “allowances for these types of projects has been dwindling with the economy.”

Regarding the level of incentives, one technical staff member said:

“It’s not just if there’s enough savings. It’s also we have this cap of dollars per unit that we don’t want to exceed. I know this year I’m finding that cap comes into play a lot more often than it ever used to. We need it there because we don’t want to spend our [entire] budget and only get a small percentage of the savings that we are mandated to come up with. I understand the reason why we have to have these caps but they are limiting in terms of going further with projects.”

This respondent went on to say “what really needs to be managed is coming up with a more realistic budget and savings comparison. The longer these programs go on, typically, the

higher or more it's going to cost save a kilowatt-hour." The increased cost of deeper savings was a sentiment echoed by nearly all of the technical staff respondents.

Time Required for Study. Three technical staff respondents remarked that the time required to study projects is a potential barrier or drawback for customers. One respondent remarked, "customers come to us with a plan and they want an answer the next day and it takes awhile to study [potential projects]." Another respondent commented that "in this day and age when we're being given outrageous goals... I think if we were to make some faster decisions and have less bureaucracy we could be more effective." Despite the potential barrier posed by time required for in-depth study, one respondent aptly summarized the potential drawbacks of moving too quickly:

"There is so much that we require to be done because we're trying to [maintain] the integrity of these programs. The last thing we want is for a customer to come to us a year later and say, 'Hey, you said we were going to save this amount of energy and it is costing us more, not less.' So we're very, very conservative and I guess you sort of have to be. But on the other hand it has the expense of it taking more time to study."

Another potential barrier that contributes to time required for study is staffing. One technical staff respondent said that "staffing has been an issue." In the past "positions were open for a while and they were getting candidates in, but they weren't meeting the minimum qualifications." They went on to say that now that the positions have been filled it will "free the existing group up to do more customer outreach, especially in light of these higher goals." In addition, one technical staff respondent commented that they are "limited by how many technical support consultants and how many technical assistance vendors we have at our disposal." This respondent went on to say, "when we're relying on an outside technical assistance vendor, we're kind of at the mercy of their schedule as well."

Since technical staff respondents are keenly aware that time is a barrier for customers, nearly all of them mentioned working closely with customers and other stakeholders to provide results as quickly as possible. One respondent said that they try to use "vendors who work well with us and can provide information in a timely fashion." They went on to say that although "sometimes [we] take longer than expected; sometimes it is [due] to the customer."

Types of Measures Available. Another barrier reported by three respondents is the type of measures currently available. Because of the length of time that C&I programs have been running in Massachusetts some of the technical staff reported that they are beginning to circle back around to customers they have already done projects with. One respondent commented “we’ve been doing energy efficiency programs for 20 years and we’ve done projects at every one of these customers more than two or three times.”

In particular, the technical support staff respondents cited the lack of low-cost high-savings projects because they have been done already or due to the type of customers enrolled in the programs. One respondent said we’re “limited by what types of facilities and what’s going on in those facilities.” They went on to elaborate, “once you do the lighting and lighting controls, you could probably do some HVAC controls... but HVAC equipment typically doesn’t have an incentive that induces people to retrofit it so you wait until that stuff dies to replace [it].” Another respondent commented on working with customers to “see beyond lighting” saying that “there are certainly more things that a customer can do. Maybe just take advantage of more prescriptive measures or get into their HVAC equipment... refrigeration measures, the more complex measures.” However, this respondent was quick to follow-up their comment that more complex measures “come at a price. And that’s where sometimes it’s in conflict with what our goals are.”

9.3 Efforts to Encourage Deeper Savings

In this section we discuss the efforts to achieve deeper savings from the perspective of program staff and technical staff.

9.3.1 Program Staff Perspectives

Interview respondents reported that the deep savings efforts are being targeted at all large C&I customers, with every project being considered. As one respondent said:

“[It’s being] more comprehensive. Rather than just looking at lighting, [we look] at all their fans, their pumps, air compressors, [and other] equipment. If they’re a gas customer, we then notify the gas company that we’ve either been there or are going to go into this customer to talk about energy with them. Just try to be more proactive in identifying all opportunities for customers.”

However, one program staff member does not believe the vendors are on the same page:

“I don’t see what we have in place as being effective . . . we offer a comprehensive bonus, where if you do two [measures] in addition to lighting, we would up the incentive level. We haven’t had any traction on that at all. And I don’t think it’s the incentive amount. I think it’s just [that] we have lighting service companies that do lighting. And for them to hook up with a compressed air company is out of their realm of experience.”

Another program staff member is more focused on achieving the overall program goals:

“My time right now is focused on implementing a new program. At this point in time, [we] have not had the luxury of trying to analyze what do we got to do to get deeper savings. We have this very aggressive goal in front of us for lifetime kilowatt hour savings. Since it’s not directly tied to the metric for deeper savings, which is more important? I’m going to have to say the kilowatt-hour savings, regardless of how shallow the dive.”

9.3.2 Technical Staff Perspectives

When asked to identify what is currently being done to achieve deeper savings, respondents mentioned encouraging customers with incentives that increase based on multiple measures or the level of energy savings. One respondent cited a “kicker-type” program where “the more comprehensive you are, the higher the percentage the incentive goes up.” However, this respondent went on to clarify that frequently the project hits the dollar-per-unit cap “so [customers] are not really getting that full [amount].”³ Another respondent mentioned enhanced incentives for implementing multiple measures through a comprehensive design program.

