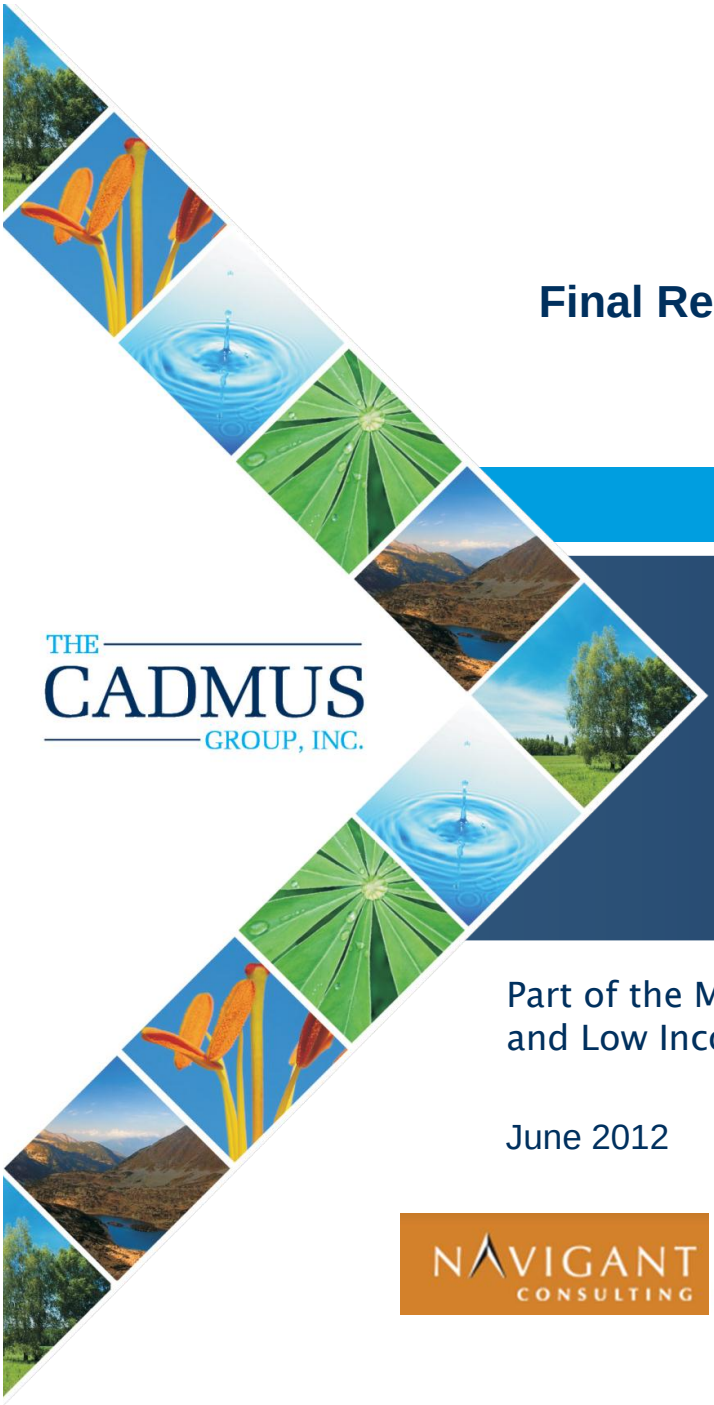

Final Report

2011 Home Energy Services Packaged Measure Pilot Evaluation

Part of the Massachusetts Residential Retrofit and Low Income Program Area Evaluation

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Introduction

This report summarizes an evaluation of the 2011 Home Energy Services (HES) Packaged Measure Pilot (pilot) offered by the electric and gas Program Administrators (PAs) of Massachusetts. The evaluation was conducted by The Cadmus Group, Inc., Opinion Dynamics, Navigant Consulting, Itron, and Energy and Resource Solutions, collectively referred to as the Cadmus Team.

The pilot ran March through September 2011 and supported the HES Program, which provides energy audits to Massachusetts non-low-income residential customers living in one-to-four family houses. Through these audits, technicians identify opportunities to save energy and then recommend the customers have program-specific, energy-efficiency measures installed that are eligible for incentives.

In March 2011, the PAs launched the pilot to encourage HES participants to install a greater number of the recommended measures, thereby ensuring the HES program achieves deeper savings within each home. The pilot offered incentives beyond the HES Program's standard incentive structure to a sample of customers who installed at least three of these four program-recommended measures: air sealing, insulation, heating system replacement, and an indirect or on-demand water heater.

The primary goal for the pilot was to test the impact of the additional incentives on a customer's decision to install multiple measures. Similarly, the Cadmus Team's efforts focused on evaluating the effectiveness of the additional incentive in meeting the pilot's stated goal, as well as assessing the delivery of the pilot itself.

Pilot Overview

The PAs designed the pilot—which was delivered through the HES vendors—to increase the likelihood that HES participants would install multiple major program measures recommended by a program auditor. In addition to reducing the cost of installing the bundle of recommended measures, the additional incentive was intended to entice eligible customers to install all of the recommended measures immediately, rather than installing only a few of the recommended measures or spreading the installations out over several years.

The PAs offered the pilot to both past participants and new customers, based on eligibility. The pilot, which provided a choice between two packages of energy-efficiency measures (Table 1), also gave an additional rebate to customers who installed ENERGY STAR® measures.

Table 1. Pilot Packages Offered to Customers

Package	Measures Included	Pilot Bonus Rebate for Package	Pilot Bonus Rebate for ENERGY STAR® Package
Package 1	• Audit • Air Sealing • Insulation • Heating System	$750	$900
Package 2	• Audit • Air Sealing • Insulation • Heating System • Indirect or On-Demand Hot Water Heater	$1,000	$1,150

The Home Energy Services working group determined that the pilot would be offered to 504 eligible customers statewide, with 50% of the offers made to past participants and 50% made to new participants. This 50/50 split was intended to develop an understanding of the pilot's effectiveness on different types of customer scenarios. The number of customers offered the pilot by each PA is shown in Table 2.

Table 2. Statewide Pilot Offers

Program Administrator	Goal Number of Pilot Offers	Actual Number of Pilot Offers	Number of Pilot Offers Accepted
National Grid	256	260	30
NSTAR	144	166	12
Columbia Gas of MA	36	141	8
Western Mass Electric Co.	26	22	0
Cape Light Compact	24	11	0
New England Gas	8	37	2
Unitil	6	0	0
Berkshire Gas Co.	4	4	0
Total	**504**	**641**	**52**

In total, the PAs offered eligible new and past HES Program participants a total of 641 packages; however, only 52 customers decided to participate (8%). Of the 52 who accepted the pilot, 46 were new participants and six were past participants, as shown in Table 3.

Table 3. New and Previous HES Participant Pilot Acceptances

Audit Status	Offered	Accepted	Acceptance Rate
New Participant	364	46	13%
Previous Participant	277	6	2%

These results indicate that the pilot was more likely to be accepted if the participant was new ***and*** the pilot was offered at the time of their HES audit, rather than if the participant was offered the pilot after having completed the audit.

The PAs offered the pilot to customers beginning in March 2011. Customers had 30 days to accept the pilot offer, select one of the two packages, and submit a rebate reservation. Customers then had three months to complete the installation of the measures for the package they selected and submit their receipts to receive the standard HES rebates and the package bonus.

The vendors determined the eligibility of new customers during the HES audit and the eligibility of past participants through a database search. For that database search, vendors reviewed historical program records to identify customers who had previously received recommendations to install at least three of the four package measures but who had chosen not to install any measures at that time.

Methodology

The Cadmus Team focused the pilot evaluation on the following:

- Assessing the impact the pilot had on program participation;
- Reviewing the pilot design and process; and
- Determining how well the perspectives and assumptions regarding the pilot goals, design, and implementation aligned between program staff, implementation staff, and customers.

As independent evaluators, our primary focus was to report the various opinions and perspectives, which we gathered through interviews and surveys with program stakeholders. We then summarized conclusions and recommendations based on those data collection activities. A summary of the 2011 pilot process evaluation tasks is provided in Table 4.

Table 4. Summary of Evaluation Tasks

Evaluation Task	Details
PA Program Manager Interviews (n=8)	Provided insight into the pilot design, areas for improvement, and data concerns.
Vendor Interviews (n=4)	Provided insight into the pilot implementation, data collection and reporting processes, regulatory structure, statewide collaboration, and funding allocations.
Participant and Non-Participant Surveys (n=73)	Provided insight into participant satisfaction, decision making factors, and the impact of the additional incentive on customer's participation or non-participation in the program.

More information about each of these tasks is detailed in the following sections.

Interviews

PA Program Administrator Interviews

The Cadmus Team interviewed all eight of the PAs to understand: (1) the processes for designing, marketing, and implementing the pilot; and (2) the pilot's administrative structure and organization. Specifically, we addressed the following research topics during the in-depth interviews with the lead program manager from each PA:

- Roles and responsibilities of PA program managers
- Pilot purpose and goals
- Pilot design and package delivery
- Data collection and tracking methods
- Next steps and barriers to continuing the pilot

The PA interview guide is provided as Appendix A.

Vendor Interviews

We conducted in-depth interviews with the HES vendors who implemented the pilot to capture their viewpoints on a similar set of topics as was discussed with the PAs. (The vendor interview guide is provided as Appendix B. Since vendors were directly responsible for walking the customers through the pilot process, we addressed the following additional topics in the interviews:

- Explaining the pilot to past and new participants
- Providing the appropriate forms to the customer
- Conducting a quality control inspection
- Answering customer questions

Participant and Non-Participant Surveys

After the pilot offers expired, the Cadmus Team surveyed a sample of both participants (those who accepted the additional incentive and installed one of the packages) and non-participants (those offered the pilot incentives who installed none or only a subset of the package measures). We conducted these surveys as a module of the 2011 HES Program participant surveys, and the participant survey is provided in Appendix C.

Our surveys focused on how the availability of additional package incentives impacted the decisions to install (participants) or not install (non-participants) pilot measures. Table 5 shows the breakdown of customer participation for new participants and previous participants.

