



MASSACHUSETTS
SPECIAL AND CROSS-SECTOR STUDIES

COMMUNITY-BASED PARTNERSHIP
INTERIM PROCESS EVALUATION FINDINGS

FINAL

Prepared for:

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A NOTE ON THIS REPORT

This report is an interim process report that draws on a review of the data available to the evaluation team as of April 2011, and a limited number of interviews with stakeholders (including some utility representatives, some third-party implementers, community-based organizations and municipal leaders). As such, much of the information in this report is gathered from qualitative interviews which will need to be supported in future evaluation tasks. In addition, we note that the number of stakeholders involved with these efforts is large, and as such, this report does not fully represent the perspectives of all stakeholders. The report is designed to:

1. document the status of the efforts,
2. report findings to date,
3. facilitate additional discussion to gather more complete tracking data, and
4. provide some insights prior to designing quantitative survey efforts.

Per discussions with the utilities and EEAC, the evaluation research in 2011 will be focused primarily on process findings with limited impact evaluation efforts. The impact efforts will include only a verification of reported accomplishments and a review of estimated savings.

We note that the 2011 research will not seek to establish an extensive baseline for the community-based efforts (against which to measure impacts and assess attribution), nor will we be exploring the “full costs” of implementing the community-based efforts (including costs to the community groups, municipalities, ARRA, EECBG, or other leveraged funding).

In addition, while we will use participant interviews to gather some data on the relative influences of the specific strategies used (for example, the relative influences of the outreach effort versus the “free” nature of the service), the current scope of work for 2011 does not include exhaustive research to distinguish impacts by strategy.

Establishing a baseline, exploring the full costs of the community-based partnerships, and determining the relative impacts of the various strategies (e.g., effects of no-cost participation versus effects of outreach strategies) are research activities that are necessary to fully understand the effects of the partnerships. These efforts have been recommended by some stakeholders and will be considered by the utilities and EEAC as potential areas of research for 2012.

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EXECUTIVE SUMMARY

In January 2010, the Department of Public Utilities approved the *Massachusetts Joint Statewide Three-Year Electric Energy Efficiency Plan* and the *Massachusetts Joint Statewide Three-Year Gas Energy Efficiency Plan* (together the “Three-Year Plans”). Under these plans, Program Administrators seek to explore opportunities to leverage the unique position of community-based groups (including municipalities) to educate and promote energy efficiency behaviors among target segments. These initiatives are known as community-based partnerships (CBPs). The evaluation of CBPs is intended to assess the effectiveness of each partnership and – for partnerships in the pilot stage – determine their potential for replication and/or full-scale implementation.

This report is an interim process evaluation report that focuses on four community-based partnerships: *Renew Boston Residential*, *Renew Boston Business*, *Western Mass Saves Challenge*, and the *New Bedford Community Mobilization Initiative (CMI)*.¹ Note that this is the first evaluation since these four partnerships launched in the second half of 2010. All partnerships, with the exception of the New Bedford CMI, are still ongoing with changes and improvements implemented on a continuous basis. As such, the findings presented in this report should be treated as interim and reflecting each effort’s performance up to a certain point in time. It is also important to note that this evaluation is still ongoing and, while several research activities have been conducted to date, additional research will be performed to fully understand and reflect the performance and effects of each community-based partnership that falls within the scope of this evaluation.

Our interim report presents the findings of the evaluation research efforts conducted to date, including:

- Cross-Partnership Findings – comparative analysis of key findings across the evaluated partnerships.
- Partnership-specific Findings – detailed findings specific to each individual partnership.

While the four partnerships are similar in that they engage community organizations to encourage energy saving actions, the four community-based efforts were initiated by various entities, pursue different goals, and target a variety of audience segments. Table 1 provides an overview of the community-based efforts that fall within the scope of this evaluation.

¹ The term Community Mobilization Initiative (CMI) describes a partnership between local community groups and locally hired employees or organized labor working towards a sustainable, equitable, and clean energy economy. The Chinatown and Chelsea CMIs are outside of the scope of this evaluation given that Arbor Consulting was hired by Green Justice Coalition to conduct an evaluation of these two CMIs. Lynn CMI has not launched yet, therefore, there is limited information on this CMI.

Table 1. Overview of Community-Based Partnerships (CBP)

CBP	CBP			
	<i>Renew Boston Residential</i>	<i>Renew Boston Business</i>	<i>Western Mass Saves Challenge</i>	<i>New Bedford CMI</i>
Effort lead	City of Boston	City of Boston	SmartPower (Implementation contractor)	City of New Bedford/Marion Institute
Goal	Increase participation in existing PA audit and rebate programs	Increase participation in existing PA audit and rebate programs	Channel residents into online platform	Increase participation in existing PA audit and rebate programs
Target audience	Residential customers with incomes between 60%-120% of median household income in Boston	Business customers with monthly electric demand of less than 20 kW ²	Residential customers in Amherst, Easthampton, Ludlow and Sunderland	Residential customers with incomes between 60%-120% of median household income in New Bedford
Launch date	August 2010	July 2010	November 2010	July 2010

In this report, we draw on extensive discussions and interviews with the Program Administrators and implementing groups (including the community organizations), as well as a review of all available materials and tracking data from the partnerships. However, as of the writing of this report, the evaluation team has not collected primary information through participant interviews. Moreover, the stakeholders (or “partners”) are still working towards establishing the mechanisms for collecting, tracking and transferring data to demonstrate partnership success. As such, the full data required for evaluation was not available at the time of this report. The evaluation team will be working to provide a more complete picture of the partnership efforts for the final report (to be provided December 2011).

As previously mentioned, given the early stage of this evaluation effort, our findings are still under development; however, we offer several considerations both to help refine the existing partnerships and to help guide future partnerships. Detailed findings specific to each of the four partnerships are provided in the partnership-specific chapters of this report (Chapters 5-8). Overarching findings to help with future partnerships include:

- **Articulating program design to reflect the target market:** Overall, all four efforts had well-defined target audiences. The efforts were also largely successful in developing the community engagement network necessary to support outreach to the target populations and achieve partnership goals. While interviews with stakeholders reveal that all four partnerships did a good job of anticipating target audiences and barriers, the community-based efforts were not fully developed at the outset of this evaluation.

When planning and designing a community outreach effort, it is important to lay out what each partnership is intending to accomplish, why such an effort is needed for a specific population, and how they fit into existing program offerings. This will help ensure that the

² Note that the effort was expanded to include restaurants in the City of Boston. This design change is a strategic effort to boost the program’s gas savings.

target audience and barriers are clearly documented, and the most effective interventions are selected. The theory behind each of the four efforts is laid out in this report.

- **Drawing on the strengths of local and existing resources and ensuring that the community group efforts align with partnership goals:** There is no turnkey model for community engagement since each community is unique. As such, each of the four partnerships has a different model of community engagement, requiring a varying degree of coordination and oversight and, as a result, varying amounts of resources to sustain the community network. Each of the efforts also had distinct “pre-effort environments” in the community. Based on the research conducted so far, each community-based partnership was able to create strategic coverage of the target geographies and demographics through the utilization of local knowledge from partners. Further, most of the community-based efforts directly linked to existing energy efficiency program infrastructure (i.e., local resources and audit and rebate programs) in order to maximize the effects within their target markets.

While there is no right or wrong model for structuring a community engagement network, it is important to consider the existing infrastructure and the amount of resources required to engage the network when planning and designing a community-based effort. A full analysis of the financial and local resources may also enhance these efforts. In addition, program leaders or organizers should focus local organizations on their strengths (in some cases reconsidering whether they can fully implement energy efficiency installations) and where relevant, consider the sustainability of the effort if this is a desired outcome.

- **Understanding the unique nature of the target market:** Each of the four community-based efforts draws on community groups to target the outreach to the community. While participant interviews will shed more light on the success of these efforts, stakeholders appear to be effectively drawing on cultural knowledge to target the population. The use of local organizations allowed the efforts to be successful in addressing some of the key barriers shown in the program theory (see Chapter 4.). However, several of the partnerships encountered other challenges during the effort that were harder to overcome and more resource intensive than anticipated. These included challenges posed by (1) unique eligibility screening requirements, (2) unique energy efficiency related characteristics of the targeted homes such as the age of the housing stock, and (3) unique lifestyle characteristics in the population (such as those specific to their income bracket).

Going forward, CBPs would benefit from bringing together local knowledge on the front end, and revisiting the existing program designs to ensure that they are anticipating unique characteristics in the population to the extent that they can prior to fielding the effort. This would include looking beyond the assumed cultural barriers to understand what other logistical or technical barriers may present a challenge to program implementation in the specific market (and finding resources to overcome these challenges). Pre-screening communities and their barriers will be useful to this effort.

- **Tracking information (i.e., outreach efforts, spending, etc.) to help improve efforts and demonstrate success:** Overall, the partnerships are tracking sufficient data to measure success. However, each partnership has different goals and thus measures success differently. For example, *Renew Boston Business* tracks audits performed and measures installed, whereas *Western Mass Saves Community Challenge* tracks web participation. As such, it is difficult to comprehensively compare data tracking across the partnerships. Collecting additional (and comparative) information about the partnerships can help stakeholders better understand what is working and not working. The stakeholders should carefully consider which performance metrics to track, and develop mechanisms to track these metrics and other supporting data consistently, while balancing this effort with resource constraints.

In addition to the findings above, our research demonstrates that it takes time to build strong networks, train outreach staff, and develop systems of transferring information so that success can be measured. As such, all stakeholders need to acknowledge the necessary ramp up period for establishing networks, and build time and resources into the design of these efforts.

1. INTRODUCTION AND EVALUATION STATUS

In January 2010, the Department of Public Utilities approved the *Massachusetts Joint Statewide Three-Year Electric Energy Efficiency Plan* and the *Massachusetts Joint Statewide Three-Year Gas Energy Efficiency Plan* (together the “Three-Year Plans”). Under these plans, Program Administrators seek to explore opportunities to leverage the unique position of community-based groups (including municipalities) to educate and promote energy efficiency behaviors among target segments. These initiatives are known as community-based partnerships (CBPs). As outlined in the Three-Year Plans, the evaluation of CBPs is intended to assess the effectiveness of each partnership, develop considerations for any changes to the approach, and – for partnerships in the pilot stage – determine their potential for replication and/or full-scale implementation.

The Massachusetts Program Administrators (PAs) retained Opinion Dynamics Corporation and Evergreen Economics to conduct an evaluation of the community-based partnerships in the State of Massachusetts. The evaluation of CBPs is one of four areas of evaluation under the Special and Cross-Sector Studies research area.³ The other three areas include: Integration, Umbrella Marketing, and Behavioral Programs.

This report presents the findings of the evaluation research efforts conducted to date. The report is organized as follows:

- Partnership Descriptions – overview of the community-based partnerships that are part of this evaluation.
- Methodology – overview of research methods and tactics utilized as part of the evaluation.
- Cross-Partnership Findings – comparative analysis of key findings across the evaluated partnerships.
- Partnership-specific Findings – detailed findings specific to each individual partnership.

The 2011 evaluation effort includes the following community-based partnerships:

- *Renew Boston Residential*
- *Renew Boston Business*
- *Western Mass Saves Challenge*
- Community Mobilization Initiatives (specifically, the *New Bedford CMI*)⁴

³ The Massachusetts Energy Efficiency Advisory Council (EEAC) established six primary evaluation research areas in its September 8, 2009 resolution. These research areas are: (1) Residential Retrofit and Low-Income, (2) Residential Retail Products, (3) Residential New Construction, (4) Non-Residential Large Retrofit and new Construction, (5) Non-Residential Small Retrofit, and (6) Special and Cross-Sector Studies.

⁴ Overall, there are four CMI efforts – New Bedford, Chinatown, Chelsea, and Lynn. The Chinatown and Chelsea CMIs are outside of the scope of this evaluation given that Arbor Consulting was hired by Green Justice

All partnerships, with the exception of the New Bedford CMI, are still ongoing with changes and improvements implemented on a continuous basis. As such, the findings presented in this report should be treated as interim and reflecting each effort's performance up to a certain point in time. It is also important to note that we have planned a variety of research activities as part of this evaluation; however, many of these efforts are still underway and will be completed for the final report at the end of the year (December 2011).

Table 2 below presents an overview of the status of each of the 2011 evaluation activities.⁵ The Methodology section of this report also describes these tasks. This report will be supplemented through additional research.

Coalition to conduct an evaluation of these two CMIs. Lynn CMI has not launched yet, therefore, there is limited information on this CMI.

⁵ While all of the research planned for 2011 is scheduled to be completed by December 2011, this schedule is subject to the availability of program data, such as tracking databases. In addition, the feasibility of conducting participant research and impact analysis will depend on the progress of the evaluated CBPs.

Table 2. CBP Evaluation Status

(note that a ✓ indicates task is completed)

Partnership \ Activity	Upfront Research				Follow-up interviews with Partnership-dedicated Staff	Stakeholder In-depth Interviews	Historical Participation Analysis	Participant Research	Energy Saving Analysis
	Review of Program Information	In-depth Interviews with Partnership-dedicated Staff	Review of Successful CBP Practices	Partnership Theories and Logic Models					
Renew Boston Residential	✓	✓	✓	✓	✓	✓ (n=8)	Currently underway	Summer 2011	Fall 2011
Renew Boston Business	✓	✓		✓	✓	✓ (n=6)	Currently underway	Summer 2011	Fall 2011
Western Mass Saves	✓	✓		✓	✓	✓ (n=6) More planned for summer 2011	TBD	Fall 2011	Fall 2011
New Bedford CMI	✓	✓		✓	✓	✓ (n=6)	TBD	Summer 2011	Fall 2011
Lynn CMI	NA	NA		✓	NA	✓ (n=3) More planned for summer 2011	TBD	Summer 2011	Fall 2011

2. PARTNERSHIP DESCRIPTIONS

This section presents an overview of each of the four partnerships covered in this report. While each of these partnerships is similar in that they have a community-based component, they also have a variety of unique characteristics. Table 3 provides an overview of the efforts. The partnership-specific sections of this report provide detailed information about each partnership.

Table 3. Overview of Community-Based Partnerships

	CBP				
	<i>Renew Boston Residential</i>	<i>Renew Boston Business</i>	<i>Western Mass Saves</i>	<i>New Bedford CMI</i>	<i>Lynn CMI^a</i>
Effort lead	City of Boston	City of Boston	SmartPower (Implementation contractor)	City of New Bedford/Marion Institute	Green Justice Coalition
Goal	Increase participation in existing programs	Increase participation in existing programs	Channel residents into the online platform	Increase participation in existing programs	Increase participation in existing programs
Target audience	Residential customers with incomes between 60%-120% in Boston	Business customers with monthly electric demand of less than 20 kW ⁶	Residential customers in Amherst, Easthampton, Ludlow and Sunderland	Residential customers with incomes between 60%-120% in New Bedford	TBD
Launch date	August 2010	July 2010	November 2010	July 2010	Not launched
Core EE program base	Home Energy Services ⁷	Small Business Direct Install	Western Mass Saves behavioral	Home Energy Services	Home Energy Services
Additional funding sources for customer co-pay/incentives	EECBG, City of Boston, other	EECBG, City of Boston	None	None	TBD

^a Lynn is included here and throughout some parts of the report; however, it has not fully launched and so is covered in the CMI chapter rather than in a stand-alone chapter.

2.1 Renew Boston Residential

Renew Boston Residential is an energy efficiency effort led and coordinated by the City of Boston Mayor's Office of Environmental and Energy Services, aimed at promoting energy efficiency, increasing energy savings, and creating green jobs in Boston. The effort was established to further the achievement of citywide goals of saving energy, reducing greenhouse gas emissions, and creating green jobs.

⁶ Note that the effort was expanded to include restaurants in the City of Boston. This design change is a strategic effort to boost the program's gas savings.

⁷ Home Energy Services here and throughout this report refers to Mass Save Home Energy Assessment and weatherization program.

In its current form, the effort targets Boston residents with income between 60% and 120% of the area's median household income. A specific area of focus for *Renew Boston Residential* is properties with one to four units.

Renew Boston Residential is a partnership between the City of Boston, energy efficiency Program Administrators, implementation contractors, and community-based organizations. The effort builds on the existing energy efficiency programs (Home Energy Services and Low-Income) administered in the area. Supplemental funding for the effort comes from the American Recovery and Reinvestment Act (ARRA)-funded Energy Efficiency and Conservation Block Grant (EECBG) program.⁸ This funding is designed to cover customer co-pays for weatherization improvements. Only customers whose income falls into the 60% to 120% income bracket qualify for incremental incentives. As part of the effort, Boston residents who do not qualify for *Renew Boston Residential* incentives are channeled into either Home Energy Services or Low Income programs.

Consistent with the objectives of ARRA resources, the implementation contractors involved in the delivery of the effort engage Boston resident employees and subcontractors to market the effort, perform energy audits, and offer installation services, thus creating green jobs in the City of Boston.

As a community-based effort, *Renew Boston Residential* relies heavily on a network of community stakeholders in promoting the partnership to potential customers.

2.2 Renew Boston Business

Renew Boston Business is a community-based effort that provides outreach and incentives to small commercial customers (less than 20 kW in monthly electric demand) in the City of Boston. In addition to these small commercial customers, the partnership has recently been expanded to include all restaurants in the City of Boston. This design change is a strategic effort to boost the program's gas savings.

The ultimate goal of the effort is to increase awareness of and participation in the existing small business Direct Install program and custom and prescriptive gas programs offered by NSTAR and National Grid, while advancing green job creation in the area. The effort is funded through an ARRA-funded EECBG⁹ program, but is expected to continue past the end of the EECBG program funding period.

Similar to the *Renew Boston Residential* component, the business part of the initiative is led and coordinated by the City of Boston Mayor's Office. The City of Boston, in coordination with the Boston Main Streets organizations and the program implementation contractor (Rise Engineering), manages the outreach efforts. Rise Engineering also performs audits and

⁸ The American Recovery and Reinvestment Act (ARRA) was passed in 2009 with the goal of spurring economic activity and growth. Under the provision of the Act, \$16.8 billion were allocated to energy efficiency and renewable energy programs. The *Renew Boston Residential* effort received the Energy Efficiency and Conservation Block Grant (EECBG) under ARRA funding in the amount of \$1.8 million for weatherization improvements.

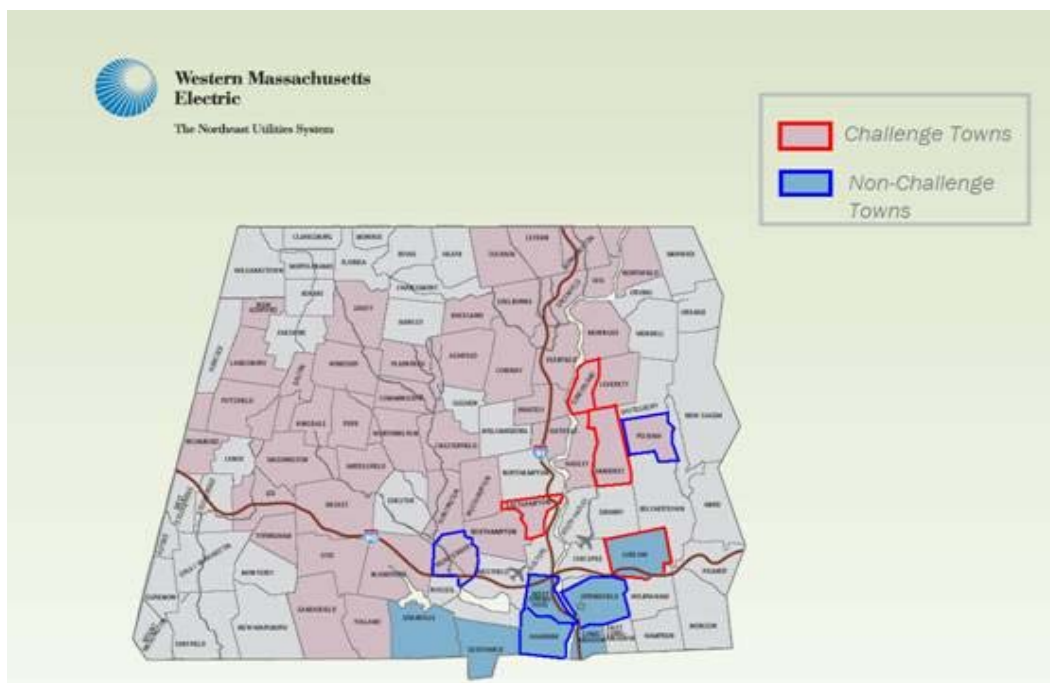
⁹ (See footnote above) The *Renew Boston Business* effort received ARRA funding in the amount of \$942,450 for supplemental incentives.

direct installations. National Resources Management (NRM) is a designated refrigeration contractor that performs follow-up visits for the installation of refrigeration equipment.

2.3 Western Mass Saves Challenge

Western Mass Saves Challenge is a community-based pilot initiative that includes a partnership among community-based organizations, municipal organizations, a program implementation contractor (specifically Smart Power), a behavioral effort run by Efficiency 2.0, and Western Massachusetts Electric Company (WMECo). The goal of the pilot is to educate residential customers about energy efficiency and promote energy savings actions and behaviors through an online web platform that is a no-cost online energy advisory service. The full pilot effort has two components: 1) a behavioral component in which mailers providing energy saving tips and promoting the web-platform are sent to randomly selected households in nine communities within WMECo's the service territory; and 2) a community-based outreach effort that promotes the web platform in four out of nine challenge towns. The community-based component of the pilot is specific to the four challenge towns, and the effects can be determined through the comparison to the non-challenge towns (the figure below shows the challenge and non-challenge towns). This report focuses on the community-based effort, but also discusses the web platform and behavioral efforts since they are so tightly linked.¹⁰ Figure 1 below provides an overview of the communities specifically targeted by the behavioral and community-based component of the pilot.

Figure 1. Map of Targeted Communities



Challenge and non-challenge towns are outlined in red and blue.

¹⁰ Note that the behavioral component run by Efficiency 2.0 will be evaluated separately under the PA's behavioral evaluation efforts.

The goal of the community component of the pilot is to use community groups to educate residential customers about energy efficiency by promoting an online web-based platform that includes information on how to save energy at home. The community efforts leverage a variety of market and educational materials aimed at 1) educating and engaging municipal leaders and community groups in the pilot, and 2) increasing the public's awareness of the pilot and its offerings. These materials take the form of pledge cards that strive to promote the pilot among community residents. They also include market tool kits and PowerPoint presentations aimed at educating municipal leaders and community organizations about the initiative (refer to Section 7.2 for an overview of marketing and outreach efforts).

The online platform itself features a variety of no-cost, low-cost, and higher-cost recommendations on how to save energy at home. Users taking such actions accumulate points they can then redeem for various products.

As mentioned above, only four challenge communities were selected (leaving the remaining five communities as a comparison group) in order to be able to identify the additive effects of community-based efforts to energy savings from the pilot. The towns were examined for equivalency based on household and demographic characteristics; however, the four challenge communities differ from the other five communities in that they have built-in networks that facilitate community-based efforts, such as Energy Committees.

2.4 Community Mobilization Initiatives

The term Community Mobilization Initiative (CMI) describes a partnership of local community groups, locally hired employees or organized labor¹¹, and Program Administrators working towards a sustainable, equitable, and clean energy economy. As with any community-based partnership, CMIs use community organizations as a key means of reaching out to and engaging target audiences with energy efficiency. What makes the CMIs unique is that they also include a specific plan for providing job training and employment directly to the community being served. The premise behind the model is that a self-sustaining cycle can be created where the community outreach group secures customer applications for energy efficiency programs while local contractors, in return for securing this work, agree to employ members of the community. The ultimate goal of the partnership is to increase program participation and energy savings in the community, while advancing the job creation goals of the state's Green Communities Act.

CMIs target residential as well as commercial customers in communities they serve. Within the residential component of the pilot, the focus is on reaching and engaging customers with incomes from 60% to 120% of the area's median. Among the business segment, the focus is on small business customers with monthly electric demand of less than 200 kW.

As part of the job creation component, CMIs facilitate training sessions for the local workforce. Qualified organizations, Program Administrators, as well as the implementation contractors for existing energy efficiency programs (e.g., CSG) are responsible for facilitating local contractor training sessions. Implementation contractors then set up contracts with and provide technical training to local labor groups (subcontractors) who perform the actual

¹¹ Notably, not all CMIs have an organized labor component. For example, installation staff hired as part of the New Bedford CMI is not unionized.

energy efficiency measure installations. The installation subcontractors recruit and provide career development opportunities to local community members. As part of the CMIs, training is also provided to outreach entities.

Four CMIs were launched in 2010 or 2011. These include:

- *New Bedford CMI*
- *Lynn CMI*
- *Chinatown CMI*
- *Chelsea CMI*

This interim report focuses on the *New Bedford CMI* since this is the most established CMI. We also include interim findings on Lynn; however, the *Lynn CMI* has not yet launched, therefore the information on the CMI is limited. Chinatown and Chelsea CMIs are outside of the scope of this evaluation. In 2010, these two CMIs were being evaluated under a separate contract with Arbor Consulting.¹² We nevertheless present a brief overview of the efforts to achieve an overarching analysis of CMIs. We obtained information on Chinatown and Chelsea CMIs presented in this report through bimonthly information sharing calls between our team and Arbor.

¹² Arbor Consulting was hired by Green Justice Coalition to conduct an evaluation of the Chinatown and Chelsea CMI.

3. METHODOLOGY

This evaluation effort included a variety of data collection and data analysis methods. This section presents an overview of approaches used and still planned.

3.1 Upfront Research

The Opinion Dynamics team conducted four tasks in 2010, which were the foundation of our evaluation effort. We provided deliverables to the PAs for each of these tasks in advance of this interim report. Below, we describe the tasks and deliverables for the upfront research tasks.

Review of Program Information

The evaluation team reviewed all available databases and program materials to understand the specifics of the programs and inform our evaluation approaches. Under this task, we reviewed the following:

- **Program Materials.** The team reviewed each partnership's planning, marketing, application, and other materials. This review also included the websites and other electronic materials of each effort and the effort's stakeholders. We used the findings to refine our approach to the other data-gathering efforts.
- **Program Tracking Data.** This task involves analysis of the tracking data to quantify the levels of the partnership's activity. To date, we obtained tracking data only for *Renew Boston Business* partnership. We reviewed these data to determine participation rates and energy savings resulting from the partnership-related activities. For the other partnerships, we received reports and presentations with summaries of their performance. We used those materials to review and draw conclusions on each partnership's performance. It should be noted, that most of the community-based partnerships are still ongoing with changes and improvements implemented on a continuous basis. As such, program tracking data as well as findings resulting from the review process that are presented in this report should be treated as interim and reflecting each effort's performance up to a certain point in time.¹³

The evaluation team conducted a review of program materials as the efforts were progressing and more information was becoming available. We plan on continuing this review as the effort mature and additional information is supplied to us.

In-depth Interviews with Partnership-dedicated Staff

At the beginning of each partnership's evaluation effort, the evaluation team conducted interviews with the partnership-dedicated staff. These include Program Administrator staff, as well as implementation contractors. The primary goal of these interviews was to develop a complete understanding of all aspects of each partnership and request additional

¹³ The timeframe within which the performance of each effort has been reviewed varies, but is generally through the end of 2010.

information. The interviews explored program structure, goals, status of implementation, achievements to date, plans for future efforts, and potential barriers to execution. We conducted most of the interviews in the spring of 2010 prior to each effort's launch. In-depth interview with the Western Mass Saves-dedicated staff was conducted in the fall of 2010.

Literature Review of Successful CBP Partnerships

The evaluation team conducted a review of recent studies and evaluations of local government partnerships and community-based programs in other areas of the country with the goal of identifying key aspects of a community-based program that contribute to the success of each effort.¹⁴ This research activity, which we conducted in the summer of 2010, resulted in a memo of Successful Practices. Appendix A provides a copy of this memo.

Program Theory/Logic Model and Performance Metrics

To understand the underlying theory of behavior change behind community-based partnerships, we developed an overarching theory of change for CBPs. This theory lists barriers that CBPs are called to overcome and provides an overview of intervention strategies employed by these partnerships to induce action.

