

GJGNY CBO Outreach Program Process Evaluation and Market Characterization Assessment: Phase II

Final Report

Prepared for:

New York State Energy Research and Development Authority

Albany, New York

Carley Murray
Project Manager

Prepared by:

Research Into Action, Inc.

Portland, Oregon

Jane Peters
President

Hale Forster
Senior Project Analyst

NYSERDA Contract 26276

December 2015

Notice

This report was prepared by Research Into Action, Inc. in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority (hereafter “NYSERDA”). The opinions expressed in this report do not necessarily reflect those of NYSERDA or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, NYSERDA, the State of New York, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this report. NYSERDA, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this report.

NYSERDA makes every effort to provide accurate information about copyright owners and related matters in the reports we publish. Contractors are responsible for determining and satisfying copyright or other use restrictions regarding the content of reports that they write, in compliance with NYSERDA’s policies and federal law. If you are the copyright owner and believe a NYSERDA report has not properly attributed your work to you or has used it without permission, please email print@nyserda.ny.gov.

Abstract

This report presents the results of the second phase of a process evaluation and market characterization assessment (PE/MCA) of the Green Jobs - Green New York (GJGNY) Outreach program, through which constituency-based organizations (CBOs) conducted outreach with priority communities to encourage residential, small business/not-for profit, and multifamily energy efficiency projects, as well as workforce development training and accreditation. CBOs allocated a majority of their resources to residential outreach, where they recruited households to participate in NYSERDA's Home Performance with ENERGY STAR® (HPwES) program. The first phase of the evaluation, completed in April 2014, documented program staff and CBO experiences with the GJGNY Outreach program and evaluated CBO outreach strategies in each sector. This second phase of the evaluation focuses on CBOs' residential outreach, exploring HPwES participant and contractor experiences with the GJGNY Outreach program and the program's effectiveness in expanding participation in HPwES.

Working with the forthcoming HPwES PE/MCA, data collection activities informing this evaluation include a brief database analysis, surveys with residential energy efficiency audit recipients, surveys with HPwES participants, and interviews with HPwES participating retrofit contractors.

The evaluation found that CBOs are bringing in households that had not heard of or considered HPwES prior to engagement with the CBO. These households are more likely to live in older homes, identify as non-Caucasian, and have lower incomes and less education than non CBO-affiliated HPwES participants. A large majority of the CBO-affiliated participants would not have moved forward with their HPwES project without CBO support and engagement.

Key Words

Green Jobs –Green New York (GJGNY) Outreach program, Constituency-based Organization (CBO), Home Performance with ENERGY STAR® (HPwES), energy efficiency

Acknowledgements

The evaluation team would like to thank Carley Murray of New York State Energy Research and Development Authority (NYSERDA) for her continued guidance and assistance throughout this evaluation. The evaluation team also thanks the NYSERDA program managers for their ongoing input and thoughtful feedback. Finally, the team very much appreciates the willingness of audit recipients, participants, and contractors to take the time to speak with Research Into Action about their experiences with this program.

Table of Contents

NOTICE	I
ABSTRACT	II
KEY WORDS	II
ACKNOWLEDGEMENTS	II
SUMMARY	S-1
Key Findings.....	S-2
Awareness of and Interest in CBO Services	S-2
Evidence of CBO Influence	S-3
Experience with CBOs.....	S-3
Evidence of CBO Influence	S-4
CBO-affiliated and Unaffiliated Population and Project Differences.....	S-4
Evidence of CBO Influence	S-4
Conclusions and Recommendations	S-5
1 INTRODUCTION	1-1
1.1 This Evaluation	1-1
1.2 Program Landscape Changes	1-2
1.3 Program Description	1-3
1.4 CBO Role in GJGNY and HPwES.....	1-5
1.5 Methodology	1-7
1.5.1 Database Analysis.....	1-7
1.5.2 HPwES Participants	1-7
1.5.3 Audit-only Participants.....	1-8
1.5.4 Participating HPwES Contractors.....	1-9
1.5.5 Analysis.....	1-10
2 AWARENESS AND INTEREST	2-1
2.1 Consumer Perspectives	2-1
2.1.1 HPwES Participants	2-1
2.1.2 Audit-only Participants.....	2-3
2.2 Contractor Perspectives	2-4
2.2.1 Non-CBO Contractors	2-4

3 EXPERIENCE.....3-1

3.1 HPwES Participant Perspectives..... 3-1

 3.1.1 Interaction and Support3-1

 3.1.1.1 Funding..... 3-3

 3.1.2 CBO Influence3-5

3.2 Audit-only Participants..... 3-6

 3.2.1 Interaction and Support3-6

 3.2.1.1 Funding..... 3-8

 3.2.2 CBO Influence3-8

3.3 Contractor Perspectives 3-9

 3.3.1 Program Database Contractor Activity Findings3-9

 3.3.2 Interviewee Program Activity3-10

 3.3.3 CBO Interaction and Support3-11

 3.3.4 CBO Project Differences3-12

 3.3.5 Perceptions of CBO Value.....3-13

 3.3.6 Challenges and Suggestions.....3-15

 3.3.7 Aggregation Pilot Experiences3-16

4 POPULATION AND PROJECT DIFFERENCES4-1

4.1 HPwES Participant Program Experiences 4-1

 4.1.1 Upgrade Motivation4-1

 4.1.2 Project Scope4-1

 4.1.3 Project Funding4-2

 4.1.4 Program Satisfaction4-3

4.2 Audit-only Participant Program Experiences 4-3

 4.2.1 Motivations and Barriers.....4-4

 4.2.2 Audit Satisfaction.....4-5

4.3 Demographics..... 4-5

4.4 Project Characteristics..... 4-6

 4.4.1 Incentives and Financing.....4-6

 4.4.2 Comprehensiveness.....4-7

5 CONCLUSIONS AND RECOMMENDATIONS.....5-1

APPENDIX A. ADDITIONAL RESULTS A-1

A.1. Research Objectives and Issues A-1

A.2. Program Background..... A-2

 A.2.1. Efficiency Program Landscape A-2

A.3. Participants A-3

 A.3.1. Satisfaction A-3

A.4. Audit-only Participants	A-5
A.4.1. Methods and Disposition	A-5
A.4.2. Audit Services Importance Ratings	A-6
A.4.3. Subsequent Upgrades	A-6
A.4.4. Satisfaction	A-8
A.5. Demographics	A-8
APPENDIX B. SURVEY AND INTERVIEW GUIDES	B-1
B.1. Participating Contractors Interview Guide	B-1
B.2. Participating Households Interview Guide	B-26
B.3. Audit-only Households Interview Guide	B-49

List of Tables

Table 1-1. HPwES Participation Stages and Key CBO Influence Points	1-6
Table 1-2. Summary of Sampling Approach	1-8
Table 1-3. Audit-only Participant Survey Disposition	1-9
Table 1-4. Participating Contractor Interview Dispositions	1-9
Table 2-1. Means of Awareness of CBO Services	2-2
Table 2-2. Audit-only Participant Means of Awareness of CBO Services	2-3
Table 3-1. Contractor CBO Project Volume Range	3-9
Table 3-2. Number of CBO-affiliated Projects	3-10
Table 3-3. CBOs Worked With	3-10
Table 3-4. How Contractors Initially Connected with CBOs	3-11
Table 3-5. How Contractors Typically Interact with CBOs	3-12
Table 3-6. Differences Between CBO-affiliated and Non-CBO HPwES Projects	3-12
Table 3-7. Differences in CBO Involvement between Assisted and Market Rate Projects ..	3-13
Table 3-8. Suggestions on How to Improve CBO Involvement	3-15
Table 3-9. Experience with and Benefits of Aggregation Pilot	3-16
Table 4-1. Comparison of Assisted Project Volume and GJGNY Financing Uptake by CBO Affiliation	4-6
Table 4-2. Indicators of Project Comprehensiveness by CBO Involvement and Program Stream	4-7
Table A-1. Evaluation Research Objectives and Issues	A-1
Table A-2. Audit-only Participant Rating of Importance of Audit Services	A-6
Table A-3. Audit-only Participant Reasons for not Installing Recommended Measures during Upgrade	A-7
Table A-4. HPwES Participant Demographic and Housing Characteristics	A-8
Table A-5. Audit-only Demographic and Housing Characteristics	A-10

List of Figures

Figure 2-1.	HPwES Participant Awareness of CBO Participation or Services.....	2-1
Figure 2-2.	HPwES Participant Hypothetical Value of CBO Services (Percent Rating “Valuable”)	2-2
Figure 2-3.	Audit-Only Awareness of CBO Participation or Services	2-3
Figure 2-4.	Audit-Only Rating of Hypothetical Value of CBO Services (Percent Rating “Valuable”)	2-4
Figure 2-5.	Rated Potential Helpfulness of Various CBO Services (n=27).....	2-5
Figure 3-1.	HPwES Participant Number of Communications with CBO (n=47).....	3-1
Figure 3-2.	HPwES Participant Types of Support Received from CBO.....	3-2
Figure 3-3.	HPwES Participant Value of Support Provided (Percent Rating “Valuable”)	3-3
Figure 3-4.	HPwES Participant Funding Sources CBO Explained (Multiple responses allowed)	3-4
Figure 3-5.	HPwES Information Sources of NYSERDA Program-Sponsored Loan (Multiple responses allowed, n=60)	3-4
Figure 3-6.	HPwES Participant Familiarity with HPwES Prior to CBO Communication	3-5
Figure 3-7.	HPwES Participant Actions without CBO	3-6
Figure 3-8.	Audit-only Participant Number of Communications with CBO (n=26)	3-6
Figure 3-9.	Audit-only Participant Types of Support Received from CBO	3-7
Figure 3-10.	Audit-only Participant Value of Support Provided (Percent Rating “Valuable”).....	3-7
Figure 3-11.	Funding Sources CBO Explained (Multiple responses allowed, n=27)	3-8
Figure 3-12.	Audit-only Participant Upgrades without CBO (n=37)	3-9
Figure 3-13.	How Often CBOs Provided Various Services on CBO Projects (n=23)	3-11
Figure 3-14.	Rated Helpfulness of Various CBO Services (n=23)	3-14
Figure 3-15.	How CBOs Benefitted HPwES Work (n=24)	3-14
Figure 4-1.	HPwES Participant Reason Why All Recommended Measures were not Installed (Multiple responses allowed, n=32)	4-2
Figure 4-2.	HPwES Participant Awareness of Funding Options	4-2
Figure 4-3.	HPwES Participant Payment Methods Used for HPwES Project (Multiple responses allowed).....	4-3
Figure 4-4.	Audit-only Participant Most Important Audit Outcome.....	4-4
Figure 4-5.	Audit-only Participant Reason for Not Participating in HPwES (Multiple responses allowed).....	4-5
Figure A-1.	Satisfaction with Audit Process, % “Agree” (n=68).....	A-3
Figure A-2.	Satisfaction with Audit Result, % “Agree” (n=67)	A-4
Figure A-3.	Satisfaction with Program-Sponsored Loan, % “Satisfied” (n=37)	A-4
Figure A-4.	Satisfaction with Other Program Elements, % “Satisfied” (n=67).....	A-4

Figure A-5. Perceived Value of HPwES, % “Agree” (n=68) A-5
Figure A-6. Audit-only Participant Reported Upgrades since Audit (n=72) A-7
Figure A-7. Audit-only Participant Satisfaction with Audit (Percent that Agree) A-8

Summary

This report presents the results of the second phase of a process evaluation and market characterization assessment (PE/MCA) of the Green Jobs - Green New York (GJGNY) Outreach program, conducted between February 2014 and April 2015.

The GJGNY Outreach program is one component of the broader GJGNY program, a program enacted through New York State legislation and funded by the proceeds of the Regional Greenhouse Gas Initiative (RGGI). The broader GJGNY program promotes energy efficiency and the installation of clean technologies to reduce energy costs and greenhouse gas emissions. New York State Energy Research and Development Authority (NYSERDA) administers this program, which aligns with existing NYSERDA programs to provide residential, multifamily, and small commercial sectors with access to free and subsidized energy audits, installation services, low-cost financing, workforce development, and outreach to targeted communities by Constituency-Based Organizations (CBOs).¹ This outreach by CBOs is the GJGNY Outreach program.

NYSERDA contracted with a number of competitively selected CBOs to conduct outreach in regions across the state. Each CBO's scope of work is different, but across them all, they conduct outreach to support all the elements of the GJGNY program: residential, multifamily, and small commercial energy audits, retrofits, and financing, as well as workforce development outreach. CBO activities focus on the residential sector and conduct outreach in targeted communities to promote free or subsidized GJGNY audits, GJGNY financing, and retrofits through NYSERDA's Home Performance with ENERGY STAR® (HPwES) program.

This evaluation covers the first round of the GJGNY Outreach program (roughly, 2012 and 2013). The first phase of the evaluation explored the experiences of program staff, implementation staff, and CBO staff in conducting outreach activities. This second phase of the evaluation, conducted in close coordination with the HPwES PE/MCA, explores the ways in which CBOs interacted with and influenced contractors, audit recipients, and HPwES participants through the HPwES program. The evaluation team conducted data collection as part of the HPwES PE/MCA, surveying three populations: those who completed GJGNY audits but not HPwES retrofits ("audit-only participants"), those who had completed GJGNY audits and HPwES retrofits ("HPwES participants"), and survey-interviews with HPwES participating contracting firms. For each of the three populations, the evaluation team surveyed a sample of individuals who had worked with a CBO ("CBO-affiliated") and of individuals who had not worked with a CBO ("unaffiliated")

¹ As defined in the statute, customer outreach by CBOs is targeted to economically distressed communities, non-attainment areas under the federal Clean Air Act, and communities with high energy costs in relation to income.

according to the program database (for contractors, CBO-affiliated firms were those that had completed three or more CBO-affiliated projects). The evaluation team also performed a program database analysis.

Although the team conducted this evaluation before the New York State (NYS) Clean Energy Fund (CEF) initiated sweeping and ongoing changes to NYSERDA's energy efficiency programs, the CEF will affect the relevance of the conclusions and recommendations the evaluation team identified. The sections below also contain a few notes to facilitate the interpretation of this evaluation in light of these pending changes.

Key Findings

The evaluation team identified key findings and indicators of CBO influence across the three research objectives.

Awareness of and Interest in CBO Services

- **Participants, particularly audit-only participants, had mixed awareness of their work with CBOs.** While a large majority of CBO-affiliated HPwES participants (82%) recalled working with their CBO, just half of CBO-affiliated audit-only participants recalled working with their CBO. Not all CBO engagement begins at the audit phase, however, which may explain this lower awareness among audit-only participants: nearly half of CBO-affiliated contractors reported they had sent previously unaffiliated stalled leads to CBOs to help reengage the customer with the HPwES process.
- **Unaffiliated participants reported some awareness of CBOs, and interest in CBO services.** Although CBO outreach closely targeted specific regions and populations, these statewide samples of CBO-unaffiliated HPwES participants and audit-only participants reported some awareness of the availability of CBO services (24% and 9%, respectively), indicating outreach effects. These respondents reported that CBO services would have been valuable in completing their projects.
- **Most contractors were generally aware of CBOs, but demonstrated confusion between GJGNY Outreach and NYSERDA's low-income program, EmPower New York.** A majority of both CBO-affiliated and unaffiliated contractor respondents (24 of 26 and 20 of 27, respectively) reported awareness of GJGNY Outreach program CBO services, but contractors demonstrated some confusion between the GJGNY Outreach program and the EmPower program: some CBO-affiliated contractors (6 of 26) reported working with CBOs that appeared to be affiliated with EmPower rather than GJGNY Outreach.

- **CBO-unaffiliated contractors were interested in CBO services.** Those contractors with limited or no CBO experience reported that some CBO services could be helpful to their program work, particularly referrals, financing information and application assistance, screening for Assisted Home Performance with ENERGY STAR (AHPwES) program eligibility, and application paperwork assistance.