Table 5. New and Previous HES Participant Pilot Acceptances

HES Audit Status		Customers	Completed Surveys	% Completed
New Offer (364)	Participant	46	8	17%
	Non-Participant	318	45	14%
Previous Participant (277)	Participants	6	-	0%
	Non-Participant	271	20	7%

We used data gathered through surveys with eight pilot participants[1] and 65 pilot non-participants (73 surveys in total) to assess the following:

- Customer perceptions of the packaged measures and their effect on the customers' decision-making processes (drivers of selection)
- Acceptance rate for packaged measures
- Acceptance rate comparison of past versus new participants
- Pilot delivery
- Barriers to participation

[1] Although the Cadmus Team included all 52 pilot participants in the call sample, only eight of the new offer participants (and none of the previous participants) completed the survey.

Findings

The following evaluation results are largely qualitative in nature due to the limited number of customers who chose to participate in the pilot. Although the impact results are anecdotal, the comparison of adoption rates between the pilot and HES Program population offers some quantitative insights into the effectiveness of the additional incentive. Therefore, we organized the results topically, presenting the responses from PAs, vendors, and participants together. We included all perspectives, when appropriate, in the following sections:

- Design
- Delivery
- Participation and Impact
- Satisfaction
- Improvement

Design

NSTAR developed and screened the pilot and then presented it to the rest of the PAs for fine-tuning and approval of the design. The PAs discussed the pilot with their vendors, drawing on those insights to determine what measures to include in each package, how the pilot should be implemented, and what forms would be necessary. (Some of the small PAs indicated that they would not have implemented the pilot on their own, but they decided to participate because the RCS working group was planning to implement it statewide.)

All of the PAs reported that the overall objective for the pilot was to motivate customers to strive for deeper energy savings, and the means of achieving this objective was to offer additional incentives for installing multiple measures recommended through the HES audit process.

The pilot was designed to be offered by each PA in a 50/50 split between new participants and past HES Program participants who had already completed an audit. The reasoning was to target different customer types so as to understand whether the additional incentive altered past participants' decision-making process (i.e., brought them back into the program) and whether it augmented new participants' decision-making process (i.e., encouraged them to install more measures immediately).

The vendors implemented the pilot and were responsible for preparing the forms, training the field staff, providing customer service, and processing the paperwork from pilot participants. The vendors were also involved in some of the design discussions with the PAs and were responsible for selecting which customers would receive the pilot offer.

Delivery

Before implementing the pilot, vendors conducted training with the current HES auditors. This training focused on ensuring the auditors understood the purpose of the pilot and were familiar with the eligibility requirements and necessary forms.

The vendors offered the pilot to the two sample populations, past and new participants, depending on whether the customer had previously participated in the HES Program.

Past Participants

Vendors researched recent HES databases to identify eligible past participants, based on the following criteria:

1. Customer had previously completed an energy audit through the HES Program;
2. The audit resulted in recommendations for the customer to install measures in the pilot packages; and
3. The customer had not implemented the audit recommendations through HES.

Once former participants who met the pilot criteria were identified, vendors sent letters and/or called those customers to describe the pilot and the requirements involved.

While the pilot was still in the design phase, some vendors mentioned the pilot package ideas to customers, and any who expressed interest in the package were considered eligible.

New Participants

New HES participants also had to meet eligibility criteria. During these customers' scheduled HES energy audit, auditors tracked what measures they would recommend. If their audit recommendations matched the measures in the pilot packages, the auditors would present the pilot information and an offer form to the customer, in addition to the standard HES audit report. Customers then had 30 days to accept the offer, choose a package, and submit the participation form.

After customers agreed to a package and submitted the form, they had three months to complete the installation and submit their receipts to receive their rebate. When the deadline was near for submitting receipts, vendors placed follow-up calls to all participants who submitted a rebate reservation.

Data Collection

The vendors collected the pilot data separately from data they collected for the HES Program. After collecting the pilot data on carbon-copy participation forms, vendors transcribed the information onto tracking spreadsheets that were separate from the main HES database. Both PAs and vendors noted that these data collection methods would need to be incorporated into their main HES database if the pilot becomes a standard HES offer.

Participation and Impact

Vendors indicated that the customers who needed to replace more expensive measures responded very positively to the pilot. Despite this anecdotal evidence, overall participation levels were lower than the PAs and vendors expected. Several of the PAs and vendors said that the pilot sample was too small to deliver accurate results. In general, the main barriers to participation were reported as being the high upfront costs, the timeframe requirements, and the extra paperwork.

Customer Survey Results

The Cadmus Team completed surveys with 73 customers who had been offered the pilot incentive. Of those surveyed, eight (all new-offer participants) had participated in the pilot, while 65 had declined to participate

Only six customers who had previously participated in the HES Program accepted the pilot offer, and none of them completed the survey.

Pilot Participants

All eight pilot participants surveyed were new-offer customers who had not participated in the HES Program. They were offered the additional incentive with the HES Program information after receiving their audit.

Of the eight surveyed pilot participants: two said they would have installed all the measures anyway; two said they would have installed some; but not all, measures without the pilot offer; one would not have installed any measures without the extra incentive; and three were unable to speculate what they would have done.

The Cadmus Team had planned to conduct a net-to-gross analysis to assess potential pilot free-ridership, but the sample of surveyed participants was too small to support such an analysis. Thus, the information from the surveys is anecdotal only.

Pilot Non-Participants

Of the 65 customers who declined the pilot offer, 16 reported being unaware of the additional incentive. When asked if knowledge of the pilot offering would have affected their decision to install all the recommended measures, seven responded that it was "*very likely*" and four responded that it was "*somewhat likely*."

The most common barriers to participation reported by pilot non-participants were the upfront cost and the timeframe for the work. Almost one-third of non-participants said that even with additional incentive, it required too much money out of pocket. The second most typical response—given by approximately 10% of non-participants—was not having sufficient time or flexibility to commit to the measures at the time of the audit.

Major Barriers to Participation

High Upfront Costs

All of the PAs and vendors mentioned that the combined upfront cost of installing all of the pilot package measures was a significant barrier to participation, even after receiving the standard HES incentives and the pilot incentive.

PA and Vendor Responses

One PA explained that its service territory is small, has a high unemployment rate, and has a large low-income population. Therefore, despite the incentives, customers simply could not afford to accept the offer and pay the initial costs.

- Another PA said the weatherization measures in the package were acceptable, but having to install a heating system was a barrier: "*... because that [the heating system] is such a high price, it's a big decision for a homeowner and they probably won't make the additional monetary investment if it's [the heating system] is still working, because why would they pay thousands of dollars on the system to only get hundreds back in rebates*?"
- Several vendors said that the incentive was simply not large enough, with one vendor explaining: "*It [the pilot] was not something amazing that they couldn't pass up, [and] compared to the work they would have to do, it [the incentive] was not high enough.*"
- One vendor suggested that the other cost-savings options for heating systems (through the Mass Save® HEAT Loan Program and the High-Efficiency Heating Equipment Rebate Program) may have contributed to the low acceptance rate, as those other options did not require additional measures to be installed.

Non-Participant Responses

When asked during the survey, almost one-third of the pilot non-participants reported upfront cost as their reason for not participating. This was true for both customers who had previously participated in the HES Program and new HES participants.

Cost Comparisons

As the cost of participating was repeatedly identified as a customer barrier, the Cadmus Team compared the cost of installing the package measures independent of HES, through HES, and through HES and the pilot (Table 6). While the majority of the incentives are provided by HES, the table clearly indicates the total customer cost of installing the package measures – even with the additional pilot incentive – remains substantial (more than $4,300 on average).

Table 6. Cost Comparison

	Total Costs	Total Savings
True Cost		
Package 1	$7,199.36	$-
Package 1 ENERGY STAR	$8,110.36	$-
Package 2	$7,877.36	$-
Package 2 ENERGY STAR	$9,109.36	$-
HES Incentives Only		
Package 1	$4,838.40	$2,360.96
Package 1 ENERGY STAR	$5,749.40	$2,360.96
Package 2	$4,716.40	$3,160.96
Package 2 ENERGY STAR	$5,948.40	$3,160.96
HES Incentives Plus Pilot Bonus Rebate		
Package 1	$4,088.40	$3,110.96
Package 1 ENERGY STAR	$4,849.40	$3,260.96
Package 2	$3,716.40	$4,160.96
Package 2 ENERGY STAR	$4,798.40	$4,310.96

Timeframe Requirements

PAs and vendors said the timeframe requirement of three months for completing the measure installations was another barrier to customers taking the pilot offer. One PA explained that for the customers, one challenge was: "*... the expectation that you're [they're] going to do all of those things [the installations of package measures] at once. It's a lot. I don't know that I would do it if I was a customer*."

Vendors agreed, explaining that the customers would need to organize a lot of items to complete all of the package installations in the given time period. One vendor said: "*They [the customer] would have to be willing to do a lot of work in a short period of time*," and another vendor said: "*They [the customer] need a longer period of time to get all their ducks in a row*."

The time limit or poor timing was cited by approximately 10% of pilot non-participants, although one customer mentioned planning to install the measures at a later date.

Extra Paperwork

To participate in the pilot, customers were required to fill out one form in addition to the HES Program paperwork. Although none of the pilot non-participants interviewed reported the extra paperwork as a major barrier, several vendors said this additional form contributed to the low customer participation rate. One vendor sent out a personalized letter offering the pilot to eligible past participants, but received no calls. The vendor said, "*Maybe the information was too overwhelming*." Another vendor thought that offering the pilot during the HES audit may have been "*information overload*."

Additionally, a vendor mentioned that the field staff had a hard time finding eligible customers for the pilot, explaining: "*It had to be a perfect storm of criteria to be met in order to give the form, and it was hard to find a customer who fit that [those requirements] and was willing to*

receive the form. A lot [of customers] who were eligible said 'I'm not interested, I don't want to do extra paperwork.'"

The PAs mentioned similar concerns, with one explaining that past participants only needed to complete the installation and send in one more form to receive the bonus rebate, but: "*At the end, not a single customer wanted to fill out the paperwork. Not one.*"

Installing Measures over Multiple Years

Although the pilot was designed to reduce the upfront cost associated with installing all of the package measures at once, customers have avoided this upfront cost in past years by installing a few measures at a time over several years and receiving a rebate each year for work completed. The Cadmus Team investigated how often this scenario happened and to what extent.