Despite a focus on financial barriers to deeper savings, technical staff reported that the increased incentives have not performed well for encouraging deeper savings. Instead, technical staff reported field inspections and comprehensive programs have had more of an impact on deeper savings. As one respondent said “sending somebody qualified out to do

³ Dollar-per-unit refers to a cap based on a maximum incentive per unit of energy savings (kWh or therms)

inspections, having somebody qualified do reviews of plans and scope. That's how you can dig deeper." The inability of increased incentives to generate deeper savings is likely due to the fact that, despite the increased incentives, customers are still unable to meet their financial requirements such as payback or return on investment. The success of field inspections is likely due to the ability of qualified technical staff to identify opportunities that take advantage of existing plans or other projects without adding substantial costs or identifying opportunities that yield substantial savings.

9.4 Customer Reception

In this section we discuss the customer response to deeper savings efforts from the perspective of program staff and technical staff.

9.4.1 Program Staff Perspectives

Overall, program staff reported that the efforts to achieve deep savings are at an early stage, therefore they have little feedback about what program approaches have been successful and what have not. However, a few staff provided their thoughts regarding these issues.

"The measures are very site specific. We're getting into the peculiarities of somebody's idiosyncrasies of how they're running their business and trying to drill down into those opportunities and say, how does this really work, why do you do that, and if we hear that it's always been done that way, then [we] start looking for other opportunities."

"The feedback we get from facilities managers is ... when I do an efficiency project, I'm competing with capital projects with the rest of my company. So literally, I walk in with an efficiency project, and one of the manufacturing managers walks in with a request to do something else. And you know, we have to compete to say which is of greater benefit? It's not like I have an open door to the management committee that says keep bringing me more efficiency projects. I have to sell it as an attractive investment. We'll get some tools to help us present that to the facilities manager, which he could then use to present to his management team, which in many cases are out of state. I guess what I'm getting at is a package of technical and marketing tools that help us promote

going deeper. Right now, I have a mandate [to achieve deeper savings] and it's kind of up to me to figure out what that is, how to do it."

9.4.2 Technical Staff

According to technical staff, customers have been receptive to exploring deeper energy savings. As one respondent said "folks love to hear more opportunities." However, he went on to add:

"That doesn't always translate into more participation because depending on the economics of digging deeper folks are limited by their capital budgets as well as their hurdle rate [payback, return on investment, etc.] for selecting projects to complete. So if you can bring some [low cost] projects to the table, that's great. Then it probably translates well. If not, they may recognize the opportunity but just aren't prepared to pursue it."

The experience of other technical staff seems to be similar, with customers expressing interest in anything that can save them money but keeping a close eye on payback, costs and other financial metrics.

10. Recommendations for Further Research

In this section we present a brief summary of the major themes resulting from the interviews as well as recommendations for further research.

Overall, program integration appears to be proceeding smoothly, with improved coordination among PA staff at all levels—program staff, account executives, and technical staff. On the whole, communication also appears to be good—internally at each PA, with vendors/trade allies, and among PAs; though some AEs would prefer more prompt responses to their internal technical requests. There are conflicting perspectives regarding the adequacy of AE technical and program knowledge—some program staff believe their level of knowledge is inadequate, while most AEs believe it is sufficient to perform their job.

In addition, interviewees—nearly across the board—reported that staffing levels are insufficient to support the expansion in savings goals. The staffing issue affects the programs at many levels—from program marketing and project recruitment by AEs to the technical review of projects by technical staff. Most interviewees cited the lack of capital on the part of customers as the primary obstacle to program participation, and some respondents suggested increased incentive levels or financing options as a strategy to overcome this barrier.

We suggest that the PAs consider pursuing further research into the following key issues identified in this study. We recognize that some of these issues are more relevant to certain PAs than others, but believe that a consistent statewide approach to these issues would benefit the entire MassSAVE program.

- **Staffing levels.** At nearly all PAs, the program staff, AEs, and technical staff cited the need for additional staff members to support the achievement of expanded program goals. However, several interviewees did note that some new staff have recently been hired.
 - Adding additional AEs will allow all AEs to spend more time communicating with customers, particularly in face-to-face meetings, which should help yield more projects.
 - Adding additional technical staff will allow all technical staff to more quickly conduct the technical analysis so it does not impede project progress, which was a common complaint from AEs. In addition, it will allow technical staff

- members to have more time to conduct facility visits, which are key to identifying projects and achieving deeper savings.
- The increased number of technical staff should also reduce the need for AEs to be technically savvy, as there appears to be a range of technical expertise among AEs. The AEs can instead focus on maintaining the customer relationships and serving as the project liaison, and introduce technical staff earlier in the process in order to provide technical support.
- **Incentive levels.** Many interviewees recommended increasing incentives in order to recruit more projects and to achieve deeper savings. Of course, any increased incentives would need to pass program cost-effectiveness tests.
 - Many staff members said that the lack of capital is the primary obstacle to recruiting new projects, and that increasing incentive levels in order to reduce both the capital outlay and payback periods could boost participation. This increase would focus primarily on raising the limit on the cumulative incentive allowed per project.
 - The higher incentives will also encourage customers to install longer-payback measures, which are critical to achieving deeper savings and the expanded program goals. This increase would focus primarily on raising the maximum \$/unit (kWh or therm) incentive allowed.
 - However, it is worth noting that technical staff do not believe that increased incentives will achieve deeper savings, that instead field inspections and a more comprehensive program design will have greater influence.
 - **Turnkey financing options.** As mentioned above, nearly all program staff members and AEs cite the lack of capital as the primary barrier preventing customers from moving forward with projects. Offering a turnkey financing program to provide financing for eligible efficiency projects would help address this barrier to participation. The PAs are preparing to launch several prescriptive loan products for C&I customers in early 2011 that will buy down the interest rate to 0%.
 - **Customer forums.** One PA has had some success holding industry forums for large C&I customers in order to discuss the programs. These breakfast or lunch forums provide a venue for staff to discuss the programs with customers, for account

executives to meet customers, and, of particular value, for customers to share their experiences with the programs. The customer-to-customer interaction provides concrete examples for customers on strategies for reducing energy usage, which has yielded several new projects.