In addition to the overarching theory of change, for each partnership, we developed a program theory/logic model that documents key activities, outputs, and intended outcomes. This activity allowed us to (1) determine any underlying assumptions and linkages between partnership strategies and intended outcomes and impacts, and (2) provide a framework for the evaluation. As part of each program theory/logic model, we attempted to document how the partnership leverages other existing programs and efforts.

As part of the creation of the logic models, we also attempted to document performance metrics for each partnership, if such metrics have been defined. Performance metrics allow program staff and evaluators to measure if each activity undertaken by the partnership actually leads to the intended outcome.

We performed this task in the fall of 2010. It resulted in a memo with the overarching theory of change, as well as program theory/logic models and performance metric tables for each of the efforts that are part of this year's evaluation scope. We present theory/logic models for the efforts that fall within the scope of this evaluation in partnership-specific chapters of this report.

3.2 Follow-up Interviews with Partnership-dedicated Staff

Between January and May of 2011, the evaluation team conducted a series of follow-up interviews with partnership-dedicated staff at the Program Administrator, city government, and implementation contractor levels. These interviews were separate from the stakeholder interview task. We conducted them with the goal of understanding the progress and status

¹⁴ There has been a considerable amount of evaluation work conducted for government and institutional partnerships, e.g., in California. Studies reviewed so far have included evaluations for San Diego Gas & Electric, PG&E, and Southern California Edison. There have also been several papers written on the topic.

of each partnership, submitting and coordinating requests for tracking and other data, and developing communication and coordination mechanisms for future data requests. Considering the goals, this effort took the form of an iterative process spanning several months. During this time, the evaluation team attended on-site meetings and facilitated conference and individual follow-up calls with the partnership-dedicated staff.

3.3 Stakeholder In-Depth Interviews

In addition to conducting follow-up interviews with Program Administrator staff, city government and implementation contractor staff dedicated to the community-based effort were interviewed, the evaluation team conducted a separate set of in-depth interviews with a variety of stakeholders, including community-based groups, implementation contractors, city and municipal representatives, and other market actors. When selecting the sample of stakeholders to interview, we attempted to include a representative variety of organizations.

Table 4 provides an overview of the interviews, by CBP and type of stakeholder organization.

Table 4. Stakeholder Interviews

CBP	Population	Number of Interviews	
		Community Organizations	Implementation Contractors and Other Stakeholders
<i>Renew Boston Residential</i>	18	4	4
<i>Renew Boston Business</i>	11	3	3
<i>Western Mass Saves</i>	19	5*	1
<i>New Bedford CMI</i>	6	4	2
<i>Lynn CMI</i>	7	0*	3

*We plan additional interviews with community organizations as the efforts mature

The evaluation team conducted these stakeholder interviews during the months of February and April 2011. The goals of the stakeholder interviews were to:

- Test barriers assumed by the theory behind each community-based partnership
- Assess the effectiveness of interventions
- Gain understanding of the successes and challenges of each effort
- Understand the effectiveness of the effort’s administration, coordination, data tracking, and communication processes

Ultimately, these interviews inform our theory-based process evaluation and help the evaluation team provide considerations for improvements to the effort.

3.4 Upcoming Data Collection Efforts

3.4.1 Historical Participation Analysis

The evaluation team is currently conducting an analysis of participation in the partnership communities.

The ultimate goal of the historical participation analysis is to understand the effect of a community-based partnership on one or more performance metrics. This task involves comparing participation before and during the existence of a community-based partnership. For the *Western Mass Saves Challenge*, the analysis also involves comparing participation in communities that experienced community-based outreach with similar communities that did not. For all community-based partnerships that are part of our evaluation, we will look at participation dating back to 2008.

Table 5 below summarizes key components of the historical participation analysis, by CBP.

Table 5. Methodological Overview of Historical Participation Analysis by Partnership

Partnership \ Component	Historical Timeframe	Intervention Date	Use of Comparison Community	Metric(s)
Renew Boston Residential	2008, 2009, 2010	October 2010 - present	No	# of audits
Renew Boston Business	2008, 2009, 2010	June 2010 - present	No	# of audits
Western Mass Saves	2008, 2009, 2010	November 2010 - present	Yes	# of audits
New Bedford CMI	2008, 2009, 2010	July 2010 - present	No	# of audits

Given that all evaluated CBPs, except the New Bedford CMI, are still ongoing, we will supplement this report with findings from this research task once the task is complete.

3.4.2 Participant Research

We plan to conduct participant research for the various CBPs in the summer and fall of 2011. The research task will likely take a two-stage approach:

- **In-depth interviews with participants.** These are less-structured qualitative discussions with participating customers designed to identify additional researchable areas and inform the development of a structured, quantitative survey instrument.
- **Quantitative survey with participants.** This task would consist of structured, mostly closed-ended interviews with participants, aimed at informing the process as well as the assessment of energy savings. On the process side, we will design a quantitative survey to provide further insight into the effectiveness of the partnership design and implementation, customer satisfaction, and opportunities for improvement. On the

energy savings assessment side, the survey will provide information necessary for developing net-to-gross factors where relevant (see below).

We will develop sampling methodologies for these two research efforts, including the anticipated number of completed interviews, after reviewing the partnership's tracking databases.

3.4.3 Energy Savings Assessment

The energy savings assessment will involve, where possible, quantifying the energy savings from the CBPs. This effort will rely on partnership tracking databases and existing savings assumptions from the portfolio of energy saving programs in Massachusetts (i.e., the Massachusetts statewide Technical Reference Manual, or TRM) to estimate the magnitude of savings coming from this effort. Specifically, our approach to assessing savings may include:

- **Database and Deemed Savings Review.** We will use estimated savings from existing the MA statewide Technical Reference Manual and partnership tracking databases to verify reported savings from the CBPs. Note that these savings may already be counted under existing program efforts. Where savings are already counted, the emphasis will be on determining the magnitude of the savings relative to the other savings in the rebate program. In cases where participants report measures not already counted under an existing program, we will estimate “additional” savings to give the PAs a better sense of the total impacts.
- **Net-to-Gross Assessment.** Through our interviews with CBP participants, we will determine levels of free ridership and spillover, where relevant. This effort may not be applicable to all partnerships.

In addition, for *Western Mass Saves Challenge*, we will estimate the added effect of the community outreach component through billing analysis that is planned as part of the behavioral program evaluation.

Where data are available, we will also document the costs of the CBPs.¹⁵ This report does not include full information on the costs associated with each effort. We will work with the PAs to gather this information (as available) for the final report.

¹⁵ The current scope of the evaluation work does not include cost-effectiveness analysis. However, there is stakeholder interest in performing this analysis. Therefore, this task may be added to the scope in the future.

4. CROSS-PARTNERSHIP FINDINGS

While it is difficult to compare across partnerships, Table 6 summarizes the accomplishments of each partnership in the following categories: network, participation, and community outreach. Note that as goals and data tracking were not aligned throughout the various partnerships, this table presents an overview of accomplishments and not a comparison of the success of the various partnerships.

Please also note that the table below covers different time periods. This is specified in the row marked "Timeframe." These data constitute the available data at the time of this interim evaluation, and we will update them as we receive new information.

We provide this information as a snapshot of CBP accomplishments to help frame our overarching discussion of findings below.

Table 6. Cross Partnership Accomplishments

	<i>New Bedford CMI</i>	<i>Renew Boston Residential</i>	<i>Renew Boston Business</i>	<i>Western Mass Saves Challenge</i>
<i>Timeframe</i>	<p>6 months (July-December 2010)</p> <p><i>Note that this effort ended in April 2010</i></p>	<p>5 months (August-December 2010)</p>	<p>10 months (June 2010-March 2011)</p>	<p>2 months (November 2010-December 2010)</p>
Network	<ul style="list-style-type: none"> 5 + community groups involved 	<ul style="list-style-type: none"> 15 community groups involved 	<ul style="list-style-type: none"> 6 Boston Main Streets offices 1 ethnic community organization 	<ul style="list-style-type: none"> 8-15 community groups involved
Participation	<ul style="list-style-type: none"> 90 Audits (Res.) 2 Audits (MF) 1 Audit (Com.) 6 weatherization projects (Res.) 	<ul style="list-style-type: none"> 636 energy assessments 43 weatherization projects 	<ul style="list-style-type: none"> 265 customers 	<ul style="list-style-type: none"> 7,314 web sign ups 264 rewards program registrations 247 savings plan commitments
Community outreach	<ul style="list-style-type: none"> 818 leads (Res.) 35 (MF) 29 (Com.) 	<ul style="list-style-type: none"> 2,478 prospects 	<ul style="list-style-type: none"> 130 referrals by community groups 	<ul style="list-style-type: none"> Not systematically tracked

In the sections below, we discuss in more detail the theory of change for community-based partnerships in Massachusetts—noting several of the common “touchpoints” that tie these efforts together.

We then compare and contrast the four community networks, and discuss some of the cross-cutting findings regarding the challenges of tailoring partnerships to unique target markets and data tracking issues. Detailed findings for each of the four partnerships are described in Chapters 5 through 8.

4.1 The Theory of Change for Community-Based Partnerships

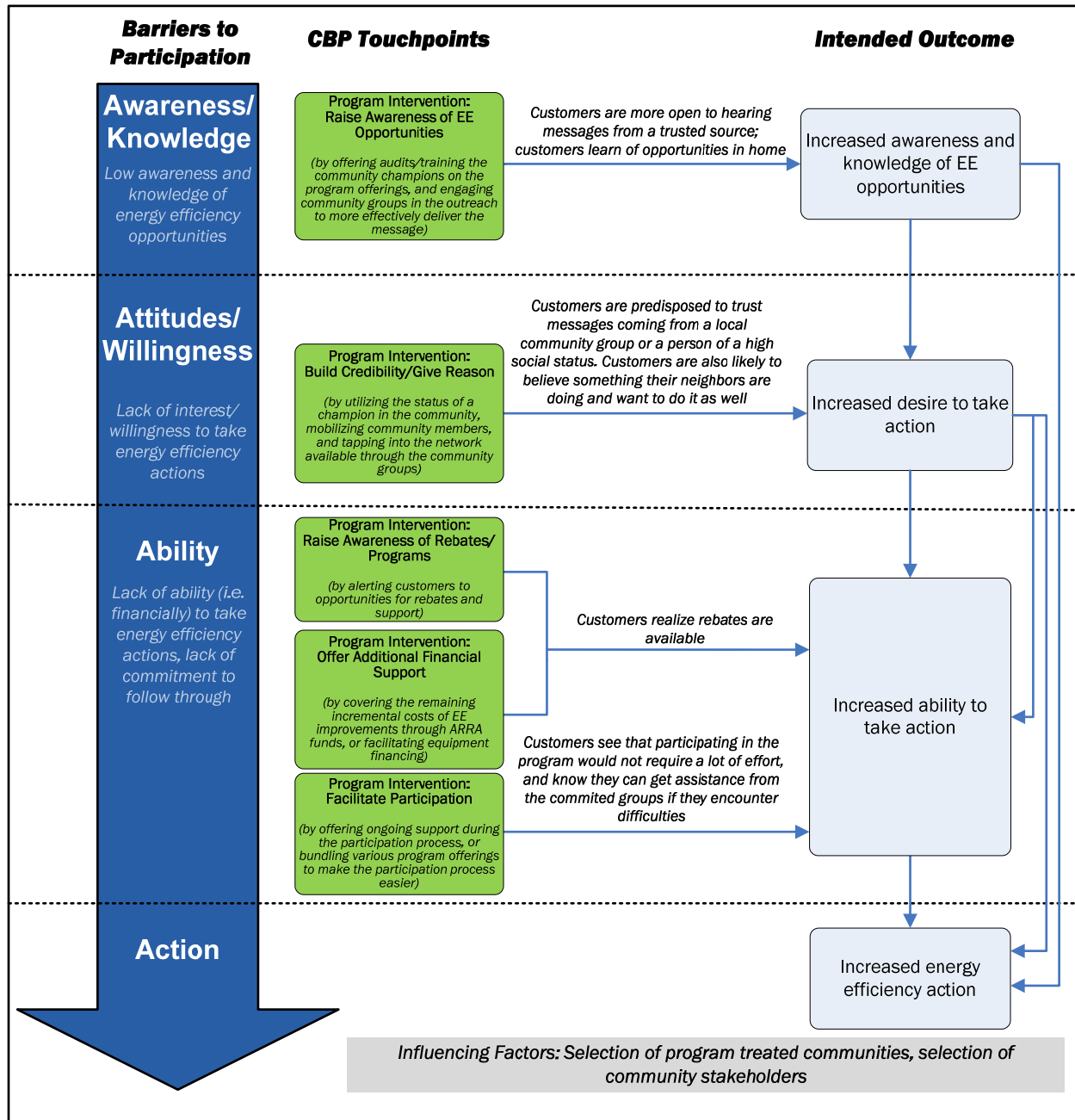
The goal of any community-based partnership is to move the target audience through the awareness-to-action continuum to the last point – adoption of energy saving actions. Community-based partnerships involve a series of interventions to address barriers in the marketplace and induce a positive shift in awareness, attitudes, or intentions. Specifically, as we look across the CBP efforts in Massachusetts, there are five common CBP Touchpoints. (These are shown as “CBP Touchpoints” in Figure 2 below.) Specifically, CBPs seek to:

1. **Raise Awareness of Energy Efficiency Opportunities.** Community-based partnerships overcome low levels of awareness and knowledge of ways to save energy by engaging community groups and offering both information and audits. Targeted segments can sometimes be linguistically or culturally isolated from the rest of the population and, therefore, traditional marketing and outreach efforts do not easily reach them. Community-based partnerships facilitate the delivery of energy efficiency messages to target segments through existing contact networks and relationships with customers.
2. **Build Credibility and Give Reason to Participate.** In cases where awareness itself does not lead to energy efficiency actions, partnerships capitalize on the reputation of community organizations, early adopters, and other community champions to increase pro-efficiency attitudes and raise willingness to take action. Even after partnerships intervene to raise awareness, customers may still distrust the promises made in the marketing and outreach materials, or may just be reluctant to act on them. Customers are more likely to trust messages coming from a local community group or a person of a high social status. To further spur the desire to participate, community-based partnerships mobilize customers by giving them a socially desirable reason to participate (e.g., creating a feeling that all residents are working together for the future welfare of the community, or offering gifts that would benefit the entire community). By using community organizations and other sources of outreach to inform target customers of the available incentives and support, partnerships lessen barriers to actions among those customers who are otherwise willing to take action.

3. **Raise Awareness of Rebates/Programs.** Target segments often include distinct business and residential population segments that have historically low participation rates in energy efficiency programs due to financial constraints. Therefore, mere awareness of energy efficiency options and bill savings they achieve might not be enough to result in participation. Increasing customer awareness of the financial assistance, be it program rebates or financing opportunities, can be effective in increasing the number of energy efficiency actions taken.
4. **Offer Additional Financial Support.** For many of the community-based efforts, the rebates are the same rebates available to all similar customers. However, some efforts leverage additional funds (e.g., from ARRA) or offer additional financial support by covering or highlighting additional ways to secure funding for remaining incremental costs (e.g., no-interest or low-interest bank loans). Thus, community-based partnerships may increase a customer's ability to take action. As described further in later sections of this report, the ability to pull in additional financial support for some targeted customers was critical for many of the efforts – more critical than anticipated.
5. **Facilitate Participation.** The partnerships bundle various measures and services to offer “one-stop-shop” programs as well as to provide ongoing support of the community group involved in the partnership delivery. The increased ease of participation makes customers who are otherwise informed, willing, and able to take energy efficient action more likely to do so and participate in the effort. In-language support and/or one-on-one assistance help facilitate participation, but other efforts may be needed to overcome technical barriers. Some of the CBPs encountered unanticipated challenges in this area. This is discussed further below.

The depiction of the theory of change captures expected changes from the customer perspective (i.e., that of the home or business). In addition to energy savings, community-based partnerships can also have positive non-energy impacts within the market or community. Job creation is one such impact, and is, in fact, an explicit goal for some community-based partnerships (specifically CMIs). Though not reflected in the theory of change outlined above (which has an individual customer perspective), green job creation is an intended outcome at the market level. As such, individual program logic models and performance metric tables (shown in each of the detailed chapters) encompass this program component, where relevant. Figure 2 below outlines the overarching theory of change for the community-based partnerships and indicates possible partnership interventions.

Figure 2. Depiction of Theory of Change



It is important to note that not every community-based partnership attempts all of the above-listed interventions.

Table 7 below lists the types of interventions of each community-based partnership that we are evaluating and summarizes specific strategies to bring about change.

Table 7. Summary of CBP-Specific Interventions and Intervention Tactics

Intervention Partnership	Raise Awareness of EE Opportunities	Build Credibility	Raise Awareness of Programs	Offer Additional Financial Support	Facilitate Participation/ Bundle
Renew Boston Residential	✓ -Marketing materials -Training of community partners -In-person outreach and follow-up (community organizations)	✓	✓	✓ -ARRA funding (weatherization projects for qualifying customers)	✓ -Ongoing project support -Bundle of services
Renew Boston Business	✓ -Marketing materials -Training of neighborhood coordinators -In-person outreach (community organizations)	✓	✓	✓ -ARRA Funding	✓ -Ongoing project support -Bundle of services
Western Mass Saves	✓ -Marketing materials -Training of community partners and municipal leaders -In-person outreach (community organizations, municipal leaders, early adopters)	✓			
CMI's	✓ -Marketing materials -Training of community partners -In-person outreach (community organizations, volunteers)	✓	✓	✓ -ARRA Funding -No-interest/low-interest bank loans	✓ -Translation assistance -Bundle of services -Ongoing project support

We provide this information to help frame the current and future partnership efforts. Overall, all four efforts had well-defined target audiences as well as energy savings and other goals; however the design and the theories behind the efforts were not explicit at the outset of this evaluation effort. When planning and designing a community outreach effort, it is important to lay out what each partnership is intending to accomplish, why such an effort is needed for a specific population, and how they fit into existing program offerings. This will help ensure that the target audience and barriers are clearly documented, and the most effective interventions are selected.

4.2 Community Engagement and the Partnership Network

The partnerships described in this report each offer a different model of community engagement, a unique structure of the partnership network, and a unique combination of outreach tactics to engage customers with the effort.¹⁶ In addition, “pre-partnership environments” vary across the efforts. While the networks differ greatly across the four efforts, what remains unchanged is the engagement of trusted local entities and individuals who bring a deep understanding of the community and an ability to effectively “touch” community members. The partnerships were also able to tap into many of the local strengths and resources (such as drawing on ARRA funds, leveraging dollars, and building on local initiatives).

While there is more than one way to successfully structure the community partnership model to achieve pre-defined goals within the resources allotted to the effort, comparing and contrasting community engagement networks for each of the CBPs is beneficial for adjusting current efforts as well as planning future community-based initiatives. Table 8 provides a comparative overview of community engagement networks for the four partnerships. As seen in the table, some of the communities had existing community energy conservation initiatives prior to the launch of the community-based efforts. For example, *Renew Boston* was initiated to further the achievement of city-wide energy saving and job creation goals, and the City of New Bedford and Marion Institute had developed a Green Jobs, Green Economy Initiative (GJGEI) that laid the foundation for the CMI in the area.

The structure of the community engagement networks varies for different partnerships as well. *Renew Boston Residential* and *Western Mass Saves*, for example, have a decentralized structure. While these efforts are coordinated by the City staff and the implementation contractor respectively, multiple community organizations and individuals work independently on the ground providing custom outreach to target audiences in myriad ways. *New Bedford CMI* and *Renew Boston Business*, on the other hand, employ a more centralized model, where outreach groups and individuals provide outreach in a much more coordinated and streamlined manner through a preferred outreach tactic – door-to-door canvassing.

Program Administrator engagement varies by effort and includes such activities as overall coordination of the effort, support through the infrastructure of the existing energy efficiency programs and, in some cases, assistance with marketing materials and training. For the *Renew Boston* effort specifically, Program Administrators fund a full-time liaison to coordinate the effort. For other partnerships, program managers dedicate a significant amount of time to the efforts.

Each of these models requires a varying degree of coordination and oversight and, as a result, a varying amount of resources needed to sustain the network. This is important to consider when developing budgets and allocating resources for a community-based effort. At this point, we cannot provide an analysis of the “resource intensity” of each community

¹⁶ The analysis excludes *Lynn CMI*, since the effort is still in the planning stage.

engagement network¹⁷, but through the research that we have conducted to date, it appears that each of the community engagement structures provided strategic coverage of the target geographies, as well as audiences. Community groups and outreach coordinators feel that they have been able to deliver the effort’s message and offerings in a way that yielded trust and increased customer desire to participate. Note that we will explore this further through discussions with stakeholders as well as participant interviews.

In addition to the outreach tactics employed by community organizations, whether it is a range of activities or a single mechanism, customer outreach for every community-based effort is supplemented by additional “community-centric” marketing tactics, be it mailers, or print or online advertising. We found this tactic beneficial for covering a broader terrain and providing additional support to community group outreach.

Table 8. Cross-Partnership Comparison of Community Engagement Networks

		<i>Renew Boston Residential</i>	<i>Renew Boston Business</i>	<i>New Bedford CMI</i>	<i>Western Mass Saves Challenge</i>
Base for the effort	Existing initiative in the community	Yes	Yes	Yes	No
Community group engagement	Engagement network lead	City of Boston	City of Boston	City of New Bedford/Marion Institute	SmartPower
	Network structure	Decentralized	Centralized	Centralized	Decentralized
	PA engagement	Overall coordination Core EE program support	Overall coordination Core EE program support	Overall coordination Core EE program support Training	Overall coordination
	Training component	Yes	Yes	Yes	Yes
Community outreach	Community group outreach tactics	Multiple	Door-to-door canvassing	Door-to-door canvassing is a tactic of choice	Multiple
	Additional marketing	Yes	Yes	Yes	Yes
Participation	Existing core program infrastructure	Yes	Yes	Yes	No

¹⁷ The information was not available at the time of this evaluation. Costs and tracking data are needed to complete this effort. We will seek to provide this in the final report.

Finally, all of the efforts, with the exception of the *Western Mass Saves Challenge*, are currently led by a local group and build upon the existing infrastructure of energy efficiency programs administered by PAs.¹⁸ (The *Western Mass Saves Challenge* links to a behavioral effort, but does not rely upon the existing rebate offerings.)

Each of the partnership-specific chapters contains greater detail on the structure of the community engagement network, successes and challenges, and lessons learned associated with each respective network.

4.3 Tailoring Efforts to Unique Populations

Community-based partnerships target unique local segments of the population, and the success of each partnership hinges on how well the program design and implementation model address the unique characteristics of the target population.

Overall, we found that the four community-based partnerships used local groups to tailor their outreach to the specific target markets. Based on our findings in the detailed chapters (Chapters 5-8), the community groups understand the population from a cultural standpoint, and bring this understanding to the outreach effort. During the outreach process, the local groups have been able to lend their status, expertise, and network to help the partnerships overcome the participation barriers shown above (i.e., such as a lack of knowledge, lack of confidence in the information provided, or language barriers). In this way, the use and involvement of community-based organizations has been quite successful across all partnership efforts. Specific examples of success in reaching out to these targeted communities to raise awareness include:

- The presence of Boston Main Streets organizers during outreach efforts served as a bridge for the *Renew Boston Business* outreach team, lending them credibility and helping them overcome language barriers to achieve a higher penetration rate than the partnership was expecting from a door-to-door outreach campaign.
- Engagement of a wide variety of community-based organizations with *Renew Boston Residential* effort provided access to customers who might not have been reached through traditional mass marketing and advertising efforts. This is particularly true for linguistically and culturally marginalized customers.
- Through engaging schools with their combination of teachers, fundraising networks, and involved students, *Western Mass Saves Challenge* set the groundwork for creating the “perfect storm” for outreach.

While language, awareness, and cultural barriers appear to have been successfully overcome in these models, each community also had other unique characteristics that affected how the partnerships are delivered. These include financial or unforeseen

¹⁸ The degree to which each delivery model is customized, however, varies across the partnerships. For instance, *Renew Boston* and *New Bedford CMI* required considerable adjustments to the delivery of the efforts, whereas *Renew Boston Business* implementation structure did not deviate from the one performed through the existing Small Business Direct Install program. As noted in the Table below, *Western Mass Saves Challenge* (including the behavioral component) did not build upon the existing energy efficiency program infrastructure and was a new undertaking.

participation barriers. These other challenges fall outside of “outreach” and relate to the technical implementation of the efforts. Specific examples include:

➤ **Unique eligibility screening requirements.** Due to the specific definition of the target segments, two of the four partnerships we evaluated faced challenges successfully establishing and implementing customer eligibility screening processes that would align with the population and facilitate participation. The *New Bedford CMI* did not initially have adequate pre-screening methods, which sometimes resulted in auditors visiting the customers’ homes only to learn that they were not qualified to participate. *Renew Boston Residential* had a lengthy income verification process that required customers to submit personal financial information. As such, the verification process served as a barrier to participation. In both cases, adjustments were made during the course of the effort to minimize these problems. We describe this further in partnership-specific chapters.

➤ **Unique energy efficiency-related characteristics of the targeted homes.** Each population possesses unique energy efficiency-related characteristics that may serve as barriers to their adoption of energy efficient improvements. For example, the *New Bedford CMI* faced pre-weatherization barriers, stemming from the aging building stock in the city. The program design did not cover pre-weatherization costs, initially preventing some residents from participating and the CMI found that over a third of the customers who received an audit were unable to proceed with weatherization improvements because of pre-weatherization issues. We describe this, as well as steps taken to mitigate this challenge further in the partnership-specific chapters.

Renew Boston Business faced a different energy efficiency-related issue, which prevented the partnership from achieving its gas-savings goals. The criterion that was used to select the target population (under 20 kW in monthly electric demand) was also the criterion that eliminated the possibility to install many of the measures that would have helped the partnership achieve its gas-saving goals. In other words, business customers of that size simply had no need for the gas measures that the partnership offered.

➤ **Unique lifestyle characteristics of the population.** In cases with *Renew Boston Residential* and *New Bedford CMI*, the target audience was residential customers with incomes falling between 60% and 120% of the area’s median income. These audiences often do not have time to spend on multiple contacts and visits. Yet the initial implementation models for the efforts were not adjusted to account for this barrier. We describe this further in partnership-specific chapters.

The community-based efforts in this study effectively used community-based organizations (CBOs) to understand the cultural and linguistic needs of the communities they are serving and overcome these needs through a variety of outreach mechanisms. The community-based efforts, however, faced challenges tailoring the program design and implementation model to the unique logistical and energy efficiency-related constraints that the target population or area presented, such as building characteristics disallowing energy efficient improvements or income verification procedures that discourage customers from applying to participate in the effort. These challenges often span beyond what community-based

organizations can influence with their outreach and, as the preliminary findings show, can impact the success of community-based efforts. While the partnerships in this study were able to make changes along the way (and unforeseen challenges still may occur), future efforts should recognize that. When working with a highly specialized group of customers in a specific geography, all of the stakeholders should build time and resources into the design phase to think about how to alter the offerings to the unique market.

Going forward, community-based partnerships would benefit from continuing to bring together local knowledge on the front end, and revisiting the existing program designs and delivery procedures to ensure that they are accounting for unique characteristics in the population or geography. This would include looking beyond the assumed cultural barriers to understand what other logistical or technical barriers may also present a challenge. It could be helpful to involve those with the greatest understanding of the target population in the planning stages of the project. Such entities may include utilities, community-based organizations, local governments or other organizations or individuals.

Given the variety of efforts and target audiences, specific lessons learned (such as the need to look at physical home characteristics for residential efforts) are described in each partnership-specific chapter.

4.4 Data Tracking

Tracking core performance metrics is also integral to the success of any effort. Tracking participant, project-level, as well as other data supports a variety of purposes, including marketing and outreach, performance monitoring, workflow management, and evaluation and verification. Effective tracking of performance metrics deemed to define the effort's success is essential to measuring milestones and progress as well as energy impacts of community-based efforts. This evaluation effort analyzed partnership tracking mechanisms to understand what data the efforts track and how data tracking practices support the effort's implementation and evaluation.