Of the 58,144 HES Program participants included in the data provided to Cadmus, over the program years 2010 and 2011, there were 3,067 customers who participated in the HES Program in both the 2010 and 2011 program years.[2] Of those, 657 (21%) received rebates in both years for the higher-priced measures listed in Table 7.

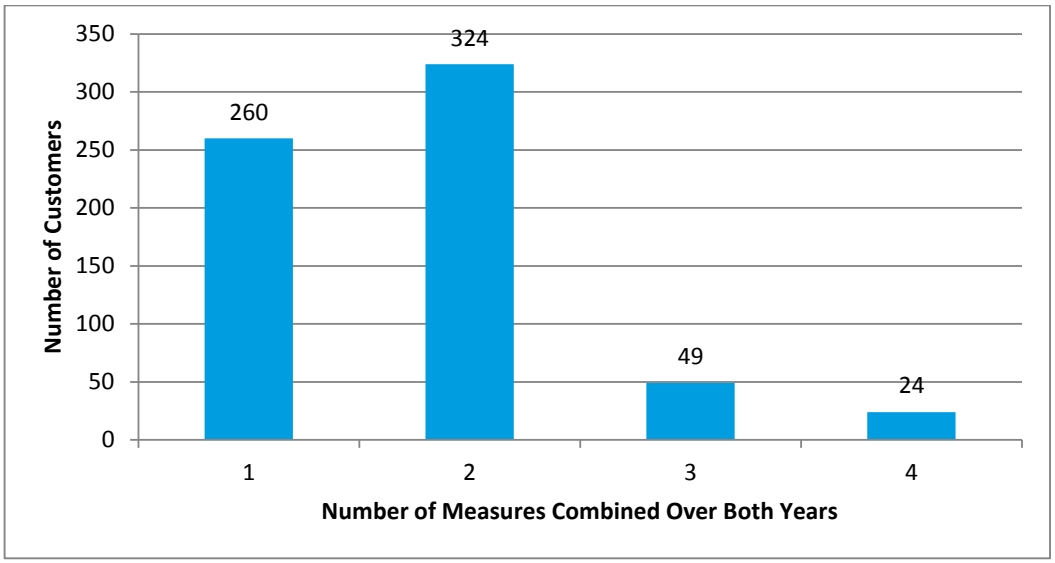
Table 7. Common Higher-Priced Measure Purchases

Measure
Insulation (floor, wall, attic)
Boiler (pipe wrap, reset, replacement)
Heating (duct work, furnace, HVAC)
Refrigeration (removal and replacement)
Water Heating (tankless, indirect)

These customers purchased the measures in several different combinations, combining two to four measures over both program years, or even installing the same measure over program years. These combinations are in Figure 1.

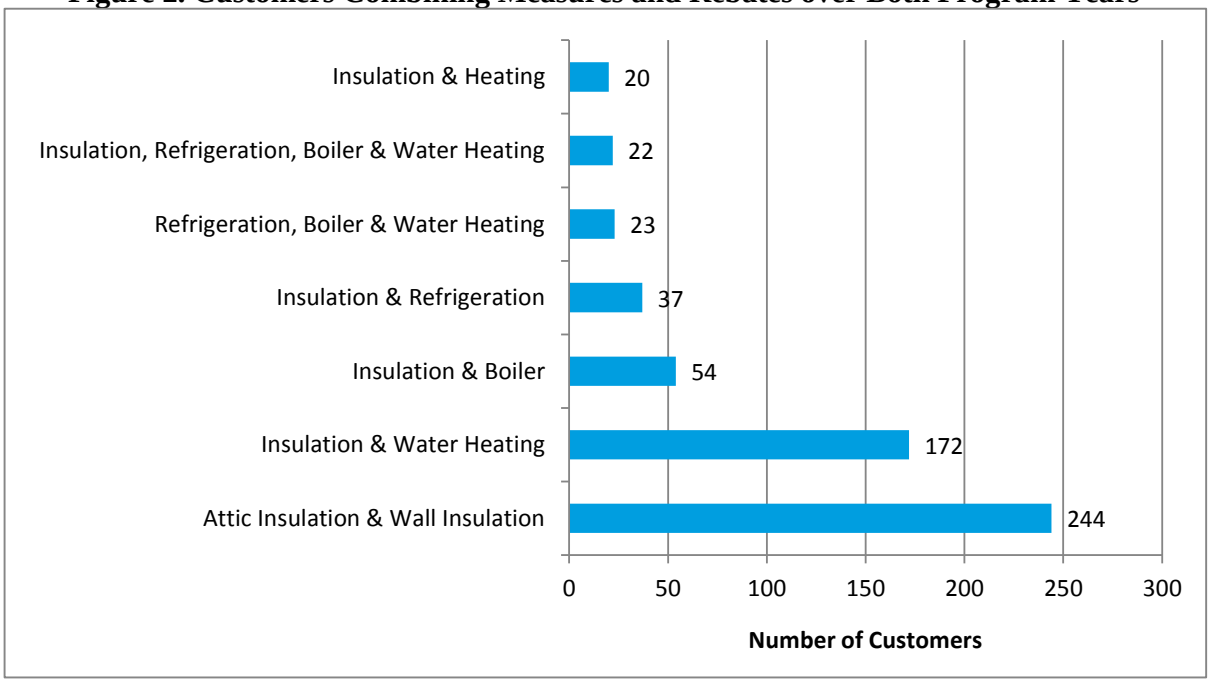
[2] These 3,067 customers show up as participants in both 2010 and 2011datasets. In some cases, these customers could have had an energy assessment done one year and installed measures such as insulation the next year, however some installed measures and received incentives both years.

Figure 1. Number of Measures combined over 2010 and 2011 Program Years



The most common combinations of measures (accounting for 572 of the 657 repeat customers) are in Figure 2.

Figure 2. Customers Combining Measures and Rebates over Both Program Years



Of the customers who received rebates for common higher-priced measures both years, 549 received a rebate for insulation and 244 of those customers installed only insulation. This analysis indicates that customers are interested in installing these measures, but perhaps due to

high upfront costs they are choosing to spread out their installations over multiple program years to maximize their rebates. These numbers demonstrate that there is additional potential to attract participants by offering incentives for multiple measure packages.

Comparing HES and Pilot Participation for NSTAR and National Grid

To determine the success of the pilot, the Cadmus Team compared the NSTAR and National Grid pilot participant adoption rate with the natural adoption rate of the 2010 and 2011 NSTAR and National Grid HES Program participants who received recommendations to install all the measures included in the pilot packages.

- Of 52,049 NSTAR and National Grid HES Program participants in 2010 and 2011, there were 20,980 who would have been eligible for Package 1, had they been offered the pilot (i.e., their HES audit recommended the installation of air sealing, insulation, and a heating system).[3]
- Of the 20,980 NSTAR and National Grid HES Program participants eligible for Package 1, 7,968 would have also been eligible for Package 2 had they been offered the pilot (i.e., their HES audit recommended the installation of all three Package 1 measures and a water heater).
- Of the 20,980 customers, 499 installed a set of measures covered by the Packaged Measure Pilot Program.
- Of these 499 customers, 179 installed only the three measures that would have comprised Package 1 using only the standard HES incentives.
- Similarly, of these 499 customers, 320 installed all four measures that would have made up Package 2 using only standard HES incentives.

Therefore, of the NSTAR and National Grid HES audit participants, 2.6% installed the measures comparable to both Package 1 and Package 2 without an additional incentive to do so.

Table 8 compares the adoption rate of pilot-eligible HES populations in NSTAR and National Grid to the actual pilot population for both packages. For both packages, pilot participants were more likely to adopt the measures than were the typical HES participants eligible for the measures. This demonstrates that the additional incentive of the pilot may increase the installation of all measures that were packaged in the pilot.

[3] To simulate a targeted population for only those eligible for a package, the Cadmus Team assessed detailed audit data from Conservation Services Group, which provides services for NSTAR and National Grid. Its audit data had a large sample of very detailed household and measure data, so we focused our analysis using this information. We determined if a household was pilot eligible by checking whether the auditor had done the following: (1) Recommended air sealing; (2) recommended attic, wall, or basement insulation; (3) recorded an existing boiler with system efficiency < 85% or a furnace < 92% efficient; ***and*** (4) recorded the presence of a standard tank water heater (for Package 2 only).

Table 8. Adoption Rate Comparison of the National Grid and NSTAR Eligible HES Population with the National Grid and NSTAR Pilot Population

Package	Population Description*	Population Count	Participation Count	Adoption Rate
Package 1	HES Participants with Package 1 Components Recommended or Eligible at Audit	20,980	499	2.3%
	Pilot Participants	426*	42**	9.8%
Package 2	HES Participants with all Package 2 Components Recommended or Eligible at Audit	7,968	320	4.0%
	Pilot Participants	426*	27	6.3%

* Indicates total number of participants offered a package, as breakout is unknown.
** Also includes participants that accepted Package 2, as they were also eligible for Package 1.

Comparing the Adoption Rate of Package 1 to Package 2

There was a higher adoption rate for Package 2 than for Package 1 for the general HES population, the eligible HES population, and the pilot population. To verify this from another perspective, the Cadmus Team examined the pilot population based on the number of applications that were completed after the initial reservation of the funds.

As shown in Table 9, while nearly the same number of reservations were made for each package, the reservations were completed for 66% of Package 2 measures and for only 41% of Package 1 measures. This ratio of adoption rates between the two packages is similar to the NSTAR and National Grid HES Program population, where the pilot-eligible measures similar to Package 2 had a 4.0% adoption rate, while the pilot-eligible measures similar to Package 1 had a 2.3% adoption rate (Table 8).

Table 9. Completion Rate Comparison of Pilot Package 1 and Package 2

Package	Reserved Package	Completed	% Completed
Package 1	46	19	41%
Package 2	50	33	66%

Satisfaction

The Cadmus Team asked the PAs and vendors to elaborate on what worked well and what did not regarding the pilot implementation and results. Generally, the PAs and vendors expressed dissatisfaction with the pilot design and results, although they also named a few implementation elements that were satisfactory.

Satisfying Pilot Design Elements

Despite being dissatisfied with many elements of the pilot design, PAs and vendors were satisfied with some elements.