- **Long-term commitments to energy efficiency.** At least one PA is developing multi-year non-binding agreements with the corporate management of their large C&I customers in order to establish specific energy savings goals. This approach may be suitable only for the top customers (in terms of size) but addresses one of the main obstacles to deeper savings: lack of planning for energy efficiency. Customers are more familiar with doing projects on an annual basis (if they have access to capital); however, an efficiency plan should lead to longer-term, consistent budgeting for energy projects, and because of its size over the years, draw the attention of higher-level management.
- **Design of marketing materials.** Several of the AEs reported that the marketing materials could be improved, with the following suggestions:
 - Make them more informative, simple, easy to understand, possibly including a checklist of ways to reduce energy costs;
 - Include more customer testimonials or case studies; and
 - Introduce technical concepts to customers.
- **Organization of account executives.** Some PAs organize their AEs by geography, while others organize them by industry sector. For the benefit of the programs, it may be more productive to organize all AEs by industry sector, at least for the larger PAs. That way, AEs will only be responsible for understanding a select few industries which should improve their level of technical and business knowledge for those industries. While the results of this study did not find a substantial deficiency in AE knowledge of their customers, a deeper level of industry-specific knowledge should nonetheless facilitate the identification and recruitment of projects.
- **Structure of performance incentives for account executives.** While all PAs have some type of goals for energy savings or project leads worked into their job performance assessments, only one-third of the AEs reported that this performance structure clearly motivates them. While the current performance structure may not pose a barrier to increasing participation, it may not be motivating AEs to the degree

intended. It may be more effective to incentivize AEs such that their bonus is tied to the level of savings achieved by the projects completed by their customers.

- **Management system for technical requests.** A common complaint among AEs was that technical staff members do not respond promptly to their requests for technical assistance. It would be useful to develop clear guidelines for responding to most technical requests within a certain timeframe so that AEs can notify their customers when to expect a response. AEs suggested establishing a central email inbox that technical staff can access and respond to questions. While this may be more of an issue for the PAs with more staff, it could also be beneficial for smaller PAs as well.



Appendix A: Program Staff Interview Guide

PROGRAM MANAGER/STAFF INTERVIEW GUIDE MASSACHUSETTS LCIEC EVALUATION - JUNE 2010

Name _____

Organization _____

Phone _____

Date _____

[NOTE: THIS INTERVIEW GUIDE IS INTENDED TO BE USED BOTH FOR MANAGERS/STAFF THAT WORK MOSTLY WITH A SPECIFIC C&I ENERGY EFFICIENCY PROGRAM AS WELL AS UTILITY MANAGERS/STAFF THAT HAVE MORE CROSS-CUTTING/OVERARCHING KNOWLEDGE/RESPONSIBILITIES FOR THE C&I ENERGY EFFICIENCY PROGRAM PORTFOLIO.]

[NOTE: THE QUESTIONS IN THIS INTERVIEW GUIDE WILL NOT NECESSARILY BE READ VERBATIM BUT MAY BE MODIFIED TO SUIT THE INTERVIEW. IN ADDITION THE INTERVIEWERS MAY SKIP QUESTIONS THAT ARE LESS RELEVANT TO A PARTICULAR INTERVIEW]

I'm calling to talk with you about the Massachusetts large commercial and industrial programs. As you may know, I am part of the evaluation team, and we are assessing the changes made to the programs in 2010. In addition, we are gathering feedback on program marketing and performance. Please be aware that the information you provide will be treated as confidential.

A. INDIVIDUAL'S ROLE [ALL UTILITY MANAGERS/STAFF]

First I'd like you tell me about your role.

1. Which C&I energy efficiency program(s) are you involved with?
2. What are your primary responsibilities for the(se) program(s)?
3. Which programs are you familiar enough with that you can reasonably answer questions regarding performance, marketing, integration, and deep savings?

**B. HIGH-LEVEL PROGRAM DELIVERY QUESTIONS
[UTILITY MANAGERS/STAFF WITH CROSS-CUTTING/OVERARCHING
KNOWLEDGE/RESPONSIBILITIES]**

1. Are there any particular aspects of program design or delivery that you would like the evaluators to focus attention on? I.e., what you like to learn from the process evaluation?
2. Do you think the portfolio of large C&I energy-efficiency programs, as currently designed, is focusing on the most appropriate customers and trade allies?
 - a. Why or why not?
3. Do you think that the information and financial assistance that the portfolio of programs provides to C&I customers is sufficient to move them to adopt energy-efficient measures?
 - a. Why or why not?
4. What elements of the portfolio of large C&I EE programs are working well? [PROBE: marketing & outreach, trade allies, program information, financial assistance, paperwork]
5. What elements of this portfolio are working less well? [PROBE: marketing & outreach, trade allies, program information, financial assistance, paperwork]
 - a. For the elements of the overall program that are working less well, how could these problems be remedied?