Evidence of CBO Influence

- **CBOs are using community ties and outreach to reach new constituents.** Relatively few CBO-affiliated HPwES participants and audit-only participants reported familiarity with their CBO prior to participating (13% and 35%, respectively). Nevertheless, CBO outreach strategies (especially word of mouth, events, and advertising) are reaching these contacts.

Experience with CBOs

- **CBO support was most valuable to Assisted Home Performance participants.** CBO-affiliated HPwES participants reported receiving support from CBOs throughout the HPwES process, but particularly in the audit phase. Except for understanding and choosing a program and selecting a contractor, significantly more AHPwES participants than market rate participants rated the CBO support as valuable.
- **Few audit-only participants recalled post-audit contact by their CBO about HPwES.** A majority of audit-only respondents who recalled working with a CBO reported receiving valuable assistance from CBOs throughout the audit process, but just over one-third (38%) of these respondents recalled being contacted by their CBO about moving forward to complete a retrofit.
- **CBOs had little influence on audit-only participants' subsequent upgrades.** One-third of CBO-aware respondents (32%) reported they had considered an energy audit before hearing about it from their CBO, but CBOs appeared to have less influence on projects completed outside HPwES: 51% of respondents reported they would have completed the same upgrades without the CBO. Consistent with this evidence of lower CBO involvement, 46% of CBO-affiliated audit-only respondents reported awareness of program-sponsored loans, compared with 88% of HPwES participants.
- **CBOs are approaching and working actively with contractors.** Most commonly (11 of 24 respondents), contractors began working with CBOs because the CBO approached them. A majority (17 of 24) of CBO-affiliated contractors had attended an outreach event with a CBO, and CBOs most commonly sent referrals, provided paperwork assistance, screened referrals for EmPower and AHPwES eligibility, and provided financing information or assistance. Fewer contractors reported that CBOs had followed up with stalled leads, provided supplemental funding, or bundled projects.

- **Although most experience was positive, some CBO-affiliated contractors had negative experiences with CBOs.** Although nearly all contractors (21 of 24) reported that CBO involvement has a positive effect on those projects, a notable minority (7 of 24) reported that at times, CBO involvement had a negative effect, such as redundant communication and confusion.

Evidence of CBO Influence

- **CBOs had a large influence in motivating HPwES participation.** Most (81%) CBO-affiliated HPwES participants reported having considered home upgrades before participating, but very few (9%) had considered participation in HPwES before hearing from a CBO, and just one-third (36%) had heard of HPwES prior to learning about it from a CBO. Few market rate HPwES participants (24%) and no AHPwES participants reported they would have completed the same project without their CBO.
- **CBOs had multiple benefits for contractors' project work.** A majority of contractors reported that CBOs had increased the volume of HPwES work, increased conversion rate from audit to retrofit, decreased homeowner handholding, and increased financing uptake. Contractors reported CBOs had a smaller effect on administrative costs, project duration, and the number of measures installed.

CBO-affiliated and Unaffiliated Population and Project Differences

- **CBO-affiliated and unaffiliated HPwES participants generally reported similar HPwES program experiences.** CBO-affiliated HPwES participants and unaffiliated participants reported similar motivations for entering the HPwES program, reported similar project scopes, and similar levels of program satisfaction. CBO-affiliated respondents were more aware of the On-Bill Recovery Financing option than non CBO-affiliated respondents.
- **Overall, both CBO-affiliated and unaffiliated audit-only participants reported similar, relatively high levels of satisfaction with the audit process.**

Evidence of CBO Influence

- **CBOs recruited AHPwES participants and promoted GJGNY financing.** Overall, CBO projects included a higher proportion of AHPwES projects than the non-affiliated projects (43% versus 35%), and 12% more CBO projects used GJGNY financing.
- **CBOs recruited participants from underrepresented populations to HPwES.** CBO-affiliated HPwES participants had somewhat different demographic and housing characteristics than unaffiliated participants. CBO-affiliated participants' homes were significantly older, and respondents had less education, were more likely to be non-Caucasian, and had lower incomes than non CBO-affiliated HPwES participant respondents.

- **CBO projects may have had higher electric savings.** Although the number of measures installed was similar, CBO projects had 29% more ex-ante electric savings (20% for AHPwES), possibly because of older equipment and housing stock.

Conclusions and Recommendations

CBOs are recruiting contacts that had not heard of or considered HPwES before, and who would not have moved forward with the project without CBO support. Consistent with the program's goals, the participants that CBOs work with have characteristics less common among the non-CBO population.

CEF will likely shift NYSERDA priorities toward lower-income populations. There are opportunities for refocusing the GJGNY CBO program on low- to moderate-income populations. Cost remains a large barrier to HPwES and AHPwES participation. Current CBO project recruitment casts a wide net: as expected, although CBOs target priority communities and focus on recruiting AHPwES projects, 56% of CBO projects were market rate projects. On the other hand, the phase 1 research suggested that many CBO constituencies include consumers with incomes that are more in alignment with EmPower than with the AHPwES eligibility threshold. Most effectively using CBO outreach to reach low- and moderate-income households will require coordination and lead sharing between different low-income programs, as well as between low-income and moderate-income programs offered by other administrators. Since this research also found continuing confusion between GJGNY Outreach and EmPower among contractors, it is not clear whether segregation of program offers by income level can be fully effective.

The evaluation team presents the following conclusions and recommendations to inform the next iteration of efforts with CBOs and HPwES programs.

Conclusion: CBO-affiliated audit-only respondents who completed upgrades outside HPwES had less interaction with CBOs, and expressed more uncertainty and confusion about the HPwES process.

Half of CBO-affiliated audit-only participants could not recall whether they had worked with a CBO, and of those that recalled working with a CBO, less than half recalled whether the CBO had followed up with them about participating.

Recommendation: To increase retrofits, CBO outreach activities should more actively conduct post-audit follow-up in addition to providing support during the audit process.

Survey findings suggest that this outreach is not conducted uniformly.

Conclusion: CBOs are successfully connecting with other local organizations to recruit under-represented populations into HPwES, yet as with other programs, homeowners who have a CBO-affiliated HPwES retrofit had considered home upgrades prior to contact with the CBO. CBO-affiliated participants were more likely to live in older housing stock, have lower incomes, less education, and identify as non-Caucasian. A majority of respondents had considered home upgrades, but were not familiar with HPwES, and most would not have completed the same project without their CBO. Furthermore, a large majority of CBO-affiliated HPwES participants had not heard of the CBO prior to participation. This suggests that CBOs are successfully leveraging their local connections and conducting outreach to recruit participants through increasing awareness of HPwES and providing support throughout the HPwES process.

Recommendation: Working with CBOs can be valuable to future program administrators seeking to serve hard-to-reach populations. Generating projects requires consistent and repeated messaging to increase awareness and develop community trust and infrastructure. Retrofit volume, a long-term indicator of success, does not fully capture CBO incremental and growing influence on target markets. Define a set of short- and medium-term indicators (such as community events conducted, leads generated, or audits completed) to complement long-term indicators to quantify and contextualize CBO program outcomes.

Conclusion: The GJGNY Outreach program poses evaluation challenges requiring creative solutions. The close alignment between the GJGNY Outreach program and the HPwES program limits the value of participant self-report because participants may not discriminate between HPwES staff, CBO staff, and their contractor. The relatively long timeframe between project completion and surveys compounds this problem. Thus, self-report may systematically undervalue CBO influence.

Recommendation: For future evaluations, consider targeted, real-time evaluation methods. To better understand participant attitudes and recall of such details as the type of financing discussed with CBOs and aggregation pilot experiences, use short, ongoing surveys focused on evaluating specific performance indicators, conducted with a sample of participants.

1 Introduction

This report presents phase II of the Process Evaluation and Market Characterization Assessment (PE/MCA) of the first round of the Green Jobs Green New York (GJGNY) Outreach program.

1.1 This Evaluation

This PE/MCA is the second phase of the evaluation of the first phase of the GJGNY Outreach program. This evaluation covers the 2012 and 2013 program years. The first phase of the evaluation, published in March 2014, focused on documenting delivery and implementation processes; staff, implementer, and Constituency-Based Organizations (CBO) experiences; and identifying and classifying CBO outreach strategies across the four types of outreach (1- to 4-family residential, small commercial, multifamily, and workforce development).² This second phase of the evaluation documents the experiences of GJGNY audit recipients, Home Performance with ENERGY STAR® (HPwES) program participants, and installation contractors working with CBOs through the HPwES program. The evaluation team conducted this GJGNY Outreach PE/MCA in two phases to align with the broader HPwES PE/MCA. As the residential customers and contractors involved in the GJGNY Outreach program also are participants and participating contractors in New York State Energy Research and Development Authority (NYSERDA's) HPwES program, the evaluation activities for these two activities were conducted concurrently. In this way, the evaluation team minimized the burden on respondents and avoided duplication of efforts. Furthermore, conducting the evaluations simultaneously allowed the CBO team to further examine not only respondents' experience with the CBOs, but the differences between CBO-affiliated and non-affiliated respondents, to better understand the influence of the GJGNY Outreach program.

Specifically, this GJGNY Outreach PE/MCA addresses the following residential sector research objectives:

1. Investigate awareness of and interest in CBO services.
 - a. Investigate awareness of CBOs among CBO-affiliated and unaffiliated participants and contractors
 - b. Explore interest in and barriers to leveraging CBO services
2. Document the experience and expectations of homeowners and contractors interacting with the CBO activities.
 - a. Identify any upgrades audit recipients undertook to reduce energy waste in their homes subsequent to receiving the audit

² Process Evaluation and Market Characterization Assessment: GJGNY Outreach program, prepared by Research Into Action and published in March 2014: <https://www.nysesda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-EMEP-GJGNY-Outreach.PDF>

- b. Understand how contractors interacted with the CBOs and document contractor views on the additional value brought by the CBOs
 - c. Investigate the extent to which CBO activities influenced homeowners
3. Explore any differences between CBO-affiliated and unaffiliated HPwES participants and projects.
 - a. Investigate the motivations for and barriers to completing energy audits and home energy efficiency upgrades through the HPwES program
 - b. Understand what prevented audit recipients from completing energy efficiency upgrades through the program
 - c. Investigate differences in program attitudes, experience, and satisfaction between CBO and non-CBO affiliated participants
 - d. Document differences between CBO and non-CBO projects and homeowners

Table A-1 in Appendix A includes a list of specific research topics, where applicable.

This report is organized to address each of these three higher-level research objectives. After a description of the GJGNY Outreach program and a review of the methodology, the following sections address awareness of and interest in CBO services, participant and contractor experience with CBOs, and population and project differences.

1.2 Program Landscape Changes

This evaluation covers the 2012 and 2013 program years. Both the GJGNY Outreach and the HPwES programs are constantly evolving, however, and this evaluation does not include program changes made after 2013. Additionally, New York State's recent establishment of the Clean Energy Fund (CEF) will likely result in a shift in NYSERDA's program administration activities away from incentive-based resource acquisition programs to market transformation programs and market-based initiatives to support energy efficiency and renewable energy in the state, with the notable exception of low-income programs.³ These proposed changes are still in development, and began subsequent to design of data collection activities supporting this evaluation. The conclusion of this report attempts to draw connections from this evaluation to inform NYSERDA's evolving role in the state's new energy efficiency landscape.

³ See "Proceeding on a Motion of the Commission to Consider a Clean Energy Fund" (CASE 14-M-0094) 5/8/2014 and "Reforming the Energy Vision" (CASE 14-M-0094) 4/24/2014, State of New York Public Service Commission.

Continued...

1.3 Program Description

The GJGNY Outreach program was legislated by the GJGNY Act of 2009, and operationalized and implemented by NYSERDA. This section describes the GJGNY Outreach program, including its position within the larger GJGNY initiative. The contents of this section are drawn from the phase I PE/MCA of the GJGNY Outreach program. See that report for a more complete overview of the program.⁴

On October 9, 2009, the GJGNY Act of 2009 was signed into New York State law. Funded by New York State's share of the RGGI funds, GJGNY created a statewide initiative that promotes energy efficiency, reduces energy consumption and greenhouse gas emissions, supports sustainable community development, and creates job opportunities. Among other directives, the Act specifies free or discounted energy audits be made available in the residential and small business sectors, and stipulates the creation of a revolving loan fund to finance energy efficiency upgrades in the residential, multifamily, and small business sectors.

One component of the GJGNY initiative delivers services in targeted communities with the support of CBOs. CBOs make up a small part of the overall GJGNY effort, receiving about 5% of the \$112 million total GJGNY funding. The Act directed NYSERDA to issue competitive grants for CBOs or CBO consortia that can “connect community members to the program, including facilitating awareness of the program and enrollment.” The Act defines a CBO as “an organization incorporated for the purpose of providing services or other assistance to economically or socially disadvantaged persons within a specified community, and which is supported by, or whose actions are directed by, members of the community in which it operates.”⁵ As defined in the statute, customer outreach by CBOs is targeted to economically distressed communities, non-attainment areas under the federal Clean Air Act, and communities with high energy costs in relation to income.

Although the legislation defined key elements of the GJGNY initiative, as the administrator, NYSERDA worked with GJGNY Advisory Committee and stakeholders to define many of the specific program rules, including developing detailed CBO definitions, funding allocation guidelines, and key CBO activities.

CBO outreach spanned the residential, multifamily, and small commercial sectors, as well as workforce development outreach. This evaluation focuses on the residential 1- to 4-family outreach activities. The residential CBO component of the GJGNY program was aligned with NYSERDA's existing residential program: HPwES and its lower-income component, AHPwES. HPwES offers GJGNY-subsidized energy audits for most homeowners (based on income eligibility), 10% cash-back incentives, and access to On-Bill

⁴ Process Evaluation and Market Characterization Assessment: GJGNY Outreach Program, prepared by Research Into Action and published in March 2014: <https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-EMEP-GJGNY-Outreach.PDF>

⁵ Public Authorities Law Section 1891(3).

Continued...

Recovery Financing and low-interest loans for homeowners completing comprehensive energy efficiency projects with participating HPwES, BPI accredited contractors.⁶ Participants with incomes between 60% and 80% of area median income (AMI) receive a grant from NYSERDA covering 50% of efficiency upgrade costs in lieu of the 10% cash-back incentive. Homeowners with incomes less than 60% of AMI can participate in HPwES, but are encouraged to participate in NYSERDA's low-income program, EmPower, first. Together, market rate HPwES and AHPwES are referred to as HPwES throughout the report. Although the relationship between CBOs, HPwES and EmPower evolved somewhat over the course of the Outreach program, CBO outreach targeted households with 60% AMI or greater.

As part of their activities encouraging residential retrofits through the HPwES program, CBOs also were allowed to propose aggregation pilot initiatives. In these aggregation pilots, CBOs were expected to recruit a collection of eligible homeowners agreed to use the same contractor or contractor team to perform audits and retrofit work. Aggregation was expected to benefit both homeowners and contractors by simplifying the participation process and lowering costs. Aggregation also was intended to provide community benefits through encouraging local hiring and fair wages among participating contractors.

GJGNY CBO funding was allocated across 12 regions based on residential characteristics including overall housing stock, owner-occupied housing stock, prevalence of disadvantaged communities (defined as the proportion of the region with more than 4% of income going to electric bills), and regions that did not also have federal energy efficiency grants.

To select CBOs for this first round of the program, NYSERDA issued two separate RFPs soliciting proposals to distribute \$6 million in funding.⁷

- **RFP 2038 (closed January 2011).** NYSERDA selected CBOs to implement outreach, enrollment, aggregation, and training activities in each of the 12 regions. CBOs were encouraged to target disadvantaged or otherwise hard-to-reach populations within each region.
- **RFP 2327 (closed July 2011).** Released after RFP 2038, this RFP augmented the landscape of CBOs selected through RFP 2038, to fill gaps in services or regions that were underrepresented in the first set of proposals.