- The extensive preparation of the pilot, including having forms completed and packages explained, allowed for a smooth hand-off from the PAs to the vendors.
- Several of the PAs reported that the pilot was simple and easy to understand, the forms were organized and easy to read, and the set-up for implementation was positive.
- One vendor praised the participating PAs for being able to create and launch an organized and comprehensive pilot in a short amount of time.

PA and vendors agreed that the pilot was worth launching again, as there were some positive results, as indicated in the following anecdotes:

- "I think people thought it was great to have the ability to get some extra money from their utility company."
- "We're open to that [launching pilot again]; we're always open to things that work for other utilities."
- "I think the evaluation is what the PAs are waiting for to determine if this should continue, and from my perspective I think we should consider it."
- "If the large utilities decide to do it again, we will follow."

Unsatisfying Pilot Design Elements

Both the target audience and timing were mentioned as issues for this pilot.

- One vendor said the pilot targeted only those customers who were already planning to replace their heating system, which was a fairly small population.
- Several PAs mentioned that the pilot was designed with limiting deadlines and did not attract customers.
- One vendor said the length of time required to launch the pilot was too long.
- Another vendor said that the amount of time vendors were given to determine customer eligibility and send out the offers was insufficient.
- Several PAs and vendors mentioned that the customers were given a very limited timeframe to complete the installation requirements for the pilot, making it challenging for them to schedule the work.

Both PAs and vendors said that customer uptake was not as high as they had anticipated. One vendor reported having zero offers accepted, while others reported fewer reservations than expected and an even smaller number of completes. In addition, one vendor explained that the pilot was set up such that customers could accept the offer, but did not have to follow through, resulting in the customer not having "*any skin in the game*."

Improvement Suggestions

PAs and vendors suggested the following improvements for the pilot if it is re-launched or added to the existing set of HES incentives:

- ***Extend the Offer Timeframe:*** As one vendor stated: "*Customers do not abide by deadlines and this pilot had a lot of deadlines to meet*." Given that challenge, several PAs and vendors suggested increasing the length of time for customers to complete installation of the pilot measures, or to allow "*the ability to phase work [over a several month period]*."
- ***Re-evaluate Packages:*** Vendors and PAs suggested re-evaluating the pilot packages; specifically: consider adding a package option "*that was less restrictive*"; re-examine the measures in the packages; and increase the incentive amounts.
- ***Increase Marketing:*** The PAs mentioned that because this pilot was small, it was not marketed. Therefore, they suggested conducting marketing efforts and making the pilots more detailed and more of a priority to the field staff conducting the audits.

Conclusions and Recommendations

The Cadmus Team assessed the perspectives, assumptions, and processes of the Packaged Measure Pilot to determine whether the pilot met the goal of encouraging deeper savings by offering a bonus incentive for installing audit-recommended measures.

Our conclusions are as follows:

- ***Conclusion 1. The pilot encouraged deeper savings.*** The evaluation demonstrated that when compared to non-pilot participants, the pilot participants had a higher adoption rate of all recommended measures within a package.
- ***Conclusion 2. The pilot can be implemented again.*** While the PAs and vendors described several areas for pilot improvement, they agreed that the pilot could be offered to a larger population to enable a further determination of its success.
  - **Recommendation 1:** The Cadmus Team suggests that if the PAs reissue the pilot, they consider additional package combinations, such as an all-insulation package. Our analysis revealed that customers who combined rebates over several years tended to bundle insulation measures, indicating that an all-insulation package might be well received. PAs might also consider a package option without the heating system requirement, which is the highest cost item.
- ***Conclusion 3. The pilot saves customers money.*** The true cost analysis demonstrated that although the upfront cost was considered to be a customer barrier, installing all of the pilot package measures could save a customer up to $4,310, as compared to installing those same measures over time outside of the pilot and HES Program.
  - **Recommendation 2:** The Cadmus Team suggests that the PAs and vendors market the pilot and continue to encourage the HES auditors to explain fully the benefits of the pilot when conducting HES audits.

APPENDIX A: PA INTERVIEW GUIDE

Massachusetts Residential Retrofit and Low-Income Evaluation
HES Packaged Measure Pilot
Program Administrator Interview Guide

Name	
Program Administrator	
Title	
Interviewer Name/Firm	
Date of Interview	

Introduction

The purpose of this interview is to understand your perspective of the Home Energy Services Packaged Measure Pilot. We are specifically interested in your opinions regarding how the packages influenced customer decision-making, the strengths and weaknesses of the pilot, and the viability of including a packaged measure option as part of the HES in the future.

All of the information we gather will be reported anonymously. If at any time during this interview you think of someone else we should speak with for our research, please let me know. We are interested in getting diverse and representative perspectives of the pilot.

Roles and Responsibilities

1. To begin, could you please describe your role in implementing the Packaged Measure Pilot?

2. [**IF UNKNOWN**] What is your role in the HES program?

3. What were some of your specific responsibilities for getting the Packaged Measure Pilot launched?
    a. Were your responsibilities for overseeing the pilot's performance the same as your responsibilities for the overall HES pilot?
    1.
4. Did [**VENDOR FROM LAST YEAR**] implement the Packaged Measure Pilot?
    a. The pilot program information we received referenced a "lead vendor," is that [**VENDOR CONFIRMED ABOVE**]?
    b. Were any other vendors or program administration stakeholders involved in designing or implementing the pilot?

Program Status

1. Can you please provide background information about the decision to implement the pilot? [**PROBE for the following:]**
    a. What was the impetus for the pilot?
    b. What stakeholders were involved in the decision to implement the pilot?
    c. How was the pilot designed?
    d. What were the overarching goals of the pilot?
    e. Did the pilot have specific savings or units goals?

Program Design and Delivery

1. Could you describe in high-level detail how the HES Packaged Measure Pilot worked? How did it differ from the HES program? **[Probe for the following if necessary:]**
    a. How were the packages presented to customers (past and present participants)?
    b. When in the audit process were the packages presented to customers (past and present participants)?
    c. The pilot program information we received referenced "Package Bonus Rebates" and "ENERGY STAR Bonus Rebates." What is the difference between the two?
    d. Were both packages always offered to customers, or were some customers only offered one package? Why?
    e. What strategy was intended when offering the packages to customers who had already participated?
    f. Was additional paperwork required from pilot participants?
    g. Just to make sure I understand how the packages work, were the packaged offerings all or nothing or was there flexibility in determining which measures were included in the package? (For example, suppose a customer was willing to do 4 of 5 items but the last measure was not selected because the customer was going to replace the equipment at later date rather than retrofit?)
    h. Are incentives graduated with higher percentage as more items are packaged?
    i. What was the rationale for designing the packages as they were implemented?

    a.
2. How did vendors decide which past participants to offer the packaged measures to?

b.

3. How were new participants chosen for the pilot?

c.

4. From your perspective, how have customers responded to the packaged measures offer?
    a. Have there been any recurring responses to the offer?
    b. Have there been any common problems or complaints?

d.

5. What worked particularly well about the process you just described?

e.

6. What did not work as well as you hoped?

f.

7. How could the pilot offerings or delivery be improved?

Next Steps

1. Have there been discussions about continuing to offer the packaged measures in future program years?

g.

2. From your perspective, are there any barriers to including the packaged measure option as part of the HES program in the future?

h.

3. Would any pilot design changes be necessary to make it viable for statewide inclusion in HES?

Data Tracking

1. Were the data for the Packaged Measure Pilot collected in the same manner as for a typical HES participant?
    a. **[IF DIFFERENT]** What methods were used for collecting pilot data on site?
    2.
2. What happens to that data collected on site? How are data recorded? (Examples: entered into computer software **[SPECIFY SOFTWARE**]; entered into a Website; entered onto a spreadsheet.)

Other

1. Do you have any other comments or areas we did not cover that you have feedback about?

i.

2. Throughout the interview process, have you thought of anyone else we should interview?

j.

k. Thank you for your time today. If you think of anything else you

would like to discuss, please do not hesitate to call or e-mail me.

APPENDIX B: VENDOR INTERVIEW GUIDE

Massachusetts Residential Retrofit and Low-Income Evaluation
HES Packaged Measure Pilot
Vendor Interview Guide

Name	
Vendor	
Title	
Interviewer Name/Firm	
Date of Interview	

Introduction

The purpose of this interview is to understand your perspective of the Home Energy Services Packaged Measure Pilot. We are specifically interested in your opinions regarding the implementation of the pilot.

All of the information we gather will be reported anonymously. If at any time during this interview you think of someone else we should speak with for our research, please let me know. We are interested in getting diverse and representative perspectives of the pilot.

Roles and Responsibilities

1. To begin, could you please describe your role in implementing the Packaged Measure Pilot?

2. What were some of your specific responsibilities for getting the Packaged Measure Pilot launched?
    a. Were any other vendors or stakeholders involved in implementing the pilot?

Program Design and Delivery

1. Could you describe in high-level detail how the HES Packaged Measure Pilot was implemented?
    a. How were the packages presented to customers (past and present participants)?
    b. When in the audit process were the packages presented to customers (past and present participants)?
    c. Were both packages always offered to customers, or were some customers only offered one package? Why?
    d. What strategy was intended when offering the packages to customers who had already participated?

e. Was additional paperwork required from pilot participants?

l.

2. How did you decide which past participants to offer the packaged measures to?

m.

3. How were new participants chosen for the pilot?

n.

4. Was there any additional training an auditor was required to go through to be able to offer the packaged measures to customers?
   a. If so, what type of additional training?
   b. Who is the training provided by (e.g., lead vendors, PAs)?

o.

5. From your perspective, how have customers responded to the packaged measures offer?
   c. Have there been any recurring responses to the offer?
   d. Have there been any common problems or complaints?

p.

6. What worked particularly well about the process you just described?

q.

7. What did not work as well as you hoped? What do you think were the biggest reasons that customers did not take the packages?

r.

8. How could the pilot offerings or delivery be improved? Are there ways to package differently? Are there components that need extra incentives to get packages accepted? What about timing, is the acceptance period too short, too long?

Data Tracking

1. Were the data for the Packaged Measure Pilot collected in the same manner as for a typical HES participant?
   a. **[IF DIFFERENT]** What methods were used for collecting pilot data on site?
   3.
2. What happens to that data collected on site? How are data recorded? (Examples: entered into computer software **[SPECIFY SOFTWARE**]; entered into a Website; entered onto a spreadsheet.)

s.