6. In your opinion, what are the barriers that discourage your target market actors from adopting more energy-efficient measures?
7. Do you think that the current organization of program staff is effective?
 - a. Why or why not?
8. Do you think that the communications among program staff works well?
 - a. Why or why not?
9. Is the C&I program portfolio currently on track to meet the 2010 savings goals?
 - a. [IF NOT] Why not?
[PROBE ECONOMIC DOWNTURN, PROGRAM MARKETING, IMPLEMENTATION PROBLEMS, NATURAL PROGRAM INERTIA, ETC.]
 - b. [IF NOT] Which programs?
 - c. [IF NOT] Do you expect to meet the goals by year end? Why do you think this?

C. BASIC PROGRAM DELIVERY QUESTIONS FOR A PARTICULAR PROGRAM [PROGRAM MANAGERS/STAFF]

My next questions will help me to understand the basics of how your program is delivered.

1. What types of C&I customers are targeted by this program?
[IF NOT ALREADY MENTIONED, PROBE FOR SIZE, MARKET SECTOR, TYPE OF EQUIPMENT USED BY CUSTOMER]
2. How are C&I customers recruited for participation in this program?
3. What customer or equipment eligibility rules does the program have?
[THIS INFORMATION MIGHT BE AVAILABLE FROM THE UTILITY WEBSITES. IF SO, PLEASE CONFIRM THAT WEBSITE INFO IS CURRENT AND COMPLETE.]
4. What contractors, if any, are used to implement this program, and what roles do they play?

5. What measurement and verification requirements does the program have?
6. How are program incentives calculated and how are they paid out?
[PROBE FOR WHETHER INCENTIVES GO TO END USER OR TRADE ALLY AND METHOD OF INCENTIVE (PAYMENT, BILL CREDIT, FINANCING, ETC.)]

D. PERFORMANCE OF A PARTICULAR PROGRAM [PROGRAM MANAGERS/STAFF]

1. Is this program currently on track to meet the 2010 savings goals?
 - a. [IF NOT] Why not? [PROBE ECONOMIC DOWNTURN, PROGRAM MARKETING, IMPLEMENTATION PROBLEMS, NATURAL PROGRAM INERTIA, ETC.]
 - b. [IF NOT] Do you expect to meet the goals by year end? Why do you think this?
 - i. [IF YES] What factors have occurred this year, or do you envision occurring in the next six months that might prevent you from meeting your 2010 savings goals?
2. Do you have other ways of measuring program success besides the energy savings goals?
 - a. [IF YES] What are these?

E. MARKETING [ALL Qs: PROGRAM MANAGERS/STAFF] [SOME Qs: UTILITY MANAGERS/STAFF WITH CROSS-CUTTING/ OVERARCHING KNOWLEDGE/RESPONSIBILITIES]

1. What marketing strategies are used to recruit projects?
 - a. Do marketing strategies vary by the type of customer?
2. Which marketing strategies appear to be more effective and which strategies are less effective?

- a. How could the program marketing be improved?
3. What project benefits are emphasized to customers?
4. Are some program staff or account representatives more effective than others at recruiting participants?
 - a. [IF YES] What are the keys to their success?

F. PROGRAM INTEGRATION

[ALL UTILITY MANAGERS/STAFF]

1. What actions have been taken to develop consistent statewide delivery of C&I energy efficiency programs across all utilities as well as integrate electric and gas offerings?
[IF NOT ALREADY MENTIONED IN RESPONSE TO E1, ASK THE FOLLOWING]
 - a. What has been done to coordinate marketing strategies, materials and messaging across the state and between electric and gas offerings?
 - b. What has been done to make consistent application forms, processes, and documentation requirements?
 - c. How are requests for multiple fuels handled?
 - d. How are service requests across multiple service territories handled?
 - e. To what degree are Massachusetts energy efficiency programs offering “one-stop shopping” to customers?
2. Are there differences in program integration status by program administrator, by new construction vs. existing facility programs, or by measure type?
3. In what ways has the program integration been successful?
4. In what ways has the integration proved to be challenging?
5. What remains to be done in terms of offering consistent statewide electric/gas offerings of C&I energy efficiency programs?

G. DEEP SAVINGS

[ALL UTILITY MANAGERS/STAFF]

1. What are the opportunities to achieve deeper savings with large commercial/industrial customers? By deeper savings, I mean a higher level of energy savings per project than typical.
2. What types of customers and/or projects are being targeted?
3. What is being done to encourage customers to achieve deeper savings that has not already been discussed?

[IF NOT ALREADY MENTIONED IN RESPONSE TO F3 OR MENTIONED PREVIOUSLY, PROBE FOR THE FOLLOWING]

- a. Expanded and/or targeted marketing
 - b. Integration of electric and gas offerings
 - c. Program integration across service territories
 - d. Relaxed eligibility criteria (i.e., targeting of early replacement)
 - e. Broader measure eligibility
 - f. Higher incentive levels
4. Which approaches to targeting deeper savings have proven to be effective so far?
[IF NOT MENTIONED, ASK WHY]
 5. Which approaches have been less successful?
[IF NOT MENTIONED, ASK WHY]
 6. What remains to be done in terms of achieving deeper savings with C&I customers?
 7. What are the barriers to C&I customers achieving deeper savings?
 - a. How might these barriers be overcome?



Appendices

-
8. How have the efforts to target deeper savings been received by customers?