⁶ Households with incomes less than 200% AMI are eligible for free audits; households earning between 200% and 400% AMI are eligible for reduced-cost audits.

⁷ In late 2013, NYSERDA issued a third RFP (2773) soliciting CBO proposals for the second round of the program. This evaluation focuses solely on the first round of the GJGNY Outreach program.

CBO contracts included a payment structure for the CBOs that allocated a percentage of the CBO contracts as a performance payment, which was paid based on meeting efficiency retrofit or workforce recruitment goals. CBOs were not allowed to profit in other ways from their CBO activities. For example, CBOs receiving funding for residential outreach could not also be residential contractors.

NYSERDA selected 18 CBOs to conduct outreach. Contracted CBOs had several types of organizational missions, including affordable housing, social and human services (such as education, healthcare, family support), employment services, advocacy and policy, and economic development through small business services. Several CBOs had existing organizational missions to serve very low-income constituents. Half of the CBOs (9 of 18) had prior experience with energy efficiency programs. A majority of CBOs target specific counties, ZIP codes, or neighborhoods within each region.

1.4 CBO Role in GJGNY and HPwES

CBO involvement in GJGNY serves two main purposes. First, almost by definition, funding community-supported and directed organizations that assist economic and socially disadvantaged persons within communities supports GJGNY's "sustainable community development" purpose. Second, CBO involvement facilitates GJGNY's provision of efficiency and workforce development services to key populations by leveraging the CBOs' positions as trusted community actors. Theoretically, CBOs can conduct outreach with populations NYSERDA is unable to reach effectively using traditional outreach methods.

Although CBOs had goals across multiple sectors of GJGNY, by virtue of funding allocation and performance payments contingent on residential retrofits, CBO activities overwhelmingly targeted HPwES audits and retrofits. CBOs have several key leverage points to encourage efficiency audits and retrofits among these target populations. Table 1-1 summarizes the HPwES participation stages from awareness to retrofit completion and the key homeowner barriers to completing each phase. These CBO influence points are consistent with the two main functions that the CBOs perform:

- Leverage their status as trusted community agents to increase awareness and interest in HPwES
- Provide capacity support and case management to help homeowners navigate the process, by helping them complete audit and retrofit paperwork and working directly with HPwES participating contractors

Underlying this program project flow are several key assumptions about the HPwES market and CBOs' role as community influencers:

- There is a population of homeowners who are qualified and eligible for HPwES and GJGNY financing, but are unaware that, or do not think, they have the capacity to participate⁸
- CBOs are trusted within their communities and have access to this group of homeowners that NYSERDA does not have
- CBOs can leverage their access to these hard-to-reach homeowners to increase awareness and education about program offerings and provide support services
- Increasing awareness and support will increase program participation

Table 1-1. HPwES Participation Stages and Key CBO Influence Points

Participation Stage	Barrier	CBO Influence Level	Other GJGNY Influence
0 Awareness & Interest	Lack of awareness Lack of trust & interest in opportunity Ineligible (homeownership)	High Medium Low	
1 Find a contractor	Uncertainty about contractor choice	Medium-High	
2 Apply for an assessment	Lack of capacity to fill out paperwork	High	
3 Assessment	Assessment cost Time delay	N/A Medium	High
4 Develop work scope	Lack of understanding of work scope Lack of interest in continuing Lack of sufficient energy savings identified	High Medium Low	
5 Pay for the work	Lack of awareness of financial support Lack of capacity to fill out paperwork Complexity of financing offerings Ability to pay	High High High Low	High
6 Sign a contract	Lack of capacity to fill out paperwork Lack of trust of contractor	High Medium	
7 Complete retrofit	Concerns with contractor	Medium-High	

⁸ The 2012 Process Evaluation and Market Characterization and Assessment of the Green Jobs - Green New York Residential Program (Final Report) documented that among nonparticipants, both awareness and perceived cost were key barriers to participating in HPwES.

At the same time CBOs were conducting GJGNY-funded HPwES outreach, a number of other energy efficiency retrofit programs existed in the market. While the GJGNY Outreach program aligned with NYSERDA's HPwES program, these other programs contributed to the complexity of the tasks undertaken by the organizations involved in this program. See Efficiency Program Landscape in the Appendix for an overview of these programs.

1.5 Methodology

The evaluation team completed data collection for this GJGNY Outreach PE/MCA as part of the concurrent HPwES PE/MCA. GJGNY Outreach samples (often referred to as CBO samples), drawn from the population of CBO-affiliated contacts, were defined as sub-samples within the broader HPwES data collection sample frames. CBO-affiliated contacts responded to CBO-specific questions as well as a subset of the HPwES process questions. Non-affiliated contacts (the HPwES evaluation's samples) responded to one or two questions about their awareness of and interest in CBO services. The evaluation team analyzed all data using *SPSS* and *Microsoft Excel*. All samples were drawn from the population of HPwES audits and retrofits completed between January 1, 2012 and December 31, 2013, as indicated in NYSERDA's Comprehensive Residential Information System (CRIS). For a complete methodology and disposition of the HPwES evaluation samples, see the forthcoming HPwES PE/MCA.

1.5.1 Database Analysis

The evaluation team conducted an analysis of the retrofits completed during the evaluation timeframe, to explore key differences between CBO-affiliated and non-affiliated HPwES projects and contractor CBO project volume.

1.5.2 HPwES Participants

In November and December 2014, the evaluation team deployed telephone surveys of HPwES participant homeowners who completed projects between January 2012 and December 2013. Respondents to this survey included both market-rate and assisted participants as well as participants who were affiliated with CBO and non-CBO affiliated participants.

The evaluation team divided all HPwES participated homeowners into the following groups and drew a random sample from each group:

- Market-rate participants who were affiliated with a CBO
- Assisted participants who were affiliated with a CBO
- Market-rate participants who were not affiliated with a CBO
- Assisted participants who were not affiliated with a CBO

Table 1-2 summarizes the sampling approach. The team designed the sampling within each sampling group to assure the minimum of 90% confidence +/- 10% precision, and overall sample to meet 95% +/- 5% requirement. By randomly drawing sample within each sampling group, the team assured this sample accurately represents the entire population of HPwES participant homeowners.

Table 1-2. Summary of Sampling Approach

Sampling Group	Population		Sample		
	Count	Percent	Count	Percent	Confidence Precision
Market-rate participants – CBO affiliated	402	3%	41	6%	90%+/-10%
Assisted participants – CBO affiliated	303	3%	27	4%	
Market-rate participants – CBO unaffiliated	7,116	61%	400	63%	95%+/-5%
Assisted participants – CBO unaffiliated	3,805	33%	170	27%	95%+/-7%
Total	11,626	100%	638	100%	95%+/-4%

The evaluation team's fielding partner, Abt SRBI, fielded the phone surveys between November 20 and December 11, 2014. To minimize non-response bias, Abt SRBI made at least five attempts per telephone number and used the fewest contacts possible to attain the target number of completes. The team completed surveys with 638 respondents, and the total response rate was 24%. On average, respondents took 66 minutes to complete the survey.

1.5.3 Audit-only Participants

The evaluation team conducted the audit-only participant survey as a part of the GJGNY Audit Impact evaluation team's larger survey of this population. The PE/MCA team worked with the impact evaluation team to conduct telephone or web surveys of households that received a home energy audit through NYSERDA in 2012-2013 and that use natural gas as the primary heating fuel, but did not participate in HPwES (audit-only households). (The natural gas heating fuel requirement was adopted to align with the impact evaluation requirements. Note that the impact evaluation team's sample included audits completed between 2010 and 2013.) The PE/MCA team established quotas of 68 audit-only households that worked with a CBO and 68 that did not work a CBO in order to achieve 90/10 confidence/precision.

Beginning September 19, 2014, audit-only participants were contacted by mail, email, and phone in eight successive batches of about 2,500. Data collection ended on December 15, 2014. Screening questions were used to determine if the audit-only households were eligible for billing analysis. Eligible households were directed to the impact team's survey questions and ineligible households that had an audit in 2012-2013 were directed to the PE/MCA team's survey questions. The audit-only households that had completed some upgrades and were ineligible for the billing analysis and that used a CBO, as determined through the NYSERDA CRIS database, were asked the CBO-related process questions and the ineligible, non-CBO households who had not completed any upgrades were asked similar process survey questions. The quotas

were exceeded due to the fielding of successive batches of surveys over the course of the data collection period (Table 1-3). See Appendix A.4.1 for a complete review of methods.

Table 1-3. Audit-only Participant Survey Disposition

Disposition	CBO	Non-CBO	Total
Audit-only households sample	1,781	17,422	19,203
Respondents	833 (47%)	4500 (26%)	5333 (28%)
Eligible for billing analysis, screened-out, or dropped out	758	4,298	5056
Process survey respondents	75	202	277

1.5.4 Participating HPwES Contractors

Between September 23 and October 23 of 2014, the evaluation team conducted telephone interviews with participating contracting firms from NYSERDA's HPwES program about their experiences with the program, including their experiences with the GJGNY Outreach program. The evaluation team talked with the NYSERDA contact of record from each contracting firm. The evaluation team identified contractors with some experience working with CBOs (defined as completing at least three CBO-affiliated projects) as well as contractors with any experience in the CBO-based aggregation pilots. The evaluation team ultimately completed interviews with 26 contractors with at least modest experience working with CBOs, eight of whom were associated with the aggregation pilots (according to NYSERDA's database CRIS). During the general participating contractor interviews, these contractors were asked a special set of questions about their experiences with CBOs and the aggregation pilot (if applicable). Further, the evaluation team asked contractors that had either limited (one or two CBO-affiliated projects in CRIS by the query date) or no experience working with CBOs about their awareness of CBOs and how helpful they thought CBO involvement could be. Table 1-4 presents the disposition results – by sub-sample - for these interviews.

Table 1-4. Participating Contractor Interview Dispositions

Sub-sample	Population	Number attempted	Number completed
CBO-affiliated contractors	62	61	26*
<i>Aggregation pilot contractors</i>	<i>15</i>	<i>15</i>	<i>8**</i>
Non-CBO contractors	169	102	27
Total	231	163	53

* Due to the limited amount of contractor data collected on CBOs, the evaluation team included one respondent in the CBO analysis that was subsequently excluded from the primary participating contractor analysis since they only partially completed the interview but completed much of the CBO block. In addition, two respondents from firms identified as CBO-affiliated contractors in CRIS were unaware of their firm's involvement with CBOs, and thus were not asked the CBO question block.

** The 15 aggregation pilot contractors included some contractors from inactive pilots. All 15 were attempted. Six of the eight contractors interviewed were associated with active pilots.

See the forthcoming HPwES PE/MCA for a summary of the characteristics of these contracting firms.

1.5.5 Analysis

The PE/MCA team conducted statistical analyses with the HPwES participant and audit-only participant survey responses and participating contractor interview responses using *SPSS* and *Excel*. Each of the variables in the survey was compared based on whether the respondent was affiliated with a CBO or not. The evaluation team further compared CBO-affiliated AHPwES participants and CBO-affiliated market rate HPwES participants. Only statistically significant differences at the $p \leq .05$ level between each of the groups are reported in the results below. In addition, “Don’t knows” and “Refused” responses are omitted from analyses unless otherwise indicated.

2 Awareness and Interest

This section provides an overview of consumer and contractor awareness of, and interest in, CBO services.

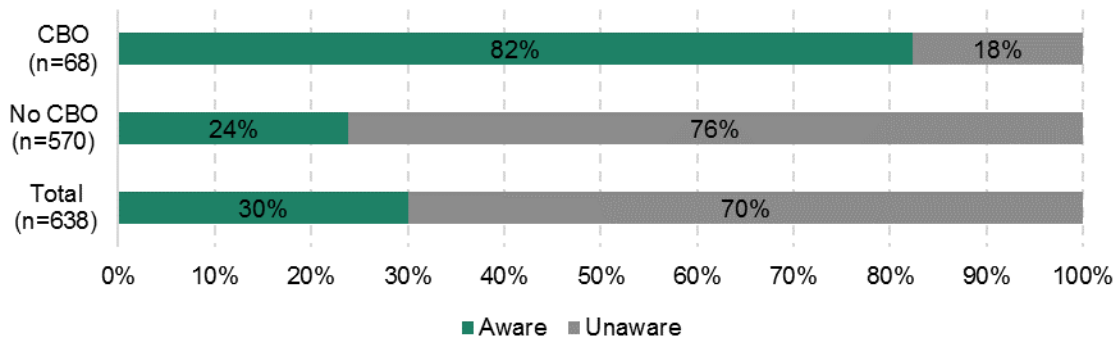
2.1 Consumer Perspectives

The evaluation team sought to understand the level of CBO awareness among CBO-affiliated HPwES participants and audit-only participants; learn how CBO-affiliated respondents learned of CBO services; and assess interest in CBO services among unaffiliated HPwES participants and audit-only participants.

2.1.1 HPwES Participants

Figure 2-1 shows whether CBO-affiliated and -unaffiliated participants were aware of CBO services in helping homeowners to complete energy efficiency upgrades. While program records indicated all 68 CBO-affiliated participants worked with a CBO, in surveys, 18% of CBO-affiliated respondents were not aware of the fact that they received services from their CBO (respondents were asked about the specific organization they worked with). Recall that participants completed their projects between one and three years ago, some CBOs worked with other organizations, and that audit applications with a CBO name pre-filled (such as those received at a home show) were attributed to CBOs, regardless of whether the homeowner worked with the CBO subsequently. Among the CBO-unaffiliated participants, 24% was aware of the services that some CBOs provide for energy efficiency upgrades. (Note that besides the CBO outreach activities, which were targeted to specific regions and populations, no other HPwES marketing activities advertised CBO services. Thus, the evaluation team had no hypothesis that there would be widespread awareness of CBO services among this statewide sample.)

Figure 2-1. HPwES Participant Awareness of CBO Participation or Services



Overall, 13% of CBO-affiliated participants that were aware of their CBO affiliation reported being familiar with their CBO prior to participating in the program. Those respondents who were not previously familiar with their CBO reported how they learned about the services the CBO offers (Table 2-1).

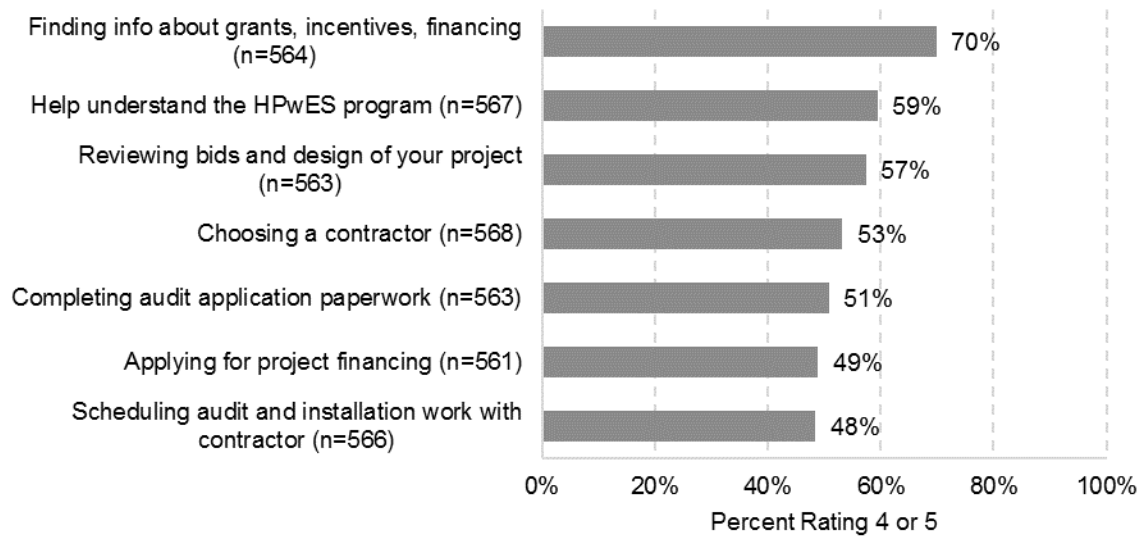
Respondents reported a variety of sources of awareness, including advertising or media (a variety of print, radio, TV, online sources), word of mouth, another organization (including meetings where a CBO representative presented), directly from the CBO, or from a contractor. These first four sources of awareness are consistent with CBOs’ reported outreach strategies (see the phase I GJGNY Outreach PE/MCA).