Overall, the partnerships are tracking sufficient data to measure success. However, each partnership has different goals and thus measures success differently. For example, *Renew Boston Business* tracks audits performed and measures installed, whereas *Western Mass Saves Community Challenge* tracks web participation. Because the efforts measure success differently, it is difficult to comprehensively compare data tracking across the efforts.

As of the writing of this report, the evaluation team had not received customer-level tracking data for *Renew Boston Residential* and *New Bedford CMI*. Delays in receiving the *New Bedford CMI* tracking data are related to delays in the launch of the effort and, as a result, delays in completing the effort.¹⁹ The evaluation team has received spreadsheets and reports that detail tracking data for these two partnerships, but has not received tracking data at a customer-level. In the final report, we will revise and supplement the findings presented in this section to reflect partnership tracking data. In the interim, we provide our current understanding of data tracking (see Table 9).

¹⁹ *New Bedford CMI* closed in April, 2011, and project tracking has not yet been finalized in the program database. The evaluation team submitted a data request for the close of the program cycle, and program implementation contractors are still tabulating the data due to outstanding jobs.

Table 9. Data Tracked by CBP Effort

Data Tracked	<i>Renew Boston Residential</i> ^a	<i>Renew Boston Business</i>	CMI Efforts – New Bedford ^a	WMSC
Energy savings	Yes	Yes	Yes	Yes
Marketing& Outreach efforts	UK	Yes	UK	No
Staff and partner training	Yes	Yes	Yes	
Customer outreach	UK	Yes	Yes	No
Audits and proposals	Yes	Yes	Yes	
Participation ^b	Yes	Yes	Yes	Yes
Job creation	UK	No	Yes	
^a Data tracking findings will be supplemented in the final report. ^b Participation can include audits, sign-ups, projects, measures. Gray boxes indicate performance metrics that are not applicable to the partnership. UK indicates that it is unknown whether the partnership tracks data.				

Overall, each community-based partnership tracks key performance metrics, such as energy savings and program participation. However, other tracked metrics and milestones vary according to each partnership’s definition of success. More specifically:

- ***Renew Boston Residential*** tracks energy savings, staff and partner trainings, audits and proposals, and participation.
- ***Renew Boston Business*** tracks marketing efforts by neighborhood, including the number of businesses approached, the close rate, and reasons that businesses gave for not being interested in participating. The implementation contractors track audits, measures installed, rebates disbursed, and estimated energy savings.
- ***CMI New Bedford*** tracks customer touches and disposition, including attrition rates from outreach to audit.
- ***Western Mass Saves Challenge*** implementation contractors track estimated energy savings and web participation, but do not systematically track marketing and outreach efforts.

Based on our current understanding of the partnerships’ data tracking practices, we provide the following lessons learned:

- **Develop processes to share information among key stakeholders.** We suggest coordinating information flows between community-based organizations and PAs to ensure that each stakeholder has access to relevant information. For example, the *New Bedford CMI* used Google documents to share spreadsheets. This allowed tracking to be done at a fast pace and offered the ability to see and address barriers as they came along. In addition, this tool allowed constant reevaluation of processes and methods and assured that the partnership could track each lead’s progress as they moved through the multiple steps leading to measure installation.
- **Consider tracking additional metrics to inform implementation.** Partnerships could benefit from tracking additional data to inform processes, make mid-term corrections, and increase impact and participant satisfaction. Further, partnerships could benefit from tracking additional information to assess performance and identify

how the partnership could revise design or implementation to achieve goals. For example, the systematic data tracking of *Renew Boston Business* revealed that the partnership was not achieving sufficient gas savings. This knowledge allowed the partnership to make changes to program design to increase the number of potential participants who could make gas-savings retrofits within their businesses. Specific considerations for tracking include the following:

- *Renew Boston Business* should consider tracking jobs created as part of assessing the effort's success.
- *Western Mass Saves Challenge* should consider tracking marketing and outreach efforts to inform future partnership efforts. Tracking this data can provide a deeper understanding of which tactics, channels, and collateral are effective in promoting the web platform and energy efficiency actions and behaviors, allowing for a systematic assessment of community-based efforts.

We provide additional considerations in the detailed chapters. We will supplement this section with additional findings and lessons learned once program tracking mechanisms for all efforts have been fully reviewed. However, when planning a community-based effort, there is a need to balance tracking needs with available resources. Data tracking is dependent upon each partnership's specific goals and practices as well as resources allocated for the effort. Implementation contractors should carefully select performance metrics and track them while implementing their efforts.

In the following chapters, we provide specifics on each of the four partnership efforts. Each chapter includes:

1. The theory behind the individual partnership
2. A description of the partnership network
3. An overview of status and accomplishments
4. An overview of successes and challenges
5. Findings on data tracking for each effort
6. Lessons learned.

Note that these write-ups are interim findings and will be revised after collecting participant data and assessing energy savings.

5. RENEW BOSTON RESIDENTIAL

The *Renew Boston Residential* effort is a joint community and PA initiative coordinated by the City of Boston's Mayoral office. The City of Boston catalyzed the creation of the *Renew Boston* effort to further the achievement of its energy and demand savings goals and reduce reduction of green house gas emissions, so the effort is consistent with subsequent goals. The City of Boston is the leading entity for engaging PAs as well as for-profit and non-profit partners with the effort, with contracts with the community-based organizations, implementation contractors, and a Memorandum of Understanding (MOU) with both National Grid and NSTAR.

The goals of the *Renew Boston Residential* effort are to promote energy efficiency and create green jobs in the City of Boston. The effort targets Boston's residents with household incomes between 60% and 120% of the area's median income. The effort builds upon existing energy efficiency programs but offers additional incentives for weatherization improvements to income-qualified customers.

Energy audits and weatherization incentives for *Renew Boston Residential* are offered by the PAs and are limited to existing program offerings. In addition to utilizing rebates available through the existing programs, the effort offers increased incentives to customers with incomes falling between 60% and 120% of the area's median income. These incentives are covered through the ARRA-funded Energy Efficiency and Conservation Block Grant program.²⁰

In addition to providing existing program incentives, PA support includes marketing collateral approval for *Renew Boston* outreach work and coordination with the City of Boston for data reporting. PA support for these activities also includes employee support (in the form of FTEs dedicated to this effort)²¹ as well as a commitment of \$48,000 (through an MOU) to support the City of Boston.

The City of Boston fully supports the outreach efforts through the available city and EECBG funds.

The effort is expected to last approximately 18 months, until March 2012, in its current format, where incremental incentives are covered through the EECBG program.

The City of Boston has a longer-term goal for the *Renew Boston Residential* effort to serve 150,000 households through 2020, which would result in electricity savings of 2,000 million kWh. *Renew Boston Residential* is expected to grow into a long-lasting and a well-recognized brand in the Boston area. The current model, that relies heavily on the community, seems to be built to support the continuation of this effort.

²⁰ The American Recovery and Reinvestment Act (ARRA) was passed in 2009 with the goal of spurring economic activity and growth. Under the provision of the Act, \$16.8 billion were allocated to energy efficiency and renewable energy programs. The *Renew Boston Residential* effort received the Energy Efficiency and Conservation Block Grant (EECBG) under ARRA funding in the amount of \$1.8 million for weatherization improvements.

²¹ Additional details will be provided in the final report.

This section provides detailed findings for this community-based partnership, including:

- The underlying program theory and program logic model
- An analysis of the community network
- An update on the status and performance of the effort
- An overview of the effort's successes and challenges to date
- Considerations for improvements moving forward.

5.1 The Theory behind the Partnership

The *Renew Boston Residential* partnership specifically seeks to address barriers in the targeted community. Below, we describe the methods of addressing these barriers, as well as list specific barriers:

- **Providing Financial Support for Energy Efficiency.** One barrier that the partnership explicitly seeks to address is the financial inability of the target segment to afford energy efficient improvements. The effort targets customers with household income falling roughly between 60% and 120% of the area's median income. These customers do not qualify for Low Income programs, which provide no-cost energy efficiency services, yet they are frequently unable to cover the co-pays for energy efficient improvements offered through programs like the Mass Save Home Energy Services program. Financial barriers, therefore, present a core barrier to participation in standard PA programs among the segment.

To increase energy efficiency actions among this specific customer segment and mitigate the financial barrier to participation, *Renew Boston Residential* offers no-cost home energy assessments and 75% up to \$2000 for weatherization improvements, as offered through the Mass Save Home Energy Services program. An additional \$1,500 for weatherization per participant residing in a one-to-four unit home is also available through the city Energy Efficiency Community Block Grant (EECBG) funds to make the total cap for weatherization rebates \$3,500. To further entice participation among the key target audience and achieve greater depth of savings, the partnership also offers additional financing in the form of the Mass Save Residential 0% HEAT loan.²²

- **Raising Awareness about Energy Efficiency Programs and Program Offerings.** Customers belonging to the targeted income segment are assumed to lack knowledge of energy efficiency in general, as well as specific ways to save energy in their homes.

To address lack of general awareness about energy efficiency as well as lack of knowledge of energy efficiency options among the target audience, *Renew Boston Residential* primarily relies on a network of known and trusted community partners, such as churches, schools, environmental and community groups, and local

²² The HEAT Loan program offers 0% loans to assist with the installation of qualified energy efficient improvements. HEAT loans are available for up to \$25,000 with terms up to seven years. Only customers living in one-to-four unit residential buildings are eligible for HEAT loans.

volunteers. These organizations and individuals conduct in-person visits and hold meetings and events, during which they identify income-eligible customers, educate them about energy efficiency in general, and promote audits and energy efficient equipment installations. Customers' knowledge of energy saving options is further increased during home energy assessments or audits, where a Home Energy Services program participating contractor helps identify inefficiencies in customers' homes and provides instant savings measures such as compact fluorescent light bulbs, as well as suggests further improvements.

To increase the relevance and effectiveness of the outreach, community partners tailor marketing materials and outreach tactics to the community or neighborhood they are serving. Mass Energy Consumers Alliance trains community partners on the energy efficiency offerings, thus ensuring that community partners can comfortably discuss the effort with customers, answer any questions, and take full advantage of the opportunities for energy savings that each customer presents.

- **Providing Credibility and Building Trust.** Some customers are skeptical of energy efficiency program offerings and are unsure of what might be required of them if they chose to participate. Community-based partnerships provide credibility and build trust through the use of local organizations. These efforts rely on the network of community organizations that are known and trusted in the area. Due to their status in the community (and their local presence), these organizations are able to add an additional level of credibility to the energy efficiency messages being promoted by the city and the utilities.

In addition, consistent with the objectives of EECBG program resources, the implementation contractors also engage Boston residents and subcontractors to market the effort, perform energy audits, and offer installation services. Through hiring and training local staff, the effort is striving to create local green jobs. The fact that *Renew Boston Residential* employs local contractors may also act as a motivator for the target customers to participate in the effort.

- **Facilitating Participation.** For many customers, participation itself is difficult. Due to time or resource issues, they may not understand how to get contractors or fill out paperwork to participate in a program. According to community stakeholders, in this targeted population, often customers are not able to take time off work for multiple audit and installation visits.

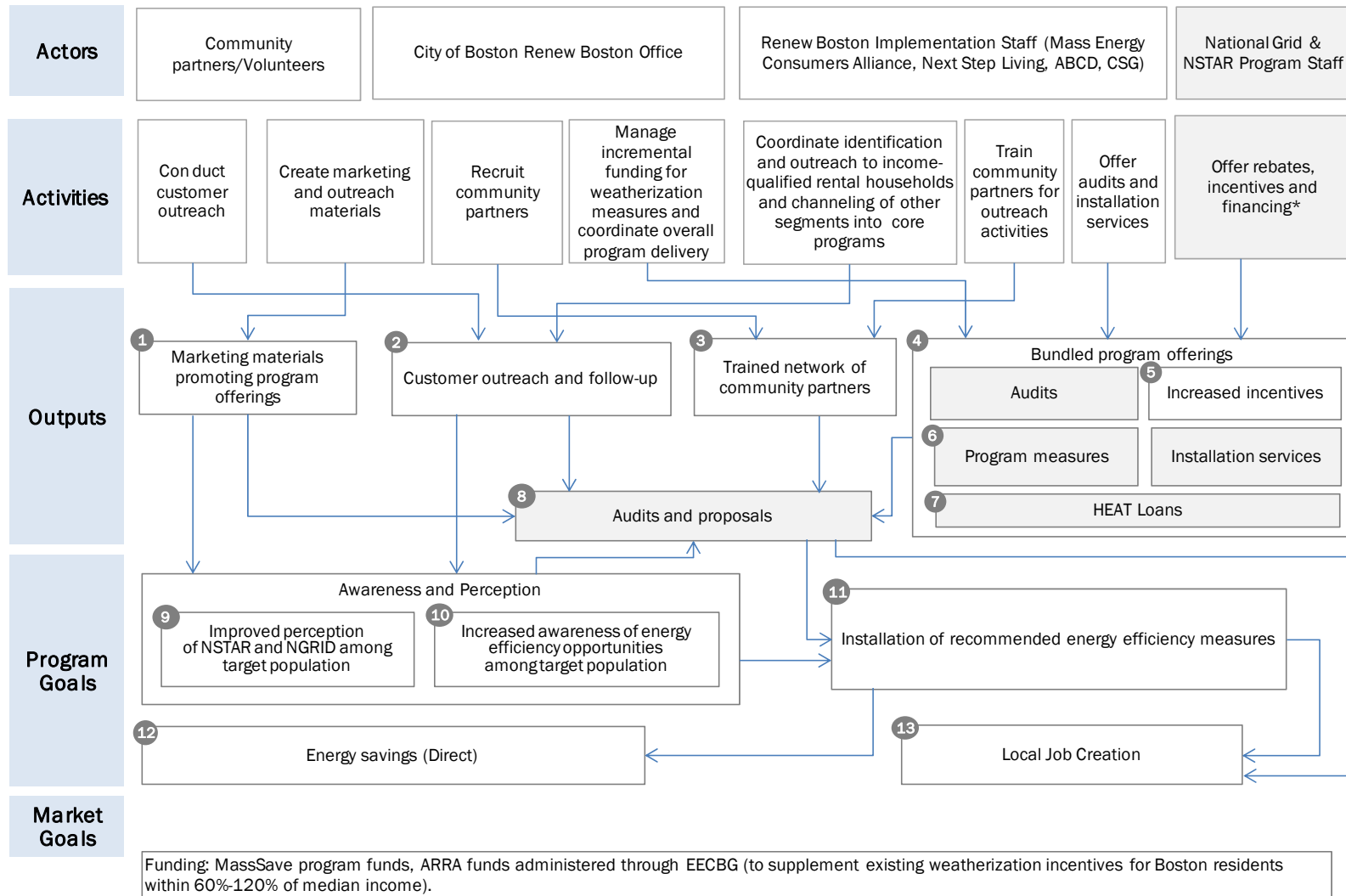
As the result of *Renew Boston Residential* interventions, the theory behind the effort assumes that target customers become more knowledgeable about energy efficiency offerings, as well as about energy efficiency in general. They understand that making energy efficient improvements in their home will not only save them money, but also will be an easy and hassle-free process. With the help of additional incentives, they can now afford energy efficient improvements. Consequently, they agree to an audit and act on the audit recommendations by weatherizing their homes or participating in other available energy efficiency programs. Customer participation then results in energy savings. The figure below also shows these steps.

In addition, the *Renew Boston Residential* partnership has a channeling component to it, where it refers non-qualifying customers to either the Low Income or the Home Energy

Services programs. This aims at capturing all opportunities identified in the marketplace. The logic model below does not reflect the fact that *Renew Boston Residential* channels non-qualifying customers into other programs, as this is not the primary goal of the partnership. However, we discuss the channeling component of the partnerships in the Community Engagement and the Partnership Network section of the report.

Figure 3 below depicts actors, activities, outputs, and goals of the *Renew Boston Residential* partnership. Numbering in the figure indicates the presence of performance metrics for a particular output or goal. Section 5.5 (Data Tracking) provides greater detail on the performance metrics that *Renew Boston* tracks or that we will explore as part of this evaluation.

Figure 3. Renew Boston Residential Logic Model



5.2 Community Engagement and the Partnership Network

The City of Boston's Mayoral office leads and coordinates the *Renew Boston Residential* effort. The effort engages Program Administrators, implementation contractors, and a network of community-based organizations.

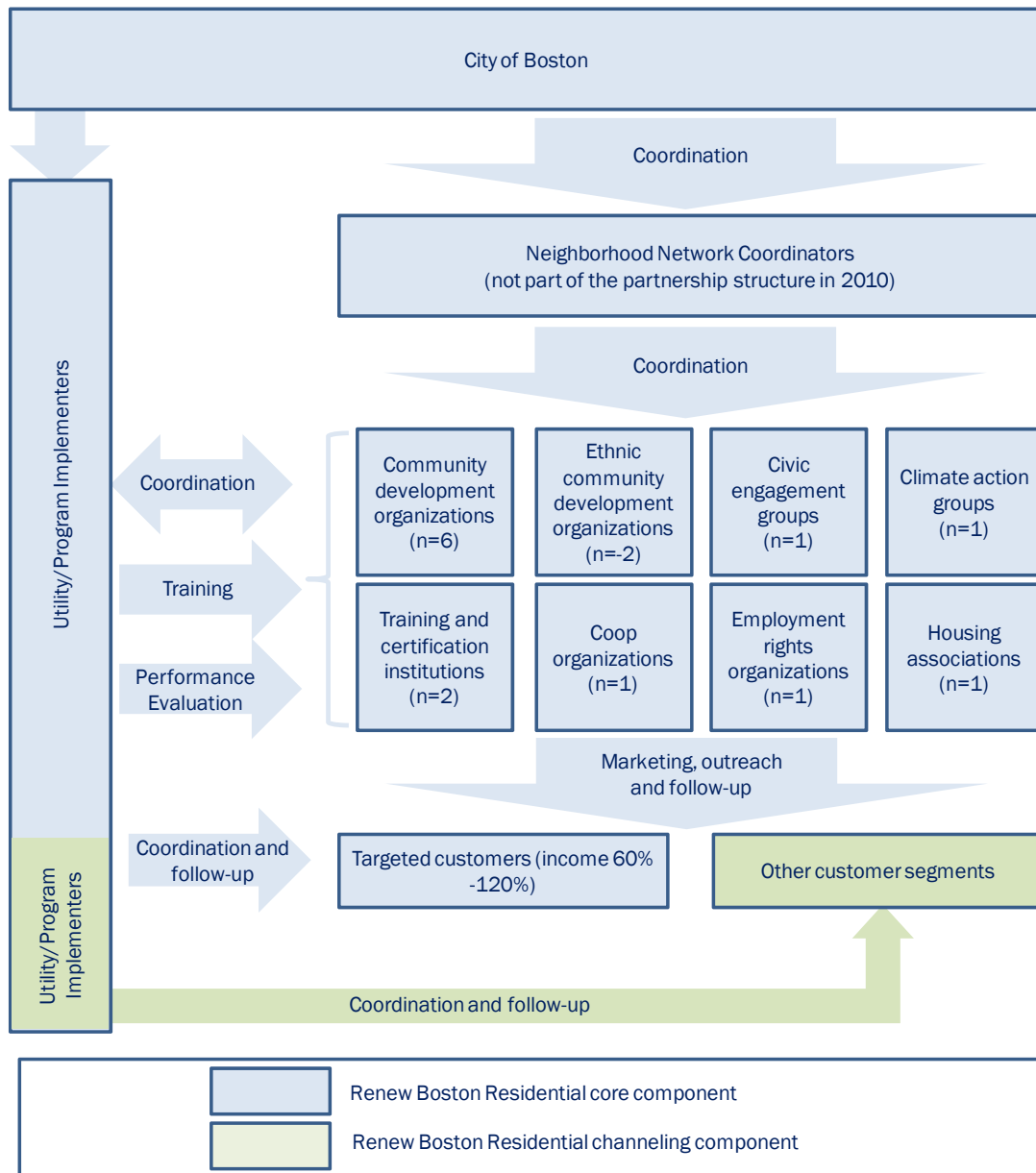
As of the end of 2010, the *Renew Boston Residential* community engagement network is one of the larger networks, as compared to the other partnerships included in the scope of our evaluation, comprised of city representatives, implementation contractors, and community-based organizations. Figure 8 depicts the community engagement structure of *Renew Boston Residential* and includes:

- **City of Boston *Renew Boston* staff.** This is the ultimate coordinating entity. City of Boston representatives are responsible for developing marketing and outreach materials, maintaining the website, and providing overall marketing and outreach coordination.
- **Neighborhood Network Coordinators.** These are *Renew Boston* dedicated staff who work on-the-ground with community groups on managing and customizing outreach across the city of Boston.
- **Community partners.** These are community groups and organizations involved in conducting marketing, outreach, and follow-up for the effort.
- **Program implementation contractors.** These entities are responsible for conducting income-verification processes (Mass Energy Consumers alliance), administering customer follow-up (Next Step Living), and conducting audits and installation work (Next Step Living and their subcontractors for the 60%-120% income segment, ABCD among low-income customers and CSG for the over 120% income segment). In addition, Next Step Living is also responsible for data tracking and performance assessment of community organizations engaged with the effort.
- **Program Administrators.** They are responsible for providing overall coordination and support for the effort.

Notably, Neighborhood Network Coordinators were not part of marketing and outreach in 2010.

Renew Boston Residential effort has built a strong and expansive network of 15 community-based organizations to reach out to the target market. The network of community organizations consists of for-profit and not-for-profit organizations that span a variety of sizes and cover a range of specialties.

Figure 4. Renew Boston Residential Community Engagement Structure



The selection of the community-based organizations to conduct outreach on behalf of *Renew Boston* was administered through a formal RFP process with each group providing an overview of planned activities and demonstrating capacity for outreach to and education of the targeted audiences. Community-based organizations are involved in *Renew Boston Residential* on two levels: 1) conducting initial outreach and generating referrals and 2) following up on inactive leads. Program implementation contractors are also tasked with following up with customers where appropriate. This is designed to ensure that no opportunities have been missed.

Overall, the effort involved 15 community groups in 2010.²³ Each community group received training on eligibility criteria and implementation processes, as well as measure offerings. Community groups that we interviewed through the stakeholder interview process seem to be knowledgeable about the effort and qualifying measures and are generally satisfied with the training they received.

Community groups have been serving 24 ZIP codes defined as the *Renew Boston Residential* target area and represent a wide range of organizations catering to various audience segments. These groups range from climate action groups to community development organizations catering to the needs of ethnic minorities, such as African Americans and Vietnamese residents of Boston. These organizations are located in a variety of Boston communities, including East Boston, Dorchester, Jamaica Plain, and Roxbury. Their presence is somewhat more focused in Dorchester and Roxbury, which are the areas with the biggest presence of customers with incomes falling between 60% and 120% of the area's median income. Outreach events conducted by community groups, however, do not focus solely in the community where they are located, but include initiatives in other parts of the City.

Review of materials and interviews with stakeholders showed that outreach tactics employed by community organizations were varied, spanning from community events and seminars to door-to-door canvassing, to public service announcements and so-called "Smart Energy Block Parties." Community groups also found that having *Renew Boston* brochures or leaflets that briefly explain benefits and eligibility criteria and contain contact information is very helpful, as undecided customers can take them home and have contact information available if they decide to participate in the effort. Community group representatives that we interviewed suggested that these materials should be as simple as possible and only contain the most essential information.

To support *Renew Boston* marketing and outreach, the City of Boston and one of the implementation contractors conducted additional marketing and outreach (e.g., water bill inserts). To specifically support community group outreach, the City of Boston provided community groups with standard *Renew Boston* collateral. In addition, community organizations developed marketing materials of their own. Based on our interviews with stakeholders, there did not appear to be lack of marketing materials.

As presented in Section 5.3 below, close to 2,500 customers were referred into *Renew Boston Residential* in 2010. These referrals varied by community, with Dorchester, Jamaica Plain, and Roxbury presenting the biggest share of prospects.²⁴

In 2010, community organizations closely interacted with program implementation contractors and the City of Boston through formal and informal communication channels

²³ These groups include Green Beginnings Institute, Dudley Street Neighborhood Initiative, B.O.L.D. Teens, Urban League of Eastern Massachusetts, Vietnamese American Initiative for Development, Boston Building Materials Cooperative, Boston Workers Alliance, Greater Four Corners Action Coalition, Allston Brighton Community Development Corporation, Boston Climate Action Network, The Partnership for Greening Blue Hill Avenue, Neighborhood of Affordable Housing, Nuestra, Dorchester Bay, and Washington Gateway.

²⁴ This finding is based on the presentation prepared and provided to us by the City of Boston. Numbers will be confirmed and revised, if necessary, upon review of the program tracking database.

including periodic reporting and updates, training, and brainstorming sessions. The structure was designed to ensure a constant flow of information and feedback.

5.3 Status and Accomplishments

The *Renew Boston Residential* partnership described above was scheduled to launch in June 2010. The effort was soft-launched on August 26, 2010. Citywide rollout started in October 2010. The approximately two-month delay in launch can be linked to contractual arrangements and the need to finalize partnerships between the Program Administrators, the City of Boston, and the implementation stakeholders. In addition, roles and responsibilities of each entity in the process needed to be defined. While the delay in launching the partnership has impacted the expected performance of the effort in 2010, customers were not affected by it since marketing of the effort did not start until after the partnerships were established.

In addition to delays in launch, it took *Renew Boston Residential* some time to ramp up its marketing and outreach activities. Due to delays with issuing requests for proposals for engagement of community partners and other stakeholders, the ramp-up of the effort took approximately three months from the effort's launch until the community organizations were in place.²⁵ This ramp-up period could have contributed to slower than expected activity in 2010.

Table 10 below presents the performance of the effort through the end of December 2010 on a number of key metrics.²⁶ The information provided in the table is based on the review of partnership materials provided to us, as well as interviews with *Renew Boston Residential* dedicated Program Administrator and City of Boston program staff and other stakeholders, including program implementation contractors and community-based organizations.²⁷

Partly because of delays and partly because of implementation challenges described below²⁸, *Renew Boston Residential* performed below expectations in 2010. Due to the changes in income verification protocols, as well as additional changes in the effort's implementation processes, participation in the effort in 2011 has increased considerably. At the time of our evaluation, the partnership realized 1% of the expected participation and 5% of savings during this period.²⁹ Of the 2,478 prospects identified as part of the effort, 40% were awaiting the approval of income-verification paperwork (i.e., have not yet qualified for the partnership efforts) and 10% were referred to the Low-Income program. More

²⁵ An RFP for community-based marketing and outreach for *Renew Boston Residential* was issued on August 9, 2010, with response expected on or before September 10, 2010. An RFP to engage Neighborhood Network Coordinators was not issued until September 2010.

²⁶ As of the writing of this report, only data through the end of 2010 was available to the evaluation team.

²⁷ Materials from which the data were drawn include Community Partner RFPs, March 2011 Strategy Board Presentation, September 2010 kick-off meeting presentation, etc.

²⁸ As described in the sections below, *Renew Boston* faced multiple challenges that prevented greater participation, including pre-weatherization issues and a long income verification process. As mentioned earlier, delayed program start also impeded program performance in 2010.

²⁹ Note that this reflects only data available at the time of our evaluation effort. Additional jobs from the end of the year had not been fully processed. This will be updated in later versions of this report.

information on these changes is available in the Successes and Challenges section of this chapter.

As mentioned above, close to 2,500 customers were referred into *Renew Boston Residential* in 2010. Identification of prospects varied by neighborhood, with Jamaica Plain, Dorchester, and Roxbury being the communities with the largest share of prospects identified. These neighborhoods tend to be less affluent and have a larger share of the target customers than other Boston neighborhoods, which suggests that the partnership is focusing outreach efforts in the right direction.

In terms of weatherization improvements, the effort allows up to \$3,500 in weatherization work per home; the average project reached \$2,832, or 81% of the cap.