Next Steps

1. From your perspective, are there any barriers to including the packaged measure option as part of the HES program in the future?

Other

1. Do you have any other comments or areas we did not cover that you have

feedback about?

t.

2. Throughout the interview process, have you thought of anyone else we should interview?

u.

v. Thank you for your time today. If you think of anything else you would like to discuss, please do not hesitate to call or e-mail me.

Appendix C: Participant Survey Guide

011 Home Energy Services Program
Participant Questionnaire

Greeting
May I speak with ***<CONTACT NAME>***? **(IF NO)** Is there someone else available who is familiar with the home energy assessment that took place at **<ADDRESS>**? **(OBTAIN CORRECT PERSON AND CONTINUE)**

Introduction
Hello, my name is _____ and I am calling from ***OPINION DYNAMICS CORPORATION*** on behalf of **<PA_NAME>** about the home energy assessment recently conducted through **<PA NAME>**'s energy audit and weatherization program. We are calling to get your feedback on the program.
In this survey we will refer to the program as the "Home Energy Services Program, or HES Program."
(IF NEEDED: THE PROGRAM IS ALSO KNOWN AS MASS SAVE, RESIDENTIAL CONSERVATION SERVICES PROGRAM, GAS WEATHERIZATION, HOME ENERGY SERVICES PROGRAM AND/OR HOME ENERGY ASSESSMENT.)

(IF NEEDED: THE SURVEY SHOULD TAKE AROUND 20 MINUTES)

As a token of appreciation if you qualify for this study and complete this phone survey, we are offering a $20 gift card upon the completion of the survey.
Your responses will be kept strictly confidential. To start, I have a few questions to determine if you qualify for the study.

[VARIABLE "HEAT FUEL" IS USED FOR PROGRAM SKIPS]
["HEAT FUEL = 1" ---- GAS]
["HEAT FUEL = 2" ---- ELECTRIC / OTHER]

A. Screening

A1. Do you recall having someone come to your home at <ADDRESS>
[DO NOT READ, IF <AUDIT_DATE>=0] around <AUDIT_DATE>…
and provide you with information about ways to save energy, and possibly install some energy saving products such as energy saving light bulbs, low flow showerheads, or faucet aerators **("AIR-RATE-ORS")** ? This is also known as a no cost audit or home energy assessment and it would have been provided by your utility or energy efficiency service provider as part of your participation in this program.
(IF NO, ASK "**Is there someone else in your home I could speak to now who has been involved in the home energy assessment or making weatherization improvements?")**

1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF A1 <>1, SKIP TO TERMINATE SCREEN]
[ASK IF <HEAT FUEL> = 1, ELSE SKIP TO A5]

[IF <GAS_PA>=BLANK AND <HEAT FUEL>=1, SKIP TO A4]

A3. To confirm, is **<GAS_PA_NAME>** your gas provider?
1. Yes **(SKIP TO A5)**
2. No **(GO TO A4)**
98. **(DO NOT READ)** Don't know **(TERMINATE)**
99. **(DO NOT READ)** Refused **(TERMINATE)**

A4. Who is your natural gas provider? **(DO NOT READ LIST EXCEPT TO CLARIFY)**
1. NSTAR
2. National Grid
3. Berkshire Gas
4. Columbia Gas (also known as Bay State Gas or BSG)
5. New England Gas
6. Unitil (Pronounce 'You-Nih-Til') (also known as Fitchburg Gas)
7. Other **(Specify)**
97. Not applicable (heat with electricity, oil, or propane)
98. **(DO NOT READ)** Don't Know [TERMINATE]
99. **(DO NOT READ)** Refused [TERMINATE]

[ASK IF <HEAT FUEL> = 2, ELSE SKIP TO B1]
[IF <ELECTRIC_PA>=BLANK AND <HEAT FUEL>=2, SKIP TO A6]

A5. To confirm, is **<ELECTRIC_PA_NAME>** your electric provider?
1. Yes **(SKIP TO B1)**
2. No **(GO TO A6)**
98. **(DO NOT READ)** Don't know **(TERMINATE)**
99. **(DO NOT READ)** Refused **(TERMINATE)**

A6. Who provides electricity to your home, or is your energy efficiency service provider? **[MULTIPLE CHOICE]**
1. NSTAR
2. National Grid
3. Unitil
4. Cape Light Compact or CLC
5. Western Massachusetts Electric Company or WMECO **(pronounced WUH-MEE-KO)**
97. Other **(Specify)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

B. **Program Awareness**

B1. How did you first learn about the home energy assessment opportunity? **(RECORD ALL MENTIONED, DO NOT READ)** **[+ TO SCROLL FORWARD]**
1. Billboard
2. Ad on the commuter rail
3. Radio (unspecified)
4. Movie theatre
5. Newspaper

6. Online advertisement
7. E-mail
8. Internet or on-line search
9. Mailing or marketing materials, bill insert
10. Visited Mass Save.com
11. Word of mouth – friend, family, neighbor, coworker, etc
12. Contractor
13. Oil Company
14. Utility
15. Previous Participant
16. RMV advertisement
17. Community Group outreach
18. Event
97. Other **(Specify)**
98. Don't know
99. Refused

[GENERATE VARIABLE WORD_ONLY: IF (B1 ARE ONLY 11 AND/OR 15), WORD_ONLY1=1; ELSE <WORD_ONLY1>=0]

B2. There is a state wide marketing campaign called Mass Save, that refers to the program administrator's energy efficiency efforts. We're interested in all of the ways you may have heard about Mass Save or the Home Energy Services program. **(REPEAT ON EACH PAGE)** Have you ever… **[1=YES, 2=NO, 3=MAYBE, (DO NOT READ) 98=DK, (DO NOT READ) 99=REF] (ROTATE AND ONLY READ THOSE NOT PREVIOUSLY MENTIONED IN B1. ALWAYS ASK B2N LAST)**

A. **[DO NOT READ IF B1 = 1]** Seen a billboard about the program?
B. **[DO NOT READ IF B1 = 2]** Seen an ad on the commuter rail about the program?
C. **[DO NOT READ IF B1 = 4]** Heard about the program at the theater, for instance, yellow and green ads showing messages like "75% off insulation improvements", or "Energy efficiency just got easier"?
D. **[DO NOT READ IF B1 = 3]** Heard about the energy assessment or Mass Save on the radio?
E. **[DO NOT READ IF B1 = 5]** Seen a newspaper article or advertisement about the program?
F. **[DO NOT READ IF B1 = 6 OR 10]** Seen online advertising for a home energy assessment? **(Specify)**
G. **[DO NOT READ IF B1 = 7]** Received an e-mail about the program? **(Specify)**
H. **[DO NOT READ IF B1 = 8 OR 10]** Found program information as a result of an on-line search? **(Specify)**
I. **[DO NOT READ IF B1 = 17 OR 18]** Visited or seen a booth for Mass Save, a utility or an energy efficiency service provider at a public event?
J. **[DO NOT READ IF B1 = 9]** Received a brochure or post card about the program in the mail or with your bill?
K. **[DO NOT READ IF B1 = 16]** Seen an ad about the program at the Registry of Motor Vehicles?
L. **[DO NOT READ IF B1 = 11 OR 15]** Heard about the program from a friend, family member or neighbor?
M. **[DO NOT READ IF B1 = 12]** Heard about the program through a contractor?
N. **[ANCHOR]** Seen or heard anything else about the program? **(SPECIFY)**

[IF B2L=1 AND ALL OTHER B2<>1, <WORD_ONLY2>=1]
[ASK B3 IF B2F = 3]

B3. Where on-line did you see the advertising? Did you see it on**…[1=Yes, 2=NO, (DO NOT READ) 98=DK, (DO NOT READ) 99=Ref] (ROTATE)**

A. Boston.com?
B. An ad on CBS Boston?
C. Facebook?
D. Other on-line ads **(specify) [ANCHOR AT END OF LIST]**

[ASK B4 IF B2G = 3]

B4. What sort of e-mail did your receive? Was it**…[1=Yes, 2=NO, (DO NOT READ) 98=DK, (DO NOT READ) 99=Ref] (ROTATE)**

A. An e-mail discussing insulation from Mass Save?
B. An e-mail discussing heating and cooling rebates?

C. An e-mail discussing water heater rebates?
D. Other e-mail **(specify) [ANCHOR AT END OF LIST]**

[ASK B5 IF B2J = 3]

B5. What mailing did you see? Was it… **[1=Yes, 2=No, (DO NOT READ) 98=DK, (DO NOT READ) 99=REF] (ROTATE)**

A. A post card showing fall leaves and icicles saying "It's Time. Get Ready."?
B. A green brochure about Mass Save Home Energy Assessments
C. Other mailing **(specify) [ANCHOR AT END OF LIST]**

[ASK B6 IF B2I = 3]

B6. What event was it? Was it… **[1=Yes, 2=NO, (DO NOT READ) 98=DK, (DO NOT READ) 99=Ref] (ROTATE)**

A. Earth fest?
B. Third Thursday?
C. Lowell Spinners?
D. Big E?
E. Barnstable County Fair?
F. Other event **(specify) [ANCHOR AT END OF LIST]**

[ASK ALL]

B7. What are the best ways for your local utility or energy efficiency service provider to inform you about energy efficiency programs? **[MULTIPLE RESPONSE, UP TO 3, prompt by reading list if necessary) [+ TO SCROLL FORWARD]**

1. Contractor/Salesperson
2. Newspaper/magazine/print media
3. Bill inserts
4. Local utility /energy efficiency service provider website
5. Television ads
6. Email
7. Search Engine Ad
8. Phone call
9. Billboard/Sporting events/large-scale print ad
10. Radio/NPR ads
11. Local retailer/NGO/Community Center
97. Other **(Specify)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[SKIP IF (B2A-N ALL <>1) OR (WORD_ONLY1=1) OR (WORD_ONLY2=1)]

B8. How influential was **all** the Mass Save and HES marketing you just mentioned in your decision to receive the home energy assessment? **[READLIST] (] [97=NA, 98=DK, 99=Ref)**

1. Very influential
2. Somewhat influential
3. Not very influential

4. Not at all influential
97. **N/A**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

B9. What was the main reason why you decided to have an Energy Audit? **[DO NOT READ LIST]**
1. Learn how to lower my energy bills
2. Learn how to save energy
3. Learn how to make my home more comfortable/warmer/less drafty
4. Receive free products like CFLs (compact fluorescent light bulbs), showerheads, etc.
5. Learn what rebates exist
6. Receive rebates
7. Previous participation
8. To replace old/broken equipment
9. Zero percent Interest HEAT loan
97. Other **(Specify)**
98. Don't know
99. Refused

C. Direct Install Measures

I want to ask you about the energy efficiency measures that were installed in your home.