- I. CONCLUSION**
[ALL UTILITY MANAGERS/STAFF]

1. Are you aware of any large C&I energy efficiency programs that are designed, implemented or marketed differently than your own?
 - a. [IF YES] Are there any aspects of these programs' implementation or marketing that you would consider adopting for your program(s)?
2. Finally, is there anything else you would like to tell me about the programs that we haven't already discussed?



Appendix B: Account Executive Interview Guide

ACCOUNT EXECUTIVE INTERVIEW GUIDE

MASSACHUSETTS LCIEC EVALUATION - AUGUST 2010

Name _____

Organization _____

Phone _____

Date _____

[NOTE: THE QUESTIONS IN THIS INTERVIEW GUIDE WILL NOT NECESSARILY BE READ VERBATIM BUT MAY BE MODIFIED TO SUIT THE INTERVIEW. IN ADDITION, THE INTERVIEWERS MAY SKIP QUESTIONS THAT ARE LESS RELEVANT TO A PARTICULAR INTERVIEW.]

I'm calling to talk with you about the Massachusetts large commercial and industrial programs. As you may know, I am part of the evaluation team, and we are assessing the effectiveness of program marketing, recruitment, and support. Please be aware that the information you provide will be treated as confidential.

A. INDIVIDUAL'S ROLE

First I'd like you to tell me about your role.

4. In your position, what are your primary responsibilities for large C&I customers?
5. What type of customers do you handle? [PROBE SIZE, SECTORS, LOCATION, ETC.]
6. What is your role regarding the large C&I energy efficiency programs?
7. On average, how often are you in touch with a typical large C&I customer via the following methods (once per week, once per month, once every few months, etc.)

- a. Telephone?
 - b. Email?
 - c. Face-to-face meetings?
 - d. Other?
8. On average, how often do you visit each customer's facility? Once per month, once every few months, once every six months, once a year, etc.

B. MARKETING & RECRUITMENT

5. How do you identify large C&I customers with potential energy efficiency projects?
6. How do you promote the energy efficiency programs to these customers?
 - a. Does your approach vary by the type of customer?
 - i. [IF YES] How so?
7. About what percent of your time is spent promoting the large C&I energy efficiency programs to customers?
 - a. How has this changed over the past year?
8. In which situations do you promote these programs?
 - a. In which situations do you *not* promote them?
9. About what percentage of your large C&I accounts are knowledgeable about your utility's energy efficiency programs and what they have to offer?
 - a. Are there significant differences by customer type (retail, institutional, industrial, etc) or size (i.e, kW or kWh category)?
 - b. [IF YES] How so?
10. What are some typical questions that your large C&I accounts ask about these programs?

Appendices

11. Do you think you have sufficient knowledge, tools, and marketing materials to allow you to recruit C&I customers to the energy efficiency programs?
 - a. [IF NO] What's lacking?
12. Which recruitment strategies for large C&I energy efficiency programs appear to be more effective?
 - a. Which strategies are less effective?
13. What would help you more effectively promote the programs to large C&I customers?
14. What benefits do you emphasize to customers to convince them to participate?
 - a. What benefits do customers mention after they have participated?
15. Of the large C&I energy efficiency projects that you are involved with in a given year, about what percentage are projects that you identified for them?
 - a. About what percentage are ones that they identified themselves?
16. Are personal relationships with customers important in recruiting participants?
 - a. [IF YES] How so?
 - b. [IF YES] How are these relationships usually developed?
 - c. [IF YES] What can be done to improve these relationships?
17. What reasons do customers provide when deciding *not* to participate in a program?
 - a. Do these reasons vary by the type of customer or type of project?
 - i. [IF YES] How so?
18. Do you have any other suggestions about how to boost program participation in large C&I programs?

C. COMMUNICATION & ROLES

1. At what point in the recruitment process do you hand off a new project to program staff?
2. Is there a clear delineation of responsibilities between yourself and program staff, in terms of recruiting projects?
 - a. [IF YES] What is the delineation?
3. How do you typically interact with the energy efficiency program staff?
 - a. What aspects work well?
 - b. How could it be improved?
4. Do you work directly with program vendors or trade allies?
 - a. [IF YES] How do you typically interact with these vendors/trade allies?
 - b. [IFYES] Do you use any of these trade allies to help you recruit C&I customers for your company's energy efficiency programs?
 - i. [IF YES] How so?

D. TECHNICAL KNOWLEDGE

1. On a scale of 0 to 10, where 0 equals "not at all knowledgeable" and 10 equals "very knowledgeable", how would you rate your level of technical knowledge regarding energy efficiency for large C&I customers?
 - a. Why do you say that?
2. Do you consider your level of technical knowledge sufficient to discuss potential energy efficiency opportunities and improvement with large C&I customers?
3. Are you capable of identifying opportunities for energy efficiency when visiting your customers buildings for the following end uses ...
 - a. Lighting?
 - b. HVAC?
 - c. Motors?

- d. Controls?
 - e. Other end uses?
4. What technical resources are available to you?
 5. Could these technical resources be better utilized?
 - a. [IF YES] How so?
 6. How could your level of technical knowledge be improved?