Table 10. Renew Boston Residential Performance

Metric	Goal	Sep 2010 - Dec 2010	% of Goal
<i>Notes on PA funding over this period: No additional incentives beyond core programs and additional coordination; however, PA support for these activities also includes employee support (in the form of FTE support dedicated to this effort) as well as a commitment of \$48,000 (through an MOU) to support the City of Boston. In addition, the utilities provide support through supplementing contractor wages to comply with Davis-Bacon Wages. A full description of PA funding of this effort will be provided in the final report.</i>			
Community groups engaged into the effort	Not an explicit goal	15	N/A
Number of referrals provided by community groups	Not an explicit goal*	2,478	N/A
Energy Assessments	Not an explicit goal	636	N/A
Weatherization projects	3,000**	43	1%***
Weatherization project savings (as estimated by the effort)	1,211 GWh=4,131 mmbtu	1,064 mmbtu	5%***
	165,101 therms=16,510 mmbtu		
ARRA funds disbursed	\$1,786,180 (through 2012)	\$24,337	1%
Marketing and outreach funds disbursed	\$150,000 (through the end of 2011)	Unclear	Unclear
Dollars per home	\$3,500 (maximum allowed by the effort)	\$2,832	81%

*While this is not an explicit goal, specific goals are set for each community group provided with Renew Boston marketing dollars.

**Through the end of 2012.

***Note that this reflects data available at the time of the interim report. Based on PA comments, additional jobs were completed but not processed until after we received data. These numbers will be updated in later iterations of this report.

In addition to the incentives and rebates offered through their existing energy efficiency programs,³⁰ the Program Administrators dedicate time and resources including the sponsorship of a dedicated PA liaison working directly for Renew Boston and the City, as well as a portion of time of several program managers administering *Renew Boston Residential* efforts. The EECBG program provides \$1.8 million of additional funding to cover additional weatherization costs through 2012. Marketing and outreach funding for *Renew Boston Residential* also comes from the EECBG program. Overall, \$150,000 was allocated for *Renew Boston Residential* outreach to be disbursed between the effort launch and March 30, 2012. In addition to EECBG funding, *Renew Boston Residential* was able to secure additional funding through the City of Boston Neighborhood Development program and private grants (e.g., the Home Depot Foundation grant) to cover pre-weatherization improvements and other needs (described further below). Information on the exact amount of marketing dollars spent as of the end of 2010 or pre-weatherization improvement funding reserved for the effort will be pursued for the December 2011 report.

One of the goals of the *Renew Boston Residential* effort is to create local jobs. We have not obtained the data to explore this topic in detail and are therefore unable to comment on either the specifics of the green job goals or the performance of the effort against these goals. However, one of the program partners does track FTEs created and we intend on having further discussions with relevant stakeholders to document any available information on job creation for *Renew Boston Residential*.³¹

5.4 Successes and Challenges

Initially, the *Renew Boston Residential* effort was implemented according to the effort's design, with the City of Boston coordinating the effort, the network of community groups conducting outreach, and four implementation contractors delivering energy services (audits and installations), assisting in follow-up outreach and conducting income verification.³² As mentioned in the sections above, the *Renew Boston Residential* effort has developed and uses a robust network of community organizations that provide solid coverage of the area and the target audiences. *Renew Boston Residential* also employs traditional marketing, including online and print collateral, which provides additional opportunities for reaching and engaging customers with the *Renew Boston* Initiative. Based on the data obtained to-date, while the effort is behind its goals, it is poised to deliver savings now that the partnership is fully ramped up.

However, during the initial implementation stages, multiple challenges emerged that prevented the desired levels of participation (in terms of audits as well as installations). Below, we provide an overview of the challenges *Renew Boston Residential* faced, as well as actions it took to address these challenges. Notably, once the challenges were identified,

³⁰ The Program Administrators offer 75% up to \$2,000 through their existing energy efficiency programs.

³¹ Note, however, that this will not include a full job creation analysis. A full analysis of jobs created will be considered for 2012.

³² Mass Energy Consumers Alliance conducts income verification for *Renew Boston Residential* effort, Next Step Living conducts audits and performs installation work among *Renew Boston Residential* target audience segment. ABCD is the implementer of the Low Income program, while CSG is the lead implementer of the Mass Save program.

partnership stakeholders sought to make relevant changes to the design and delivery of the effort to address the challenges and optimize the delivery of the effort.

- **Income verification process.** Since only customers with incomes of 60% to 120% of the area's median income qualify for additional incentives, the effort required customers to go through an income-verification process to take advantage of the additional EECBG-funded incentives. This process took a considerable amount of time and required customers to submit personal and tax information. This resulted in high customer attrition either due to reluctance to wait and/or reluctance to provide personal information. In the materials providing the status of *Renew Boston Residential* prospects through the end of 2010, of 1,948 prospects, 981 (or 50%) were awaiting income verification paperwork approval at the end of 2010.
 - **Actions taken in response to issue** – *Renew Boston* partnership changed its approach to getting a written affidavit from customers that they are income qualified and that they agree to provide all necessary information if an income verification were to be conducted. Customers are still asked to provide income-verification information prior to receiving an audit if they would rather do it at that time. While the new affidavit process might potentially result in non-qualified customers taking advantage of the additional incentives, this change has alleviated one of the biggest bottlenecks and made *Renew Boston Residential* more customer-friendly by getting customer audits sooner.
- **Pre-weatherization barriers.** Due to the older building stock in the City of Boston, pre-weatherization barriers had a strong negative effect on participation. Through the end of 2010, 378 health and safety issues were identified that prevented home weatherization. Knob-and-tube wiring and combustion safety issues were by far the most common. In most cases, it was determined that an on-average \$150 heating system tuneup, and an on-average \$200 knob-and-tube evaluation by an electrician were sufficient to remove the barriers. However, since these improvements are not covered by the partnership funds, many customers often could not cover pre-weatherization costs and therefore opted out of participating in the effort. Furthermore, the need to pay for pre-weatherization improvements out-of-pocket caused customer dissatisfaction, as they were initially promised no-cost energy efficient improvements.
 - **Actions taken in response to issue** – The City of Boston sought additional funding from private funds (e.g., Home Depot grant), as well as its Neighborhood Development program to cover pre-weatherization improvements among the target segment.
- **Reaching target audiences.** The core target audience for *Renew Boston Residential* are customers with household incomes falling between 60% to 120% of the area's median income. As initially designed, the effort was not fully equipped to meet the needs of this demographic in terms of scheduling audits and operating hours of call centers as these customers tend to call later at night to inquire about participation and are generally not able to take time off work to be present during an audit.
 - **Actions taken in response to issue** – The partnership offered customers extended

call center hours and flexible audit and installation scheduling options.

- **Language barriers.** Due to the cultural diversity of the Boston population, the *Renew Boston Residential* effort faced language and other cultural barriers that prevented the effort from successfully reaching out to potentially “willing to participate” customers. These barriers were particularly pronounced with *Renew Boston* marketing and outreach materials, call center staff, in-language auditors and installers, and income-verification personnel at Mass Energy Consumers Alliance.
 - **Actions taken in response to issue** – The City of Boston translated its marketing and collateral materials into several foreign languages (e.g., Spanish and Chinese).
- **Multiple Step Participation Process.** For a customer to participate in the effort, they had to undergo a 14-step process from audit to measure installation. In addition, the involvement of multiple entities in the effort (community organizations for outreach, Mass Energy for income verification, Next Step Living for measure installation, etc.) and absence of a single point of contact that could guide a customer through the participation process reduced customer desire to follow through with participating in *Renew Boston Residential*.
 - **Actions taken in response to issue** – The implementation contractor reduced the audit and home weatherization process from 14 steps to seven steps. The participation process currently includes three visits to a customer’s home on average. Steps taken to streamline the process of participation in the effort included combining several visits into one, among other things.³³ The implementation contractor also has account managers, who act as concierges, helping customers through all of the steps in the participation process. In addition, the Program Administrators started offering a one-audit process in May 2011, further streamlining the “audit-to-weatherization” process.
- **Tenant/landlord issues.** Split incentive issue, where tenants are not willing to make improvements to the property they do not own and landlords are reluctant to improve the homes they do not live in, has historically been a barrier to energy efficiency. Based on the materials provided to us, as of February 2011, multi-family (2-4 unit) buildings represented 60% of energy assessments, but only 39% of weatherization projects. These data underscore the split incentive issue for *Renew Boston Residential*.
 - **Actions taken in response to issue** – The City of Boston developed template forms for landlord/tenant approval of audits and installations to alleviate the split incentive challenge. The partnership also held informational sessions for landlords as part of *Renew Boston Residential* in conjunction with the Massachusetts Rental Housing Association. The Program Administrators and implementation contractor also assisted at these presentations.

In addition to these challenges, internal coordination of the effort is of particular importance for *Renew Boston Residential* because of the multiple entities involved in the delivery of the

³³ Streamlining participation process from 14 to seven steps was mentioned during the interview with the implementation contractor. The evaluation team has not yet received the diagrams or other support materials demonstrating how the process was streamlined and therefore has limited knowledge of the matter.

effort. Tight coordination can help avoid customer confusion, minimize missed opportunities, and ensure overall customer satisfaction. Based on the interviews we conducted with stakeholders, the overall effort did not face considerable stakeholder interaction challenges. Specifically, our interviews found that additional opportunities exist that could be capitalized on through improved coordination and follow-up. We will explore this topic further in participant interviews and the quantitative survey of *Renew Boston Residential* participants.

5.5 Data Tracking

Tracking core performance metrics is integral to the success of any program. Tracking participant, project-level, as well as other data supports a variety of purposes, including marketing and outreach, performance monitoring, workflow management, and evaluation and verification.

A part of this evaluation effort is to analyze partnership tracking mechanisms and databases to understand and record what data are tracked as part of the partnership and how well data tracking practices can satisfy robust evaluation.

While we have explored tracking of performance metrics for *Renew Boston Residential* in our stakeholder interviews, we have not yet received partnership tracking databases. This limits our ability to provide a detailed and accurate assessment of the data tracking practices for the partnership at this time.³⁴

We will revise and supplement this section of the report once we receive the tracking data. In the interim, we provide a performance metric table that was part of the program theory and logic model development task. This table outlines metrics that should be tracked for comprehensive evaluation of the effort based on the underlying theory. We have populated some fields of the table based on the information available to us to-date. However, most of the fields are marked as unknown.

It should be noted that during our interviews with Program Administrators, we discussed the issue of discrepancies between data reporting practices currently employed by implementation contractors and Program Administrators. When reporting on their energy efficiency programs, Program Administrators only include completed and closed projects (audits or weatherization) in their periodic reports, whereas *Renew Boston* implementation contractors report on the scheduled but not yet completed projects. Program Administrators are currently working with *Renew Boston Residential* implementation contractors to address this issue and streamline periodic data reporting to only include completed and closed projects.

³⁴ Inability to perform the analysis of the tracking databases limits the value of this interim report.

Table 11. Renew Boston Residential Performance Metrics

Key to the table: x – data are tracked/one of the Theory of Change metrics

unknown – the information on whether the data are tracked is currently unavailable to the evaluation team

█ – data are not tracked and will be collected through primary research efforts

Field labeled “Box #” references correspondingly labeled box in the program logic model, which is located in The Theory behind the Partnership section of the *Renew Boston Residential* chapter

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
1	Marketing materials promoting program offerings	Marketing materials distribution (#, type, eligible customer segment, zip code)	unknown		Secondary data
		Recall, effectiveness of marketing materials	█		Primary research
2	Customer outreach	In-person contacts (# customers, customers by each community organization, # by zip code)	unknown		Secondary data
		Contact rate (% of target customers, % by zip code)	yes		Secondary data
		Recall, effectiveness of outreach	█		Primary research
		Importance of additional program support in equipment installation	█	x	Primary research
3	Trained network of neighborhood coordinators	Organizations (#)	yes		Secondary data Primary research
		Trained employees (#)	unknown		Secondary data Primary research
		Neighborhood penetration (presence by zip code, customer type) /CBO	yes		Secondary data Primary research
		Quality of training	█		Primary research

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
		Effectiveness of the community organization(s) selected for program implementation			Primary research
		Employee effectiveness (e.g., knowledge)		x	Primary research
		Credibility/trust in community organizations		x	Primary research
4	Bundled program offerings	Relevance of program offerings			Primary research
		Ease of program participation		x	Primary research
		Value of bundling approach		x	Primary research
5	Increased incentives	Influence of additional incentives on measure installation		x	Primary research
		Customers that take advantage of co-pay assistance (#, %)	unknown		Secondary data
		Customer satisfaction with incentive levels			Primary research
6	Program measures	Customer satisfaction with measure offerings			Primary research
7	HEAT Loans	Customers taking advantage of financing options (#, %)	yes		Secondary data
		Influence of financing on measure installation		x	Primary research
		Customer satisfaction with financing process			Primary research
8	Audits and proposals	Audits (#)	yes		Secondary data
		Audit rate (% of target customers, % of contacts)	yes		Secondary data
		Summary of measures recommended	unknown		Secondary data

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
9	Improved perception of NSTAR and NGRID	Brand and satisfaction metrics among customers			Primary research
10	Increased awareness of energy efficiency opportunities	Awareness of and attitude toward energy efficiency opportunities		x	Primary research
		Awareness of programs and program rebates		x	Primary research
11	Installation of recommended energy efficiency measures	Projects (#)	yes		Secondary data
		Measures (#, type)	yes		Secondary data
		Timing (# and \$ of projects, # and \$ of measures in ARRA-specified time frame)	unknown		Secondary data
		Market penetration (projects as % of eligible customers; projects by eligible zip code; % projects by customer income)	yes		Secondary data
		Rate (% of audits, % of target customers)	yes		Secondary data
		Customer satisfaction with audit & installation process			Primary research
12	Energy Savings (Direct)	Gross savings per home (electric, gas)	unknown		Secondary data
		Net savings per home	unknown		Secondary data Primary research
		Incremental gross savings per home	unknown		Secondary data Primary research
		Incremental net savings per home	unknown		Secondary data Primary research

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
13	Job Creation	Jobs created (Total #, full-time equivalent, # by program actor)	unknown (some information on jobs is available). The evaluation team is still exploring.		Secondary data Primary research
		Jobs fulfilled by City of Boston residents	unknown		Secondary data Primary research

5.6 Lessons Learned

Based on the initial evaluation findings, stakeholders should consider the following changes:

- **Engage community groups beyond outreach and follow-up.** Due to community organizations' close ties with the target customers, *Renew Boston Residential* can leverage community organization resources to a greater degree in addressing participation barriers. *Renew Boston Residential* can use community organizations as a trusted, on-the-ground resource that would assist customers through the participation process. In addition, it can leverage community-based organizations to address language and cultural barriers by having a community group representative speaking the language at the customer's home during the audit or installation process. This would also increase levels of customer trust and, as a result, willingness to participate in the effort.
- **Identify additional subsidies to cover out-of-pocket pre-weatherization costs.** *Renew Boston Residential* has been successful so far in securing funding to cover pre-weatherization costs. It is critical that the effort continues to do so in the future. Cost has been recognized as a core barrier to program participation, and having the customer pay for pre-weatherization work will likely result in refusal to participate in the program.

We will supplement and refine this section as we continue our evaluation research activities.

6. RENEW BOSTON BUSINESS

Renew Boston Business is a community-based effort that provides outreach and incentives to small commercial customers (less than 20 kW in monthly electric demand) in the City of Boston. In addition to these small commercial customers, the partnership has recently been expanded to include all restaurants in the City of Boston. This design change is a strategic effort to boost the program's gas savings.

The ultimate goal of the effort is to increase awareness of and participation in the existing small business Direct Install program and prescriptive and custom gas programs offered by NSTAR and National Grid, while advancing green job creation in the area. The effort is funded through an ARRA-funded Energy Efficiency and Conservation Block Grant (EECBG)³⁵, but is expected to continue past the end of the EECBG program funding period.

Similar to *Renew Boston Residential* component, the City of Boston Mayor's office leads and coordinates the business part of the initiative. The City of Boston, in coordination with the Boston Main Streets organization, manages the outreach efforts. Rise Engineering is the implementation contractor that conducts marketing and outreach and performs audits and directs installations. National Resources Management (NRM) is a designated refrigeration contractor that performs follow-up visits for the installation of refrigeration equipment.

This section provides detailed findings for this community-based partnership, including:

- The underlying pilot theory and pilot logic model
- An analysis of the community network
- An update on the status and performance of the effort
- An overview of the effort's successes and challenges to date

6.1 The Theory behind the Partnership

Consistent with the overarching theory of change, the *Renew Boston Business* effort seeks to offer additional financial support, raise awareness of energy efficiency rebates and programs, build credibility, and facilitate participation in energy efficiency programs. Below, we describe the methods used to meet these objectives:

- **Offer additional financial support.** Very small businesses are less likely to have the funds to invest in energy efficiency even with the rebates that are available through National Grid or NSTAR.³⁶ The effort uses EECBG funding to overcome the financial barrier by supplementing the rebates offered through the Direct Install and other business programs to fully fund the cost of audits and installations and to eliminate

³⁵ The American Recovery and Reinvestment Act (ARRA) was passed in 2009 with the goal of spurring economic activity and growth. Under the provision of the Act \$16.8 billion were allocated to energy efficiency and renewable energy programs. The *Renew Boston Business* effort received ARRA funding in the amount of \$942,450 for supplemental incentives.

³⁶ Note that we plan to test this hypothesis through the participant research.

any cost to the customer. For larger gas measures, the design was to provide double the existing incentives.

- **Raise awareness of energy efficiency rebates and programs.** Several factors contribute to a general lack of awareness of energy efficiency rebates and programs among the target population, including language or cultural barriers and limited time available to research energy efficiency. To address this barrier, *Renew Boston Business* employs a targeted outreach campaign. Rise Engineering sends letters to each eligible business, as determined by NSTAR according to billing information. The letter has a number the customer can call to schedule a free audit. For those customers who have not responded to the mailing, an outreach team, including a representative from the City of Boston and a local Main Streets organizer, conduct in-person follow-up visits.
- **Building credibility of energy efficiency program offerings, as well as providers of these programs.** Likely due to a lack of familiarity with energy efficiency options, target customers lack confidence that energy efficient options can make a difference. Customers belonging to the *Renew Boston Business* target segment often do not trust information that they receive about energy efficiency nor do they understand the motivation of the PAs in offering these programs.³⁷ Furthermore, according to some stakeholders, since the *Renew Boston Business* offerings are provided at no cost to customers who qualify, this amplifies the distrust by appearing “too good to be true.” The effort gains the trust of its target population through its cooperation with local business community leaders who are already well known in each neighborhood. These organizers, due to their status in the communities, are able to lend an additional level of credibility to the *Renew Boston Business* energy efficiency message.
- **Facilitating program participation.** Many of the businesses that qualify for this effort have small numbers of employees and therefore do not have the time or resources to devote to following through on any efficiency improvement initiatives. A common concern expressed to the outreach team was about how much time the measure installation would take and whether it would interrupt business. Due to the current economic climate, many small businesses are in “survival mode” and cannot afford to give up any income.

The effort effectively minimizes this barrier by bringing the information to the customer in-person, and bundles audits, incentives, and measure installations into one hassle-free offering. Program implementation contractors provide ongoing project support to participating customers throughout the participation process. This eliminates any time the customer would otherwise have to spend providing the momentum to keep the project moving forward.

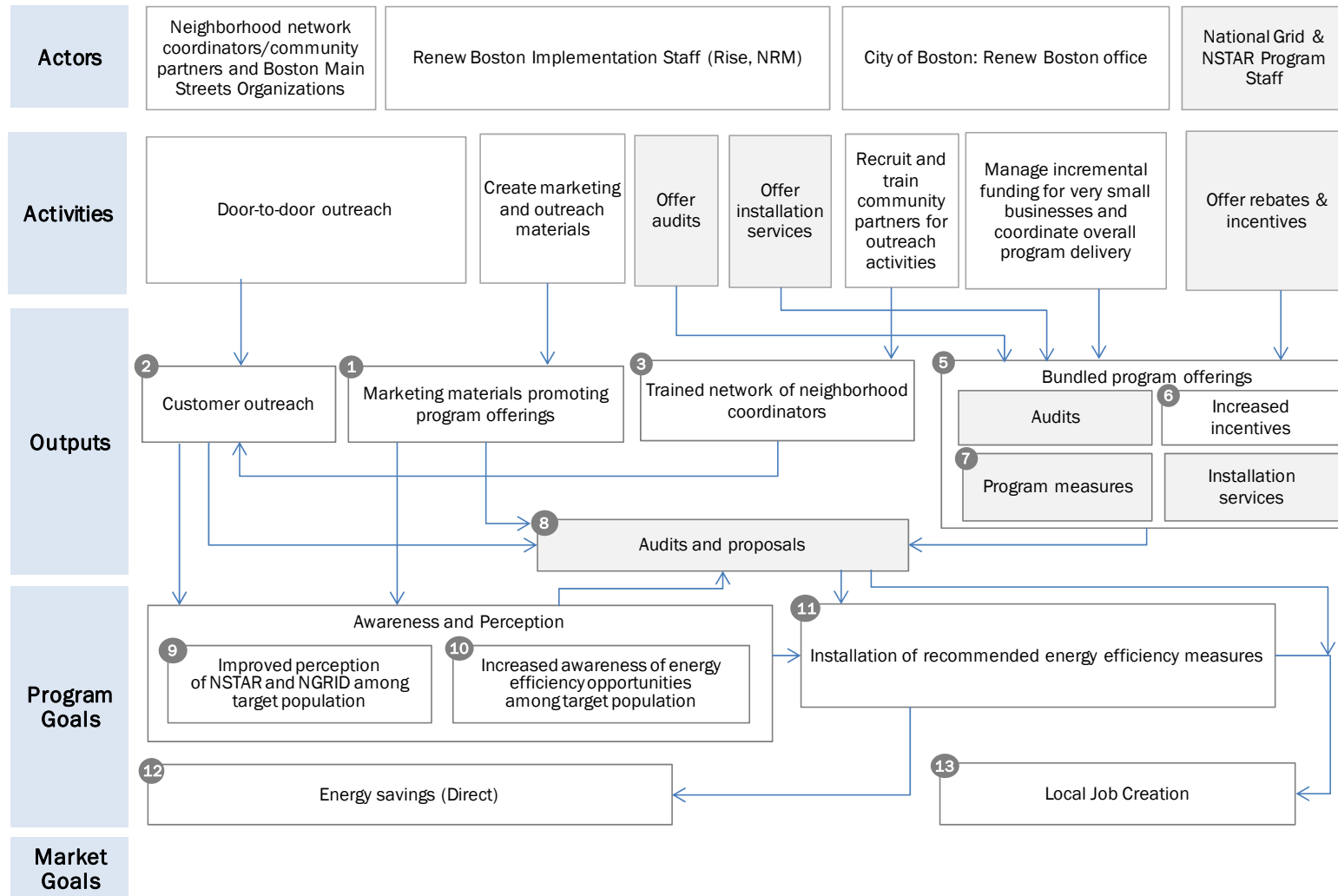
Because of *Renew Boston Business* interventions, target customers become more knowledgeable about the program offerings, as well as about energy efficiency in general. They understand that making energy efficient improvements in their business will not only save them money, but also will be a no-cost simple process at no cost. As a result, they

³⁷ Note that we plan to test this hypothesis through the participant research.

agree to an audit and act on the audit recommendations by making the recommended upgrades to their businesses. Customer participation then results in energy savings.

Figure 5 below depicts actors, activities, outputs, and goals of the *Renew Boston Business* partnership. Numbering in the figure indicates presence of performance metrics for a particular output or goal. The Data Tracking section of this chapter will explore in greater detail the performance metrics that are tracked as part of *Renew Boston Business*.

Figure 5. Renew Boston Business Logic Model



Funding: MassSave program funds, ARRA funds administered through EECBG (to supplement existing small business incentives)

Note: Cells highlighted in gray indicate contributions to Renew Boston from the NSTAR Small Business Solutions and National Grid Gas Efficiency programs.

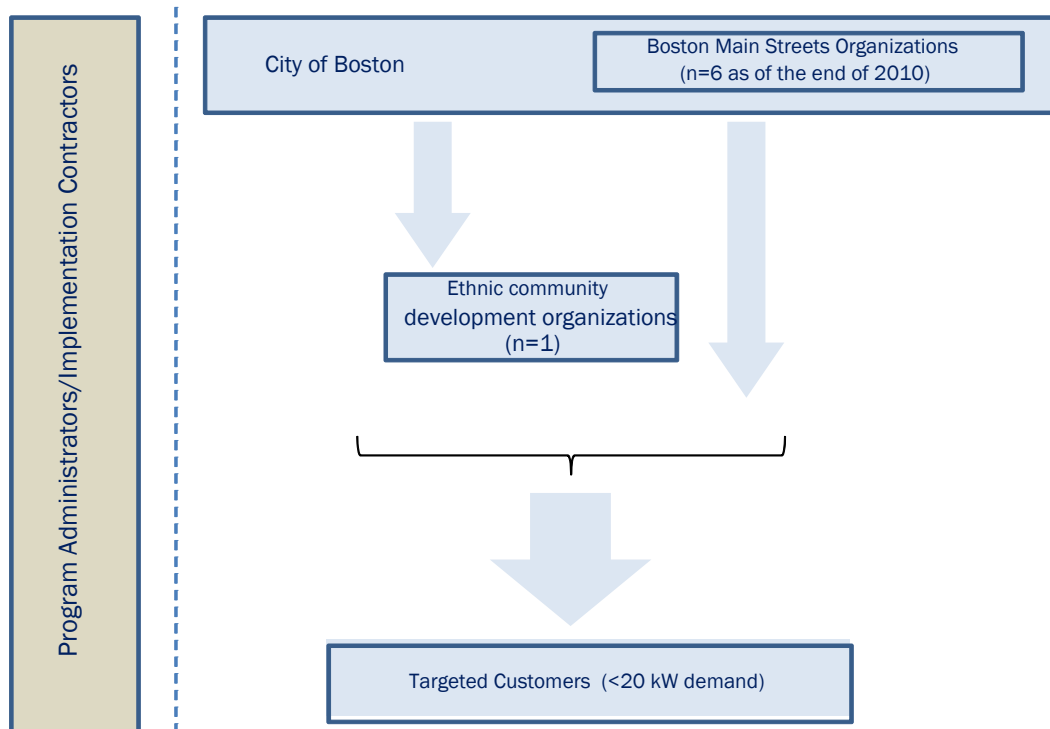
6.2 Community Engagement and Partnership Network

Renew Boston Business engages a network of business community leaders to raise awareness of energy efficiency and bring credibility and trustworthiness to their efforts. These leaders bring familiarity with the customers and a reputation for being trustworthy and helpful, which allows the effort to mitigate the awareness and trust barriers much more effectively than traditional marketing and outreach tactics.

As of the end of 2010, the *Renew Boston Business* Community Engagement Network consists of six Boston Main Streets Organizations and one other community association. Figure 6 depicts the structure of the network that provides marketing and outreach as part of *Renew Boston Business* and includes:

- **City of Boston *Renew Boston* staff.** This is the coordinating entity. City of Boston representatives are responsible for recruiting and training community outreach partners, managing incremental funding, coordinating the outreach effort, and tracking data.
- **Rise Engineering and National Resources Management.** As implementation contractors, these two companies are responsible for conducting audits and installing measures. In addition, Rise Engineering is responsible for developing and distributing marketing and outreach materials. National Resources Management (NRM) is responsible for the installation of refrigeration measures. To date, NRM has yet to do any installations under this effort. The measures they are contracted for, walk-in coolers, are rare in businesses with electric demand that is small enough to qualify for the partnership.
- **City of Boston Main Streets Organizations and other community partners.** These are the community groups and organizations involved in conducting, marketing and outreach for the partnership.

Figure 6. Renew Boston Business Community Engagement Structure



The *Renew Boston* Main Streets Organizations were the first choice to conduct outreach on behalf of *Renew Boston Business* because of their established working relationship with the City of Boston. This choice has both positive and negative implication for the effort. The established relationship was a benefit to *Renew Boston Business* in that it allowed the effort to launch quickly with minimal resources devoted to network building. However, some stakeholders believe that because this network is so established, the effort does not have the initiative to look beyond the Main Streets Organizations to make use of all the community networks available in any given neighborhood. The one canvassing effort where the outreach did incorporate an outside group was a very successful effort.