CFLs

[IF <CFL_INS_QTY> <> 0 ASK]

C1. According to my records, you had **<CFL_INS_QTY>** compact fluorescent light bulb (s) installed during your audit, is that correct?

(READ IF NEEDED: THESE ARE HIGHLY ENERGY EFFICIENT LIGHT BULBS THAT OFTEN DON'T LOOK LIKE A REGULAR LIGHT BULB; THE MOST POPULAR MODELS HAVE A SPIRAL SHAPE RESEMBLING SOFT-SERVE ICE-CREAM, THOUGH THE BULBS COME IN OTHER SHAPES AS WELL.)

1. Yes
2. No, no bulbs
3. No, different number of bulbs
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF QC1=3]

C1a. How many bulbs were installed?

[generate <v_cfl_in> based on C1 and C1a responses]

[SKIP IF QC1=2,8,9 OR QC1A=00,98,99]]

C2. Are the bulbs still installed? **(READ RESPONSES IF NECESSARY)**

1. Yes, all of them
2. Yes, some of them
3. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF C2=2]
C2a. How many bulbs are still installed?

(Interviewer, if respondent goes over <v_cfl_in>, remind them that they said they only installed <v_cfl_in>.)

[IF C2=2 or 3 ASK]
C3. Why did you remove the bulbs? **(*OPEN ENDED.* PROBE TWICE AND THEN CLARIFY)**
C4. Did the auditor give you any compact fluorescent light bulbs to install later?
Yes: Approximately how many? [1-95]
96. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

Aerators
[IF <AER_INS_QTY> <> 0 ASK]
C5. According to my records, you had **<AER_INS_QTY>** faucet aerator(s) **("AIR-RATE-ORS")** installed during your audit visit, is that correct?
1. Yes
2. No, no faucet aerators
3. No, different number of faucet aerators **(Specify approximately how many: ____)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF C5=1 or 3]
C6. Are the aerators **("AIR-RATE-ORS")** still installed?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF C6 = 2 ASK]
C7. Why did you remove the aerators **("AIR-RATE-ORS")**? **(*OPEN ENDED.* PROBE TWICE AND THEN CLARIFY)**

Showerheads
[IF <DHW_SHWD_INS_QTY> <> 0 ASK]

C8. According to my records, you had **<DHW_SHWD_INS_QTY>** low-flow showerhead(s) installed during your audit visit, is that correct?
1. Yes
2. No, no showerheads
3. No, different number of showerheads **(Specify approximately how many: ____)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF C8=1 or 3]

C9. Are the showerheads still installed?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF C9=2 ASK]

C10. Why did you remove the showerheads? ***(OPEN ENDED.*** **PROBE TWICE AND THEN CLARIFY)**

Air Sealing

[IF <ASL_INS_QTY> <> 0 ASK]

C11. According to my records, an air sealing crew sealed air leaks throughout your home to stop any drafts, is this correct?
1. Yes
2. No, no air sealing was performed
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

Programmable Thermostat

[IF <TSTAT_INS_QTY> <> 0 ASK]

C12. According to my records, you had at least one programmable thermostat installed during your audit visit that lets you set different temperatures for different times of the day. Is that correct? (**DO NOT READ RESPONSES)**
1. Yes
2. No, programmable thermostats were installed
3. I was given one to install later, but have not done so yet.
4. I was given one to install, which is now installed.
98. Don't know
99. Refused

4. [ASK IF QC12=1,4, else skip to D1]

C13. Was the thermostat programmed with energy saving settings when it was installed?
1. Yes
2. No
98. Don't know
99. Refused

C14. Did the contractor who installed the thermostat show you how to use it?

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

C15. Do you use the programmable settings of your thermostat to automatically change temperature at different times of the day, or do you turn it on and off as needed?
1. Use programmable settings
2. Turn it on and off as needed
3. (Both)

98. Don't know
99. Refused

[ASK IF C15 <> 1]

C16. Why don't you always use the programmable settings? (Do not read; multiple choice)
1. I don't know how to use it
2. It takes too much work to set up
3. It is hard to reach
4. It is hard to read
5. It stopped working
6. I'm home a lot so the programming doesn't help much
7. Other _____
98. Don't know
99. Refused

D. Program Satisfaction and Audit Report (ASK ALL)

D1. How satisfied were you with your home energy audit as a whole experience? **[READ LIST]**
1. Very satisfied
2. Somewhat satisfied
3. Not very satisfied
4. Not at all satisfied
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

D3. Did you receive an audit report?
1. Yes
2. No **[SKIP TO LOGIC BEFORE E1]**
98. **(DO NOT READ)** Don't know**[SKIP TO LOGIC BEFORE E1]**
99. **(DO NOT READ)** Refused**[SKIP TO LOGIC BEFORE E1]**

D4. How useful was the audit report ? **[READ LIST]**
1. Very useful
2. Somewhat useful
3. Not very useful
4. Not at all useful

98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

E. Rebated Measures

[IF <INSULATION>=1, ASK]

E1. According to my records, you installed insulation through the program, is that correct?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF <HTS_INS_QTY>=1, ASK]

E2. According to my records, you installed a new heating system through the program, is that correct?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF <DHW_INS_QTY> =1, ASK]

E3. According to my records, you installed a new hot water heater through the program, is that correct?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF <FRIDGE_INS_QTY> =1, ASK]

E4. According to my records, you installed a new refrigerator through the program, is that correct?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

E11. How did you decide which of the recommended energy efficient home improvements to make, and which to skip? **(DO NOT READ RESPONSES, ACCEPT MULTIPLE RESPONSES)**
1. Time availability
2. Cost of measure
3. Amount of rebate
4. Landlord chose
5. Need/Priority
6. Expected Energy Saved
7. (Made all improvements)
96 (DID NOT MAKE ANY IMPROVEMENTS)
97. Other **(Specify)**

98. **(DO NOT READ)** Don't know/Does not recall recommendations
99. **(DO NOT READ)** Refused

[IF E11= 7 SKIP]

E13. Do you plan to make any of these energy efficient improvements in the future?
1. Yes, through the program
2. Yes, on my own
3. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

F. Cap and Mass Heat Loan

[IF <PMPO> <>0 SKIP TO G1]

[IF E11= 7 SKIP]

F1. Currently the program offers a 75% rebate up to a $2,000 cap to assist customers to installed recommended measures.
a. If the program had the same 75% rebate but had a **higher** cap would it have encouraged you to install more of the recommended measures than you did? **[1, 2, 8, 9]**
b. If the program had the same $2,000 cap with a **higher** percent rebate would it have encouraged you to install more of the recommended measures than you did? **[1, 2, 8, 9]**

[IF F1a=1 ASK, OTHERWISE SKIP TO LOGIC BEFORE F3]

F2. If the program did not have a cap and you received a 75% rebate for ALL of the recommended measures, would you have installed all of them?
1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[if maj_msr=0, skip f4]

F4. Approximately, how much did you end up paying out of pocket for the program recommended improvements? **(Record Answer 1-100,000)**
999,998. **(DO NOT READ)** Don't Know
999,999. **(DO NOT READ)** Refused

F5. Were you aware of the Mass Save Heat Loan Program? **(IF NEEDED: THIS IS THE PROGRAM THAT OFFERS ZERO INTEREST LOANS TO ASSIST WITH ENERGY EFFICIENT IMPROVEMENTS SUCH AS HEATING SYSTEM REPLACEMENTS, WINDOW REPLACEMENTS)**
1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF MAJ_MSR=0, SKIP F6 AND F7]
[IF F5 = 1 ASK, OTHERWISE SKIP TO F10]

F6. Did you take advantage of it?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF F6=1, OTHERWISE SKIP TO F9]

F7. Did the availability of the Mass Save Heat Loan Program impact your decision to install the recommended measures?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF E11= 7 SKIP]
[ASK IF F7=1, OTHERWISE SKIP TO F10]

F8.

a. Would you have installed any of the recommended measures without the Mass Save Heat Loan? **[1, 2, 8, 9]**
b. **[IF F8A=1, ASK]** Did the Mass Save Heat loan enable you to install even more of the recommended measures than you otherwise would have? **[1, 2, 8, 9]**

[IF E11= 7 SKIP]
[ASK IF F5=2, OTHERWISE SKIP TO LOGIC BEFORE G1]

F10. If you had been aware that there was a zero percent interest loan would you have taken advantage of it when you were participating in the Mass Save Program?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

G. Packaged Measures

[IF <PMPO> =0 SKIP TO LOGIC BEFORE SECTION J]

[ASK IF <PMPO> =1]

G1. According to our records, you opted not to install several of the recommended energy efficiency measures following your initial audit, but decided later to install a package of recommended measures after the program called you back and offered a greater incentive. Is that correct? **(READ IF NECESSARY)**

1. Yes
2. No, I was not called back and offered a greater incentive (**SKIP TO LOGIC BEFORE SECTION H)**
3. No, I was called back, but still decided not to install the recommended measures (**SKIP TO G4)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF <PMPO> =2]

G3. According to our records, the program called you after your original audit and offered a greater incentive if you installed a package of recommended measures but you opted not to install the measures. Is that correct? **(READ IF NECESSARY)**

1. Yes
2. No, I was not called back and offered a greater incentive (**SKIP TO LOGIC BEFORE SECTION H)**
3. No, I was called back and did install the package of measures
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF G3=1 or G1=3]

G4. Why did you decide not to install the package of measures in return for the additional incentive?

1. Even with additional incentive, it required too much money out of pocket for me
2. The package included a recommended measure I didn't need/want
3. I plan to install the rest of the measures, but at a later date. When they called was not a good time.
4. Other **(DO NOT READ; Specify:___)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF <PMPO> = 3 or 4]

G6. According to our records, you were offered an additional incentive as part of a pilot program to encourage you to install all the measures recommended after your audit. Are you aware you were offered an additional incentive?