Table 2-1. Means of Awareness of CBO Services

Means of CBO Awareness	Percent of Contacts (n=48)
Advertisement or Media	23%
Word of mouth	19%
Another community organization	17%
Directly from CBO	15%
Contractor	15%
Personal involvement	4%
Home Show	4%
NYSERDA or Utility	4%

Non-CBO HPwES participants also rated the potential value of the types of services CBOs perform. Figure 2-2 shows the percentage of respondents rating each service valuable (a “4” or a “5” on a five-point scale). Respondents most frequently rated information about grants, incentives, and financing as valuable, but 48% or more reported that each of the possible services would be valuable.

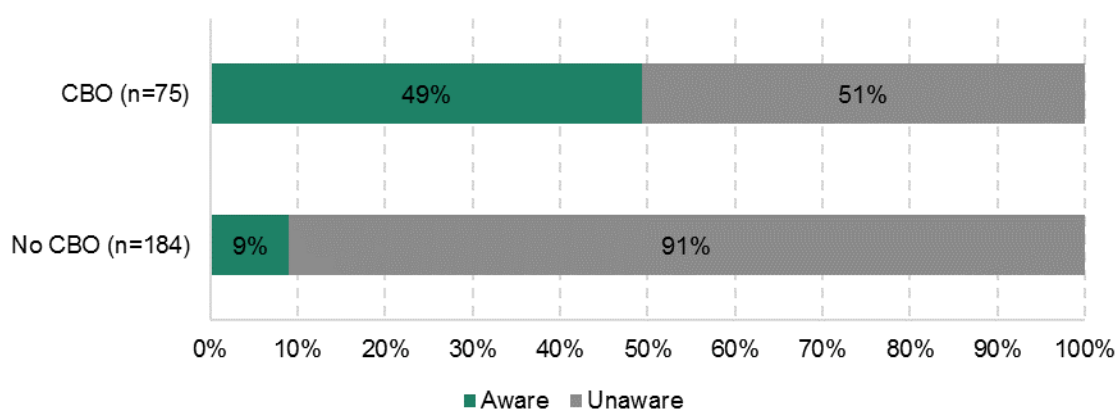
Figure 2-2. HPwES Participant Hypothetical Value of CBO Services (Percent Rating “Valuable”)



2.1.2 Audit-only Participants

Overall, half of CBO-affiliated audit-only respondents (49% of 75) reported that they recalled working with their CBO (Figure 2-3). Note that not all CBO project assistance began at the audit stage, though: nearly half of contractors reported recruiting CBOs to help previously CBO-unaffiliated stalled audit recipients to move forward with a retrofit (see CBO Interaction and Support section 3.1.1). Thus, it is possible that these audit-recipients had been contacted by their CBO subsequent to completing the audit. Among CBO-unaffiliated audit-only participants, nine percent reported awareness of CBOs that provide services to assist with audit and HPwES participation.

Figure 2-3. Audit-Only Awareness of CBO Participation or Services



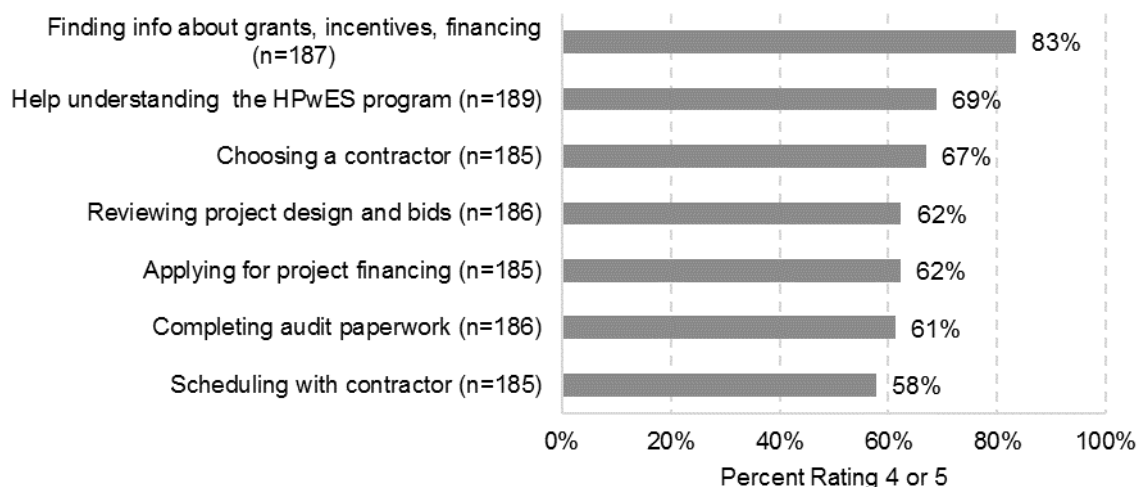
Overall, 35% of audit-only participants who were aware of working with a CBO reported familiarity with their CBO prior to the audit. Audit-only respondents reported learning of the CBO's Home Performance services in a variety of different ways consistent with CBO outreach tactics, including word of mouth (16%), community events (16%), and advertising (14%), although one-fourth of contacts (27%) were unable to recall how they learned of CBO services (Table 2-2).

Table 2-2. Audit-only Participant Means of Awareness of CBO Services

Means of CBO Awareness	Percent (n=37)
Word of mouth	16%
Community event	16%
Advertising	14%
CBO (type of contact unspecified)	14%
Online	8%
Contractor	3%
Other	3%
Don't know	27%

A majority of audit-only participant respondents not affiliated with a CBO reported that each of the CBO services would be valuable (a “4” or a “5” on a five-point scale; Figure 2-4).

Figure 2-4. Audit-Only Rating of Hypothetical Value of CBO Services (Percent Rating “Valuable”)



2.2 Contractor Perspectives

A large majority of CBO-affiliated contractor firms were aware of their CBO involvement. Of the 26 respondents from firms identified as CBO-affiliated contractors in CRIS, 24 reported awareness of their firm’s involvement with CBOs. Recall that the evaluation team surveyed a single contact from each contracting firm, not each installer from each firm. Six contractors may have conflated CBOs with EmPower affiliates: they cited organization names that could not be verified as contracted CBOs. See the Experience section 3 for further details. Furthermore, of the eight interviewed aggregation pilot contractors, six reported any awareness of the pilot and two reported enough experience with the pilot to comment. Note that some contractors were interviewed from inactive, relatively short-lived pilots.

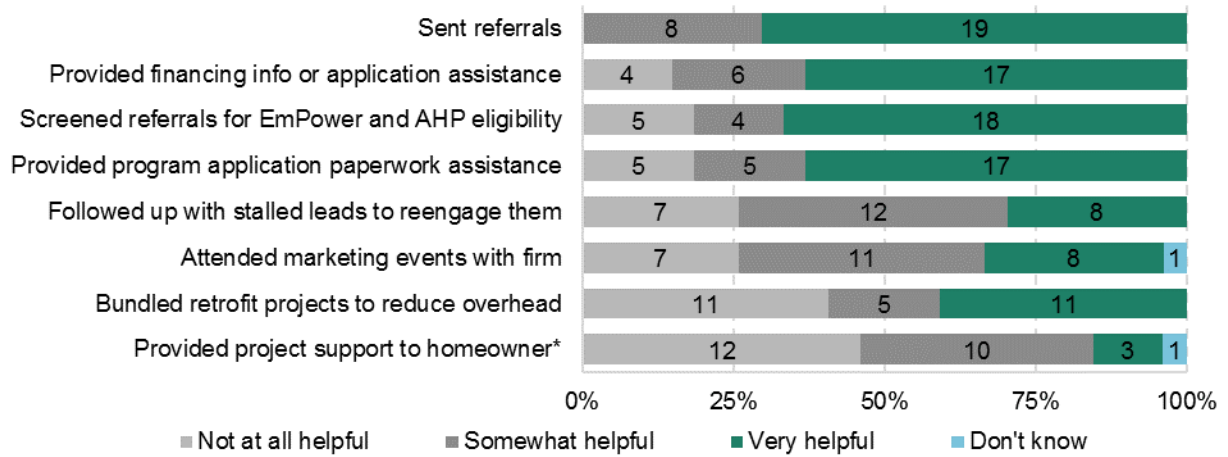
2.2.1 Non-CBO Contractors

The evaluation team also spoke with contractors that had either limited (one or two CBO-affiliated projects) or no experience working with CBOs about their awareness of CBOs and how helpful they thought CBO involvement could be. Most (20 of 27) of these contractors reported being aware of the CBO outreach component of HPwES; half of aware contractors (10 of 20) reported they had worked on at least one audit or retrofit project with a CBO since 2012.⁹ When asked how potentially helpful various CBO

⁹ The evaluation team could not verify the accuracy of these responses, as contractors could have worked with a CBO since January 1, 2014.

services would be, contractors demonstrated the greatest interest in receiving referrals, financing information and application assistance services, EmPower and AHPwES screening services, and program application paperwork assistance (Figure 2-5).

Figure 2-5. Rated Potential Helpfulness of Various CBO Services (n=27)



* n = 26 due to a missing response on this item.

When asked about what other beneficial ways in which CBOs could support them, contractors suggested that CBOs could educate homeowners about the program (three mentions), work with homeowners to determine their upgrade wants and needs (one mention), or provide matching project funding (one mention).

3 Experience

In order to document the experience and expectations of consumers and contractors interacting with the GJGNY Outreach program, the evaluation team asked HPwES participants, audit-only participants, and contractors about their experiences with CBOs and the influence of the CBO on their projects.

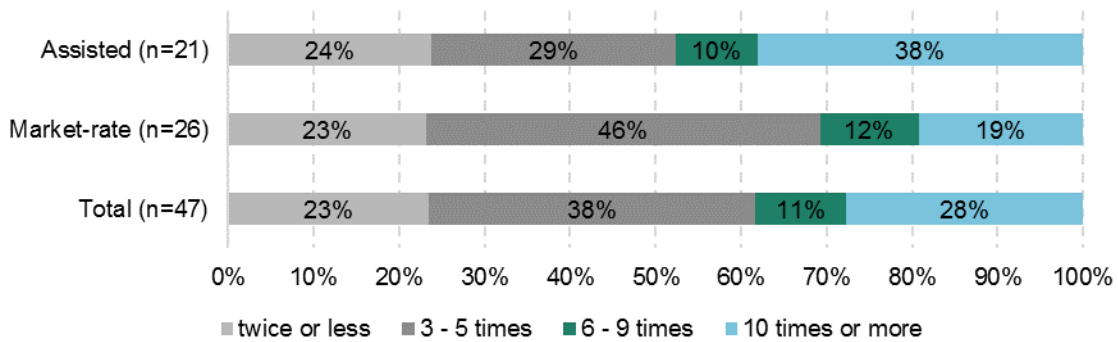
3.1 HPwES Participant Perspectives

This section summarizes CBO-affiliated participants' experiences with the CBO. Results from this section exclude those 18% of CBO-affiliated contacts who could not recall any CBO involvement in their projects. As GJGNY Outreach program targeted AHPwES participants in particular, AHPwES responses and market rate HPwES responses are reported separately in this section where the evaluation team found notable differences. Where no notable differences were observed, responses are reported together. For consistency, results are reported as percentages, but the evaluation team urges caution in interpreting these findings due to small sample sizes.

3.1.1 Interaction and Support

CBO-affiliated HPwES participant respondents reported a wide range of communication frequency with their CBO during the course of their HPwES projects (Figure 3-1). Twenty-three percent of respondents reported communicating with their CBO only once or twice during their project.¹⁰ More than one third of respondents (39%) had six or more communications with their CBO: 11% communicated 6-9 times and 28% 10 times or more. There were no significant differences between assisted and market-rate participants in their reported communication frequency with their CBO.

Figure 3-1. HPwES Participant Number of Communications with CBO (n=47)

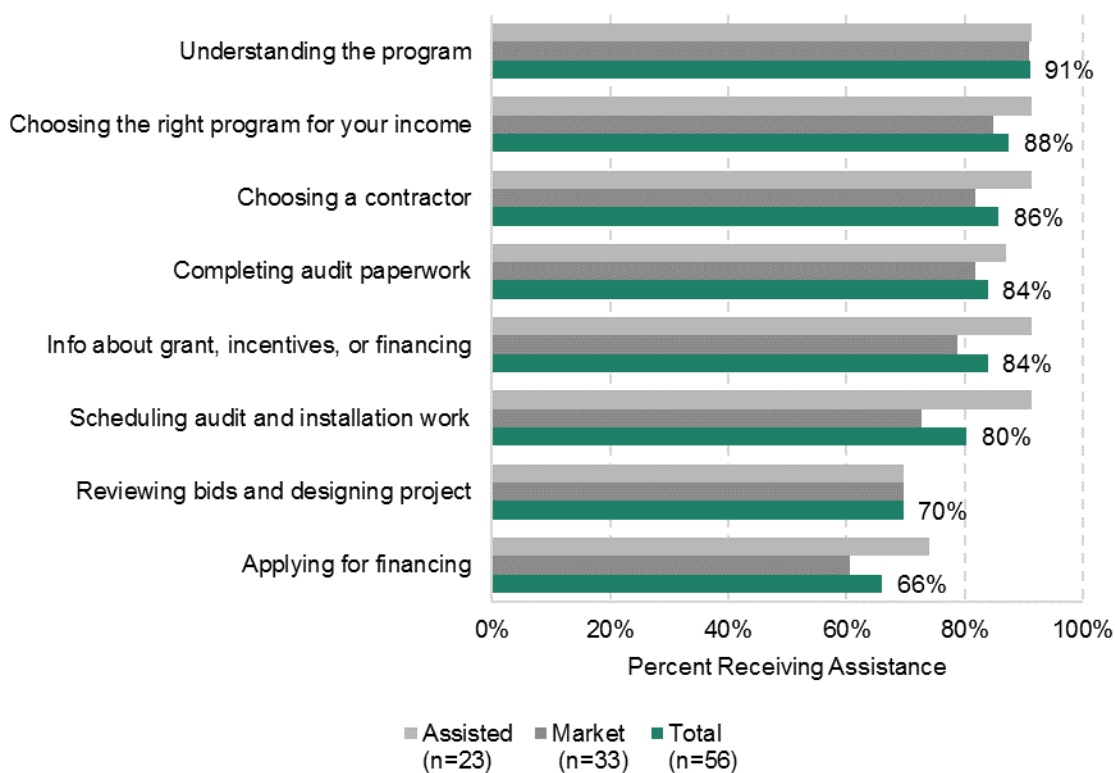


Note: Respondents who were unaware of their CBO and those who said, "don't know" are excluded.

¹⁰ As mentioned above, this number excludes the 18% of total CBO contacts who did not recall their involvement with the CBO; they either communicated zero times, or forgot about this communication: this interpretation is ambiguous, and thus these respondents have been omitted from this figure.