Overall, six Main Streets Organizations and one other community group were engaged in the effort in 2010. As presented in the following section of this report, community groups referred 130 customers into *Renew Boston Business*.³⁸

A key characteristic of the community network is that each of the actors, with the exception of the City of Boston *Renew Boston* staff, is performing almost the same job they would have been performing in the absence of the effort. The implementation contractors perform the same audits and installations, only at a lower cost to the customer, through the *Renew Boston Business* effort. The community groups are already providing outreach on energy efficiency programs. Because each stakeholder is already familiar with the role they fill within *Renew Boston Business*, there is very little training that needs to take place, allowing the majority of the funds to be used towards incentives.

³⁸ Data as of the end of 2010.

Essentially, the effort uses the additional funding to generate a buzz for an existing program through concentrated outreach and additional incentives. The long-term goal is to build credibility for the *Renew Boston* brand, which will be important once the ARRA funding ends in March 2012. One of the long-term goals of this effort is to create awareness of energy efficiency programs in the target population to boost participation even after this particular effort ends.

6.3 Status and Accomplishments

The *Renew Boston Business* effort launched in July 2010. The effort started out on schedule, but as it ramped up, it became clear that the outreach could be done more quickly than was originally anticipated.

The effort is expected to last approximately 18 months, until March 2012³⁹, in its current format, where incremental incentives are covered through the EECBG program. Beyond 2012, the goal is to continue *Renew Boston Business* as a PA-administered energy efficiency effort and a subset of Mass Save.

Based on the interviews with stakeholders, *Renew Boston Business* has performed well to date. The stakeholders indicated that the program is on track to meet its electric savings goals but is slightly behind meeting its gas goals.

³⁹ Note that this end date was according to the information provided to us. However, this will be confirmed through follow ups.

Table 12 below presents the performance of the effort to date on the key metrics. We based the information in the table on the review of materials provided to us, including partnership tracking data. We also based this information on our interviews with program staff at the PA and the City of Boston levels and stakeholders, including implementation contractors and community-based organizations.

As of March 2011, *Renew Boston Business* has reached 10% of the kWh goal and 13% of its term goal. Based on the materials provided to us, as of the beginning of March, the effort has served 8 out of 16 target areas in the city of Boston.

Table 12. Renew Boston Business Performance

Metric	Goal	July 2010 – March 2011 ^a	% of Goal
<i>Notes on PA funding over this period: No additional incentives beyond core programs and additional coordination. According to the stakeholders that we spoke with, the program does not track budgets for any additional coordination with the partnership; however, PA support for this partnership will be explored more fully in the final report.</i>			
Community groups engaged in the partnership	Not an explicit goal	7 ^b	N/A
Number of referrals provided by community groups	Not an explicit goal ^c	130 ^d	N/A
Customers ^e	Not an explicit goal	265	N/A
Savings Goals	3.665 GWh	0.356 GWh ^f	10%
	113,094 therms	15,082 therms	13%
EECBG Incentive funds disbursed	\$942,450	\$185,813	20%

^a Only projects invoiced through March 31, 2011 are included in this table. Project start dates invoiced through March 31, 2011 range from July 27, 2010 – March 11, 2011.

^b Includes six Main Streets Coordinators and one ethnic community development organization.

^c While this is not an explicit partnership goal, specific goals are set for each community group provided with Renew Boston marketing dollars.

^d Through 2010 - Not verified through partnership database.

^e Customers based on the number of unique accounts served by Renew Boston partnership.

^f Energy savings based on projects invoiced through March 31, 2011. Energy savings have not been verified in NSTAR program data.

The City of Boston uses billing data that it receives from NSTAR to develop a list of eligible customers, and then targets these customers with mailers (sent out by Rise Engineering) and direct outreach. This process is simple, yet accurate, as 96.7% of the participants through March 11, 2011 had an average monthly demand less than 20 kW.⁴⁰

In terms of participation rates in each of the target neighborhoods, Dorchester leads in the number of completed jobs. Table 13 below provides an overview of participation in the *Renew Boston Business* effort by targeted neighborhoods.

⁴⁰ Only 222 *Renew Boston* customers who could be matched to SBS program tracking data invoiced through March 31, 2011 were included in energy demand analysis.

Table 13. Performance of the Effort by Targeted Neighborhood*

Neighborhood	# of Customers Services	% of Customers Serviced
Dorchester	81	31%
Chinatown	46	17%
Brighton	42	16%
Allston	39	15%
Jamaica Plain	14	5%
Roxbury/Mission Hill	4	2%
TOTAL	265	100%

*Data presented is through March 11, 2011

Job Creation Goals

As a condition of receiving EECBG program funding, *Renew Boston Business* has pledged to seek to hire Boston residents to do audits and installations. The effort has not explicitly set any job creation goals, but Rise Engineering has added some staff who live in the City of Boston. Additionally, since this effort has produced more work than would have been done in its absence, some local green jobs have presumably been created. However, there is no tracking system in place to measure how many green jobs have been created, and therefore no way to accurately estimate the effort's performance in job creation. The evaluation team will further pursue the job creation component of the CMI and supplement the report with relevant findings once they are available.

6.4 Challenges and Successes

Overall, *Renew Boston Business* is functioning very well. Program implementation contractors cited several key elements of the effort that were particularly successful.

- **Outreach Design.** The small business customer is typically difficult to reach with traditional marketing strategies. Cultural and linguistic barriers stand in the way of them receiving information through wide-spread marketing campaigns, and yet they are too small and numerous to make in-person outreach time- or cost-effective. *Renew Boston Business* manages to make in-person outreach effective by concentrating on certain neighborhoods where the density of small businesses is the highest. Furthermore, businesses accept the effort more readily when it comes with an endorsement from community leaders, which allows the effort to avoid the time it would otherwise have to spend building credibility. By combining attractive offerings and door-to-door outreach with a reputable community leader, the *Renew Boston Business* achieves very high close rates.

- **Partnership Budgeting.** 95% of the funds allocated to *Renew Boston Business* are put directly toward incremental incentives. The effort is able to do this for two reasons. First, each stakeholder is performing tasks that they have been involved in prior to *Renew Boston Business*, so minimal resources were devoted to training and network building. Second, outreach efforts are a series of short, intense campaigns designed to reach the most accessible customers within the target population instead of going for broader involvement of all eligible customers.

However, stakeholders did identify a few challenges that they have faced in implementing the effort:

- **Reaching the business owner.** Because participation in the effort has no cost to the business owner and in most cases results in almost no disruption of business, the outreach team is getting a very good close rate when it is able to speak with the owner of the business during the canvassing effort. In those businesses where the owner is not present at the time the outreach team visits, it is much harder to follow up with that owner later. Returning to those businesses in person is too time-intensive to be feasible, although in-person contact is the most effective way of explaining the effort to small business owners and convincing them to participate. To date, the partnership has taken no action to improve the rate at which the outreach team contacts the business owners.
- **Following up with the business owner.** There is a trade-off between cost-effectiveness and thoroughness in the design of the outreach campaign. The effort captures the most accessible businesses, but leaves few resources for following up with business owners who are either reluctant or not present during canvassing.
- **Finding a “champion.”** The outreach in one neighborhood went particularly well because of the strong personal connection between the local community-based organization (CBO) representative and the business owners in that district. Some stakeholders stressed the importance of finding the right person to champion the cause and the difference a well-connected person can make in the outreach process. As the partnership moves past the neighborhoods with established Main Streets Organizations, there will be more variability in the CBOs it chooses as partners. Therefore, the partnership should place special attention on finding the most well-connected and respected CBO to partner with.
- **Aligning partnership design and partnership goals.** On the gas side of the effort, measures qualifying for rebates are rarely installed in very small businesses (less than 20 kW in monthly electric demand). Furthermore, the effort has contracted National Resource Management to do installations of walk-in coolers and, as of the end of 2010, National Resource Management has done no installations as part of *Renew Boston Business*. This speaks to the need to align the effort design with the goals. To boost the gas savings, the *Renew Boston Business* effort is now matching available PA rebates to all restaurants in the City of Boston that install efficient gas kitchen equipment.

6.5 Data Tracking

Tracking core performance metrics is integral to the management and evaluation of the successes of any partnership. Part of this evaluation is the effort to analyze partnership tracking mechanisms and databases.

Overall, the *Renew Boston Business* effort is tracking sufficient data to measure success. The City of Boston serves as the coordinating entity for all the data that the outreach teams and the implementation contractors are collecting. Interviews with stakeholders did not reveal any challenges that arose in the process of collecting or transferring data. A database review determined that the data is consistently and thoroughly tracked.

The outreach team tracks marketing efforts by neighborhood, including the number of businesses approached, the close rate, and any reasons that businesses gave for not being interested in participating. The implementation contractors track audits, measures installed, rebates disbursed, and estimated energy savings.

The partnership does not track job creation, although it is an important component of the effort according to the terms of the EECBG program funding. The partnership has set no explicit goals for jobs created.

Table 14. Renew Boston Business Performance Metrics

Key to the table: x – data are tracked/one of the Theory of Change metrics

unknown – the information on whether the data are tracked is currently unavailable to the evaluation team

■ – data are not tracked and will be collected through primary research efforts

Field labeled “Box #” references correspondingly labeled box in the program logic model, which is located in The Theory behind the Partnership section of the Renew Boston Business chapter

Box #	Category	Performance Metric	Effort Evaluation		
			Is Currently Tracked	Theory of Change Metric	Potential Source
1	Marketing materials promoting program offerings	Marketing materials distribution (#, type by % eligible businesses)	x		Secondary data
		Recall, effectiveness of marketing materials	■		Primary research
2	Customer outreach	In-person contacts (# customers, customers by each neighborhood partner, # by zip code)	x		Secondary data
		Contact rate (% of target customers, % by zip code)	x		Secondary data
		Recall, effectiveness of outreach	■		Primary research
		Importance of additional program support in equipment installation	■	x	Primary research
3	Trained network of neighborhood	Organizations (#)	x		Secondary data Primary research

Box #	Category	Performance Metric	Effort Evaluation		
			Is Currently Tracked	Theory of Change Metric	Potential Source
	coordinators	Neighborhood penetration (presence by zip code, customer type)	x		Secondary data Primary research
		Quality of training			Primary research
		Effectiveness of the community organization(s) selected for program implementation			Primary research
		Employee effectiveness (e.g., knowledge of the programs)		x	Primary research
		Credibility/trust in community organizations		x	Primary research
4	Bundled program offerings	Relevance of program offerings			Primary research
		Ease of program participation		x	Primary research
		Value of bundling approach		x	Primary research
5	Increased incentives	Influence of additional incentives on measure installation		x	Primary research
		Customer satisfaction with incentive levels			Primary research
6	Direct Install program measures	Customer satisfaction with measure offerings			Primary research

Box #	Category	Performance Metric	Effort Evaluation		
			Is Currently Tracked	Theory of Change Metric	Potential Source
7	Audits and proposals	Audits (#)	x		Secondary data
		Audit rate (% of target customers, % of contacts)	x		Secondary data
		Summary of measures recommended			Secondary data
8	Improved perception of NSTAR and NGRID	Brand and satisfaction metrics among customers			Primary research
9	Increased awareness of energy efficiency opportunities	Awareness of and attitude toward energy efficiency opportunities		x	Primary research
		Awareness of programs and program rebates		x	Primary research
10	Installation of recommended energy efficiency measures	Projects (#)	x		Secondary data
		Measures (#, type)	x		Secondary data
		Timing (# and \$ of projects, # and \$ of measures in ARRA-specified time frame)	x		Secondary data
		Market penetration (projects as % of eligible customers; projects by eligible zip code; % projects by business energy usage (target <20kW))	x		Secondary data

Box #	Category	Performance Metric	Effort Evaluation		
			Is Currently Tracked	Theory of Change Metric	Potential Source
		Rate (% of audits, % of target customers)	x		Secondary data
		Customer satisfaction with audit & installation process			Primary research
11	Energy Savings (Direct)	Gross savings (electric, gas)	x		Secondary data
		Net savings			Secondary data Primary research
		Incremental gross savings	x		Secondary data Primary research
		Incremental net savings			Secondary data Primary research
12	Job Creation	Jobs created (Total #, full-time equivalent, # by program actor)			Secondary data Primary research
		Jobs fulfilled by City of Boston residents	x		Secondary data Primary research

Note that “Lessons Learned” for *Renew Boston Business* are not being provided in this interim report.

7. WESTERN MASS SAVES CHALLENGE

Western Mass Saves Challenge is a community-based and behavioral pilot initiative that seeks to educate residential customers about energy efficiency and promote energy savings actions and behaviors within their homes through an online web platform that is a no-cost, online energy advisory service. The pilot has two components: 1) a behavioral component in which mailers providing energy saving tips and promoting the web platform are sent to randomly selected households in nine participating communities within the service territory, and 2) community-based partnership efforts that promote the web platform in four of the nine challenge towns. The community-based efforts include a partnership between community-based organizations, municipal organizations, program implementation contractors, and WMECo. This report focuses solely on the community-based efforts of the pilot.

The overall goal of the partnership for the community-based effort is to reduce electricity consumption for residential customers. The goal of the community-based effort is to reduce energy consumption by 3% aggregate energy savings through the end of 2011 in the four participating communities.⁴¹ If achieved, the communities will receive a 1kW solar panel, which can be placed on any municipal building within the community.

Notably, partnership participation refers to enrollment in an online web platform or online energy advisory service, and is not directly coupled with any WMECo program offerings such as home assessments or audits. This means that the effort as designed does not explicitly channel participants into WMECo resource acquisition programs.

This section provides detailed findings for this community-based partnership, including:

- The underlying partnership program theory and partnership program logic model
- An analysis of the community network
- An update on the status and performance of the community-based effort
- An overview of the community-based effort's successes and challenges to date
- Lessons learned for community-based partnership improvements moving forward

7.1 The Theory behind the Partnership

Consistent with the overarching theory of change, the *Western Mass Saves Challenge* community-based component of the pilot seeks to raise awareness of energy efficiency opportunities and enlist community organizations to increase the credibility of the effort⁴². Below, we describe these two points of intervention:

⁴¹ For the behavioral component, the goal is to reduce energy consumption by 1.5% for those customers who receive mailers, and 5 to 6% for customers who receive mailers and utilize the online web platform.

⁴² Only the community-based component of the program will be the focus of the theory description, logic model and performance metrics associated with the logic model. The behavioral component of the *Western Mass Saves Challenge* will be included as needed.

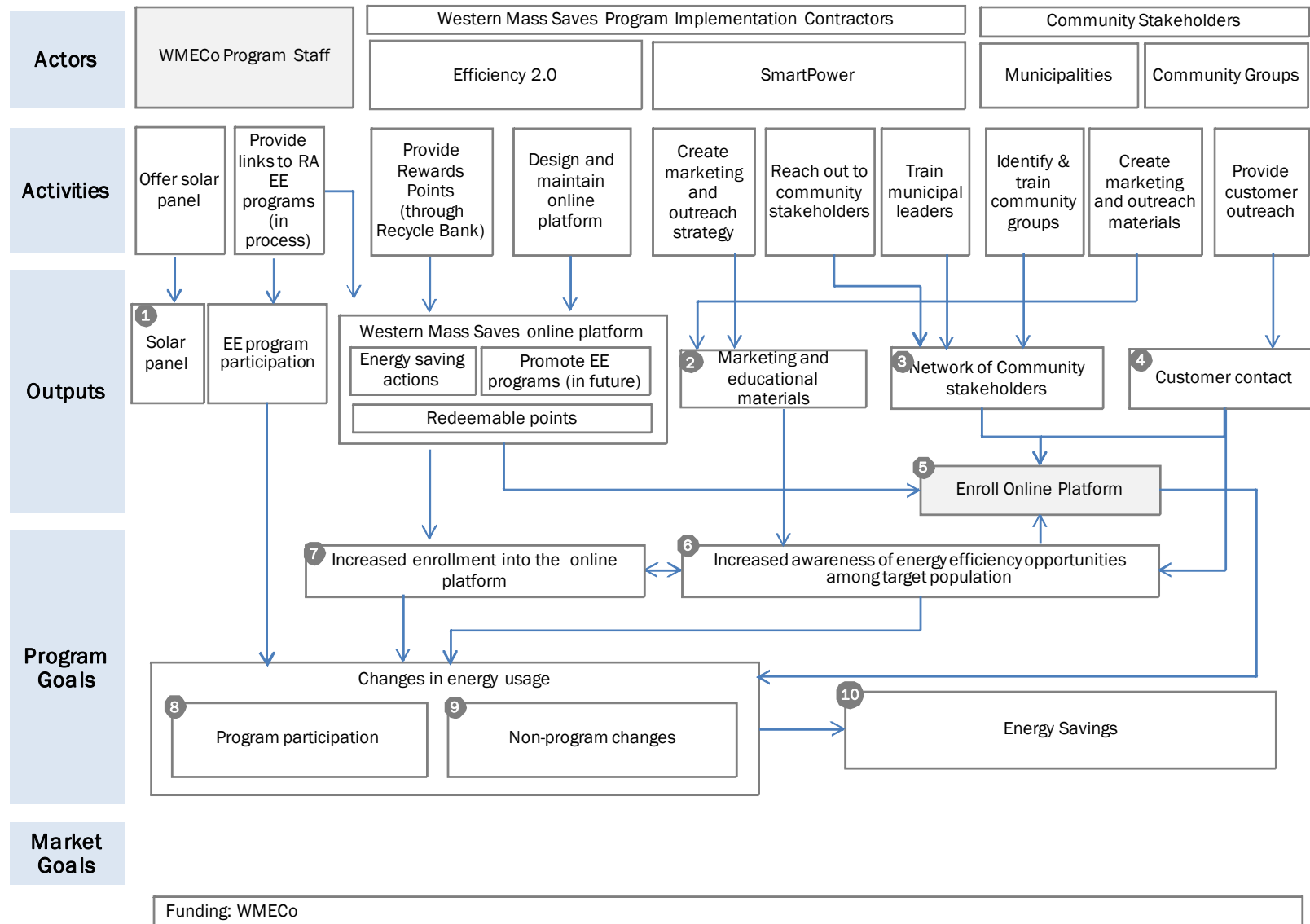
- **Raising awareness of energy efficiency opportunities.** The *Western Mass Saves Challenge* partnership seeks to raise awareness of energy efficiency opportunities within the four target communities. The partnership theory assumes a lack of knowledge regarding specific actions homeowners can take to save energy in their home. To raise awareness and knowledge of energy saving opportunities among the target audience, the partnership provides energy saving tips and recommendations on the web platform that is managed by the behavioral program implementation contractor (Efficiency 2.0). These tips are customized for the participating households based upon household and demographic characteristics. The website also documents the estimated energy savings from those actions.
- **Encouraging participation through trusted local leaders and groups.** The community-based partnership implementation contractor (Smart Power) has worked with local municipalities and local Energy Committee Chairs to develop a credible network of local community organizations that can engage the community to increase awareness of energy efficiency opportunities. The community-based effort relies on a network of known and trusted community organizations and municipal leaders to implement its marketing and outreach strategy, which is to promote the web platform to homeowners where the participants receive actionable recommendations to save energy. To increase the relevance and effectiveness of the outreach to the communities they are serving, community partners build off Smart Power's marketing and outreach strategy to create their own tailored messaging and marketing collateral.

Based on interviews with stakeholders, the *Western Mass Saves Challenge* partnership theory assumed the greatest barrier to participation is awareness of energy efficiency actions that can be taken within the home. This barrier is consistent with the overarching theory of change that we developed as part of the Program Theory of Change task. Through the development of the *Western Mass Saves Challenge* web platform, the partnership attempts to overcome the primary barrier – lack of awareness of energy efficiency actions that can be taken within the home – as well as provide additional energy saving information and motivate participants to take action.

In-depth interviews with municipal leaders indicate that municipal and community groups are adept at increasing awareness within their communities, given their knowledge of marketing and outreach tactics that work within their community to increase awareness about the partnership and website. However, interviews with partnership participants (planned for fall 2011) will determine whether the effort has succeeded in increasing awareness of energy efficiency actions, in addition to determining whether the community-based efforts have led to the development of a credible network of organizations.

Figure 7 below depicts actors, activities, outputs, and goals of the *Western Mass Saves Challenge* partnership.

Figure 7. Western Mass Saves Challenge Logic Model



Note: Cells highlighted in gray indicate contributions to the Western Mass Saves program from core energy efficiency programs

7.2 Community Engagement and Partnership Network

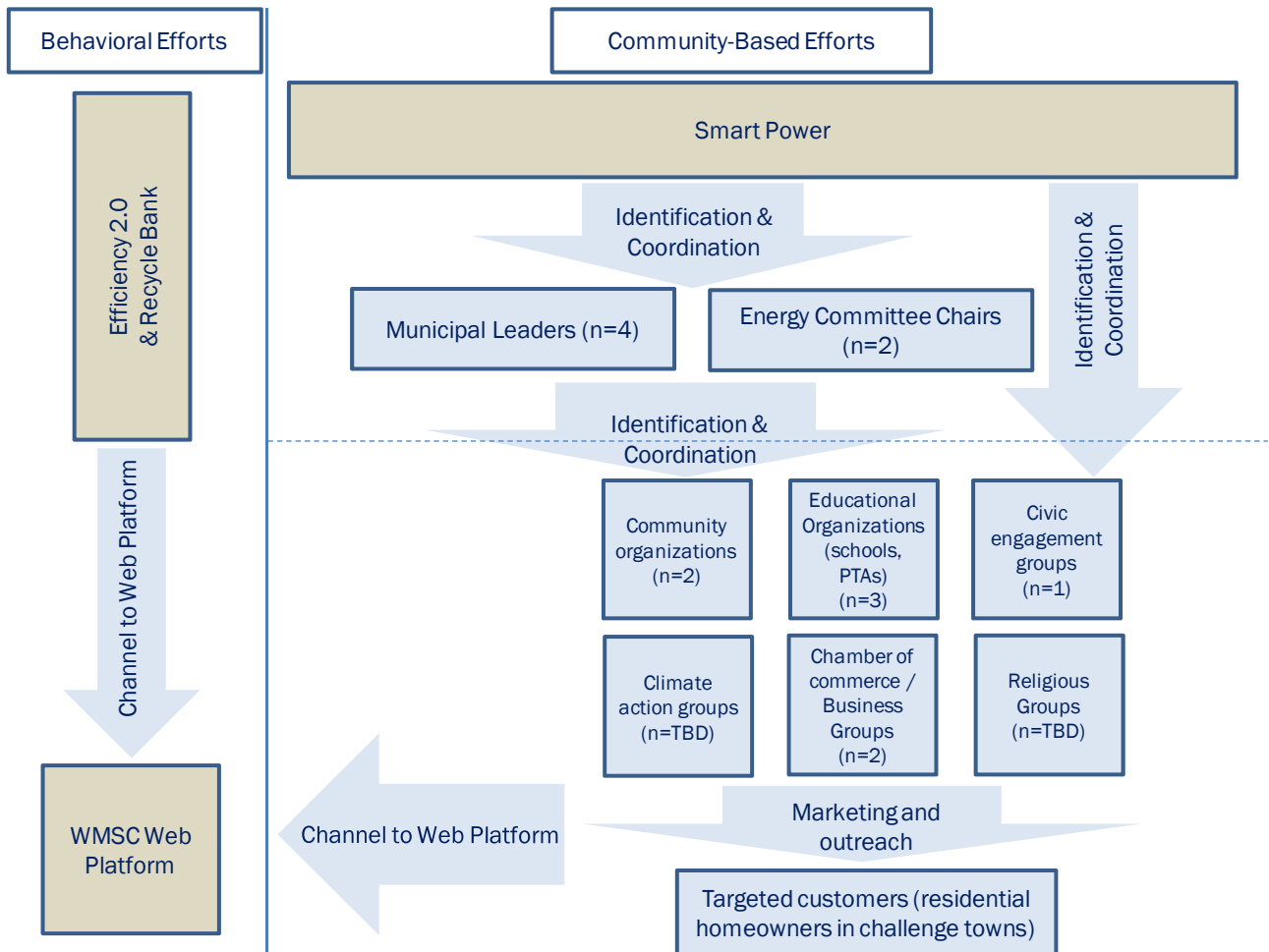
The *Western Mass Saves Challenge* pilot is implemented by Efficiency 2.0 and Smart Power, and is administered and funded by WMECo. The program implementation contractors have different roles. Efficiency 2.0 implements the web-platform, delivers and designs mailers, and works closely with Recycle Bank to provide reward points to web-platform users who commit to taking energy savings actions. Smart Power is the marketing and outreach implementation partner who coordinates community-based marketing and outreach efforts. This report focuses solely on Smart Power's community-based efforts.

At the close of 2010, the *Western Mass Saves Challenge* community network was still in a nascent stage, including four municipal champions, and two Energy Committee champions within the four challenge communities of Amherst, Easthampton, Ludlow, and Sunderland. Each municipal and Energy Committee champion has had varied success in engaging community-based organizations to assist with implementing Smart Power's marketing and outreach strategy. Currently, Smart Power and the municipal and Energy Committee champions are in the process of building relationships with community-based organizations; however, these efforts have not progressed to the stage where these groups are implementing the marketing and outreach strategies.

The municipal and Energy Committee champion roles vary across communities, including acting as a liaison to community-based organizations, creating and disseminating marketing material and collateral, and identifying effective marketing and outreach channels. Figure 8 depicts the structure of the network that conducts community-based efforts and includes:

- **Smart Power staff.** Smart Power representatives are responsible for developing the marketing and outreach strategies for each challenge town, and working with municipalities and Energy Committees to identify community organizations and entities to conduct marketing and outreach efforts. Notably, Smart Power is not a grass roots organization; rather its role is to create and implement marketing strategies to maximize participation and electricity reduction within the four challenge towns by raising awareness of the web platform.
- **Municipal Leaders and Energy Committee Chairs.** These represent individuals within the community that work on-the-ground with community groups or identify community groups who can implement the marketing and outreach strategy;
- **Community partners.** These are community groups and organizations involved in conducting marketing and outreach efforts for the partnership.

Figure 8. Western Mass Saves Challenge Community Group Network Structure



Note that the activities above the dotted line indicate completed activities to date.

Smart Power selected the four challenge towns because they already had an existing infrastructure of municipal leaders and Energy Committee chairs that were already working with their communities to reduce energy usage within their towns. This built-in network has helped to lend credibility to the partnership efforts because these leaders serve as champions within the community for the community-based efforts. According to Smart Power, using municipal leaders as primary outreach channels is an effective strategy because at minimum, it gives credibility to other organizations and individuals, which will build participation.

According to municipal respondents, internal coordination between Smart Power and municipal leaders and Energy Committee chairs has worked well. However, some respondents indicate that program design and implementation could have been more effectively described, noting that program mechanisms were not entirely clear during the launch of the partnership (discussed below).

Overall, four municipal leaders and two Energy Committee chairs are engaged in the partnership. At the close of 2010, these municipal leaders and Energy Committee chairs had identified and begun coordinating efforts with a handful of community groups (approximately eight). Notably, the relationships with these organizations are still in an early phase due to delays in startup (discussed below). These organizations include schools, senior groups, women’s groups, clubs, chambers of commerce, green businesses, and faith-based organizations. In particular, the partnership has targeted schools and senior groups because they represent the best and largest groups to disseminate information and already have built-in networks. One respondent noted that schools have the combination of teachers, fundraising networks, and involved students, which creates the “perfect storm” for outreach efforts. Notably, the municipal and Energy Committee liaisons continue to develop their community organization networks to increase the number of residents exposed to the effort.

Table 15: Overview of Marketing and Outreach Efforts by Challenge Community

Community Organizations	Amherst	Easthampton	Ludlow	Sunderland
Municipal Leaders	✓	✓	✓	✓
Energy Committees			✓	✓
Educational Organizations, such as schools (Board, PTO’s, etc.)		✓	✓	✓
Community organizations, such as Seniors Groups	✓	✓		
Chambers of Commerce/ Business Groups	✓	✓		
Civic / Interest Groups (Lions, Rotary, Women’s Club)				✓
Religious Groups				
✓ Indicates that they have worked with or anticipate working with groups.				