1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF <PMPO> = 3 and G6=1]

G7. Would you have installed all the measures included in the package without the additional incentive? This means the total incentive you received you have been between $750 and $1,150 less.

1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF G7=2]

G8. Would you have installed none or just some of all the measures included in the package without the additional incentive?

1. None
2. Some
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF <PMPO> = 4 and G6=1]

G9. Why did you decide not to install the package of measures in return for the additional incentive? **Was it because…(Read)**

1. Even with additional incentive, it required too much money out of pocket for you
2. The package included a recommended measure you didn't need or want OR
3. You did not have the time or flexibility to commit to all the measures at the time of the audit?
4. (Other **(DO NOT READ; Specify:___))**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[ASK IF <PMPO> = 4 and G6=2]

G10. The additional incentive offered to you was between $750 and $1,150 more than what is usually offered in return for installing a package of measures. If you had been aware that you were receiving this increased incentive, how likely to install all the recommended measures?

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not at all likely
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

J. Incented Measures NTG Questions

[ASK FOR ALL WHERE:
F6=2 AND <INSULATION>=1 (FOR <MEASURE> READ IN "INSULATION"),
F6=2 AND <HTS_INS_QTY>=1 (FOR <MEASURE> READ IN "HEATING SYSTEM"),
F6=2 AND <DHW_INS_QTY> =1 (FOR <MEASURE> READ IN "HOT WATER HEATER")
F6=2 AND <FRIDGE_INS_QTY> =1] (FOR <MEASURE> READ IN "REFRIGERATOR")
[LOOP THROUGH ALL MEASURES THAT APPLY]

I have some questions about your decision to install the **<MEASURE>**.

J1. Before learning about the HES program, were you already planning on installing (a) **<MEASURE>? (IF NEEDED: planning, but had not made a purchase)**

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J1<>1]
[IF <MEASURE> IS NOT <INSULATION>, SKIP J2]

J2. Were you planning to add the same amount of **<MEASURE>** before you learned about HES program?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J1<>1]
[IF <MEASURE> = <INSULATION>, SKIP J2A]

J2a. Were you planning to purchase a <MEASURE> with the same level of energy efficiency before you learned about HES program?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J1<>1]

J3. Did the rebate change your plans to install (a) **<MEASURE>**? That is, did you install (a) **<MEASURE>**... **(READ ALL RESPONSES)**

1. Earlier because of the rebate,
2. Earlier than planned but NOT because of the rebate,
3. About the same time as planned, or
4. Later than planned?
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF J3<>1 OR 2 SKIP TO J5]
[SKIP IF J1<>1]

J4. If you had not received a rebate, when would you have installed (a) **<MEASURE>**? Would you have installed (a) **<MEASURE>** within six months, between six months and a year, or more than a year later than you did?

1. Within six months
2. Between six months and a year
3. More than a year
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J1<>1]

J5. How influential was the HES program rebate on your decision to install the (a) **<MEASURE>** ?**[READ LIST]**

1. Very influential
2. Somewhat influential
3. Not very influential
4. Not at all influential
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK FOR ALL WHERE:
F6=1 AND <INSULATION>=1 (FOR <MEASURE> READ IN "INSULATION"),,
F6=1 AND <HTS_INS_QTY>=1 (FOR <MEASURE> READ IN "HEATING SYSTEM"),
F6=1 AND <DHW_INS_QTY> =1 (FOR <MEASURE> READ IN "HOT WATER HEATER"),
F6=1 AND <FRIDGE_INS_QTY> =1] (FOR <MEASURE> READ IN "REFRIGERATOR"),
[LOOP THROUGH ALL MEASURES THAT APPLY]

J6. Before learning about the HES program, were you already planning on installing (a) **<MEASURE>? (IF NEEDED: planning, but had not made a purchase)**
1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J6<>1]
[IF <MEASURE> IS NOT <INSULATION>, SKIP J7]
J7. Were you planning to add the same amount of **<MEASURE>** before you learned about HES program?
1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J6<>1]
[IF <MEASURE> = <INSULATION>, SKIP J7A]
J7a. Were you planning to purchase a <MEASURE> with the same level of energy efficiency before you learned about HES program?
1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J6<>1]
J8. Did the rebate and loan change your plans to install (a) **<MEASURE>**? That is, did you (a) **<MEASURE>** … **(READ ALL RESPONSES)**
1. Earlier because of the rebate,
2. Earlier than planned but NOT because of the rebate,
3. About the same time as planned, or
4. Later than planned?
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[F J8<>1 OR 2 SKIP TO J10]
[SKIP IF J6<>1]
J9. If you had not received a rebate and loan, when would you have installed the **<MEASURE>**? Would you have installed (a) **<MEASURE>** within six months, between six months and a year, or more than a year later than you did?

1. Within six months
2. Between six months and a year
3. More than a year
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF J6<>1]

J10. How influential was the HES program rebate and loan on your decision to install (a) **<MEASURE>** ? **[READ LIST]**

1. Very influential
2. Somewhat influential
3. Not very influential
4. Not at all influential

98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

H. CFL Direct Install NTG Questions

[(IF C1=2,8,9 AND C4 =96,98,99) OR CFL_QTY_INS=0, SKIP TO LOGIC BEFORE SECTION I]

I have some questions about some of the no-cost services and products that were included in your home energy assessment.

You mentioned you received compact fluorescent light bulbs during the home energy assessment. For the next several questions, I am going to refer to them as CFLs.

H1. Before the home energy assessment did you have any CFLs installed in your home?

1. Yes
2. No
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF H1=1, ASK]

H2. Approximately how many?

1. 1 or 2
2. 3 – 5
3. 5 – 10
4. More than 10
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF H1=2, ASK]

H3. Why didn't you have any installed prior to the program? **[MULTIPLE CHOICE; DO NOT READ]**

1. Too expensive
2. I don't like the color of the light
3. The light is too bright
4. The light is too dim

5. They flicker
6. They take too long to light up
7. They don't fit well in my fixtures
8. They don't look nice in my fixtures
9. I just didn't like them
10. They burn out quickly
11. Hadn't heard about them before the program
12. Other **(Specify:____)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

H5. If you had not received free CFLs from the home energy assessment, would you have bought CFLs on your own?
1. Yes
2. No
98. (Don't know)
99. (Refused)

[IF H5<>1, SKIP TO LOGIC BEFORE I1]

H4. Would you have…
1. Installed the SAME number of CFLs OR
2. FEWER CFLs?
3. (DO NOT READ) (Would not have installed any)
4. (DO NOT READ) (Would have installed more)
98. (DO NOT READ) Don't know
99. (DO NOT READ) Refused

[IF H4= 3, 98, OR 99, SKIP H6]

H6. When would you have bought them? **(READ RESPONSES IF NECESSARY)**
1. At roughly the same time
2. Within a few months
3. Within a year
4. More than a year
5. (Would not have purchased on my own)
98. (Don't know)
99. (Refused)

I. Direct Install NTG

[IF C11 <> 1, SKIP TO NEXT SECTION]

I1. I'd like to ask you more questions about another service that the team performed. Before learning about the program, were you already planning to perform air-sealing? **(IF NEEDED: planning, but had not made a purchase)**
1. Yes
2. No ***[SKIP TO I6]***
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[SKIP T0 SECTION K IF I1 = 98 OR 99]

I2. Would you say the air-sealing happened earlier than you had originally planned BECAUSE of the home energy assessment? That is, did you air-seal… **(READ ALL RESPONSES)**

1. Earlier because of the home energy assessment,
2. Earlier than planned but NOT because of the home energy assessment,
3. About the same time as planned, OR
4. Later than planned?
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

[IF I2<>1 OR 2, SKIP I3]

I3. If the team hadn't done the air sealing, when do you think you would have done it? Would you have done it within six months, between six months and a year, or more than a year later than they did?

1. Within six months
2. Between six months and a year
3. More than a year
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

I4. Would you say the air-sealing effort would have been more extensive, less extensive or the same as was done through the program?

1. More extensive
2. Less extensive
3. Same
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

I5. If the Home Energy Assessment Team had not done it, how likely is it that you would have air-sealed your home? [READ LIST]

1. Very likely
2. Somewhat likely
3. Not very likely
4. Not at all likely
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

I6. If the cost of the air-sealing was approximately $500. Would you have spent this amount to get the air-sealing done **BEFORE YOU LEARNED ABOUT THE HES PROGRAM**?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF I6<> 1]

I7. What if the cost of the air-sealing was $750 or more. Would you have spent this amount to have air-sealing done **BEFORE YOU LEARNED ABOUT THE HES PROGRAM**?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF I6 = 1 SKIP TO NEXT SECTION]

I8. What if the cost of the air-sealing was $250. Would you have spent this amount to get the air-sealing done **BEFORE YOU LEARNED ABOUT THE HES PROGRAM**?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

5. K. Spillover [ASK ALL]

K1. As a result of what you learned by participating in the HES program, have you made any additional energy saving home improvements, not mentioned yet, for which you did not receive a utility incentive or rebates?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF K1= 1, OTHERWISE SKIP TO K5]

K2. What additional improvements did you make since the assessment to reduce your household energy consumption? ***(MARK ALL THAT APPLY.*** **DO NOT READ RESPONSES)**

1. New windows
2. New doors
3. [Bought] an energy efficient appliances (Specify:____)
4. [Bought] new appliance(s), energy efficient unknown (Specify:____)
5. New roof
6. Other heating improvements (i.e. pellet stove, space heaters, fireplace)
7. New construction/added new siding
8. Ceiling fans
9. Power strips
10. Upgrading AC
96. No/Nothing
97. Other **(Specify)**
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

K3. Approximately how much did you pay for the… [OPEN END NUMERIC 1-100,000; DK 999,998; REF 999,999]

a. **[SKIP IF K2<>1]** new windows?
b. **[SKIP IF K2<>2]** new doors?
c. **[SKIP IF K2<> 3 OR 4]** new appliance(s)?
d. **[SKIP IF K2<>5]** new roof?
e. **[SKIP IF K2<>6]** heating improvements?
f. **[SKIP IF K2<>7]** construction work?
g. **[SKIP IF K2<>8]** ceiling fans?
h. **[SKIP IF K2<>9]** power strips?
i. **[SKIP IF K2<>10]** air conditioning work?