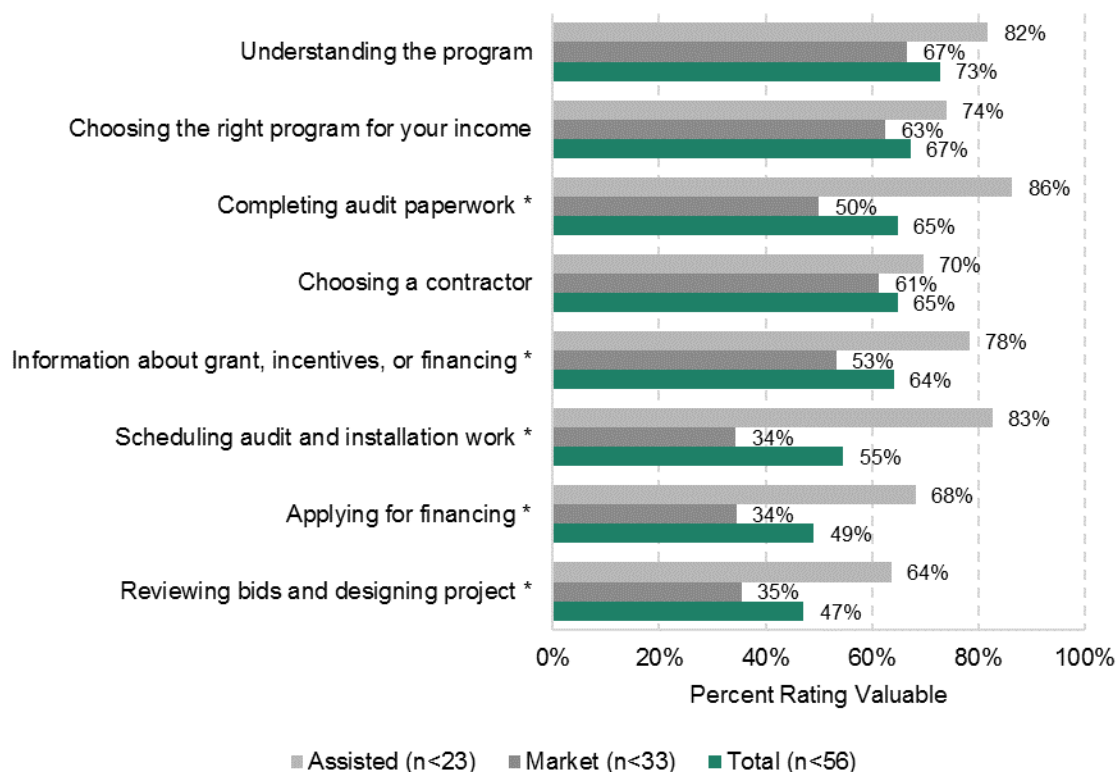
CBO-affiliated respondents also reported on the types of assistance they received from their CBO (Figure 3-2). Over 80% of contacts reported receiving assistance in all elements through the audit process, from understanding the program to scheduling the audit. Somewhat fewer respondents reported that CBOs helped them review their bid and design their project or complete financing paperwork.

Figure 3-2. HPwES Participant Types of Support Received from CBO



Respondents who reported receiving each type of support rated the value of that support (Figure 3-3). Overall, more than half of the CBO-affiliated participants reported almost all areas of CBO support to be “valuable” (a “4” or a “5” on a five-point scale). However, a higher proportion of Assisted participants rated many types of support “valuable” compared with market-rate participants – particularly in helping them to complete their audit paperwork (86%), to be informed about availability of and to apply for financial assistance (78%, 68%), to schedule audit and installation work with their contractor (83%), and to review bids and design the project (64%).

Figure 3-3. HPwES Participant Value of Support Provided (Percent Rating “Valuable”)

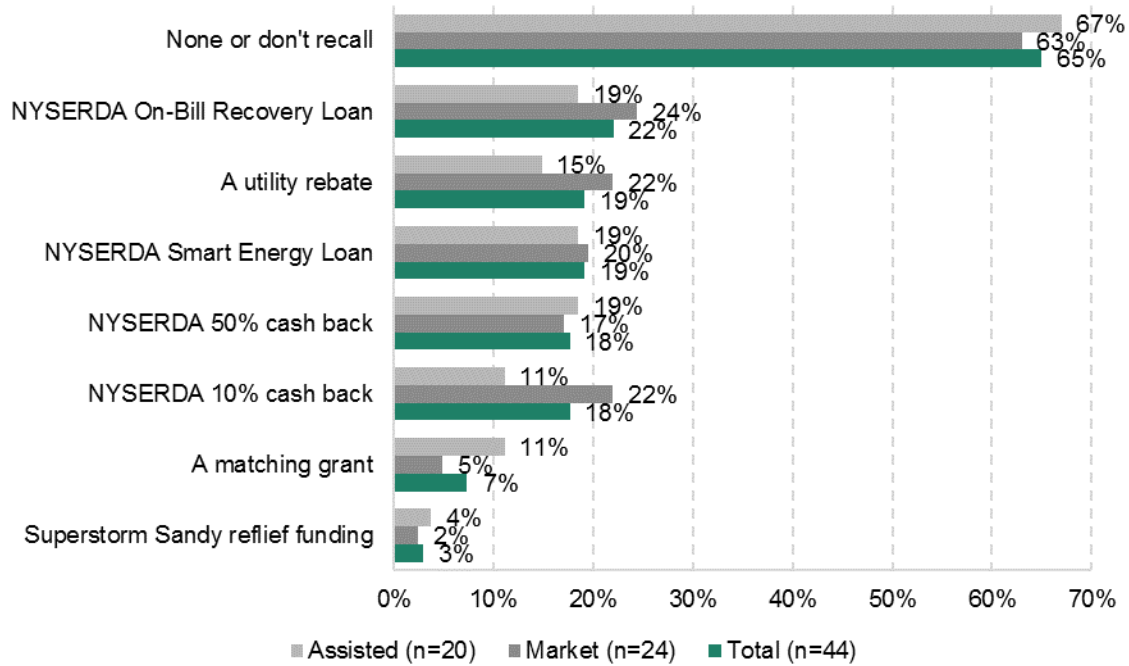


Note: * denotes statistical significance (p < 0.05). Includes only respondents who reported receiving each type of support; sample size is equal to percentage in Figure 3-2 multiplied by sample size.

3.1.1.1 Funding

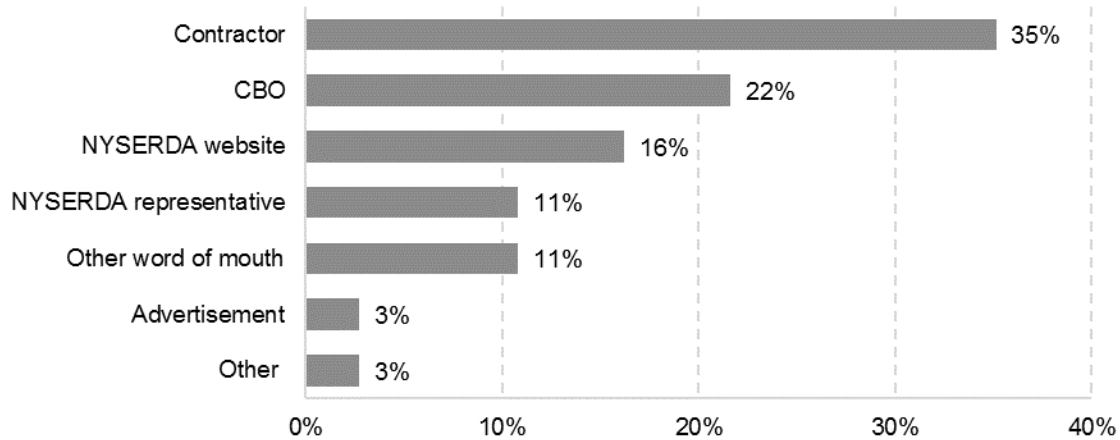
Those respondents who reported that their CBO had assisted them in providing information about grants, incentives, or financing or had helped them apply for financing (see Figure 3-2) also reported on the types of financing opportunities their CBO told them about. When asked about specific funding sources these CBO-affiliated participants might be eligible for and which ones the CBO might have mentioned (Figure 3-4), about two-thirds of the respondents (65%) either reported they did not recall or their CBO did not mention any of them. Among the respondents that recalled their CBO mentioning such opportunities, NYSERDA’s On-Bill Recovery Financing (22%), utility rebate (19%), NYSERDA’s Smart Energy Loan (19%), and NYSERDA’s cash back (18%) were the most common funding opportunities they remembered. Among the respondents who recalled discussing financial support opportunities with their CBO, half of them reported the discussion occurred before they received audit and the other half reported it occurred after their audit.

Figure 3-4. HPwES Participant Funding Sources CBO Explained (Multiple responses allowed)



When asked how they first learned about the opportunity to obtain a NYSERDA program-sponsored loan (Figure 3-5), CBO-affiliated participants most commonly reported hearing it from their contractors (35%). Hearing it from their CBO was the second common source (22%).

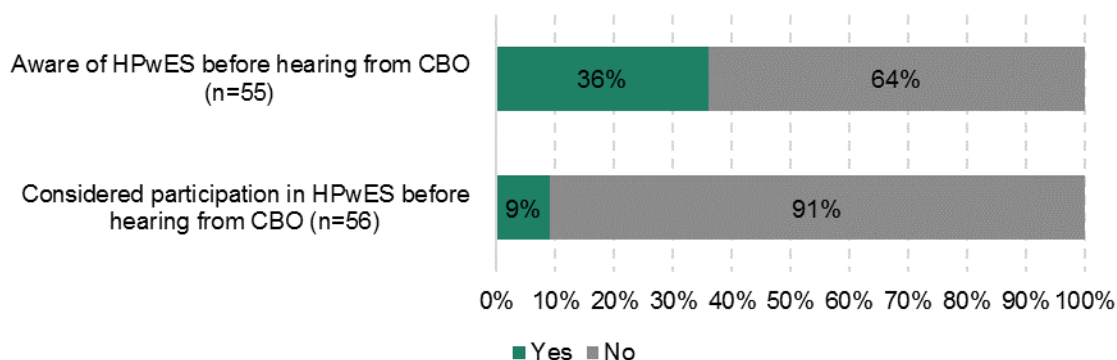
Figure 3-5. HPwES Information Sources of NYSERDA Program-Sponsored Loan (Multiple responses allowed, n=60)



3.1.2 CBO Influence

CBO-affiliated HPwES participants also reported how the CBO influenced their project. Figure 3-6 summarizes CBO-affiliated participants’ prior engagement with the HPwES program. About one-third of the CBO-affiliated participants (36%) had already been aware of the HPwES but only 9% had considered participating in HPwES before hearing about it from their CBO. There were no significant differences in these responses between market-rate and assisted participants. These responses indicate that CBOs approached most of these participants specifically to enroll them in the HPwES and that they successfully recruited many into the program.

Figure 3-6. HPwES Participant Familiarity with HPwES Prior to CBO Communication

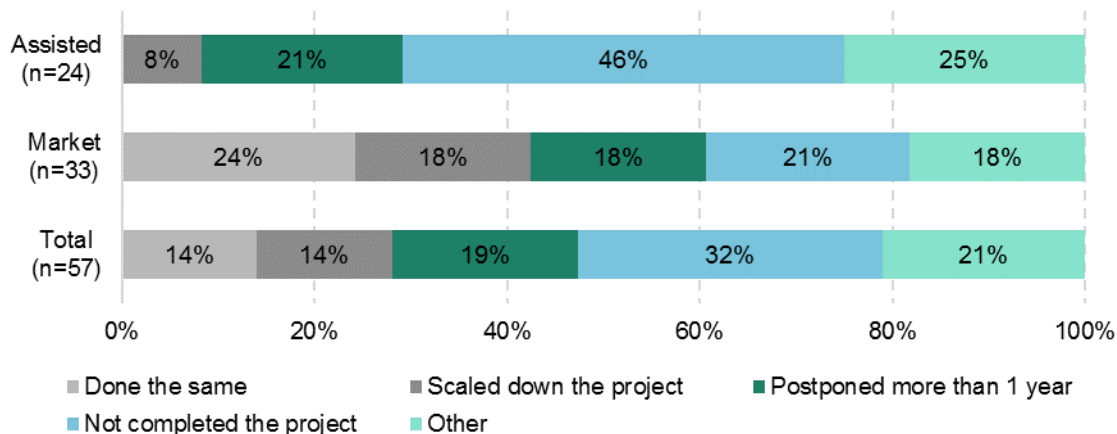


CBO-affiliated respondents who were unaware of affiliation with their CBO or those refused to answer are excluded.

Note that 81% of respondents reported having considered upgrades before participating, but half of all respondents first heard about HPwES from a CBO (64% excluding “don’t know” responses).

The evaluation team assessed actions CBO-affiliated participants would have taken if they had not had any contact with their CBO (Figure 3-7). Assisted and market-rate groups provided a significantly different responses. Almost half of the assisted CBO-affiliated participants (46%) reported they would not have completed the project at all and no one in this group indicated would have completed the same project in the same period. One-fourth of market-rate participants (24%), on the other hand, reported they would have done the same. Overall, 14% of the CBO-affiliated participants reported they would have done the same project, while one-third (32%) said they would not have completed the project at all. “Other” responses included actions such as completing the upgrades themselves, sold the house, or looked into other resources.

Figure 3-7. HPwES Participant Actions without CBO



Note: Respondents who said, “don’t know” or refused to answer are excluded.

3.2 Audit-only Participants

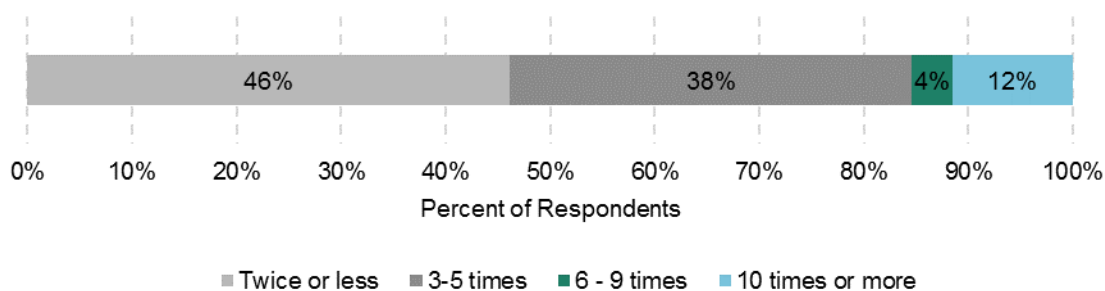
The evaluation team also asked audit-only participants about their experiences with their CBO and how the CBO influenced their upgrades. As mentioned in the previous section, 37 of the 75 CBO-affiliated respondents (from the database) recalled that they had worked with their CBO. This section includes only these CBO-aware respondents’ responses about their interaction with their CBO.

Audit-only respondents’ subsequent energy efficiency upgrades are detailed in Appendix A.4.2.

3.2.1 Interaction and Support

CBO-aware audit-only respondents reported how frequently they had interacted with their CBO. One-third of respondents (30% of 37) could not recall how frequently they had communicated with their CBO. Among those that could, half (46% of 26) of those CBO-affiliated audit-only respondents who recalled working with a CBO reported that they had interacted less than three times, while 12% reported they had communicated more than five times with their CBO (Figure 3-8).

Figure 3-8. Audit-only Participant Number of Communications with CBO (n=26)



Audit-only respondents also reported the types of support they received from their CBO (Figure 3-9) and the value of that support (Figure 3-10). A majority of contacts reported receiving each type of service, except assistance in applying for financing. Contacts most frequently reported receiving support in understanding the program. Similarly, a majority of those respondents receiving each service found the service valuable (a “4” or a “5” on a five-point scale) except applying for program financing (which is unsurprising, since none of the respondents went on to complete projects through HPwES.) The largest majority of respondents rated understanding the program and choosing the right program for their income as valuable.