Based on our preliminary assessment of Smart Power’s efforts, we conclude that the network of selected municipal leaders and Energy Committee chairs, in addition to their outreach to community organizations, is strategic for exposing residents to the partnership.

7.3 Status and Accomplishments

The *Western Mass Saves Challenge* partnership was scheduled to launch in the summer of 2010. The effort launched in November 2010. This three-month delay in launch was due to contractual and technical issues. This delay contributed to slower than expected partnership activity in 2010. Stakeholders commented that there was slow ramp-up between initial contact with Smart Power and launching the marketing and outreach efforts. Currently, Smart Power is working with municipal leaders and other community groups to roll out the community-based efforts of this partnership. Community-based efforts were being rolled out throughout the winter of 2010 and into the spring of 2011.

The pilot is expected to last for one year, until November 2011. Because this is a pilot effort, WMECo will determine whether to continue the pilot as a full-fledged program based upon pilot success.

The primary community-based effort goal is to achieve a 3% electricity reduction for each challenge town. The four challenge towns seek to increase energy savings via increasing awareness of energy efficiency and conservation actions. Table 16 presents the performance of the community-based efforts to date on the key metrics. Notably, these findings do not include results from the other five challenge communities. The information provided in the table is based on the review of materials provided to us, as well as our interviews with WMECo’s program staff, program implementer staff, and stakeholders.⁴³

Table 16. Western Mass Saves Challenge Performance As of December 2010⁴⁴

Metric	Goal	Sep 2010 - Dec 2010	% of Goal
<i>Notes on PA funding over this period: Will work with PA and implementation contractors to obtain implementation contractor contract and budget data. Estimate for overall pilot (behavioral and community-based efforts) is thought to be \$150K from information currently available to the evaluation team.</i>			
Communities engaged in partnership	4 challenge communities	4	100%
Municipalities engaged in partnership	Not an explicit goal	4	N/A
Number of community organizations engaged in partnership (e.g. schools, women’s groups, etc.)	Not an explicit goal	8	N/A
# of web sign ups (unique account numbers)	Not an explicit goal	305	N/A
Rewards program registrations	Not an explicit goal	264	N/A
Average Energy Savings per participant	Not an explicit goal	735 kWh / year	N/A
# of savings plan commitments	Not an explicit goal	247	N/A
% Electricity Reduction	3% reduction through end of 2012	We will work with the PAs and implementers to determine % reduction. This information was not available at the time of this report.	TBD

Notably, Smart Power does not systematically track the number of outreach efforts conducted or outreach materials that have been distributed or created, such as flyers and pamphlets (we discuss this in the Data Tracking section below). However, according to our interviews, the specific marketing activities that have occurred in support of this partnership include community events such as Town Hall Events, Arts Nights, Town Elections, as well as public service announcements on local access television, print media, and flyers and pamphlets.

⁴³ Program materials from which the data were drawn include web analytics, program marketing collateral and materials, program design and implementation plans.

⁴⁴ Note that this only describes the performance for the four challenge towns that are part of the community-based efforts.

Future efforts include a faith-based summit in May. Table 17 provides an overview of the types of collateral created or disseminated through the community efforts.

Table 17: Overview of Marketing and Outreach Collateral by Town

Collateral	Amherst	Easthampton	Ludlow	Sunderland
Meetings and Workshops	✓	✓	✓	
Town / Community Events	✓	✓		✓
Websites	✓	✓		✓
Earth Day booths and presentations	✓	✓		✓
Flyers, Print Media	✓	✓		✓
Town Proclamations	✓	✓		✓
Television (PSAs)	✓			✓
✓ Indicates that they have worked with or anticipate working with groups.				

7.4 Successes and Challenges

According to the in-depth interviews with implementation contractors and stakeholders, key successes to date include:

- The building of municipal support (e.g., the Board of Selectmen, Mayor’s Offices and Energy Committees). Municipalities have been very receptive and encouraging of the partnership.
- Communication across Smart Power, municipality and Energy Committee liaisons and community organizations. Stakeholders are satisfied with implementation contractor communication efforts.
- Strategic community organization selection by municipal partners, particularly working with schools, which are the “perfect storm” of grass-roots outreach.

Due to the specifics of the program design and implementation model, as well as specifics of the targeted communities, the partnership encountered multiple challenges that prevented the desired levels of community-based organization participation (in terms of outreach to these entities and ultimately residential participation) at the close of 2010, and into the first quarter of 2011. We outline these challenges below.

- **Delays in marketing and outreach**– Due to delays, outreach to municipal leaders and Energy Committee Chairs was pushed back from the intended start date. This has led to delays in the marketing and outreach calendar. For example, the original implementation calendar called for outreach to faith-based groups and organizations in the summer of 2010. However, as of our latest interviews (conducted in March and April 2011), one challenge town will be holding a faith-based summit in the second quarter of 2011.

- **Actions taken in response to issue** – The goals for the marketing and outreach calendar have changed to work better with the community organizations’ calendars.
- **Difficulties reaching localized target audiences** – Initially, the implementation contractors were planning to use broader regional media outlets, such as NPR, but are unable to market more globally due to community selection and the use of the comparison group.⁴⁵ Because the partnership is offered to four target communities within WMECo service territory, (but not neighboring comparison communities), the marketing and outreach efforts have focused on local media. Notably, the planned marketing and outreach channels were not aligned with the experimental program design.
- **Actions taken in response to issue** – Partnership stakeholders adapted marketing and outreach channels and delivery mechanisms for smaller communities, such as using local access broadcasting and working with local community groups (as opposed to WMECo service territory outreach channels).
- **Lack of partnership clarity for stakeholders** – According to the in-depth interviews, partnership stakeholders do not have a clear sense of program theory (e.g., how the effort operates) or who is behind the effort. Stakeholders commented that implementation contractors could do a better job of providing training on partnership design and goals, e.g., what is a photovoltaic (PV) panel, what is the goal of the effort, what happens after the 12-month period, etc. Stakeholders also felt that the partnership should attempt to channel participants into existing WMECo rebate programs. In fact, some respondents were not clear as to what entities were sponsoring the partnership and whether the partnership was through WMECo. Further, some respondents noted that the front-end process could have been clearer, by defining what the purpose of the partnership was, what the benefits are, and how partnership reporting works. One municipal stakeholder noted,

“I don’t know who’s actually - when you go on the Website, I don’t know if it’s Western Mass Saves that is saying do these things and you could save this much money, or is it - I’m not sure if it’s the actual utility that’s offering the suggestions.”

These findings indicate that the implementation contractors could dedicate more resources towards educating their network and stakeholders about partnership design, particularly how the *Western Mass Saves Challenge* links to other WMECo efforts. These findings suggest that the partnership seek opportunities to increase municipal stakeholder awareness of these linkages.

- **Actions taken in response to issue** – The implementation contractors have worked on providing more in-person presentations regarding the effort with potential community and municipal partners.
- **Stakeholders report difficulties working with local community groups** – Smart Power, the community-based effort partner, has done a good job of working with municipalities and

⁴⁵ The *Western Mass Saves Challenge* program is designed to be able to compare the results of the challenge towns against five other communities in WMECo service territory who do not receive community-based outreach efforts.

chairs of Energy Committees to mobilize organizations. However, as with all community-based efforts, there have been difficulties getting buy-in and scheduling organizations. Many community-organizations do not have dedicated staff or resources to market these programs or to coordinate outreach activities. For example, Energy Committee chairs typically serve as volunteers on these committees and have limited time to devote to implementing the *Western Mass Saves Challenge* strategy. Further, these committees also have other energy strategies that they are implementing to reduce energy use within their towns, in addition to partnering with Smart Power for this effort.

- **Actions taken in response to issue** – Once the challenges to partnership participation were identified, the implementation contractor and municipal stakeholders made efforts to make relevant changes to the program design and delivery to address these challenges and optimize the partnership for the future. Notably, because this effort is still gaining momentum, many municipal stakeholders could not comment on potential improvements until they have a better sense of the impact of their efforts.
- **Lack of reporting of accomplishments to the communities** – According to the partnership stakeholders, there is no mechanism in place to transfer information regarding whether the target communities are on track towards achieving a 3% reduction in electricity. Partnership stakeholders suggested that the program implementer provide community partners with the ability to monitor and track the town's progress against their goals.

In fact, these respondents thought the partnership would be improved if they had information that shows progress towards their 3% reduction goal. This knowledge could be used as a marketing and outreach tactic, motivationally encouraging residents to join the web platform and take action. In addition, community stakeholders will be able to gauge the level of effort required to achieve their goal.

- **Need for additional marketing and outreach (M&O) collateral and training** – Partnership stakeholders commented that program implementation contractors did a good job of providing a marketing and outreach strategy for the community-based effort, but that the municipal leaders also needed help in terms of developing M&O collateral. Further, stakeholders noted that they could use some assistance in determining what the best marketing channels and tactics are to increase participation, and ultimately, energy savings. One respondent asked that the implementation contractors,

"[Give] us... a checklist or more tools with which to make contact with residents... if there was a little better packet of this is what other communities have done or these are some of the methods you can use to get the word out, I think that would have been helpful."

The evaluation team suggests that the implementation contractors move beyond strategy to providing specific M&O tactics and materials, such as checklists or other items to help them implement the M&O strategy, as many of the community-based partners do not have the resources on hand to develop and design materials.

7.5 Data Tracking

The program implementation contractors have provided the evaluation team with partnership data through December 2010. Notably, the implementation contractors have been charged with documenting energy savings, not other potential metrics of success. As such, the implementation contractors do not track many traditional metrics. For example, the partnership implementation contractor does not track numbers of events or meetings, exposure to PR efforts, etc., however, they do provide conceptual reports and anecdotally track involved individuals and organizations. This is acceptable given the efforts goals; however, this means that the performance of each community group cannot be systematically assessed. The community efforts do not have any systematic tracking mechanism to determine what aspects of their efforts are most effective, as community-based lift is tracked in aggregate participation numbers via the online web platform.

The evaluation team found that:

- Partnership implementation contractors track estimated energy savings and web participation. In addition, at the close of the pilot, the implementation contractor will conduct a billing analysis to determine aggregate savings from the effort.
- No mechanism currently exists to disseminate to partnership stakeholders whether their challenge town is on track to reach the 3% electricity reduction goal. However, the average and total savings per challenge town is available via the web platform.
- Partnership implementation contractors are not tracking typical M&O metrics such as number of events or exposure. However, as indicated above, systematically tracking this data is not necessary to demonstrate pilot impact. Tracking M&O metrics, however, could provide rich data towards understanding community networks, such as the players involved, identifying community groups or residents that are not being targeted, and understanding the effectiveness of various marketing components (such as channels and collateral).
- Budget data may not distinguish between community efforts and behavioral efforts. The evaluation team will work with WMECo to determine whether cost-effectiveness of the community-based effort (separately from the behavioral component) can be assessed.

To gain deeper insight into the effects of community efforts, the stakeholders could consider systematically tracking marketing and outreach efforts if resources exist to do so. In addition, the implementation contractors for this CBP could consider providing municipal stakeholders and community-based organizations with the ability to monitor and track their progress over time, including achievement towards 3% electricity reduction.

The following table presents the data that could be tracked and indicates whether these data are currently tracked.

Table 18. Western Mass Saves Challenge Performance Metrics

Key to the table: x – data are tracked/one of the Theory of Change metrics

unknown – the information on whether the data are tracked is currently unavailable to the evaluation team

■ – data are not tracked and will be collected through primary research efforts

Field labeled “Box #” references correspondingly labeled box in the program logic model, which is located in The Theory behind the Partnership section of the *Western Mass Saves Challenge* chapter

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
Outputs					
1	Solar panel	Solar panels given out	unknown		Secondary data Primary research
		Importance of solar panel giveaway on website enrollment	■	x	Primary research
2	Marketing and educational materials	Marketing and educational material distribution (#, type, source, town)	Not systematically tracked		Secondary data
		Recall, effectiveness of marketing and educational materials (by type, source, message)	■		Primary research
3	Network of community stakeholders	Community stakeholders (#, type, town)	Not systematically tracked		Secondary data Primary research
		Engagement of community stakeholders (participation, # of outreach attempts, town)	Not systematically tracked		Secondary data Primary research
		Effectiveness of the community organization(s) selected for program implementation	■		Primary research

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
		Community/Municipal Leader effectiveness (e.g., knowledge of the programs)		x	Primary research
		Credibility/trust in community organizations		x	Primary research
4	Customer contact	Customer contacts (approximate #, type, source, town)	Not systematically tracked		Secondary data
		Contact rate (approximate % of target customers)	Not tracked		Secondary data
		Recall, effectiveness of outreach (by type, source, town)			Primary research
Pilot Goals					
5	Increased awareness of EE opportunities	Awareness of and attitude toward energy efficiency opportunities		x	Primary research
6	Increased enrollment into the online platform	Platform enrollees (#, town)	Tracked		Secondary data
		Activity of platform enrollees	Tracked		Secondary data
		Satisfaction with the platform			Primary research
7	Non-program changes	Actions not qualifying for program rebates (#, type, town)			Secondary data Primary research
8	Pilot participation	Actions Taken (#, type)	Tracked		Secondary data
		Rate (% of target customers)	Tracked		Secondary data
9	Energy Savings	Gross Savings	Tracked		Secondary data
		Net Savings			Secondary data Primary research

Box #	Category	Performance Metric	Program Tracking	Program Evaluation	
			Is Currently Tracked (TBD Based on January Interviews)	Theory of Change Metric	Potential Source
		Incremental Gross Savings	Tracked		Secondary data Primary research
		Incremental Net Savings			Secondary data Primary research

7.6 Lessons Learned

While our findings are preliminary (for discussion with WMECo, the Program Administrator, and the implementation contractor), we provide interim recommendations for consideration prior to the completion of this evaluation effort. We will supplement and refine this section as we continue our evaluation research activities and present a revised section in our December 2011 report.

Based on the initial evaluation findings, stakeholders should consider the following:

- **Increase municipality awareness of how the *Western Mass Saves Challenge* effort links to WMECo efforts.** Respondents indicated a lack of pilot clarity particularly in terms of WMECo's role in the effort. According to respondents, the effort could increase savings through partnering with other programs, such as energy audits or home assessments. For example, one stakeholder noted that, "...[the] *Mass Saves program, with energy audits...could be thrown in [with the effort to promote the website] so people aren't just getting online and tracking their energy usage, they're doing more than that. They're getting someone in their house to see where they can save.*"
- **Provide explicit links to programs or efforts that could be partnered with the community-based outreach on the web platform.** Stakeholders are searching for programs to couple with web platforms to lead to deeper savings. We understand that since the beginning of 2011, WMECo has begun to implement a number of efforts that link the *Western Mass Saves Challenge* pilot to other WMECo programs. These include the Energy Star Lighting School Fund Raiser, the Home Energy Assessment, and a Lighting Catalog, with plans to couple this program with all WMECo residential programs. We encourage WMECo to continue coupling the *Western Mass Saves Challenge* with residential resource acquisition programs.
- **Move beyond "strategy" to provide specific marketing and outreach tactics and materials.** This may include materials such as checklists, flyers, or other items to help implement the marketing and outreach strategy.
- **Track and provide community-based partners with estimated town savings against 3% reduction goal.** This will help as a marketing and outreach strategy, and will keep them informed on progress.
- **Track marketing and outreach data to get a deeper understanding of tactics, channels, and collateral.** This will help understand which efforts have been effective in promoting web platform and energy efficiency actions and behaviors.

8. COMMUNITY MOBILIZATION INITIATIVES

Community Mobilization Initiatives (CMIs) are a partnership of local community groups, locally hired employees or organized labor, and Program Administrators working toward a sustainable, equitable, and clean energy economy.⁴⁶ The premise behind CMIs is engagement of hard-to-reach audiences in existing energy efficiency programs while advancing local green job creation.

Most CMIs target residential as well as business customers in communities they serve. Within the residential component of the pilot, the focus is on reaching and engaging customers with incomes from 60% to 120% of the area's median. Among the business segment, the focus is on small business customers with monthly electric demand of less than 200 kW. Residents of other segments, however, are not excluded. That is, when CMIs reach customers falling outside of their target segment definition, those customers are channeled into the existing energy efficiency programs (such as low-income or weatherization program).⁴⁷ CMI partnerships include Program Administrators, program implementation contractors, community outreach organizations, and city or town officials.

The analysis and findings presented below include the following four CMIs:

- *New Bedford CMI*
- *Lynn CMI*
- *Chinatown CMI*
- *Chelsea CMI*

This interim report focuses on the *New Bedford CMI*, with limited information on the other three efforts. The *Lynn CMI* has not yet launched; therefore, there is a limited amount of data available for analysis. The *Chinatown* and *Chelsea* CMIs are outside of the scope of this evaluation and are discussed only briefly.

This chapter of the report provides an overarching description of the theory behind Community Mobilization Initiatives, and presents a logic model for these types of efforts. Following CMI theory and logic model, we present detailed findings for the *New Bedford CMI*, specifically focusing on the following aspects:

- An analysis of the community engagement network for New Bedford
- An update on the status and performance of the New Bedford effort
- An overview of the *New Bedford CMI*'s successes and challenges to date

We then present interim findings from the other CMIs and provide considerations for potential improvements when implementing CMIs moving forward.

⁴⁶ Notably, not all CMIs have an organized labor component. For example, installation staff hired as part of the New Bedford CMI is not unionized.

⁴⁷The evaluation team has not received program tracking data to assess the extent of the New Bedford CMI's reach of target customers qualifying for the low-income program. The scope of the other CMI evaluation does not include the analysis of the CMIs servicing non-qualifying customers.

8.1 The Theory behind CMI's

The CMI's seek to increase participation in energy efficiency programs through addressing core barriers to participation in the targeted communities. CMI theory of change, consistent with the overarching theory of change, assumes several barriers that prevent greater participation among the target audience. Below, we describe the barriers that the CMI's seek to address.

- **Barrier: providing financial support to encourage efficiency.** The inability of the target segment to afford energy efficient improvements is one of the core barriers to the adoption of energy efficient measures. Residential customers with incomes falling between 60% and 120% of the area's median are a particularly difficult audience to reach and engage with energy efficiency offerings. These customers do not qualify for Low Income programs, which provide energy efficiency services at no cost, yet are frequently unable to cover the co-pays for energy efficient improvements offered through other rebate programs. Small businesses are a hard-to-reach segment as well, as they often do not have the capital to invest in energy efficient improvements. As a result, participation among these customer segments has historically been low.

To overcome the financial barriers, some CMI's seek to supplement the incentives available through the existing programs with additional subsidies, as well as financing options. For example, *New Bedford CMI* considered offering additional financial support from ARRA funds available statewide, as well as use available financing options through the HEAT Loan program.⁴⁸ Chinatown and Chelsea CMI's use funding available through ARRA-funded Energy Efficiency and Conservation Block Grant (EECBG) program money allocated for *Renew Boston* efforts.⁴⁹

- **Barrier: raising awareness of energy efficiency programs and program offerings.** The targeted residential and business customers are assumed to lack knowledge of energy efficiency in general as well as knowledge about specific ways to save energy in their homes. Lack of awareness and knowledge therefore present a considerable barrier to measure adoption.

To address these barriers, the CMI's primarily rely on a network of known and trusted community partners, such as churches, schools, environmental and community groups, and local volunteers. These organizations and individuals conduct in-person visits and hold meetings and events, during which they identify target customers, educate them about energy efficiency in general, and promote audits leading to energy efficient equipment installations. In addition, community-based organizations receive non-technical outreach training as well as more technical measure-related training, so that they are comfortable discussing existing energy efficiency offerings with potential customers.

⁴⁸ The HEAT Loan Program offers 0% loan to assist with the installation of qualified energy efficient improvements. HEAT loans are available for up to \$25,000 with terms up to 7 years. Only customers living in one-to-four unit residential buildings are eligible for HEAT loans.

⁴⁹ The American Recovery and Reinvestment Act (ARRA) was passed in 2009 with the goal of spurring economic activity and growth. Under the provision of the Act \$16.8 billion were allocated to energy efficiency and renewable energy programs.

- **Barrier: building trust and giving reason.** Customers are skeptical of energy efficiency offerings and are unsure of what might be required of them if they chose to participate.⁵⁰

To mitigate this barrier, CMIs engage community groups known and trusted in the area. Community outreach staff leverage their existing relationships to engage local residents and businesses and try to convince them of the value of energy efficiency and the benefits of reducing their energy use. Hiring local residents to conduct installations is intended to increase potential participants' comfort and trust with the program and energy efficiency measures that are recommended. Some participants may also feel good about the community benefits from local hiring and that may increase participation.

- **Barrier: facilitating participation.** Many residential customers within the income group of 60% to 120% of the area's median along with small business customers often lack time and resources to attend to every aspect of the participation process. Lengthy processes, multiple visits, paperwork, and other aspects can turn customers off from getting an audit and installing energy efficient equipment.

To address the participation barrier, CMIs use a holistic approach to program delivery. Trained local outreach staff handhold customers throughout the process, including walking customers through the process of participating in the program, following up on the audit results, assisting with the application process, and referring customers into the appropriate program. As an example, in the *New Bedford CMI*, each participating customer has a designated outreach representative who walks them through the participation process, thus minimizing the fear and hassle factors associated with audit and installation processes. Other CMIs also use this model, where one outreach worker facilitates the entire participation process, helping to prevent a potential participant from being dropped (due to lack of follow-up on the part of the resident or a program vendor) as they navigate the process across multiple organizations.

In addition to the intervention tactics described above, as part of the partnership model, CMIs attempt to create green jobs through training and hiring the local workforce to conduct installation of energy efficient measures.

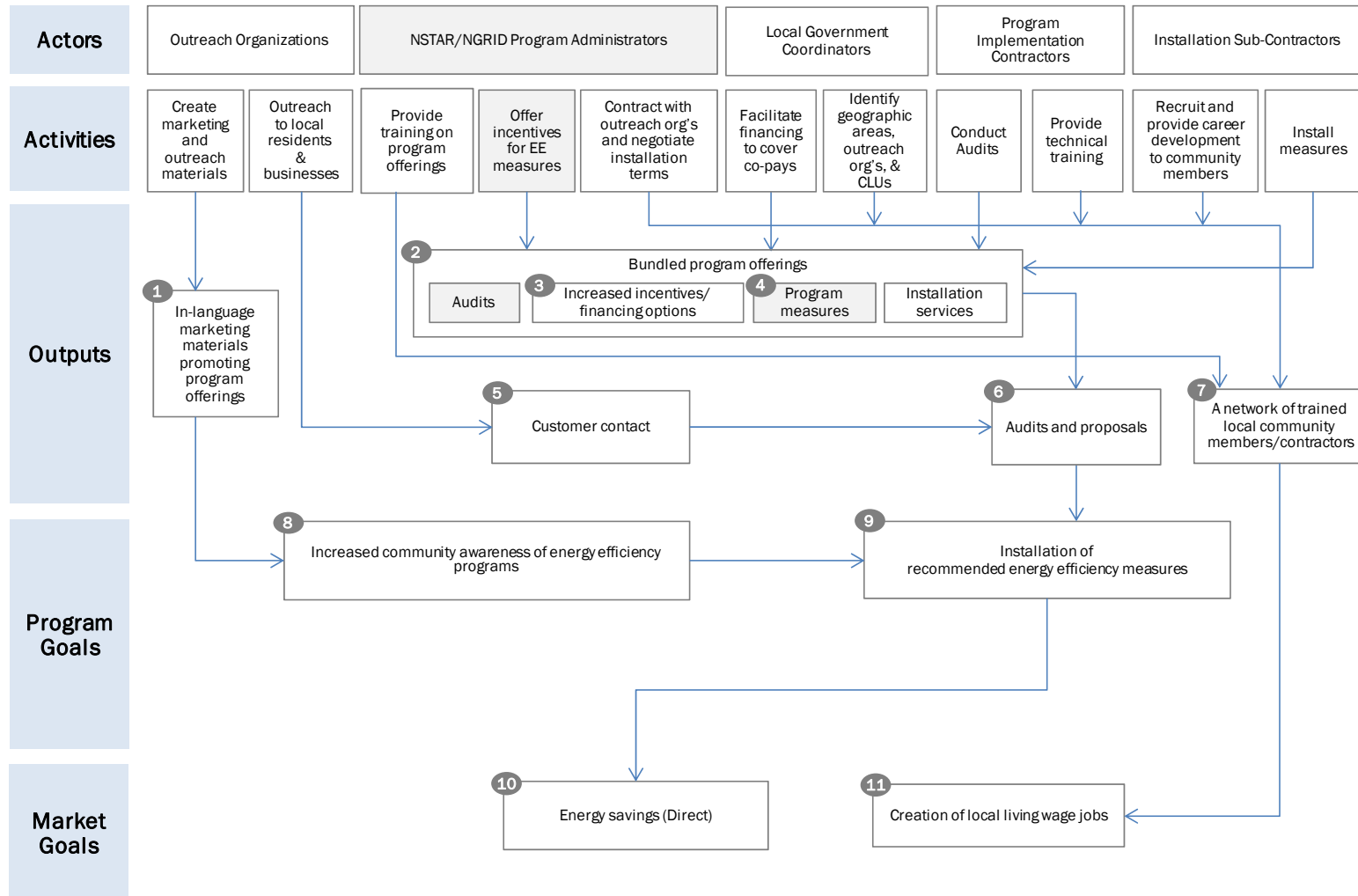
Because of increased customer awareness, greater degree of confidence in energy efficiency and energy efficiency programs, availability of assistance throughout the participation process, and additional financial motivators, customers are considered more likely to agree to an audit and proceed with equipment installations that produce additional energy savings. As locally hired staff perform marketing and outreach, more work becomes available in the area.

Figure 9 below depicts actors, activities, outputs, and goals of the Community Mobilization Initiatives. Numbering in the figure indicates the presence of performance metrics for a particular output or goal. Due to limited scope of evaluation work for the Chinatown and

⁵⁰ Note, that according to Program Administrators, during the New Bedford pilot customers have called NSTAR because they were doubtful about the community group and wanted to verify who they were. As such, some customers rely on the PA for guidance/information.

Chelsea CMIs, as well as limited amount of information available for the *Lynn CMI*, due to the later start date, greater detail on the performance metrics is provided only for the *New Bedford CMI*. These data are available in the Data Tracking section of the *New Bedford CMI*.

Figure 9. Community Mobilization Initiatives Logic Model



Funding: NSTAR and NGRID Energy Efficiency Programs, ARRA Funding, Grants (for some CMI)

Note: Cells highlighted in gray indicate contributions to the CMI from core utility programs

8.2 New Bedford CMI Community Engagement Network

The *New Bedford CMI* is a community-led initiative that builds upon the existing relationship between the City of New Bedford and Marion Institute. Marion Institute and the City of New Bedford act as ultimate coordinating entities within the CMI. The effort contributes to existing goals within the community: The Marion Institute has developed the Green Jobs/Green Economy Initiative (GJGEI) in collaboration with the Greater New Bedford Economic Development Council and the City of New Bedford. According to the City of New Bedford representative we interviewed as part of the evaluation, the City's goal is to weatherize 5,000 business and homes within five years.

New Bedford CMI also builds upon an existing energy efficiency program infrastructure offered by NSTAR. In addition, NSTAR provides budget for marketing and outreach efforts, facilitates training, mentors the outreach staff⁵¹, and is engaged in overall coordination of the effort.