E. PROGRAM KNOWLEDGE

1. On a scale of 0 to 10, where 0 equals “not at all knowledgeable” and 10 equals “very knowledgeable”, how would you rate your level of program knowledge regarding the large C&I energy efficiency programs?
 - a. Why do you say that?
2. Was the recent orientation training regarding the new statewide programs useful?
 - a. Why or why not?
3. Do you consider your level of program knowledge sufficient to discuss potential programs with C&I customers?
 - a. [IF NO] How could it be improved?
4. Has the integration of programs across PAs affected your ability to recruit projects?
 - a. [IF YES] How so?
5. Has the integration of programs across FUELS affected your ability to recruit projects?
 - a. [IF YES] How so?
6. Is your job performance linked to your success in recruiting projects for energy efficiency programs?
 - a. [IF YES] How are they linked? [PROBE GOALS OR REQUIREMENTS].
 - b. [IF YES] Does this performance structure motivate you to recruit more projects?

F. CONCLUSION

1. Overall, what do you think has led to you successfully recruiting large C&I projects for energy efficiency programs?



Appendices

2. Overall, what do you think would help you or other account executives more effectively recruit projects for the large C&I energy efficiency programs?
3. Finally, is there anything else you would like to tell me about the large C&I programs that would be useful for our evaluation of these programs?



Appendix C: Technical Staff Interview Guide

TECHNICAL STAFF INTERVIEW GUIDE MASSACHUSETTS LCIEC EVALUATION - AUGUST 2010

Name _____

Organization _____

Phone _____

Date _____

[NOTE: THE QUESTIONS IN THIS INTERVIEW GUIDE WILL NOT NECESSARILY BE READ VERBATIM BUT MAY BE MODIFIED TO SUIT THE INTERVIEW. IN ADDITION, THE INTERVIEWERS MAY SKIP QUESTIONS THAT ARE LESS RELEVANT TO A PARTICULAR INTERVIEW]

I'm calling to talk with you about the Massachusetts large commercial and industrial programs. As you may know, I am part of the evaluation team, and we are assessing the effectiveness of program marketing, recruitment, and support. Please be aware that the information you provide will be treated as confidential.

A. INDIVIDUAL'S ROLE

First I'd like you tell me about your role.

1. In your position, what are your primary responsibilities for the large C&I programs?
2. Are there specific technologies or programs that you work more closely with?
 - a. [IF YES] Which ones?

3. Do you have any suggestions about how to boost program participation in the large C&I programs?

B. TECHNICAL SUPPORT

1. What is your role in identifying potential energy efficiency projects with large C&I customers?
 - a. How does the identification process work?
2. What is your role in reviewing and approving large C&I energy-efficiency projects?
 - a. How does the review and approval process work?
3. How do you determine whether projects require technical support?
4. What type of technical support is provided to customers? (Probe design assistance, plan review, etc.)
 - a. How does this vary by type of project?
5. What works well about the technical support services?
6. What are some areas where your utilities' technical support services could be improved?
7. What type of feedback do you receive from customers regarding the technical support services?
8. What technical resources are available when a project is outside your area of expertise?
9. Has the integration of programs across PAs affected the provision of technical support?
 - a. [IF YES] How so?
10. Has the integration of programs across **fuels** affected the provision of technical support?
 - a. [IF YES] How so?

C. COMMUNICATION & ROLES

5. Is there a clear delineation of responsibilities between yourself and other program staff in terms of providing technical support?
 - a. [IF YES] What is the delineation?
6. How do you typically interact with the account executives when dealing with proposed C&I energy efficiency projects?
 - a. What aspects of these interactions work well?
 - b. How could these interactions be improved?
7. Do you find some account executives are more effective than others in identifying and recruiting C&I energy efficiency projects?
 - a. [IF YES] What characteristics make some account executives more effective than others?
 - i. Is there anything different about their approach?
 - b. [IF YES] How else do the more successful account executives differ from the less successful ones?
8. Do you work directly with program vendors or trade allies?
 - a. [IF YES] How do you typically interact with these trade allies?
 - b. [IF YES] What works well about working with vendors and trade allies, and what does not?

D. DEEP SAVINGS

1. What are the opportunities to achieve deeper savings with large commercial/industrial customers? By deeper savings, I mean a higher level of energy savings per project than typical.

Appendices

2. What are the barriers faced in trying to achieve deeper savings from large C&I projects? [PROBE TECHNICAL, ECONOMIC, STRUCTURAL, MOTIVATIONAL, ETC.; TRY TO DETERMINE THEIR RELATIVE IMPORTANCE, AND MAKE SURE THE DISCUSSION IS NOT ALL ABOUT ECONOMICS]
 - a. How might these barriers be overcome?
3. What are the opportunities to identify deeper energy savings *during* the project identification and review process?
4. What is being done to encourage customers to achieve deeper savings that has not already been discussed?
[IF NOT ALREADY MENTIONED, PROBE FOR THE FOLLOWING]
 - o Expanded and/or targeted marketing
 - o Integration of electric and gas offerings
 - o Program integration across service territories
 - o Relaxed eligibility criteria (i.e., targeting of early replacement)
 - o Broader measure eligibility
 - o Higher incentive levels
5. Which approaches to targeting deeper savings have proven to be effective so far?
 - a. Why do you say that?
6. Which approaches have been less successful?
 - a. Why do you say that?
7. How have the efforts to target deeper savings been received by customers?

E. CONCLUSION

1. Finally, is there anything else you would like to tell me about the large C&I programs that would be useful for our evaluation of these programs?



Appendix D: Final Project 7 Work Plan

To: Andrew Wood, National Grid
Date: July 19, 2010

From: Tom Mauldin, NMR
Christopher Dyson and Dan Barbieri, KEMA

Copy: Massachusetts Program Administrators and EEAC

Subject: Final Project 7 General Process Evaluation Work Plan

The purpose of this memorandum is to describe the final work plan for the Project 7 General Process Evaluation of the Commercial and Industrial (C&I) energy-efficiency programs that are run by the Massachusetts Program Administrators (PAs). This memorandum updates the work plan based on the comments received July 12-14 from PAs and the Energy Efficiency Advisory Council (EEAC) regarding the July 6 draft work plan memo.