Figure 3-9. Audit-only Participant Types of Support Received from CBO

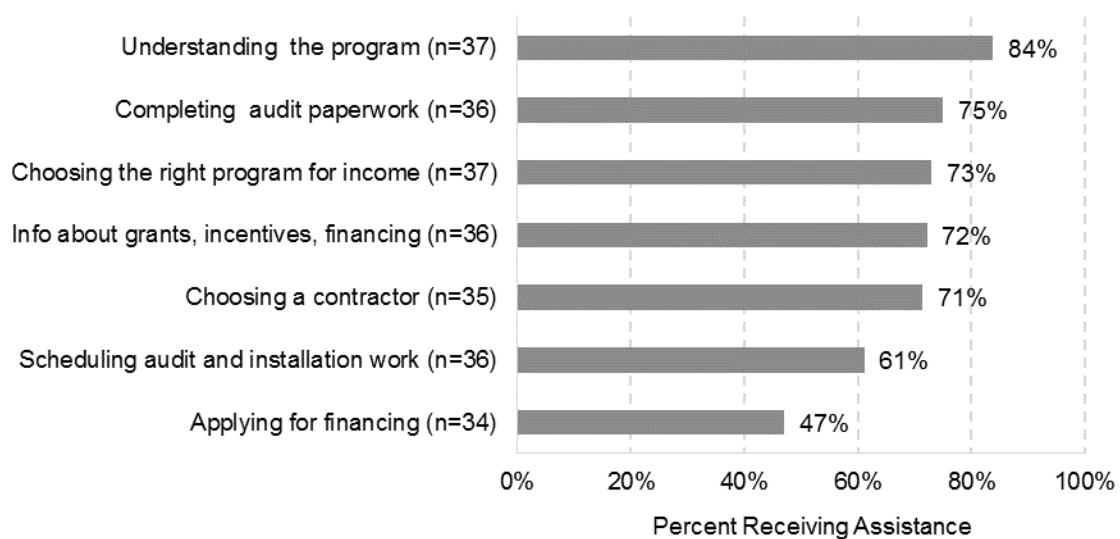
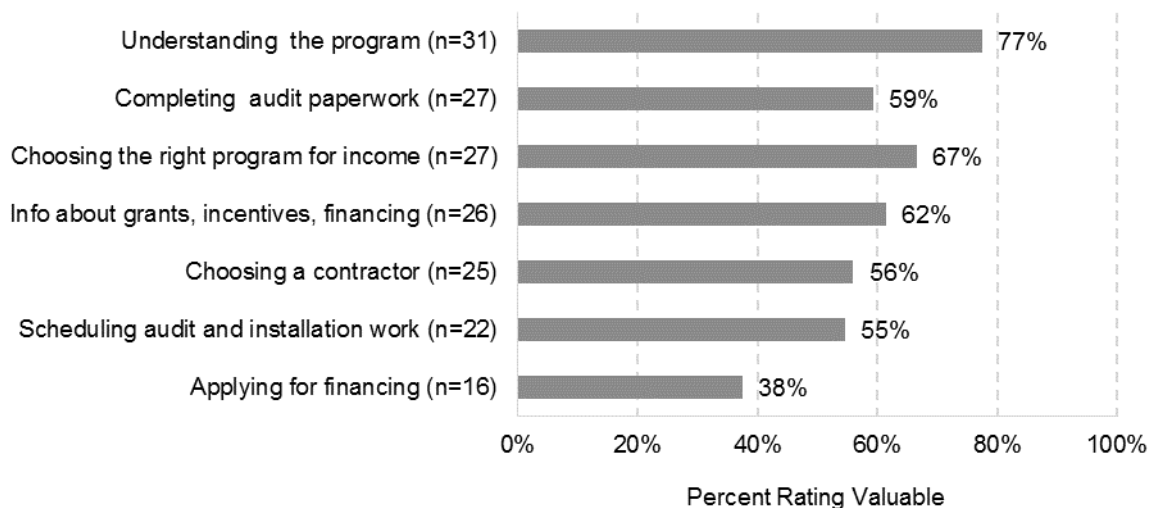


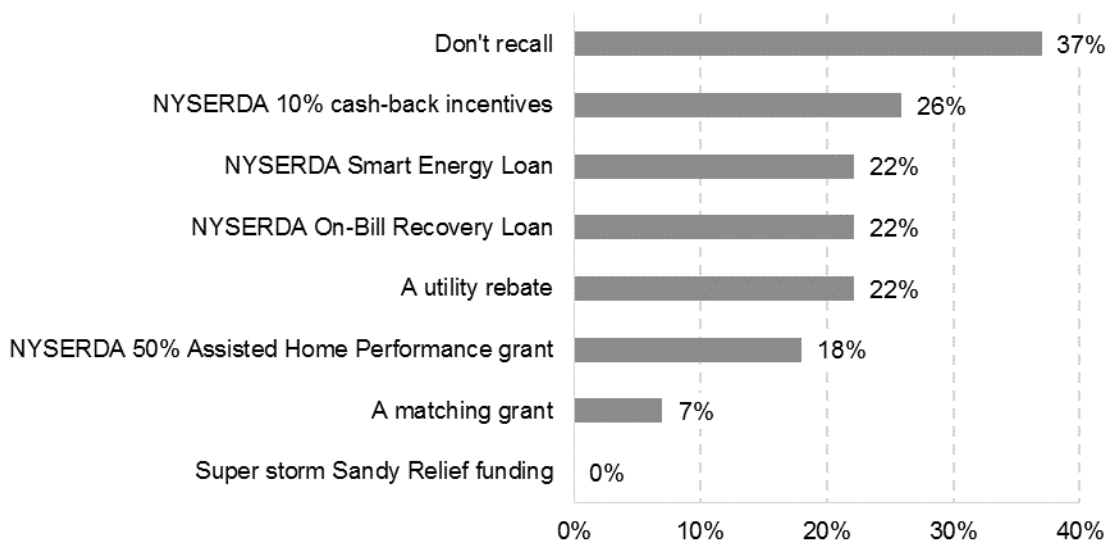
Figure 3-10. Audit-only Participant Value of Support Provided (Percent Rating “Valuable”)



3.2.1.1 Funding

Those respondents who reported that their CBO had assisted them in providing information about grants, incentives or financing or had helped them apply for financing (see Figure 3-9) also reported on the types of financing opportunities their CBO told them about. A notable minority of respondents (37%) couldn't recall what funding sources the CBO explained, but about one-fourth of respondents each recalled the 10% cash-back incentive, the Smart Energy loan, the On-Bill Recovery financing, and utility rebates (Figure 3-11).

Figure 3-11. Funding Sources CBO Explained (Multiple responses allowed, n=27)

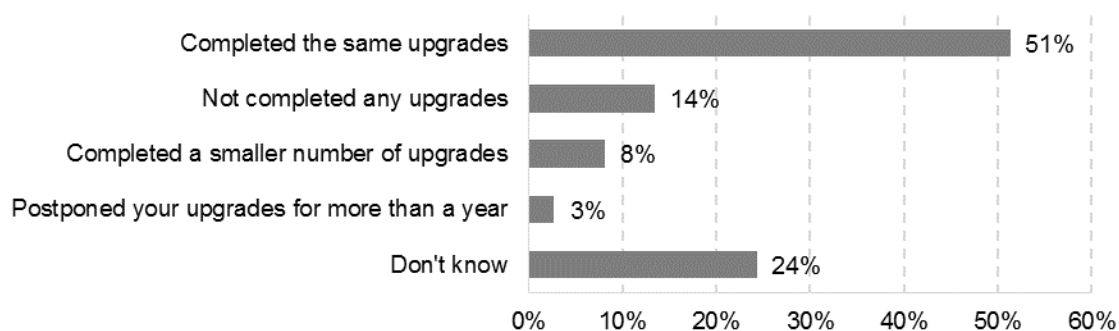


Overall, 46% of all audit-only CBO affiliated participants (n=72) reported awareness of the availability of financing through the HPwES program.

3.2.2 CBO Influence

Audit-only respondents also reported how the CBO influenced their audit. Overall, just one-third of CBO-aware respondents (32% of 37) reported that they had considered a GJGNY energy audit before hearing about it from their CBO. However, less than half of contacts (38% of 37) reported recalling that the CBO contacted them about moving forward to complete a retrofit after they had completed their audit.

Respondents (who, recall, all reported that they had completed some upgrades independently of the HPwES program since completing their audit) also reported what they would have done if they had not had contact with a CBO. Half of audit-only respondents (51%) reported they would have completed the same upgrades without the CBO, and one-fourth (24%) were unsure about what they would have done (Figure 3-12).

Figure 3-12. Audit-only Participant Upgrades without CBO (n=37)

3.3 Contractor Perspectives

The evaluation team also explored contractor experiences with the CBOs, and how the CBOs influenced contractor work, drawing from the program database and participating contractor interviews. In interviews, contractors reported the volume of CBO activity, how they work with CBOs on projects, differences between their CBO and non-CBO projects, perceptions of the value CBOs provide, and challenges and suggestions. The evaluation team also spoke with a few aggregation pilot-affiliated contractors about their experience with aggregation pilots. As the evaluation team conducted interviews rather than surveys with contractors, these findings are more qualitative than the survey findings reported in other sections.

3.3.1 Program Database Contractor Activity Findings

An analysis of the HPwES project database revealed that half of HPwES participating contractors (48%) had installed at least one CBO-affiliated project (Table 3-1). The 15% of contractors that installed six or more projects installed 77% of CBO projects. The level of contractor activity for CBO projects was roughly similar to the HPwES program overall, 22% of HPwES contractors installed 77% of HPwES projects. A few contractors appeared to have greater concentrations of CBO projects than others did: of the contractors completing six or more CBO projects, nine (4% of total contractors) had completed fewer non-CBO HPwES projects than CBO projects through the HPwES program.

Table 3-1. Contractor CBO Project Volume Range

Number of CBO-affiliated Projects	Percent of Contractors (n=248)
None	52%
One	16%
Two to five	17%
Six to twenty	12%
More than twenty	3%

3.3.2 Interviewee Program Activity

Those 24 interviewed contractors with knowledge of their firm’s experience with CBOs reported on their CBO-affiliated work. This sample of CBO-affiliated contractors had varied levels of CBO experience (Table 3-2). Sampled contractors had worked on as few as two or as many as 65 projects with CBOs, demonstrating a mean of 13 CBO-affiliated projects. CBO-affiliated projects accounted for 1%-67% of their total HPwES work, with a mean of 19% of HPwES projects having CBO involvement.

Table 3-2. Number of CBO-affiliated Projects

Number of CBO-affiliated Projects in CRIS	Count (<i>n</i> = 24)
Two to five	10
Six to ten	7
More than ten	7

Contractors reported working with a variety of CBOs, with RUPCO and Public Policy and Education Fund – Southern Tier mentioned most commonly (Table 3-3). Demonstrating contractor confusion between EmPower, GJGNY Outreach, and possibly other projects, six contractors mentioned “CBOs” that did not appear to be affiliated with the GJGNY Outreach program. Recall that CBOs work with many partner organizations, though, and so this cannot be confirmed, but since CBO names are in the project database, it is unlikely that a contractor could complete more than one project with a CBO and be unfamiliar with the contracted organization’s name.

Table 3-3. CBOs Worked With (Multiple responses allowed)

CBO	Count (<i>n</i> = 24)
RUPCO	7
Public Policy and Education Fund – Southern Tier / Cornell Cooperative Extension	7
Pathstone	3
Push Buffalo	2
Long Island Progressive Coalition	2
Other – unable to confirm as CBO	6

When asked how their firm initially connected with these CBOs, contractors typically reported that the CBO approached their firm to inquire about collaboration on HPwES projects (Table 3-4).

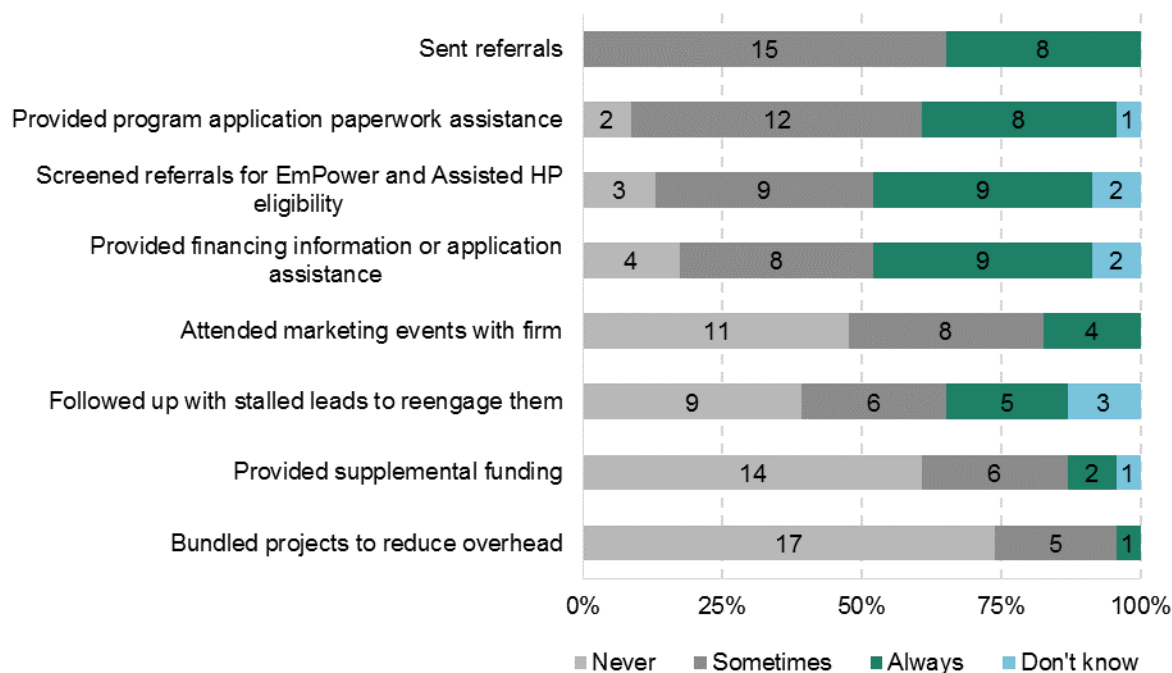
Table 3-4. How Contractors Initially Connected with CBOs (Multiple responses allowed)

Means of Connection	Count (n = 24)
CBO approached firm	11
Program staff connected firm with CBO	4
Existing relationship with the CBO	5
CBO referred a homeowner to firm	2
Other	4
Don't know	1

3.3.3 CBO Interaction and Support

Most (17 of 24) CBO contractors reported they had attended at least one outreach event with a CBO. Contractors reported CBOs provided a variety of other services as well (Figure 3-13). CBOs most commonly sent contractors referrals and provided program application paperwork assistance. Conversely, CBOs rarely provided supplemental funding that allowed projects to move forward or bundled retrofit projects to reduce overhead.

Figure 3-13. How Often CBOs Provided Various Services on CBO Projects (n=23)



Contractors mostly interacted with CBOs via phone or email, with about one-third (7 of 24) indicating they also sometimes met in person with their CBOs (Table 3-5). One-quarter (6 of 24) of contractors volunteered that they interact with their CBOs on a weekly or bi-weekly basis.

Table 3-5. How Contractors Typically Interact with CBOs (Multiple responses allowed)

Method	Count (n = 24)
Phone	19
Email	16
In-person	7
Other	3

3.3.4 CBO Project Differences

Contractors reported several key differences between CBO-affiliated and CBO-unaffiliated projects. A large majority of contractors reported that CBOs have a positive effect on the process. Consistent with CBOs' role in providing homeowner support, many of these differences were specific differences in their interactions with the homeowner and the level of support homeowners need from them (Table 3-6).

Contractors mostly reported that CBOs do much of the “hand holding” for them, as CBOs help guide their constituents through the program process. As one contractor reported: “the CBO is very helpful in helping customers understand and moving them more quickly through the process. I very much appreciate their involvement.” Contractors who indicated that “CBO involvement added value to the process” reported CBOs offered various benefits, like increased customer awareness and AHPwES prequalification services.