New Bedford CMI features a somewhat unique community engagement structure. The community outreach network is expansive, yet at the same time centralized. The core network consists of:

- **The Marion Institute's Green Jobs/Green Economy Initiatives.** This entity is responsible for hiring and managing Community Mobilization Leaders, planning and implementing outreach activities, tracking data, as well as providing overall coordination and support within the framework of the CMI. The coordination role held by the Marion Institute's GJ/GE Initiatives is conducted by two co-directors, while the outreach efforts are performed by four part-time outreach staff, or so-called Community Mobilization Leaders, who were hired specifically for the initiative. These four local, part-time outreach staff members were reportedly selected based on their passion, motivation, and community leadership potential. These traits were prioritized over work history or education, as was flexibility in their schedule in order to assure availability that aligned with the needs of the community.
- **City of New Bedford.** The city acts as an entity responsible for facilitating city services that help support the goals of the CMI, including management of additional funding available, supplying additional data (e.g., assessor's data), etc.
- **Conservation Services Group (CSG).** This is the lead implementation vendor for the Mass Save program. As part of the Mass Save program infrastructure, CSG offers a network of trained auditors, contract and data management, and quality control/quality assurance services. As part of the *New Bedford CMI*, CSG also provides technical training on installation standards and procedures as part of the job training and job creation component, as well as training on weatherization

⁵¹ NSTAR has been involved in overall program training, while CSG was engaged in more technical training and training of the local installation workforce. As part of the CMI, two outreach coordinators had an opportunity to shadow auditors during the business audit visits to learn about weatherization work and energy efficiency in general.

improvements and program processes to community outreach leaders and coordinators.

- **PACE/Youth Build.** This is a network of locally hired youth that perform installation work as part of the *New Bedford CMI*. This CMI placed a strong emphasis on hiring local community members for the outreach and installation efforts. Green jobs creation has been a significant goal of the New Bedford Initiative in both the outreach and installation efforts. The CMI has achieved great strides in this area. At the start of the CMI, no local workers were approved to perform installations for the Mass Saves Program in the New Bedford area. Because of the recruitment and training provided by the *New Bedford CMI* network, seven locals are currently qualified to conduct installations for Mass Save, employed by a new business created by Youth Builds, called Urban Energy Resources. Installation subcontractors with Youth Builds were given extensive technical training on installation methods. Youth Builds is a nine-month AmeriCorps Program that works with 18-24 year olds to help them obtain their GED along with construction/green jobs training. The group received training as a part of their coursework and once again as a part of CSG's two-day "boot camps" for weatherization and for air sealing, which is a large part of the certification process to acquire projects through CSG.⁵²

In addition, other community-based groups contribute to the network to a smaller extent. Specifically:

- **Education Should Help Us.** The ESHU² (Education Should Help Us X Ecology Spirituality Health and Unity Collective) has been retained to provide training on neighborhood canvassing to Marion Institute outreach representatives. The training for outreach staff was extensive and included depiction of multiple scenarios of interactions that might occur while visiting customers door-to-door. The training enabled the outreach staff to tailor their approach to inform customer leads of the program options and assure them of high program value and low participation costs.⁵³
- **Community-based groups:** In addition to the above-described community engagement structure, Marion Institute taps into additional local outreach channels on an as-needed basis to facilitate events, forums, and other activities. These channels include Bristol Community College, local churches, the local cable access channel, local radio, and the Office of Community Development. Through these entities, the CMI was able to have a strong presence in largely attended events, including an environmentally focused block party and a home show.

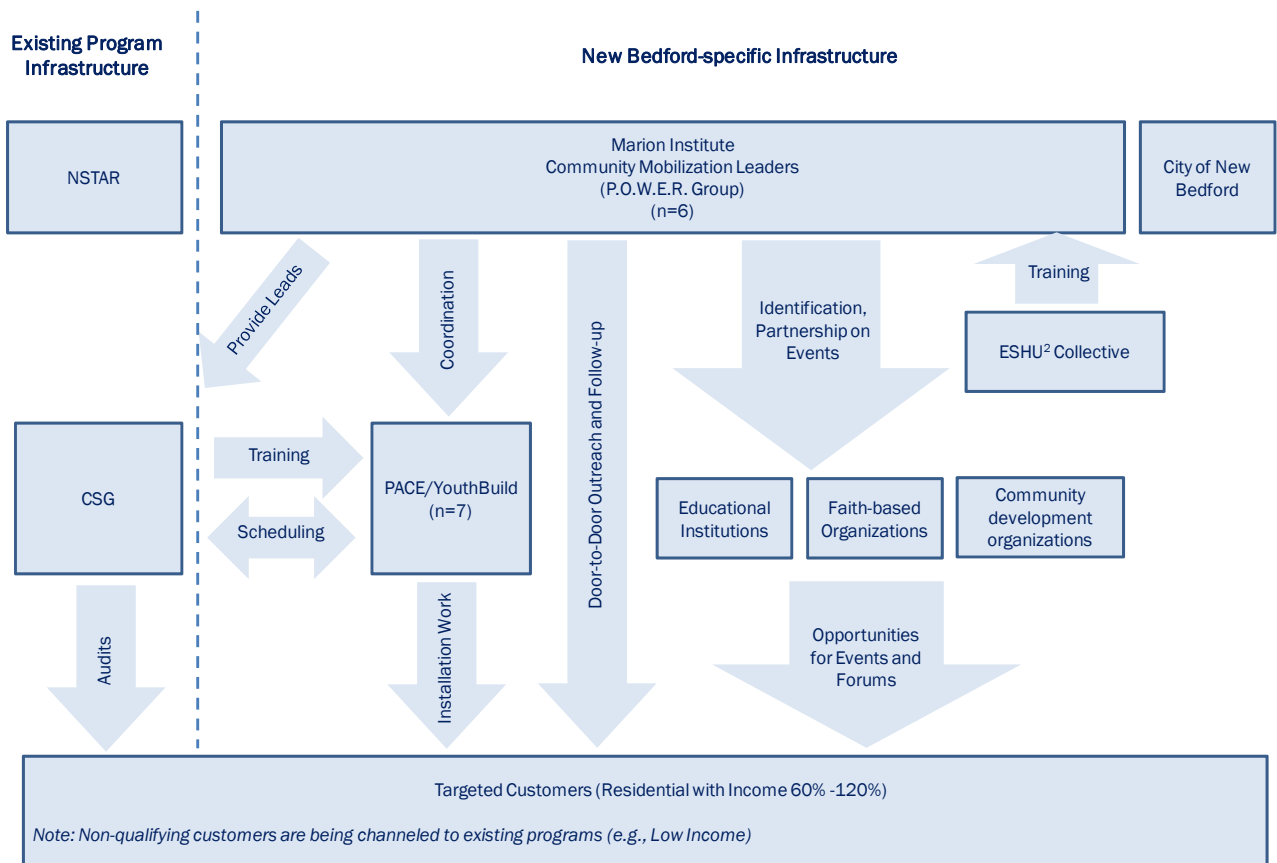
Figure 10 graphically depicts the community engagement network for New Bedford. The centralized nature of the community engagement network, where Marion Institute both conducts outreach and coordinates the partnership, has been effective in minimizing communication and coordination challenges and setbacks arising from multiple handoffs, yet has not limited the initiative's ability to perform outreach on a large scale.

⁵² Some students found these rounds of trainings to be redundant as they had similar lessons through prior coursework with Youth Build.

⁵³ Note that community outreach stakeholders we interviewed found training useful, particularly when it came helping them anticipate areas of customer concern and effectively address them.

Notably, this structure is specific to the residential component of the effort. The small business community engagement network is very similar. The only differences are a different implementation vendor (Rise Engineering) who conducted both audits and installation work (as opposed to the residential component, where the locally hired workforce does the installation work).

Figure 10. New Bedford CMI Community Engagement Network (Residential Component)



While the core target of the CMIs is residents with incomes falling between 60% and 120% of the area’s median, there does not appear to be a way to identify how many of the customers targeted belong to this income segment. The effort employs a channeling component to only identify customers who would qualify for the Low Income program (and therefore no-cost improvements). Other customers are serviced through the Home Energy Services program.

8.3 New Bedford CMI Status and Accomplishments

Partnership Launch. Planning for the *New Bedford CMI* began in early February 2010 with the intent to launch in March 2010, right after the contract was signed. The actual start date was July 16, 2010 after delays in setting up staff roles and understanding the process expectations from all involved parties. Despite the four-month delay, the *New Bedford CMI*

was the first CMI to launch. The *New Bedford CMI* had to undergo a fairly intensive startup process, with an extensive ramp-up period. As a result, the *New Bedford CMI* end date was extended from December 2010 to the end of April 2011 to account for a backlog of customers and limited monthly scheduling capacity. The implementation of this effort will have covered a 9-10 month period. Notably, there are still outstanding jobs that are being completed for the *New Bedford CMI*.

As seen in Table 19, through the end of 2010, the effort reached 818 households residing in 1-4 unit buildings through canvassing efforts, and identified 56 leads through other events. The table provides an overview of the outreach activities and leads generated as the result of those activities.

Interestingly, to reach 818 households, outreach staff had to visit 1,961 households. This represents a 42% reach rate through the canvassing effort. From the data provided to us, it appears that the outreach team made three efforts to reach each household. This level of outreach intensity was deemed appropriate due to the hard-to-reach nature of the target audience.

As for multi-family buildings, the outreach staff made contact with managers and/or owners of 35 buildings to engage them with the multi-family program. Outreach staff also spoke in-person with 29 small business customers.

Both the outreach/coordination team at the Marion Institute and CSG are collecting tracking data. Final tracking data for the entire effort were not available for this interim report, but we have received a summary of the partnership’s performance through the end of December 2010. Below, we present the data we have available to date. We will revise and supplement this section once we receive and analyze final tracking data.

Table 19 provides the performance of the *New Bedford CMI* against its goals through the end of 2010. The data are presented by various customer segments targeted through the effort. Following the table, we provide analysis for each target segment.

Table 19. *New Bedford CMI* Performance

Metric	Goal	July 2010 through December 2010	% of Goal
<i>Residential 1-4 unit buildings</i>			
Number of leads through canvassing efforts	Not an explicit goal	818	N/A
Number of leads through additional outreach efforts	Not an explicit goal	56	N/A
Audits	Not an explicit goal	90	N/A

Metric	Goal	July 2010 through December 2010	% of Goal
Completed weatherization projects: 1-4 unit housing	50	6	12%
Appliance program participation	Not an explicit goal	0	N/A
Savings (kWh)	Not an explicit goal	77,691	N/A
Savings (MBTU)	Not an explicit goal	483,400	N/A
Residential 5-20 unit buildings			
Number of leads	Not an explicit goal	35	N/A
Audits	Not an explicit goal	2	N/A
Completed weatherization projects: apartment buildings	4	0	0%
Small business customers			
Number of leads	Not an explicit goal	29	N/A
Number of audits scheduled	Not an explicit goal	1	N/A
Completed lighting projects: small businesses	25	0*	0%

*As of the end of 2010, one lighting contract was issued but was not signed by the authorized party

Residential customers in 1-4 unit buildings. As seen in Table 19, of the 818 1-4 unit leads reached and identified through community marketing and outreach, 11% signed up and completed an audit. Reasons for customer refusal, as collected by the outreach staff, include, among other things, mere lack of interest, audits and installation work performed at the premise in the past, and mistrust in the value of energy efficiency. Customers who agreed to an audit, on the other hand, cited bill savings, increased comfort of home, and environmental benefits as key motivators.

Of the 90 audits performed among customers living in 1-4 unit buildings, only 7% proceeded with weatherization improvements. Pre-weatherization barriers seem to have played a significant role in curbing weatherization improvements. Based on the data available to us, it appears that 29 of 90 audited households (36%) faced pre-weatherization barriers that

prevented energy efficient improvements.

Residential customers in 5-20 unit buildings. Among multi-family leads, 6% agreed to an audit. As of the end of 2010, no projects were performed. Of the two audited buildings, one was oil-heated and therefore only eligible for lighting upgrades. The second building faced pre-weatherization barriers that needed to be addressed before any weatherization work could be done.

Small business customers. Of the 29 small businesses reached out to by the CMI, only one customer had an audit performed. No projects have been completed among this customer segment to date.

New Bedford CMI Costs

Based on the program materials provided to us⁵⁴, *New Bedford CMI's* costs for implementing the effort are at \$111,628. This number includes planning, administration, marketing, data tracking, as well as audit and weatherization work performed. The amount of money spent by Marion Institute on setting up and coordinating the effort, providing outreach, and facilitating training represents 48% of the total costs to date.⁵⁵ We do not have the information on the other costs that went into planning and implementation of the effort. Other sources can include amount of money spent on additional incentives, or pre-weatherization barriers.

Table 20. *New Bedford CMI Costs*

Entity and Purpose	Amount
CSG – planning, administration, and marketing	\$14,701
CSG – audits and insulation work	\$43,636
Marion Institute – outreach, data tracking, training, planning, and administration.	\$53,291
TOTAL	\$111,628

Job Creation Component

As part of the job creation component of the *New Bedford CMI*, two co-directors (one part-time and one full-time) and four part-time outreach staff members at Marion Institute, and seven Youth Build installation contractors were hired. Moving beyond April, the Marion Institute (outreach group and coordinating entity) plans to continue working on home retrofits while expanding into energy efficiency education. Following the end of the partnership, the outreach group plans to continue to connect the many leads that were

⁵⁴ See the NSTAR Specific Community Initiative Report. Note that the full support of the PAs, (including any support to provide contractors with Davis-Bacon Wages), will be explored for the final report.

⁵⁵ Please note that the total cost does not include expenses incurred by Rise Engineering for conducting a small business audit. The number, however, is not expected to be high.

associated with home weatherization barriers to appropriate sources to eventually be able to take full advantage of the PA programs and rebates.

While the Marion Institute has acquired funding to retain its outreach staff for an additional year, there is uncertainty as to whether the demand for the local installation subcontractors will continue without strong outreach efforts.

8.4 Successes and Challenges in New Bedford

Generally, the partnership was implemented according to the original program implementation model. The partnership targeted residents of West End and South Central New Bedford with incomes between 60% and 120%⁵⁶ of the area's median income as well as small businesses with monthly electric demand of less than 200 kW. Outreach included door-to-door canvassing visits and events such as a home garden show and a block party with an environmental focus.

New Bedford CMI was launched later than anticipated. Initial delays in startup resulted in partnership dates extended beyond what was initially expected. These delays are not unexpected given that the *New Bedford CMI* initiative is a new undertaking that includes multiple public and private organizations and that energy efficiency implementation is a complex undertaking, despite the fact that it builds on NSTAR's existing energy efficiency network.

The community outreach effort for the *New Bedford CMI* was well rounded and aggressive. The centralized structure of the community engagement network was helpful in streamlining the outreach efforts. Training provided as part of the effort helped increase the effectiveness of the outreach.

As part of the effort's job creation component, 13 positions were created. The Marion Institute considers leadership skills gained by the centralized outreach training staff an important metric to measure the success of the initiative's green jobs component. However, sustainability of the installation subcontractor jobs beyond the CMI is unknown.

Due to the specifics of the program design and implementation model as well as specifics of the geography and building stock, the partnership encountered multiple challenges that prevented the desired levels of participation, particularly in terms of installations. Below is a comprehensive picture of the challenges the *New Bedford CMI* faced, along with the actions it took in response to these issues.

Once the challenges to participation were identified, stakeholders often sought to make relevant changes to the program design and delivery to optimize future partnership efforts. In addition, the *New Bedford CMI* stakeholders employed their collective determination and flexibility to continuously address pervasive challenges at weekly meetings, in addition to using real time communication. They often used Google documents to coordinate the scheduling of audits and installations, which required input from CSG, Youth Build, and Marion Institute. The Marion Institute and CSG were flexible in setting up their audit scheduling process in hopes that change could produce a more streamlined, effective result.

⁵⁶ Those residents with an income below 60% of median income may be eligible for a Low Income efficiency program and leads of this type are forwarded to the state's Low Income program.

According to stakeholders, a miscommunication regarding an alteration in the scheduling process resulted in a backlog of audit leads, but the groups improved the audit scheduling process and scheduled most backlogged audits through a more streamlined scheduling process.

- **Low-income program eligibility screening.** NSTAR assisted the outreach staff in identifying customers who would likely be eligible for the Low Income program services, but sometimes that was insufficient, and customers who should have been served by the Low Income program were scheduled for CMI assessments. At the start of the CMI, auditors were verifying income at the audit visit, which was wasteful in cases with non-qualifying customers.
 - **Action taken in response to issue - *Conduct Low-Income program eligibility screening at initial outreach stage.*** The outreach group searched for a way to confirm income level upon their first outreach opportunity and adjusted their routine to include a check of a code on the resident's energy bill. This lessened, but did not completely eliminate, occurrences of auditors having to explain to customers that they were not eligible.
- **Pre-weatherization barriers.** Due to the older building stock in New Bedford, physical barriers often arose during the initial audit. The partnership was unable to move forward on homes with knob-and-tube wiring, no attics basements with dirt floors, and combustion safety issues with older boilers. As mentioned in the New Bedford CMI Status and Accomplishments section above, of 90 customers living in 1-4 unit buildings who had an audit, over a third could not proceed with weatherization improvements due to pre-weatherization issues.
 - **Action taken in response to issue - *Anticipate the need for pre-weatherization improvements and find ways to assist homeowners with these efforts*** – After recognizing the pre-weatherization barriers, the outreach team researched ways to assist their leads in addressing these barriers. In an attempt to move leads towards installation, the team has approached the Office of Community Development to utilize funds for first-time homebuyers (allocated for meeting code violations and pre-weatherization issues), in addition to identifying grant money and financing from sources other than NSTAR. Furthermore, the outreach team has set a working relationship with an electrician and a plumber to offer estimates at no cost for upgrading knob-and-tube wiring and addressing combustion issues. Another option that has been explored is using economies of scale to get a discount on high efficiency boilers.
- **Difficulties with Communications and Scheduling.** During the initial implementation, there was some misunderstanding as to who was ultimately responsible for scheduling audits. This resulted in an accumulation of unscheduled audits for a short timeframe. The implementation contractors did seek to streamline this effort, as discussed below.

- **Action taken in response to issue - *Provide outreach staff with the ability to schedule audits during outreach*** – The audit scheduling process was modified to allow the outreach staff to schedule audits while conducting outreach. That involved the implementation contractor sending availability to the outreach team ahead of time, to allow for hassle-free, on-the-spot scheduling. While this did streamline the process, it required more effort from the implementation contractor.
- **Audit No-shows.** During the implementation of the pilot, auditors and installation contractors were faced with a number of “no-shows,” or customers who scheduled appointments they could not keep.
 - **Action taken in response to issue – *Advance contact and confirmation of appointment*** – Late in the pilot effort, stakeholders agreed that Youth Build representatives would contact customers 48-72 hours in advance of their scheduled appointment to confirm participation. This reduced no-shows and last-minute cancellations and freed appointment times that could otherwise have been lost, although it did not completely eliminate the problem.
- **Unique Staffing Needs.** While the subcontractors and outreach team hired dedicated staff to work on the CMI, the implementation contractor expected to use its existing staff to conduct audits for the CMI. The implementation contractor originally believed its role would not diverge much from its usual work with the PA, but because of the community-based nature of the project, more tracking and flexibility was required. While the program implementer made due diligence alterations to the implementation model to accommodate the needs of the CMI, the changes introduced staffing needs that were not planned as part of the effort. For future CMIs, it would be beneficial to account for this issue when planning and implementing efforts.

8.5 Data Tracking

As part of the *New Bedford CMI*, a wealth of customer and partnership-specific data is being collected and tracked. Data are collected and tracked by both the outreach/coordination team at the Marion Institute and by CSG, NSTAR’s lead implementer of the Mass Save program.

We have not received the final tracking databases for the CMI. However, we have received and were able to review initial spreadsheets with data tracking fields, as well as NSTAR’s memo on community initiatives, which contains results for the effort’s performance through the end of December 2010. Once we receive and analyze the final partnership tracking data, we will supplement and revise this section as needed.

The *New Bedford CMI* tracks the chain of customer touches and disposition, including the attrition rate from outreach to audit. This type of ongoing tracking has been beneficial in making ongoing improvements across partners and streamlining the process of passing a lead from the point of initial outreach to completion of installation.

Table 21 below provides a detailed overview of the performance metrics for the *New Bedford CMI*. We will modify this table once we receive final partnership tracking data.

Table 21. New Bedford CMI Performance Metrics

Key to the table: x – data are tracked/one of the Theory of Change metrics

unknown – the information on whether the data are tracked is currently unavailable to the evaluation team

■ – data are not tracked and will be collected through primary research efforts

Field labeled “Box #” references correspondingly labeled box in the program logic model, which is located in The Theory behind CMIs section of the *Community Mobilization Initiatives* chapter

Box #	Category	Performance Metric	Program Evaluation		
			Is Currently Tracked	Theory of Change Metric	Potential Source
1	Marketing materials promoting program offerings	Marketing material distribution (#, type, language)	x		Secondary data
		Recall, effectiveness of marketing materials	■		Primary research
2	Bundled program offerings	Relevance of program offerings	■		Primary research
		Ease of participation	■	x	Primary research
		Value of the bundling approach (time and money spent vs. the savings it brings in)	■	x	Primary research
3	Increased incentives/ financing options	Customers that take advantage of co-pay assistance (#)	x		Secondary data
		Influence of additional incentives/financing options on measure installation	■	x	Primary research
		Customer satisfaction with incentive levels	■		Primary research
4	Program measures	Customer satisfaction with measure offerings	■		Primary research
5	Customer contact	In-person contacts (#, by type)	x		Secondary data
		Contact rate (% of target customers)	x		Secondary data
		Recall, effectiveness of outreach	■		Primary research

			Program Evaluation		
Box #	Category	Performance Metric	Is Currently Tracked	Theory of Change Metric	Potential Source
		Importance of additional program support in equipment installation		x	Primary research
6	Audits and proposals	Audits (#)	x		Secondary data
		Audit rate (% of target customers, % of contacts)	x		Secondary data
		Summary of measures recommended	x		Secondary data
7	A network of trained local community members/ contractors	Subcontractor installers provided with installation training (#)	x		Secondary data Primary research
		Quality of the employed subcontractors (type of trade, length of employment terms, status of employment)	x		Secondary data Primary research
		Outreach members trained on program delivery processes (#)	x		Secondary data Primary research
		Training sessions (#, topics, schedules)	x		Secondary data Primary research
		Awareness and knowledge of installation practices, program eligibility criteria, etc.			Primary research
		Effectiveness of the community organization(s) selected for program implementation			Primary research
		Employee effectiveness (e.g., knowledge of the programs)		x	Primary research
		Credibility/trust in community organizations		x	Primary research

			Program Evaluation		
Box #	Category	Performance Metric	Is Currently Tracked	Theory of Change Metric	Potential Source
8	Increased community awareness of energy efficiency and energy efficiency programs	Awareness of and attitude toward energy efficiency opportunities		x	Primary research
		Awareness of programs and program rebates		x	Primary research
9	Installation of energy efficiency measures	Projects (#)	x		Secondary data
		Measures (#, type)	x		Secondary data
		Rate (% of audits, % of target customers)	x		Secondary data
		Customer satisfaction with the audit and installation process (timeliness, professionalism of installer, etc.)			Primary research
10	Energy savings	Gross savings	x		Secondary data
		Net savings			Secondary data Primary research
		Incremental gross savings	x		Secondary data Primary research
		Incremental net savings			Secondary data Primary research
11	Creation of local living wage jobs	Number of jobs created that are sustained one year after end of CMI	x		Secondary data Primary research

8.6 Interim Finding on Other Community Mobilization Efforts

8.6.1 Lynn CMI

Lynn CMI has not yet launched and is still in the planning stages. The effort is led by Green Justice Coalition (GJC), which plans to build upon the existing program infrastructure offered by NSTAR and National Grid, more specifically Mass Save. Green Justice Coalition, the local government coordinator, identified the City of Lynn as a good candidate for a CMI based on its strong local community ties.

Partnership Launch. The *Lynn CMI* was supposed to launch in 2010. However, due to budgetary constraints, the effort launch was delayed until 2011. In mid-March 2011, the GJC submitted a proposal to National Grid. The proposal was submitted jointly with the following entities:

- Neighbor to Neighbor
- Community Labor United, Inc.
- Laborers' New England Region Organizing Fund
- Laborers' Local Union 7 and Advantage Weatherization Inc.

The effort launch is pending the final proposal and budget approvals. It is expected that outreach activities for the effort will begin as early as June 2011. It is also feasible that training of community-based outreach stakeholders will be conducted prior to the outreach start date.

Partnership Implementation. Since the *Lynn CMI* is starting after the launch of several other CMIs, stakeholders will be able to take advantage of the lessons learned through the implementation of the other CMIs. Notably, an event is planned in the near future to allow experienced CMI implementation contractors to present findings, share barriers, and successes of their effort, thus allowing Lynn to build on successful methods.

Neither implementation specifics nor community engagement structure have been determined yet. However, the *Lynn CMI* will be able to take advantage of the recent changes to the Mass Save program that can potentially help alleviate some of the participation barriers:

- **Barrier: Increased HEAT LOAN amount.** Recent changes in the Mass Save HEAT Loan program would allow for greater loan amounts. Customers are now able to finance energy efficiency improvements worth up to \$2,500 (from \$1,500 before the increase).
- **Barrier: Streamlined audit process.** CSG plans to switch from the previous three-tiered screening, diagnostic, and comprehensive audit structure to a single Standard Home Energy Assessment to streamline the audit process. National Grid plans to move back to this one visit model as well.

While the *Lynn CMI* has not launched, anticipated barriers are similar to those faced by the other Initiatives, including lack of financing for co-pays and pre-weatherization barriers. Performance metrics to measure the success of the *Lynn CMI* have not been fully determined or finalized yet.

8.6.2 Chinatown CMI

While the evaluation team has not conducted interviews with the organizations that are implementing the Chinatown efforts, bimonthly conversations with the local evaluation contractor (Arbor Consulting) allowed for information sharing, broadening the perspective of the CMI efforts.

Chinatown CMI is a community-based effort that aims to increase awareness of energy efficiency goals in the Chinatown area while increasing use of current PA energy efficiency offerings. The effort is led by Green Justice Coalition and builds upon the existing program infrastructure offered by NSTAR and National Grid. The initiative originally targeted both residential and small business customers. However, due to pricing issues, the small business component was removed from the initiative's scope. Among the residential customer segment, the effort targets customers with incomes between 60% to 120% of the area's median.

The community outreach network for Chinatown includes the Chinese Progressive Association as well as the Asian American Civic Association. As part of the effort, these organizations provide outreach and language translation assistance. Local Chinatown community ties have proven vital to the CMI's accomplishments to date, according to Arbor Consulting, with implementation contractors leveraging existing networks to address language and cultural barriers.

While implemented in Chinatown, the effort's outreach placed emphasis on facilitating non-English speaker participation. This was primarily accomplished through offering translation services and assistance to customers throughout all stages of the participation process.

Chinatown CMI has recently moved from its originally planned target neighborhood of Chinatown to the South End and Allston/Brighton areas due to the following barriers that curbed participation in the initially selected area:

- **Barrier: Housing stock issues.** The Chinatown CMI had a very difficult time moving forward with efficiency efforts due to the pervasive pre-weatherization barriers in the neighborhood.
- **Barrier: Program qualification.** Many residents in the Chinatown neighborhood of Boston fit within the state's Low Income program and are therefore ineligible for the Chinatown CMI.
- **Barrier: Highly transient population.** The high turnover rate in Chinatown's rental units makes it difficult to attract tenant interest in energy efficiency program offerings.

Aside from the housing stock and a large number of non-qualifying residents, the Chinatown CMI faced a significant challenge with the income-verification process. The effort, similar to *Renew Boston*, uses Energy Efficiency and Conservation Block Grant (EECBG) program funds to cover customer co-pays and therefore needs to ensure customer qualification for additional incentives. Until recently, this process involved submitting tax forms and other personal information. Recently, the requirements were changed to just a written affidavit of income qualification signed by the customer. This should be helpful in alleviating a major bottleneck.

The Chinatown effort is expected to last until either the effort's end date (in 2011), or until the goals are met, whichever comes first.

8.6.3 Chelsea CMI

While the evaluation team has not conducted interviews with the organizations that are implementing the Chelsea CMI efforts, bimonthly conversations with the local evaluation contractor (Arbor Consulting) allowed for information sharing, broadening the perspective of the CMI efforts.

Chelsea CMI aims to address the barriers discussed in the program theory section within the Chelsea community. The effort is led by Green Justice Coalition and the City of Chelsea. It builds upon the existing program infrastructure offered by NSTAR and National Grid.