As discussed below, in May 2010 the PAs and the EEAC recommended that this Project 7 evaluation task be re-scoped from what was originally in the Request for Proposal (RFP). This memo contains the final work plan for this re-scoped General Process Evaluation.

This memorandum has the following sections:

- **Background:** This section discusses how the PAs and the EEAC requested that the Project 7 process evaluation work be re-scoped and the process for conducting the initial in-depth PA staff interviews.
- **Summary of initial in-depth interview findings:** This section summarizes some high-level findings from in-depth interviews that the evaluation staff conducted with seven PA staff members who are familiar with the large C&I programs.
- **Proposed work plan:** This section describes the proposed plan for this re-scoped General Process Evaluation.

Background

This section discusses how the PAs and the EEAC requested that the Project 7 process evaluation work be re-scoped and the process for conducting the initial in-depth PA staff interviews.



Appendices



In the RFP, Project 7 was originally called an “Expedited General Process Evaluation”. The original scope was for a “global process and marketing evaluation” that would determine if the PAs needed to make any “mid-course adjustment” of the 2010-2012 large C&I programs. The original report deadline was July 15, 2010.

Because the evaluation of the large C&I programs began later than expected, on May 18, 2010 the lead representative of the PAs informed the evaluation team that the original scope of Project 7 was no longer realistic and proposed a new Project 7 scope that was based on discussions between the PAs and the EEAC.⁴

The PAs and the EEAC proposed the following:

- The Project 7 study would be modified “to focus more on its overall objectives of evaluating the delivery (sales mechanism) of energy efficiency and the market’s response to these efforts.”
- The PAs would work with the EEAC and the evaluation team to develop a process evaluation plan focused on these objectives.
- The timeline for the plan would be finalized as the design was developed, but it would be expected that the efforts would take place over several months.
- The July 15 deadline would be kept as the deadline on which the PAs and the evaluation team would submit the final Large C&I Process Evaluation Plan. The EEAC indicated that it would like to see this plan earlier than July 15 if possible.
- The CDA case studies that had been part of the Project 7 scope of work in the RFP would be moved to the CDA process evaluation project (Project 6B).
- The EEAC continued to believe that the Project 7 study results could influence the program design changes for 2011. For this reason, the EEAC did not want the timeline for the Project 7 study to be pushed so far out that the information could not be used to influence the design for the 2011 programs.

On May 19 the PAs, the EEAC, and the evaluation team participated in a conference call to discuss this proposed new scope. During this conference call the PAs and the EEAC said that they hoped that the revised Project 7 process evaluation would cover the following topics:

- Why participations is low for some large C&I programs;
- How marketing & outreach efforts for large C&I programs could be improved (e.g., looking for best practices among programs, utility reps, trade allies);
- Ways to obtain deeper savings for these programs; and

⁴ May 18, 2010 email communication from Andrew Wood of National Grid to Dan Barbieri of KEMA Inc.

-
- How to improve electric & gas integration in these programs as well other integration of program delivery.

During the June 1-2 large C&I evaluation kickoff meeting the revised scope for Project 7 was discussed among a broader group of PA representatives and program evaluators. It was decided that a useful first step would be for the evaluators to conduct in-depth interviews with PA representatives who had broad knowledge of the large C&I programs. These in-depth interviews would be used to inform a draft revised Project 7 research plan that would be submitted to the PAs and EEAC for review. The final research plan would be sent out on July 15, 2010.

On June 9 the evaluation team sent to the PAs and the EEAC a draft interview guide for these in-depth interviews. The PAs and the EEAC sent back comments on the interview guide. In response to a June 2 data request from the evaluation team, the PAs also provided the names of key contacts for the large C&I programs. The in-depth interviews of these key contacts began on June 21 and seven interviews were completed by June 28. The next section summarizes the key findings from these interviews.

On July 6 we submitted a draft Project 7 research plan to the PAs and the EEAC for review. We received comments on the plan during the July 12-14 period. The current plan addresses these PA/EEAC comments.

Summary of initial in-depth interview findings

This section provides a high-level summary of the key findings from in-depth interviews that evaluators conducted with seven PA staff members who are familiar with the large C&I programs. The evaluators conducted the interviews during the June 21-28, 2010 period. More detailed information from these in-depth interviews will be included in the Project 7 report.

Program Integration

Key findings from the in-depth PA staff interviews concerning program integration included:

- The integration of programs has gone smoothly according to nearly all respondents. The PAs have held regular meetings since early 2009 to coordinate and develop consistent program offerings.
- The smaller PAs have had more work to do in order to make their programs consistent with the statewide model.
- Coordination between gas and electric PAs on specific customer projects is working well, and staff members are learning more about each other.

Program Communication & Organization

Key findings from the in-depth PA staff interviews concerning program communication and organization included:

- On the whole, communication appears to be good—internally at each PA, with vendors/trade allies, and among PAs.
- Respondents generally thought the staff organization is reasonable as well, though a few would like to hire more staff in light of the increase in savings goals.