Seven of the 24 contractors reported that CBO involvement did not improve project outcomes. Two contractors explained that their interaction with the homeowner was actually hindered by CBO involvement, noting that direct contractor-to-homeowner communication was more effective and seamless: “we communicate with the homeowner better directly, without the CBO as an intermediary.” Contractors reporting, “CBO involvement made the process more difficult” had diverse complaints, but exhibited some confusion about CBO involvement. Their comments included: CBOs were not knowledgeable of program processes (particularly paperwork), and CBO projects have a heavier paperwork burden (however, this contact was likely conflating EmPower with HPwES projects, or referencing AHPwES projects specifically: CBO projects have no additional paperwork).

Table 3-6. Differences Between CBO-affiliated and Non-CBO HPwES Projects (Multiple responses allowed)

Difference	Count (n = 24)
No differences	2
Positive	21
<i>CBO performs liaison/hand holding role</i>	15
<i>CBO involvement added value to process</i>	4
<i>CBO provides leads</i>	2

Difference	Count (n = 24)
Negative	7
<i>CBO involvement made process more difficult</i>	5
<i>CBO complicates communication process with homeowner</i>	2
Other	6

Few (8 of 24) contractors reported any differences in CBO involvement between Assisted and market rate projects (Table 3-7), with three indicating that CBOs tended to focus on helping Assisted-qualified homeowners and two noting that CBOs offered additional services on Assisted projects (such as paperwork assistance or providing additional project funding). Other comments varied, such as reporting that CBO assistance in pre-screening homeowners for assisted eligibility was helpful.

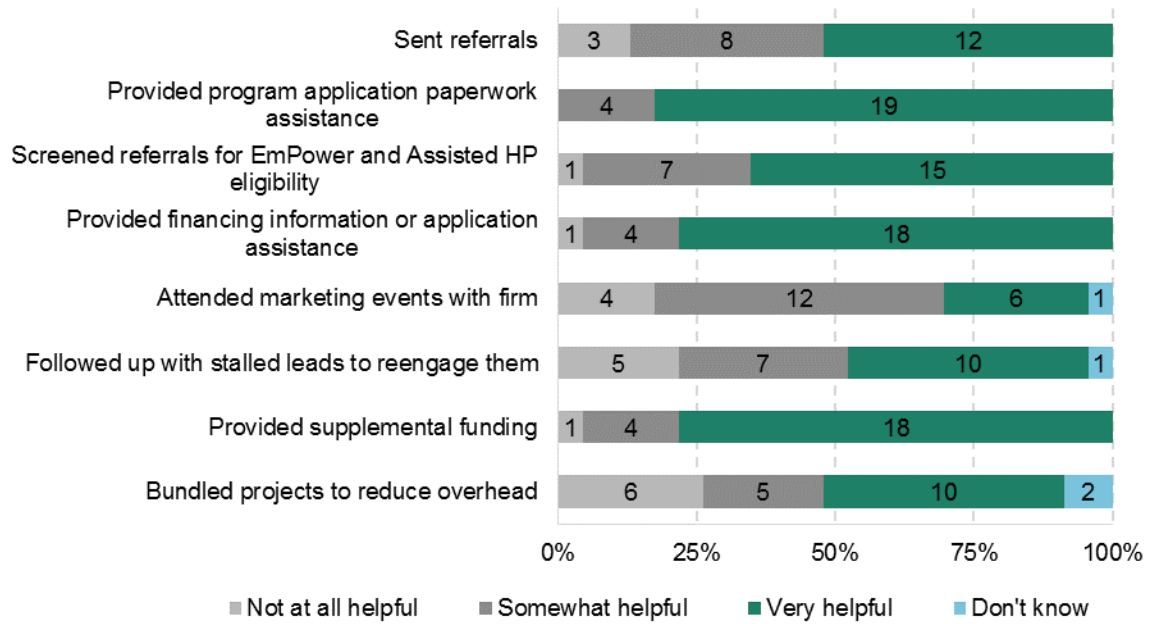
Table 3-7. Differences in CBO Involvement between Assisted and Market Rate Projects

Difference	Count (n = 24)
None	14
CBOs prioritize Assisted projects	3
CBOs offer more assistance on Assisted projects	2
Other	3
Don't know	1
Not applicable (never worked with a CBO on market rate projects)	1

3.3.5 Perceptions of CBO Value

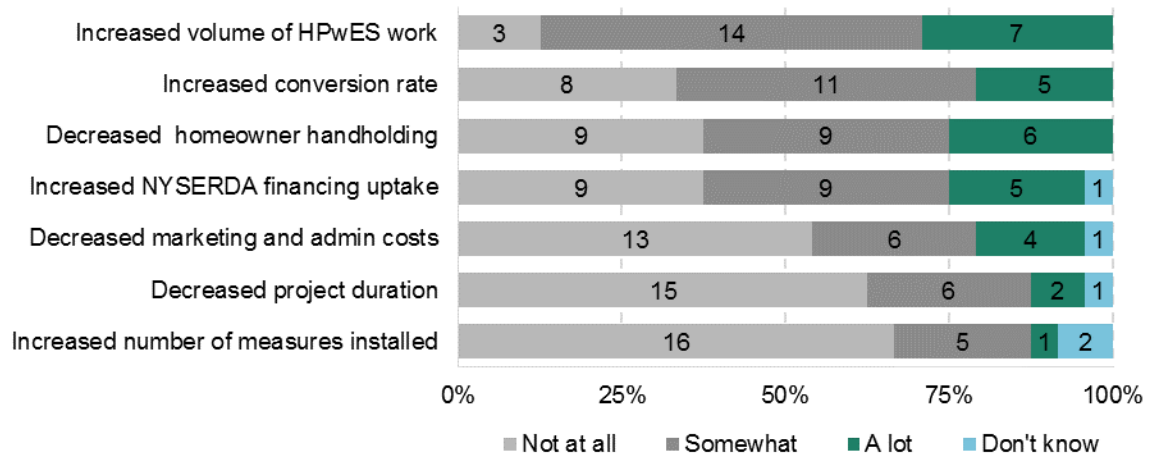
Contractors with experience with specific CBO services also rated how helpful those services were, and contractors that lacked any experience with a specific CBO service rated how helpful it would be (Figure 3-14). Contractors generally reported there was value to all CBO services, but bundling projects, following up with stalled leads, and attending marketing events received the fewest “somewhat helpful” or “very helpful” ratings. While providing supplemental funding was reported, as one of the least frequently provided of all CBO services, contractors rated it the most potentially helpful.

Figure 3-14. Rated Helpfulness of Various CBO Services (n=23)



Contractors reported that CBOs provided several benefits to their HPwES work, primarily noting CBOs increased the volume of work they did through the program (Figure 3-15). While most contractors reported that CBOs improved conversion rates, homeowner “hand holding” burdens, and uptake of NYSERDA financing options, few reported CBOs improved marketing and administration costs, project duration times, or the number of measures installed in projects.

Figure 3-15. How CBOs Benefitted HPwES Work (n=24)



3.3.6 Challenges and Suggestions

Almost half (7 of 16) of non-aggregation pilot CBO contractors reported experiencing no challenges during the course of their CBO-related work.¹¹ Some (5 of 16) contractors reported that the three-way communication channel associated with CBO involvement can result in confusion and redundancy.

Representative comments on this issue include:

“The only challenge with CBO projects is that homeowners do not understand who the program lead is. That’s not well messaged to customers.”

“CBOs are not always aware of the project status and that can create confusion with customers when we contact the customer and CBO has contacted them too.”¹²

Additionally, two contractors reported CBOs lack sufficient understanding of program rules, and resulting in participants who did not fully understand the program. Two other contractors said CBOs tend to work more with certain contractors.¹³ In order to address these challenges, contractors typically said they either worked to improve communication efforts (three mentions), contacted NYSERDA or the implementer (two mentions), or lessened or eliminated their involvement in CBO-affiliated projects (three mentions).

More than half (13 of 23) of CBO-affiliated contractors provided suggestions on how to improve CBO involvement, most of which said they would like CBOs to provide either more or better quality leads (Table 3-8).

Table 3-8. Suggestions on How to Improve CBO Involvement (Multiple responses allowed)

Suggestion	Count (n = 23)
Does not need improvement	7
Provide more/better quality leads	5
Provide more assistance to customers	4
Promote program more	3
Other	2
Don’t know	3

¹¹ To reduce survey fatigue, the evaluation team only asked CBO-affiliated contractors about CBO-related challenges once. The evaluation team asked non-aggregation pilot contractors about general CBO challenges and asked aggregation pilot contractors only about challenges associated with the aggregation pilot.

¹² The introduction of a new project portal in 2013 allowed contractors, CBOs, and homeowners to track project status directly. Program staff reported that some of this apparent CBO confusion stemmed from contractors failing to update the project status in the portal in a timely manner.

¹³ CBO contracts forbid CBOs from recommending specific contractors. NYSERDA received and resolved these complaints appropriately.

3.3.7 Aggregation Pilot Experiences

Due to the relatively small number of HPwES projects completed through aggregation pilots, the evaluation team anticipated some challenges in soliciting contractor feedback on these pilots. The interviews with participating contractors confirmed that awareness of and experience with the pilots among these respondents is low (recall that the evaluation team interviewed only NYSERDA's contact of record at each sampled contracting firm). Table 3-9 shows the aggregation sample's experience with the aggregation pilot. Two of the interviewed contacts had worked on a cancelled pilot, and had no comments on their experiences. Two additional contacts were unaware of their firm's involvement in the active pilot. Four reported any experience with the pilot - two of which said their experience was so limited (like one who reported only working with the pilot on one occasion) that they were unable to comment on it. This disposition suggests that even among firms that participated in aggregation pilots, this work may make up a small amount of their overall program work, or be limited to certain installers, but further data collection efforts targeting aggregation auditors and installers specifically could help clarify this point.

Table 3-9. Experience with and Benefits of Aggregation Pilot

	Count (<i>n</i> = 8)
Worked on cancelled pilot, no comments	2
Unaware of firm's involvement in active pilot	2
Working on active pilot, not enough experience to comment	2
Sufficient experience to provide comments on active pilot	2
Benefit: Eased closing of projects	2
Benefit: Helped with scheduling audits/upgrades	1
Challenges	0

Table 3-9 also presents the reported benefits of the aggregation pilot. As seen in the table, both contractors agreed that the pilot eased the closing of projects, with one noting that aggregation customers appreciate the resulting discount on the project cost. Contractors were split as to whether the pilot helped with the scheduling of audits or upgrades, with one indicating it did and the other reporting it did not. Further, both contractors indicated the pilot has not helped promotion of financing or reducing project costs.

The two contractors who had sufficient experience with the pilot to comment on it indicated either the pilot had helped them maintain their existing staffing level or that it allowed them to hire one full time auditor to perform aggregation audits. No contractors with aggregation experience mentioned experiencing any challenges unique to the pilot.

4 Population and Project Differences

To understand the effects of the GJGNY Outreach program, the evaluation team explored any differences between CBO-affiliated and unaffiliated HPwES participants and projects. This exploration included a comparison of both HPwES participant and audit-only participant survey samples and a comparison of all projects in the program database during 2012-2013. This section includes an overview of differences in HPwES participant respondents' program experiences, audit-only participant respondents' program experiences, respondent demographics, and project characteristics.

4.1 HPwES Participant Program Experiences

HPwES participants reported on their motivation for completing HPwES upgrades, the scope of their project and completion of recommended measures, their project funding, and their program satisfaction: the following sections detail the differences between CBO-affiliated and unaffiliated participants' experiences across these topics.

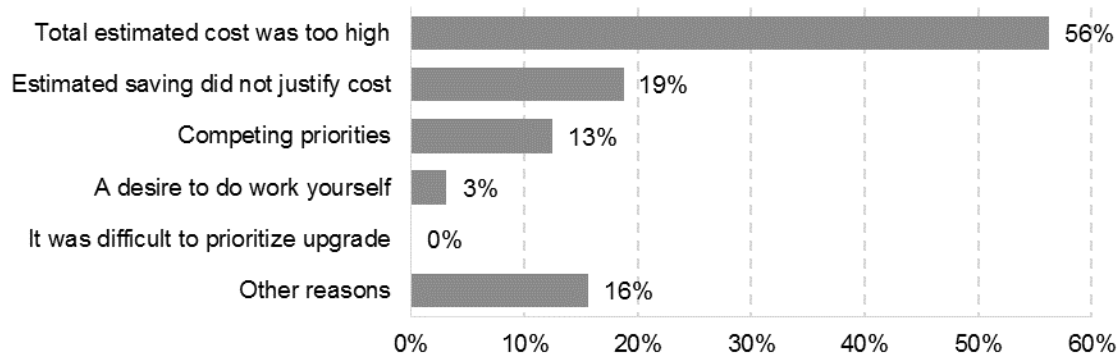
4.1.1 Upgrade Motivation

CBO-affiliated participants and unaffiliated participants reported similar motivations for entering the HPwES program: 81% of respondents reported having considered making upgrades to their home before participating (compared to 75% overall) and they most frequently mentioned a drafty home as a pre-upgrade problem (85% versus 83% overall).

4.1.2 Project Scope

The evaluation team found no significant differences between CBO-affiliated and non-affiliated respondents in project scope. About half of the CBO-affiliated participant respondents (52%) reported they completed all the contractor-recommended upgrades, and another half (48%) implemented only some of the recommended measures. As Figure 4-1 shows, the most common reason for not all recommended measures were installed was estimated overall costs exceeded their budget. Some did not install all recommended upgrades because of insufficient savings over the measure cost (19%) and other competing priorities (13%).

Figure 4-1. HPwES Participant Reason Why All Recommended Measures were not Installed (Multiple responses allowed, n=32)

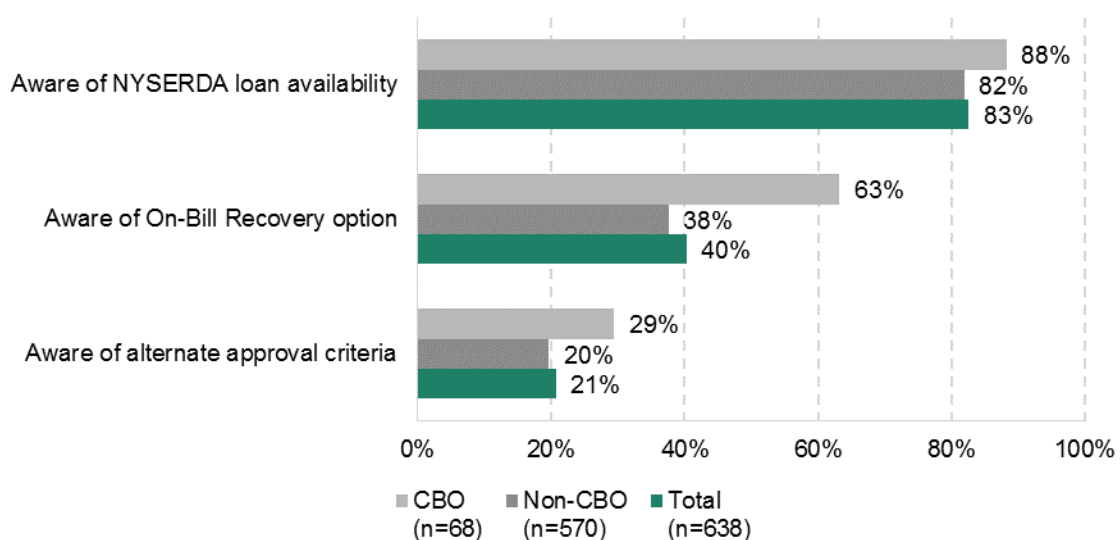


A large majority of these participants (87%) installed all their upgrades through HPwES. The respondents who installed some of the recommended upgrades outside of HPwES (13%) reported they completed these upgrades by themselves or using other contractors. However, just two respondents reported they received incentives from their utility to cover these costs.