The effort targets the Chelsea community and uses the following community engagement structure:

- **Green Justice Coalition.** This is the coordinating entity
- **Chelsea Collaborative.** This is a local community outreach organization responsible for outreach to local residents
- **InsulPro.** This is an installation contractor that was referred by the GJC
- **City of Chelsea**
- **Program Administrators.** Program Administrators provide overall coordination

The initiative originally targeted both residential and small business customers. However, due to pricing issues, the small business component was removed from the initiative's scope.

The Chelsea CMI has secured additional financing to cover customer co-pays.

As of early May, Chelsea is very near its goal for multifamily homes and has completed a third of its one-to-four unit housing goals.

The Chelsea CMI is expected to last until either the effort's end date or until the goals are met, whichever comes first.

8.7 Cross-Community Mobilization Initiative Lessons Learned

While our evaluation efforts are in the early stages and we have not fully explored Lynn, Chinatown and Chelsea, this section offers some interim findings and considerations that can be shared with all CMI efforts.

In general, the CMIs encountered a variety of common barriers during the course of launch and implementation. Based on our discussions, it appears that in every case, the local organizations were particularly dedicated to addressing the barriers since they were motivated to serve their community and realize local energy efficiency and/or green jobs benefits. Below are the common barriers that were faced by the CMIs, and considerations for addressing them in a way that targets this specific income bracket along with the job creation goals in the most effective manner.

- **Barrier: the complexity and steep learning curve associated with energy efficiency implementation.** Each CMI required an extensive ramp-up, with multiple organizations, most of which lacked energy efficiency experience. There was some knowledge transfer across CMIs, but much time was spent learning to implement an energy efficiency program and developing effective coordination across the organizations.
 - **Takeaway: Streamline implementation and share best practices to address lengthy and complex startup process and rely on the knowledge of experienced energy efficiency implementation contractors.** CMIs took advantage of existing structures including rebate packages, experienced outreach organizations, and audit staff. However, much effort was spent troubleshooting the hand-offs across organizations – streamlining communication and combining tasks that were initially performed independently. The PAs have scheduled an upcoming meeting to share best practices among CMIs; this will be a valuable next step towards documenting processes in efforts to avoid inefficiencies and reinventing the wheel in the future.
- **Barrier: pervasive pre-weatherization barriers among the target population’s housing stock.** Each CMI faced a multitude of pre-weatherization barriers, which often halted progress towards installation goals. Certain groups have made impressive efforts to thwart these barriers, and their progress in these efforts is largely due to their dedication and creativity. It is unclear in the immediate future if these efforts will be successful and it will be valuable to evaluate the costs and benefits of working with a housing stock that lends little to energy efficiency installations.

- **Takeaway: Analyze the target community's housing stock and more broadly, their resources (e.g., local community ties, motivation, connections to local government, and alternate funding sources) and barriers (e.g., language/culture and physical housing stock barriers).** Ensure before launching that the barriers that are expected can actually be effectively addressed by the program design. Consider using a more systematic approach to selecting target communities that prioritizes them by past program participation, barriers, and resources and addresses first the ones most likely to succeed.
- **Barrier: the difficulty of identifying and verifying just above-low income residents.** The CMI design is intended to reach residents that do not qualify for the state's Low Income program but are still relatively low income, a "sweet spot" that is difficult to achieve cost-effectively.
 - **Takeaway: Consider applying income qualifications at a neighborhood level (e.g., based on census block income or other geodemographic data) so that each household does not have to verify its income.** Participants are often either unwilling or unable to share income information.
 - **Consider coordinating with or piggybacking on the state's Low Income programs.** In California, state low-income providers have received public-benefits charge-funded money to treat households that are just above the low-income qualification. Those outreach organizations are often doing door-to-door canvassing and know how to identify, income-qualify and solicit participation from low-income residents as they have typically been doing implementation work for many years. Other models have awarded outreach contracts to local neighborhood groups to identify residents, and those leads are passed onto the existing implementation infrastructure.
- **Barrier: many targeted potential participants are unable to pay a co-pay.** The target population of CMIs is often unable to afford even the reduced upfront cost of projects and do not have credit that allows them to participate in financing. The population targeted in the CMIs is just above the low-income group and does not have a large amount of disposable income.
 - **Takeaway: Ensure that financing options are available for residents or alternate funding sources for target building stock that is expected to require substantial co-pays.** Otherwise the partnership may be wasting resources identifying and handholding residents (or businesses) who cannot ultimately close the deal due to lack of funds. For target CMIs that do not have access to financing or alternate funding sources, consider offering low/no-cost measures only to streamline implementation and use resources more effectively and efficiently.
- **Barrier: lack of sustainable demand for local green jobs.** The current status of the CMIs does not allow for conclusive information regarding the prospects of those hired and trained to conduct energy efficiency installations for the CMIs, but the local CMI organizations that we spoke with were concerned that once the CMI ends, there will not be additional opportunities for newly trained and hired installers to continue their work.

- **Takeaway:** When considering target CMIs that include green jobs goals (and resources dedicated to training and hiring), ensure that there are other initiatives or plans in place after the CMI is over to sustain those jobs or resources may be wasted and trained workers may become unemployed. Green job goals and efforts should probably be coordinated at a broader level (e.g., statewide) beyond the local community and tied into additional related efforts.
- **Barrier:** the CMI model that utilizes many specialized organizations requires a lot of handholding to shepherd participants through the entire process. Given the commitment of the local community groups that conduct the outreach, they are motivated to serve every qualified resident regardless of their capacity or willingness to devote resources (e.g., money and time) to participate. The organizations spend a great deal of time handholding residents, which is true to the spirit of addressing the hard-to-reach audiences.
- **Takeaway:** Funders of partnerships that are intended to truly serve the hard-to-reach customer segment need to acknowledge from the outset that it is going to be more resource intensive and take a lot longer to meet goals. Implementing organizations should be on the same page with the funding agency on how far they should go to handhold potential participants, e.g., identifying the appropriate place to be on the cost-effectiveness/equity continuum. The model itself should be reviewed to identify ways to reduce the number of handoffs from organization to organization. For example, outreach staff could be trained to conduct basic audits and provide easy to install and no-cost measures such as CFLs to increase efficiency and expand the number of households served. Note, however, that this could create liability issues and may not be effective if this is not the strength of the organization.

APPENDIX A – SUCCESSFUL PRACTICES REVIEW

MEMORANDUM

TO: Massachusetts Program Administrators
FROM: Opinion Dynamics Evaluation Team (Contacts: Antje Siems, Kessie Avseikova)
DATE: August 31, 2010
RE: Review of Practices for Designing and Implementing Successful Community-Based Programs

This memo provides a review of recent evaluations of community-based programs (including local government partnerships and other community initiatives). The goal of this effort is to identify key aspects of community initiatives that have proven to be successful in the past. This review draws on a literature review as well as the experience of our team members with community-based programs. The practices identified through this effort will inform the evaluation of community-based programs in Massachusetts and provide a benchmark against which these efforts can be assessed.

LITERATURE REVIEW

Our review of literature on community-based programs included the following publications:

- “Government Partnership Programs. Effectiveness and Impacts for Non-Resource Elements of the 2006-2008 Government Partnerships Programs.” Summit Blue Consulting, January 2010.
- “Local Government Partnerships: Maximizing Local Energy Saving Opportunities.” Rasmussen et al, January 2010.
- “Process Evaluation of the Palm Desert Partnership Demonstration Project.” Opinion Dynamics Corporation, July 2009.
- “Process Evaluation: Energy Smart Communities Program.” Research into Action, April 2009.
- “Summary Report: Process Evaluation of the 2006-2008 Local Government and Institutional Partnership Programs.” PA Consulting Group, February 2009.
- “2004-2005 Los Angeles County-Internal Services Department/Southern California Edison/Southern California Gas Company Energy Efficiency Partnership Process Evaluation Study.” RLW Analytics, December 2008.
- “The Green, Green Grassroots of Home: Measuring Community-Based Clean Energy Market Development Initiatives in Connecticut.” Pettit et al., 2007.
- “PG&E 2004-05 Local Government Partnership Programs.” ECONorthwest, December 2006.

- “San Diego Gas & Electric 2004-2005 Local Energy Savers Program Evaluation Report.” Quantec, July 2006.
- “Recommendations for Community-Based Energy Program Strategies.” Energy Trust of Oregon, June 2005.

SUCCESSFUL PRACTICES

We identified a number of design and administration elements that contributed to the success of the community-based programs and outreach efforts evaluated in the above referenced publications. These elements can be broadly classified into the following categories:

- Program Planning
- Program Design
- Program Implementation
- Program Marketing
- Program Communication and Information Sharing

In the sections below, we provide a description of successful practices within each of these five areas. There may be other areas that the PAs or implementation contractors may wish to have the evaluation team explore (e.g., ramp up times for community efforts and/or additional information on interactions between community efforts and other PA programs). We will work with the PAs and implementation contractors to explore additional areas as the need arises.

When considering the practices described below, it should be noted that community outreach efforts tend to be highly individualized and are, on many levels, unique. Therefore, not all of the practices outlined below will be appropriate for each community-based program.

PROGRAM PLANNING

Similar to more traditional energy efficiency programs, community-based efforts require thorough planning and preparation. Consideration of the following components has proven effective in planning successful community-based programs.

- **Well defined goals that are partnership specific.** Any energy efficiency program should have well defined goals that allow program staff and other stakeholders to track and assess the program’s progress. Where community efforts are based on already existing energy efficiency programs, it is important that the community effort have its own, clearly defined goals, so that its progress can be evaluated independent of the existing program. Program logic models are one way of documenting program goals, the rationale of the program, and barriers it is designed to overcome.
- **Balance of resource and non-resource objectives.** Many community-based efforts aim not only at achieving near-term energy savings, but also building a foundation for longer-term savings, be it educating prospective customers about energy efficiency or

increasing general awareness of energy efficiency offerings. When defining goals of a community-based program, it is important to identify both resource and non-resource objectives. Program Administrators may also wish to prioritize among resource and non-resource objectives since it may be difficult to pursue both simultaneously. For strategic long-term objectives, establishing interim milestones and/or performance indicators may help track whether the program is making adequate progress.

- **Clearly defined roles and responsibilities.** Roles and responsibilities of each program partner should be clearly articulated and recorded in the program design documents, written commitments, and contractual documents.
- **Adequate staffing.** Local governments and community organizations are often constrained in terms of resources. However, proper staffing is essential to ensuring that the necessary program work is done. Assessing the resources that a local government or a community organization can commit for the implementation of a community-based initiative is vital to the initiative's success – it allows for better planning, allocation of PA resources, and timely engagement of a third-party implementer, if necessary.

PROGRAM DESIGN

The following are common program design features that have proven effective in past community-based programs.

- **Bundling of services to simplify participation process.** Since community-based outreach efforts often target underrepresented, hard-to-reach audiences, simplifying participation processes can be essential to the effort's success. "One stop shopping" – a program concept that bundles various services, such as audits, incentives, and installations – can help engage customers that would otherwise not consider the program because of the effort it takes to complete a project.
- **Engagement of suitable community organizations.** Generally, the goal of community-based programs is to increase participation in energy efficiency programs among a targeted population. This can be customers in a specific geographic area or hard-to-reach audiences such as ethnic groups, low-income customers, or small businesses. Local community organizations provide an effective point of entry as they have an established reputation in the target community and often have a good membership base. When choosing a community group or organization to partner with, it is important to choose an organization or group that is reputable and well known and trusted by the target community.
- **Availability of financing.** Upfront cost is a major barrier to participation in any energy efficiency program, especially among small businesses, low income customers, and other hard-to-reach groups. Easily available financing options allow customers to invest in the equipment they would otherwise not be able to afford and may be just as important as incentives themselves in motivating customers to participate in the program.
- **Building community engagement and community commitment through individualized and tailored initiatives.** The success of a community-based partnership often

depends on the degree of community engagement, motivation, and commitment it is able to generate. Energy efficiency offerings – be they educational initiatives or energy efficiency programs – should be community focused and should aim at addressing the unique needs of a particular community.

- **Building local energy efficiency infrastructure.** Local vendors and contractors can be instrumental to achieving desired energy savings goals. Therefore, partnering with local businesses (such as builders, contractors, equipment suppliers), educating them on energy efficiency practices, and familiarizing them with program opportunities and implementation requirements can be a successful service delivery channel of a community-based energy efficiency program.

PROGRAM IMPLEMENTATION

Smooth implementation has proven to be one of the primary drivers of success of traditional energy efficiency programs. Community-based programs are no exception. The following implementation practices can contribute to the success of a community-based program.

- **Streamlined application and rebate process.** A lack of knowledge on where to find and how to fill out an application form, as well as a lack of understanding on how the rebates are processed and issued, can act as a barrier to participation in energy efficiency programs. These aspects are even more important for local community-based programs, as target audiences for such efforts are not only hard to reach but also hard to engage. Therefore, program applications that are easy to understand and fill out, fast and efficient rebate processing, as well as ongoing and easily available customer support are important components that can increase program participation.
- **Effective program tracking.** As with any energy efficiency program, effective tracking processes are important to program implementation, management, and evaluation. Program databases are essential to measuring tracking milestones and measuring progress and energy impacts of community-based efforts.

PROGRAM MARKETING

Marketing strategies employed for traditional energy efficiency programs might not be as relevant or effective when it comes to community-based programs. The following marketing and outreach strategies have proven successful in promoting community-based programs and increasing participation.

- **Clear branding of programs and partnerships.** Branding can play an important role in helping promote community-based programs and partnerships. Co-branding of a community-based program by too many Program Administrators and stakeholders can cause confusion among target customers, diminishing the impact of the effort. Therefore, when developing a marketing strategy for a community-based effort it is important to create clear brands that are easy to recognize and difficult to mistake for already existing programs. Moreover, creating a brand that speaks directly to the targeted population can create extra “buzz” and increase awareness, interest, and

participation.

- **Relevant and up-to-date marketing and promotional materials.** Since many community-based initiatives are demographically and geographically concentrated, it is important that marketing and promotional materials address regional specifics and are culturally appropriate. Program information in the marketing and promotional materials should also be kept up-to-date and contain current program information.
- **Explicit community-oriented marketing themes.** Marketing themes that (1) focus on the specific goals of the program – e.g., reducing energy use in XYZ Town by 5% by 2012 – and (2) create a sense of the whole community working together to achieve the goals, can increase awareness of and interest in a community-based program. Such messages can help mobilize customers that are not motivated by more traditional messages of energy/monetary savings or environmental benefits.

PROGRAM COMMUNICATION AND INFORMATION SHARING

Multiple stakeholders are usually involved in the delivery of community-based programs. Creating a communication and feedback loop is therefore an important aspect of a successful community-based partnership.

- **Coordination of community outreach efforts with other energy efficiency programs in the area.** Community-based outreach efforts are often offered to customer groups that already have other energy efficiency programs available to them. Often, the community-based outreach is built on these existing efforts and takes advantage of the already existing infrastructure. Where such overlap exists, program efforts need to be coordinated closely in order to avoid customer confusion, program competition, and duplication of efforts.
- **Frequent and consistent communication and collaboration between program partners and the PA.** Well established formal and informal communication channels between program partners and the PA(s) are critical to the success of a community-based effort. Frequent communication on program processes can allow program staff to identify issues early on and effectively “course correct” the program. At the same time, continuous communication and flow of information can provide program partners with better guidance on their roles, responsibilities, priorities, and changes thereof.
- **Accumulating and leveraging lessons learned and best practices from already implemented community efforts.** Developing a way for PAs and other stakeholders to share their experience administering community-based initiatives can help develop a broader collective knowledge base and therefore contribute to the success of future community-based endeavors. A website or periodic meetings are some of the ways in which experiences can be shared.

APPENDIX B – STAKEHOLDER INTERVIEW GUIDE

CBP and CMI Implementer and Stakeholder In-Depth Interview Guide

March 2, 2010

Name of Interviewee: _____ Date: _____

Title: _____ Company: _____

The Interview Guide is a tool to guide process evaluation interviews with program implementation contractors and stakeholders. These questions may be adjusted and supplemented with additional questions based on the design and processes of each program specifically. All interviews will be audio taped and transcribed.

It is important to note that not all questions will be explored with every respondent. In addition, there will be sets of questions that will be more fully explored with some individuals than with others. The depth of the exploration with any particular respondent will be guided by the role the organization plays in the delivery of the program as well as the role of an interviewed individual.

Hi, may I please speak with [NAME]?

My name is _____ and I'm calling from Opinion Dynamics/Evergreen Economics. We are part of the team conducting the evaluation of the [PROGRAM NAME] on behalf of [UTILITY]. Is now still a good time to talk? [IF NOT, SCHEDULE A CALL BACK.]

We are conducting interviews with program stakeholders and implementation contractors in order to understand how the program is operating, to identify program successes and challenges, and ways that the program could potentially be improved. This interview should take about 30-45 minutes [depending on respondent], and your responses will be kept confidential.

Roles and Responsibilities [ASK ALL]

1. Can you briefly summarize what your organization does? What is your role specifically within the organization? [DO NOT ASK IF INFORMATION IS AVAILABLE]
2. What is your organization's role in the PROGRAM? What are your responsibilities specifically within the program? How many people within your organization are dedicated to work specifically on this program? [PROBE FOR COMPOSITION – PROGRAM-DEDICATED WORKERS, VOLUNTEERS, ETC.] Do you think this number is sufficient? Why, why not?
 - a. How do you perceive your organization's mission and its role in the community

fit in the context and goals of the [PROGRAM NAME]?

Program Start-up, Selection of Community Group and Changes to the Program Delivery [ASK ALL]

3. When did the program officially launch? Was it delayed?
 - a. [IF PROGRAM LAUNCH GOT DELAYED] To the best of your knowledge, what can delays in program launch be attributed to?
4. How and when did your organization become engaged with the program? [IF RELEVANT, PROBE FOR: RECRUITMENT, TIMING, ADEQUACY OF TIMING, ETC.] How was your organization selected to work with the program? Why do you think your organization got engaged with the program? [IF RELEVANT, PROBE FOR BARRIERS THAT THE ORGANIZATION WAS AIMING TO OVERCOME]
5. Did your/your organization's role in the program delivery change since program launch? If so, how did it change? Do you think it was a positive change? Do you wish you/your organization did something that you are NOT currently doing? If so, what and why?
6. Have there been any changes made to the program delivery since the program launch? If so, what are they?
 - a. What spurred these changes?
 - b. How easy or hard was it to make these changes? Why?
 - c. Do you think the changes made to the program delivery have been effective?
7. Does anything about the current program delivery need to be changed or improved? If so, what? Why?

Selection of the Community and Exploration of Program Model/Theory [ASK ALL]

8. Why do you think this community was selected for the program? [PROBE FOR TARGET AUDIENCES, BARRIERS TO PARTICIPATION IN THE PROGRAM; GAUGE WHETHER THEY THINK IT WAS A GOOD SELECTION]
9. How does the program help this community? [PROBE FOR 5 SPECIFIC TOUCHPOINTS/BARRIERS FROM PROGRAM MODEL: Raise awareness, build credibility, raise awareness of rebates, facilitate participation, offer additional financial incentives (if relevant)] Any other ways?
10. Are there any other communities that should be targeted with the program offerings? What are they? Why did you name these communities?

Selection of Additional Community Organizations [AS RELEVANT]

11. Are there other community groups/entities that have been selected to assist in the delivery of the program? What groups? Why do you think they were selected?
12. How successful were the community groups so far in delivering the program and increasing program participation? Why do you say that?
 - a. Are there other community groups that you believe are better suited to deliver the program in the target area to the target audience? Why do you say that?

Program Successes to Date [ASK ALL]

13. What aspects of the program have gone particularly well in your opinion? Why do you think this is? [PROBE FOR PROGRAM'S SUCCESS IN ADDRESSING PARTICIPATION BARRIERS FROM THE OVERARCHING PROGRAM THEORY AND PROGRAM SPECIFIC LOGIC MODELS]
 - a. [PROBE IF THE PROGRAM'S GOAL IS TO CHANNEL RESPONDENTS INTO OTHER PROGRAMS] Please comment on the program's success in channeling customers into other programs? [E.G., LOW-INCOME, ETC.]
14. What program aspects did not work as well as intended? Why? What should be changed from your perspective to make the program work? Why do you say that?
15. What are the most significant challenges that your organization has faced when delivering the program?
 - a. How have these challenges been addressed?

Program Goals and Data Tracking [ASK ALL]

16. What are your explicit goals for the program? Are there any other metrics that are used to determine the success of the program? If so what are they?
 - a. What are the specific goals for YOUR COMPANY within this program?
17. How are you doing against your goals? Are you on course to meet them? If not, why?
18. What data do you track as part of this program? [PROBE FOR AUDIT LEADS, AUDITS, COMPLETED PROJECTS, MEASURE LEVEL DATA, LOAN AMOUNTS, NUMBER OF JOBS CREATED, ETC]
 - a. [DO NOT ASK IF KNOWN] Do you track the disposition of outreach efforts?

[REASONS FOR CUSTOMER REFUSAL, ETC.]

- b. Have you had any difficulties tracking your progress? What were the difficulties?
- c. Is there anything that you would like to track that is currently not tracked? What is it?
- d. Have any changes been made, or are any planned to improve data tracking for the program? What are the changes?

[NOTE: Refer to PT/LM document for metrics. If it is “unknown” if the metric is tracked, ask about tracking of specific metric]

Program Components [AS RELEVANT]

- 19. [IF IN-HOME] Please walk me through the process of in-person outreach to target customers. What do you do as part of the visit? What do you offer customers when you talk to them about the program?
 - a. Overall, how successful do you think the in-person visits are? What are the challenges, if any, that have been encountered during in-person outreach?

Raising Awareness of EE Opportunities in Homes and Audits

- 20. Can you give me examples of how your organization (or how the program) raises awareness of energy saving opportunities in the home?
- 21. [ASK IF RELEVANT/AUDITS] Approximately, what percent of outreach efforts turned (in-person outreach) into audit leads [ALT for IMPLEMENTERS: Resulted in an audit]? Was it higher or lower than expected? Why do you think that is?
 - a. What were the main challenges in getting customers to agree to an audit? Why? [ALT for IMPLEMENTERS: What were the main challenges in getting completed audits?]
 - b. What can be improved to bring in more audit leads through in-person outreach [ALT: increase the number of audits]?
- 22. [ASK OF PROGRAM IMPLEMENTATION CONTRACTORS AND (SUB)CONTRACTORS] Approximately what fraction of audits has turned into energy efficiency projects? Is this lower or higher than expected? Why?
 - a. What are the main challenges in getting completed energy efficiency projects? [PROBE TO SEE IF CUSTOMER TRUST AN ISSUE] What can be improved to increase the number of completed projects?

Additional Incentives

23. [ASK WHEN RELEVANT] How many program participants have utilized specialized bank loans through the program? Is this more or less than expected? Why?
 - a. How successful has this additional financial assistance been in increasing participation? Why do you say that?
 - b. What other sources of funding are available to program participants to cover the costs of energy efficient improvements?
24. [ASK FOR PROGRAMS WITH ADDITIONAL INCREMENTAL INCENTIVES] How successful have additional incentives been in increasing interest and participation in the program? Do you think program participation would be the same had the incentives not been offered? Why?
25. How successful have additional incentives been in increasing interest and participation in the program? Do you think program participation would have been the same had the incentives not been offered? Why?

Raising Awareness of Rebate Programs/Facilitating Participation

26. How successful has the program been in raising awareness of utility programs? [ASK WHEN RELEVANT] What are the tactics for channeling non-qualifying program participants into other energy efficiency programs? How successful have these tactics been? Why?
 - a. How are these channeling efforts coordinated with the other entities? How effective do you think these processes are? Why?
27. Does your organization help customers through the process of participating? How helpful has this process been? Are there improvements that could be made?

Program Marketing and Outreach [ASK OF ENTITIES INVOLVED IN PROGRAM MARKETING AND OUTREACH]

28. What components of program marketing and outreach does your organization assist with? [PROBE FOR DESIGN AND DISSEMINATION OF MARKETING MATERIALS, SETTING UP OR PARTICIPATING IN EVENTS, IN-PERSON OUTREACH, ETC.]
29. What are the goals of the marketing and outreach efforts that you provide? [PROBE FOR IMPROVING GENERAL KNOWLEDGE OF ENERGY EFFICIENCY, FAMILIARIZING TARGET AUDIENCES WITH THE PROGRAM OFFERINGS, MAKING TARGET CUSTOMERS AWARE OF THE INCENTIVES AND REBATES, ETC.]
 - a. Have any language or cultural considerations been made when developing and disseminating program marketing materials and conducting other forms

of program outreach? [PROBE FOR IN-LANGUAGE MARKETING MATERIALS, PHONE LINES WITH IN-LANGUAGE SPEAKERS, ETC.]

30. How successful has the program’s marketing and outreach been so far? What suggestions would you make to improve the program’s marketing and outreach strategies moving forward? [PROBE FOR NEW OR DIFFERENT MARKETING CHANNELS, VOLUME OF MARKETING, ETC.]

Program Communication and Information Sharing

31. What other entities do you work with to deliver this program? [PROBE FOR THOSE NOT ALREADY MENTIONED: IMPLEMENTERS, PROGRAM ADMINISTRATOR STAFF, CORE PROGRAM STAFF, ETC.]
32. Are there any communication or information sharing procedures in place? If so, what are they? [PROBE FOR PERIODIC MEETINGS, STATUS UPDATES, EMAIL COMMUNICATION, ETC.] If not, why not?
- a. How successful have the current communication and information sharing processes been in keeping all involved parties informed about the program? Do you wish the communication and information processes were set up differently? If so, what improvements/changes would you recommend?

Program Training and Education [ASK SUB-QUESTIONS ONLY IF GOT OR PROVIDED TRAINING per Q35/36]

33. Did you get any training as part of this program? If so...
- a. What kind of training was provided to you/others in organization? How useful was this training? [PROBE FOR TRAINING USEFULNESS IN IMPROVING KNOWLEDGE OF THE PROGRAM PROCESSES AND DELIVERY MECHANISMS, INCREASING KNOWLEDGE OF PROPER INSTALLATION PRACTICES, IMPROVING ABILITY TO MARKET THE PROGRAM BETTER, ETC.]
- b. Who provided you with training? How knowledgeable do you think the person/entity that provided the training was? Why do you say that?
- c. Has there been a sufficient amount of program-related training provided to you and other employees at your organization? Why, why not? Are there any areas that you think you or other people involved in the delivery of the program at your organization are missing? What are these areas?
- d. Overall, how important do you believe the training component is for the [PROGRAM]
34. Did you provide any training as part of this program? If so...

- a. Who did you train?
- b. What kind of training did you provide? [PROBE FOR CONTENT AS WELL AS FOR DELIVERY MECHANISM] What did this training aim to accomplish? How useful do you think this training was in helping deliver the program more effectively? How important do you believe the training component is for the [PROGRAM]
- c. Did the training that you provided match the knowledge gaps of the entity that was trained? Why, why not? Are there any topics that might have been better suited for this particular entity
- d. Are there any areas that you would like to train other stakeholders involved in the delivery of the program that can help the program success? What are those areas?

Job Creation [ASK ONLY FOR PROGRAMS WHERE JOB CREATION IS AN EXPLICIT GOAL AND OF ENTITIES INVOLVED IN THE JOB CREATION COMPONENT OF THE PROGRAM]

35. What strategies do you have in place to create local “green” jobs? How successful have these strategies been from your perspective? Why?
36. How many local community members have been hired to install measures through this program? Is this more or less than expected? Why?
 - a. Describe the process for identifying sub-contractors and installers.
 - b. Were there any obstacles to identifying labor pools or in hiring?
 - c. How many installation jobs have they actually worked on?
 - d. What would you suggest to improve?
 - e. Do you think that there is enough work to sustain these jobs for another year? How so? [PROBE TO SEE IF OTHER INITIATIVES ARE ADDING WORKLOAD TOO].

Wrap-Up [ASK ALL]

37. Are there any other topics that we have not covered today that you would like to discuss? What are they? Any other suggestions to improve the program?

Thank you very much for your time and good information. Do you mind if we follow-up with you by phone or e-mail later, if additional questions arise?