Marketing

Key findings from the in-depth PA staff interviews concerning program marketing included:

- The primary methods of recruiting projects are through program staff, account executives, and trade allies.
- Several staff members reported that some account executives' lack of technical knowledge and/or lack of proactive efforts are obstacles to program recruitment efforts. However, there recently was (or soon will be) a cross-PA training to orient account executives on the new programs.

Deep Savings

Key findings from the in-depth PA staff interviews concerning obtaining deeper savings from energy efficiency projects included:

- Respondents reported that it is difficult to persuade customers to implement additional measures with longer paybacks, rather than simply implementing the “low hanging fruit” (i.e., lighting retrofits). Given the poor economy, customers are looking for quick paybacks and not all measures identified in a comprehensive building audit will meet their payback criteria.
- Respondents also noted that it is also difficult to persuade customers to adopt a long-term planning horizon for energy efficiency. They are more familiar with implementing individual projects, and energy efficiency is not their core business. Therefore, energy efficiency projects compete against other internal projects for access to capital investments.

Program Performance

Key findings from the in-depth PA staff interviews concerning program performance included:

- Some PAs expect to meet their 2010 goals by year-end, while others do not. However, given the traditional fourth quarter surge in project completion, any projections at this time may be somewhat premature.
- The primary reasons for not achieving savings goals include the aggressive ramp-up of goals and the poor economy.
 - Savings goals have increased rapidly over the past several years, and some staffers believe that funding has not kept pace in order to incentivize customers to install measures with longer paybacks. In addition, others mention that, compared to small C&I programs (which are apparently doing well in terms of savings goals), the large C&I programs are not as amenable to a rapid expansion of goals.
 - Given the poor economy, some customers are focused on simply making payroll so it's difficult to allocate or gain access to capital for energy efficiency improvements.

Proposed Work Plan

In light of the findings of the staff interviews and feedback provided by the PAs and EEAC consultant regarding the July 6 draft work plan memo, we recommend the following two process evaluation tasks for the revised Project 7 General Process Evaluation:

- External Best Practices Study of Financing Options
- Interviews with Account Executives & Technical Staff

Task 1: External Best Practices Study of Financing Options

According to the in-depth staff interviews, a major obstacle to achieving savings appears to be the lack of access to capital to fund the energy efficiency projects. The objective of this best practices study is to learn from the experience of other programs that have offered financing options. Therefore, we suggest preliminary research to identify programs with financing options available to C&I customers, and then interview these program managers. These financing options could include reduced-interest loan programs or statewide tax credit programs. Questions asked of program managers would include the following:

- How is the financing program designed? Loan, tax credit, etc.
- What are the eligibility requirements? Are there any other conditions?
- What criteria are used to identify which projects receive funding?
- For loans: what is the loan term and interest rate offered to C&I projects?
- For tax credit: how is the tax credit structured for C&I projects?
- What level of incentives would it take to buy down payback periods enough to induce deeper savings?
- What has been the response of C&I customers to the financing offers? What works well for them, and what does not?
- What are the lessons learned about financing for C&I customers?

Task 2: Interview with Account Executives & Technical Staff

The in-depth staff interviews pointed to the critical role that account executives play in recruiting projects for the large C&I programs. The interviews also raised concerns as to whether all account executives had the necessary technical knowledge, or were being proactive enough, to find deeper savings in large C&I energy efficiency projects. In addition, technical staff also play a key role in facilitating project participation. For these reasons, we recommend conducting telephone interviews with account executives and technical staff.



Appendices



We recommend conducting about 15 interviews with account executives and about 5 interviews with technical staff. Because these interviews will be largely qualitative, we anticipate interviewing respondents identified by program staff as key C&I representatives.

For account executives, we anticipate asking questions on the following topics:

- What is their experience in promoting the large C&I programs?
- What is the process for identifying and approving new energy efficiency projects?
- What is the relative frequency that projects come to the program through reactive (e.g. from outside the program via trade allies or end users) or proactive (e.g., from the project identification efforts of account executives)?
- What are the barriers (e.g. technical, economic, structural, motivational) that account executives might be facing in trying to find deeper savings from large C&I projects?
- What ideas they might have about possible solutions for overcoming these barriers to obtaining deeper savings?
- What suggestions they have about increasing program participation in general?
- What is their level of technical knowledge? How could it be improved?
- What technical resources they have within the utility and how these resources might be better utilized?
- What is their level of program knowledge? How could it be improved?
- What has worked well, and what has not? Why or why not?
- What do they need to more effectively promote the programs?
- Is their job performance linked to their success in recruiting projects? How so?

Because NMR may also be conducting interviews with national account managers for the Project 1B Chains & Franchises Market Characterization, we plan to include key questions from the above list in the interviews with national account managers. In addition, we will coordinate our interviews with the Small C&I evaluation and the CDA process evaluation (Project B) – which is also planning to interview utility account managers.

For technical staff, we anticipate asking questions on the following topics:

- What is the process for identifying and approving new energy efficiency projects?
- What is the process for determining whether projects require technical assistance?
- What are the opportunities to identify deeper energy savings during the utility project identification and review process?
- What other opportunities are there to achieve deeper savings with large commercial/industrial customers?
- What are the barriers (e.g. technical, economic, structural, motivational) faced in trying to find deeper savings from large C&I projects?
- What ideas they might have about possible solutions for overcoming these barriers to obtaining deeper savings?
- Which approaches to targeting deeper savings have proven to be effective so far? Why?
- Which approaches have been less successful? Why?
- How have the efforts to target deeper savings been received by customers?
- What suggestions they have about increasing program participation in general?
- What has worked well, and what has not? Why or why not?