K4. How influential was the HES program experience on your decision to make these additional improvements? **[READ LIST]**

1. Very influential
2. Somewhat influential
3. Not very influential
4. Not at all influential
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

K5. As a result of what you learned by participating in the HES program, have you changed your behaviors to reduce your household energy consumption?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF K5= 1, OTHERWISE SKIP TO K8]

K7. How influential was the HES program experience on your decision to change these behaviors? **[READ LIST]**
1. Very influential
2. Somewhat influential
3. Not very influential
4. Not at all influential
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

K8. Have you noticed a reduction in your energy use on your bills since you participated in the HES program?
1. Yes
2. No
3. **(DO NOT READ)** Do not pay close attention to my energy bills/Someone else pays the bill
96. **(DO NOT READ)** Not applicable/New home
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF K8 <> 1, SKIP TO L1]

K9. How satisfied are you with the energy savings you have seen by participating in the HES program? **[READ LIST]**
1. Very satisfied
2. Somewhat satisfied
3. Not very satisfied
4. Not at all satisfied
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

L. KNOWLEDGE OF AND ATTITUDES TOWARD ENERGY EFFICIENCY

I would now like to ask you a few questions on a slightly different topic.

L1. How would you rate your knowledge of the different ways you can save energy in your home? Would you say very knowledgeable, somewhat knowledgeable, not very knowledgeable, or not at all knowledgeable?
1. Very knowledgeable
2. Somewhat knowledgeable
3. Not very knowledgeable
4. Not at all knowledgeable
8. (Don't know)
9. (Refused)

L2. How much control would you say you currently have over how much energy your household uses? Would you say a great deal, some, a little or no control at all?
1. A great deal of control

2. Some control
3. A little control
4. No control at all
8. (Don't know)
9. (Refused)

L3. How efficient is your home? Would you say very efficient, somewhat efficient, not very efficient, or not at all efficient?

1. Very efficient
2. Somewhat efficient
3. Not very efficient
4. Not at all efficient
8. (Don't know)
9. (Refused)

M. BARRIERS AND MOTIVATORS

Thank you for your responses so far, you have been very helpful. I would now like to switch gears a bit.

M1. I am going to read you a list of five reasons why people might decide to make energy efficient improvements in their homes. Please tell me which of these would be the most important reason as to why you would make energy efficient improvements in your home. **(READ LIST. AND ROTATE, IF DON'T KNOW PLEASE PROBE "IF YOU HAD TO CHOOSE FROM THE FOLLOWING REASONS WHICH ONE WOULD MOTIVATE YOU THE MOST?")**

1. Saving money on your energy bill
2. Improved comfort of your home
3. For the benefit of future generations
4. Protecting the environment
5. Reducing our dependence on foreign oil
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF M1 = 98 OR 99, SKIP TO M3]

M2. Of the remaining reasons, which is the next MOST important reason why you would make energy efficient improvements in your home? **(READ LIST ONLY IF NECESSARY. IF DON'T KNOW PLEASE PROBE "IF YOU HAD TO CHOOSE FROM THE FOLLOWING REASONS WHICH ONE WOULD MOTIVATE YOU THE MOST?") [ELIMINATE RESPONSES FROM M1]**

1. Saving money on your energy bill
2. Improved comfort of your home
3. For the benefit of future generations
4. Protecting the environment
5. Reducing our dependence on foreign oil
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

M3. Now I am going to read you a few statements. Please tell me how strongly you agree or disagree with each one using a 4 point scale where 1 is strongly Agree, 2 is somewhat agree, 3 is somewhat disagree and 4 is strongly disagree. How about..? **(READ STATEMENTS. RANDOMIZE. REPEAT SCALE IF NECESSARY.)**

1. Energy efficient improvements are too expensive
2. Energy efficient equipment doesn't look very good
3. Energy efficient equipment does not perform very well
4. Energy efficient equipment is hard to find
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

M4. If you were searching for information about how to save energy, where would you look? **(MULTIPLE RESPONSE. PROBE FORALLOW UP TO 3.; DO NOT READ)**

1. Friends/family members/coworkers
2. Television
3. Newspapers or magazines
4. Radio
5. Environmental organizations
6. Utility bill insert
7. Online
8. Utility company/energy efficiency service provider
9. Home improvement/department/hardware store (i.e. Home Depot/Lowes/Sears etc.)
10. Ask manufacturer/vendor/retailer
11. Phonebook
12. Consumer reports
13. Contractor
14. Library
15. Mass Save
16. HES
17. Other **(specify)**
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF M4=7]

M5. Where online would you look? **(MULTIPLE RESPONSE. ACCEPT UP TO FIVE)**

1. Google search
2. Government website
3. Masssave.com
4. Search (general)/other search engines
5. Utility or energy efficiency service provider website
6. Manufacturer's website
7. Home improvement website such as Home Depot and HGTV
8. Consumer reports
9. Website dedicated to energy efficiency
10. News website/Local news website
00. Other **(specify)**
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

N. HOUSEHOLD CHARACTERISTICS

We are close to being done. I would now like to ask you a few questions about your home. These questions are for classification purposes only.

[IF <SQ_FT> =<100, SKIP N1]

N1. My records indicate your house is **<SQ_FT>** square feet, is that correct?

1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[IF N1 <> 1, ASK, OTHERWISE SKIP TO N3]

N2. How big is your house, would you say it is… **(READ RESPONSE CATEGORIES)**

1. Less than 1,400
2. 1,400 to less than 2,000
3. 2,000 to less than 2,500
4. 2,500 to less than 3,500
5. 3,500 to less than 4,000
6. 4,000 to less than 5,000
7. 5,000 or more
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

N3. Do you own or rent your home?
1. Own
2. Rent
3. Other **(Specify)**
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF N3=2]

N4. Was the decision to participate in the program mainly yours, your landlords, or a decision you made together?
1. My decision
2. Landlord's decision
3. Mutual decision
4. Other**(Specify)**
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF N3=2]

N5. Do you pay your own electric bill or is it included in your rent?
1. Pay bill
2. Included in rent
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

N6. Does your home have central air conditioning?
1. Yes
2. No
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP TO N8 IF N6<>1]

N7. Does the central air conditioning system serve only this residence or does it serve more than one residence?
1. Only this residence
2. More than one residence
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

N8. Does your water heater, or the source of your hot water, serve only this residence or does it serve more than one residence?
1. Only this residence
2. More than one residence
3. **(DO NOT READ)** This residence has no hot water
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[ASK IF N3=2]

N9. Do you or someone else in your household, pay your own heating or water heating bill or is it included in your rent?

1. Pay heating and hot water
2. Pay hot water only
3. Pay heating only
4. Both are Included in rent
98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

O. DEMOGRAPHICS

I just have a few last questions and then we will be done. These last questions are for statistical purposes only.

O1. How long have you lived at your current residence? **(ENTER NUMBER OF YEARS_____. CODE 1 IF LESS THAN 1 YEAR)**

98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

O2. In what year were you born? **(NUMERIC OPEN ENDED; 1890-1991. RECORD RESPONSE:_____)**

98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

O3. How many people currently live in your house year-round? **(RECORD RESPONSE1-20)**

98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

[SKIP IF O3<2 or O3 = 98 or 99]

O4. Of the **<QO3>** people who live in your house, how many are under 18 years of age? **(RECORD RESPONSE:_____)**

98. **(DO NOT READ)** Don't Know
99. **(DO NOT READ)** Refused

Household Size=QO3	150%	200%	500%
1	$ 16,000	$ 22,000	$ 54,000
2	$ 22,000	$ 29,000	$ 74,000
3	$ 28,000	$ 37,000	$ 93,000
4	$ 34,000	$ 45,000	$ 112,000
5	$ 39,000	$ 52,000	$ 131,000
6	$ 45,000	$ 60,000	$ 150,000
7	$ 51,000	$ 68,000	$ 169,000
8	$ 56,000	$ 75,000	$ 188,000
9	$ 62,000	$ 83,000	$ 207,000
10 or more	$ 68,000	$ 91,000	$ 226,000

Source: http://aspe.hhs.gov/poverty/11poverty.shtml

[SKIP IF O3=98 OR 99]
[ASK BASED ON CHART ABOVE FOR STATED HOUSEHOLD SIZE (O3)]

O5. In 2011, was your total household income:
1. Below <150%>
2. <150%> to less than <200%>
3. <200%> to less than <500%>
4. <500%> or more
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

O6. What is the highest level of education you have completed? **(READ LIST IF NECESSARY)**
1. Less than high school
2. High school graduate or equivalent (e.g., GED)
3. Attended some college (includes junior/community college)
4. Associates degree
5. Bachelors degree
6. Advanced degree
97. Other **(Specify)**
98. **(DO NOT READ)** Don't know
99. **(DO NOT READ)** Refused

O7. **(RECORD GENDER. DO NOT ASK)**
1. Male
2. Female

[SCREEN BREAK]

O8. Those are all the questions that I have for you. Please tell me how you would prefer to receive your $20 gift card. Would you prefer to receive it through an email link to Perks.com where you can select from many gift card options, or a CVS gift card that will be mailed to you?
1. Email link to Perks.com
2. A CVS gift card via mail
3. **(DO NOT READ)** Refused Incentive **[SKIP TO FINISH]**

[ASK IF O8=1]

O9. To receive the link to the Perks.com online gift card, please tell me your email address. You should receive the link to the online gift card via email within four weeks. If you do not receive this gift card via email within two weeks, please call 617-301-4667 or email massgift@opiniondynamics.com. **Could you please provide me with your…**
a. Email address
b. Confirm email address by spelling aloud
99. Refused **[Return to O8 and ask if they would like to receive card by mail]**

[ASK IF O8=2]

O10. To receive the CVS gift card in the mail, please tell me your mailing address. If you do not receive this gift card in mail within four weeks days, please call 617-301-4667 or email massgift@opiniondynamics.com. **Could you please provide me with your…**

a. Street number
b. Street name
c. Street suffix
d. City
e. Zip code
g Full name
99. Refused **[Return to O8 and ask if they would like to receive card by email]**

FINISH. Thank you very much again for your time and cooperation. Have a good day.