4.1.3 Project Funding

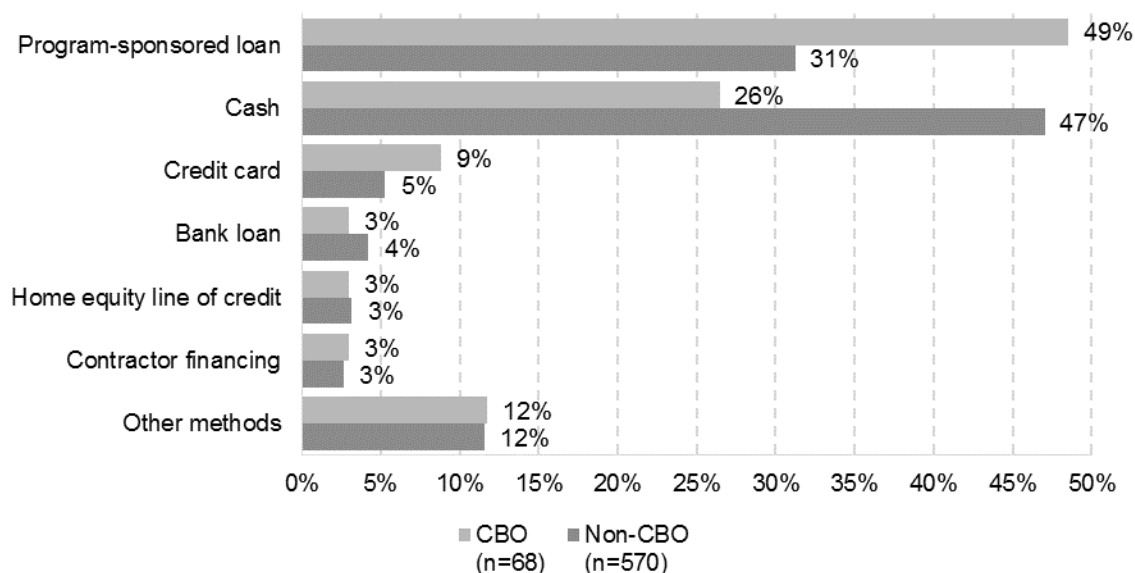
HPwES participant respondents reported on their awareness of program financing options (Figure 4-2). Over 80% of all respondents were aware of NYSERDA financing. CBO-affiliated participants reported a higher level of awareness of the On-Bill Recovery financing option than non-affiliated respondents did (63% versus 38%, respectively).

Figure 4-2. HPwES Participant Awareness of Funding Options



HPwES participant respondents also reported how they paid for their HPwES project (Figure 4-3). About half of CBO-affiliated respondents reported they used GJGNY financing. More than a third of CBO-affiliated participants reported they used cash (26%) and/or credit card (9%) to pay in full or partially. Other payment methods (12%) included grants received from other or unknown institutions. (Later in the survey, 18% of CBO-affiliated participants reported receiving other grants or incentives for the equipment installed through HPwES.) In contrast, 31% of non-CBO contacts reported paying for their project using a program-sponsored loan and 47% reported paying cash.

Figure 4-3. HPwES Participant Payment Methods Used for HPwES Project (Multiple responses allowed)



Contacts also commented on whether they applied for financing: 57% of the CBO-affiliated participants said they applied for program financing, versus 45% of non-affiliated HPwES participants.

4.1.4 Program Satisfaction

The team assessed CBO-affiliated participants’ satisfactions with various components of the HPwES using a 5-point satisfaction or agreement scale, which included audit processes and results, program-sponsored loan, and their overall program experiences. Comparisons with the CBO-unaffiliated participants’ satisfactions found no differences in any areas. Appendix A.3.1 shows CBO satisfaction ratings.

4.2 Audit-only Participant Program Experiences

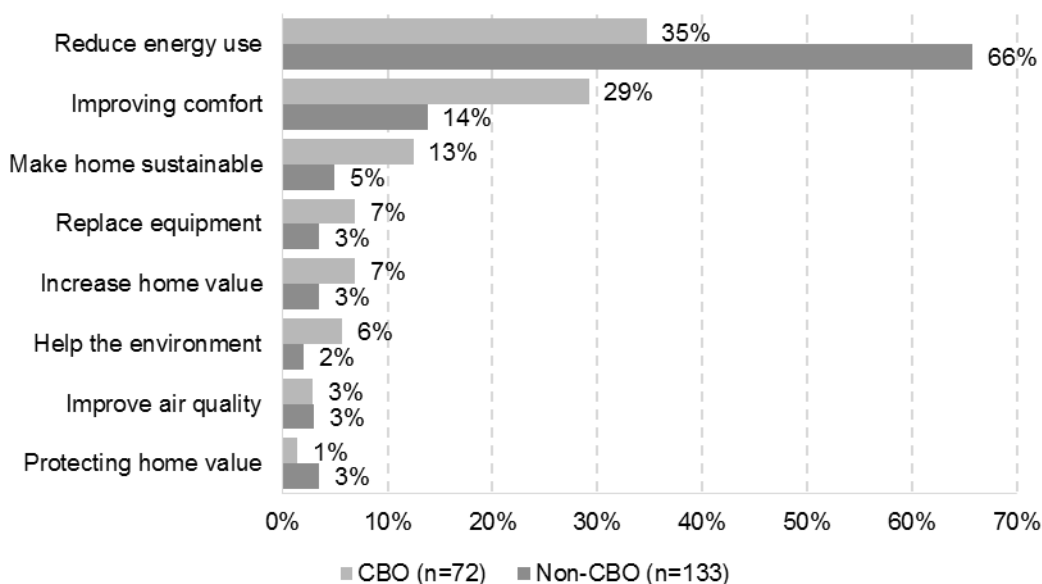
The evaluation team also explored differences between CBO-affiliated and unaffiliated audit-only participants, to understand how CBO involvement affected these respondents. Specifically, the evaluation team explored any differences in reported motivations to pursue an energy audit, barriers to participating in

the HPwES program, and satisfaction with the audit experience. Note that because of the sampling strategy, CBO-affiliated audit-only contacts had all completed subsequent upgrades, while no CBO-unaffiliated contacts had completed subsequent upgrades (see Methodology, section 1.5), thus, comparisons should be interpreted with care and no totals are shown.

4.2.1 Motivations and Barriers

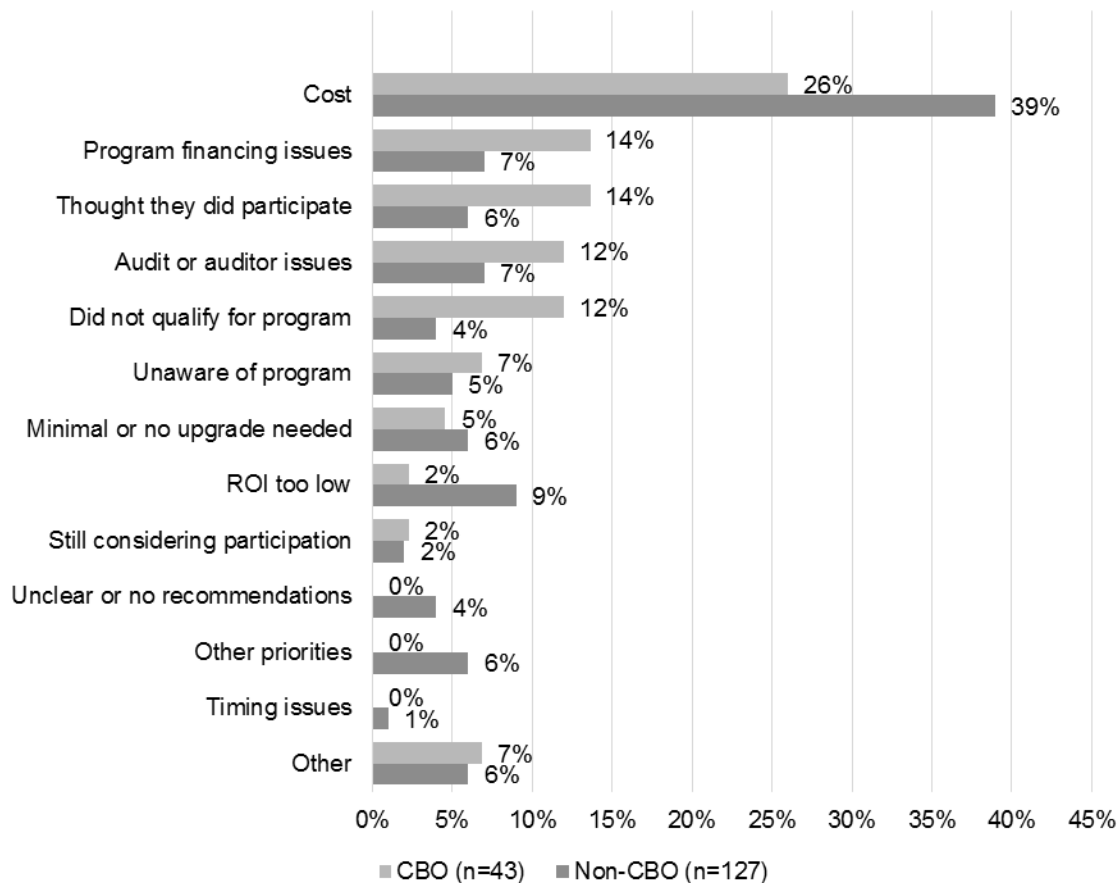
To understand what motivated consumers to pursue energy audits, the evaluation team asked both CBO-affiliated and non-affiliated audit-only participants about the types of energy audit outcomes that were most important to them. Figure 4-4 shows audit-only respondents' most important outcome of the energy audit, and Appendix A includes the full ratings of importance. Notably, while both groups reported that reducing energy use was the most important outcome, CBO-affiliated respondents were much more likely than non-affiliated contacts to cite improving comfort as the most important outcome.

Figure 4-4. Audit-only Participant Most Important Audit Outcome



Respondents also reported why they decided not to participate in the HPwES program (Figure 4-5). There were no significant differences between CBO-affiliated and non-affiliated respondents in reported reasons: both CBO-affiliated and unaffiliated audit-only respondents reported cost as the most frequent reason. CBO-affiliated respondents were notably likely to report that they did not qualify for the program or financing (14% each), but also that they did not participate because of issues with the contractor that performed their audit (11%).

Figure 4-5. Audit-only Participant Reason for Not Participating in HPwES (Multiple responses allowed)



4.2.2 Audit Satisfaction

Finally, CBO-affiliated and unaffiliated audit-only respondents generally reported similar levels of satisfaction with the audit process, except more CBO-affiliated than unaffiliated respondents reported they agreed that they learned valuable things about their home from the audit (78% versus 67%, respectively rated a “4” or “5” on a five-point scale). See Figure A-1 in the appendix for CBO-affiliated audit-only participant’ satisfaction ratings.

4.3 Demographics

CBO-affiliated HPwES participant homeowner respondents make a wide spectrum of demographic and housing representation; their homes are heavily concentrated in older single-family detached housing stocks. Eighty-two percent of the CBO-affiliated respondents live in a single-family home, and 73% of their homes were built before 1960 (a significantly higher proportion compared with CBO-unaffiliated respondents’, 56%). CBO affiliated respondents also are concentrated among long-term residents (41%

lived in current home more than 20 years) with plans to live in their current homes more than 10 years (69%). Compared with CBO-unaffiliated respondents, CBO-affiliated respondents are significantly more likely to be non-Caucasian (10% vs. 25% respectively) and have lower household incomes (48% vs. 24% exceed \$75,000 respectively). Like HPwES participants, CBO-affiliated audit-only participant housing stock was older than unaffiliated housing stock (57% versus 27% dated from pre-1940s). See Appendix A.5, Demographics, for a full summary.

4.4 Project Characteristics

The CRIS database includes 716 CBO-affiliated projects completed through December 31, 2013, 6% of the overall HPwES project volume during that period.¹⁴ In interpreting this percentage, it is important to note that the HPwES program was a mature and operational program during this entire two-year period, while the GJGNY CBO program continued to develop (not all the CBOs had even been contracted in January 2012). During their most productive month in this two-year period, CBO projects accounted for 11% of overall HPwES project volume and 17% of AHPwES project volume. This section describes some of the differences between CBO-affiliated and non-affiliated projects in incentive type and financing, as well as comprehensiveness.

4.4.1 Incentives and Financing

From the CRIS database, CBOs recruited a somewhat higher proportion of Assisted projects than the HPwES program overall: 43% of CBO-recruited projects were Assisted projects, compared with 35% for non-CBO projects (Table 4-1). A somewhat higher proportion of CBO projects than non-CBO projects included GJGNY financing (44% versus 32% overall), although this difference was lower for AHPwES projects (30% CBO, 26% non-CBO).

Table 4-1. Comparison of Assisted Project Volume and GJGNY Financing Uptake by CBO Affiliation

Proportion of Projects With:	All HPwES Projects		Assisted HPwES Only	
	CBO (n=705)	No CBO (n=10,921)	CBO (n=303)	No CBO (n=3,805)
AHPwES	43%	35%	100%	100%
GJGNY Financing	44%	32%	30%	26%
On-Bill Recovery Loan	26%	11%	16%	8%
Smart Energy Loan	18%	21%	15%	19%

¹⁴ Seven CBO-affiliated projects were completed in 2011, the rest were completed in 2012 and 2013. To facilitate comparison with the overall HPwES program, these seven 2011 projects are excluded from subsequent analyses in this section.

4.4.2 Comprehensiveness

The evaluation team also analyzed differences in the average number of measures, electric savings, natural gas savings, and project costs between CBO-affiliated and non-affiliated HPwES projects in CRIS. Overall, the average number of measures installed differed by less than 10%, but CBO-affiliated projects had 29% higher projected annual electricity savings than non-CBO affiliated projects (Table 4-2).

Table 4-2. Indicators of Project Comprehensiveness by CBO Involvement and Program Stream

Average ...	All HPwES			Assisted HPwES Only		
	CBO (n=707)	No CBO (n=10,906)	% Difference	CBO (n=304)	No CBO (n=3,800)	% Difference
Number of Measures	2.99	2.96	1%	2.99	3.28	-9%
Electric Savings (kWh)	578	449	29%	610	508	20%
Natural Gas and Delivered Fuels Savings (MMBtu)	37	35	6%	35	35	2%
Project Cost (\$)*	\$8,933	\$8,402	6%	\$8,677	\$7,883	10%

* Market rate CBO n=709, no CBO n= 10,927

5 Conclusions and Recommendations

This study of the GJGNY Outreach program explored CBO effectiveness in outreach and expansion of participation in HPwES. The evaluation found that CBOs are bringing in households that had not heard of or considered HPwES prior to engagement with the CBO. These households are more likely to live in older homes, identify as non-Caucasian, and have lower incomes and less education than non CBO-affiliated HPwES participants. A large majority of the CBO-affiliated participants would not have moved forward with their HPwES project without CBO support and engagement.

CEF will likely shift NYSEDA priorities toward lower-income populations. There are opportunities for refocusing the GJGNY CBO program on low- to moderate-income populations. Cost remains a large barrier to HPwES and AHPwES participation. Current CBO project recruitment casts a wide net: as expected, although CBOs target priority communities and focus on recruiting AHPwES projects, 56% of CBO projects were market rate projects. On the other hand, the phase 1 research suggested that many CBO constituencies include consumers with incomes that are more in alignment with EmPower than with the AHPwES eligibility threshold. Most effectively using CBO outreach to reach low- and moderate-income households will require coordination and lead sharing between different low-income programs, as well as between low-income and moderate-income programs offered by other administrators. Since this research also found continuing confusion between GJGNY Outreach and EmPower among contractors, it is not clear whether segregation of program offers by income level can be fully effective.

The evaluation team presents the following conclusions and recommendations to inform the next iteration of efforts with CBOs and HPwES programs.

Conclusion: CBO-affiliated audit-only respondents who completed upgrades outside HPwES had less interaction with CBOs, and expressed more uncertainty and confusion about the HPwES process.

Half of CBO-affiliated audit-only participants could not recall whether they had worked with a CBO, and of those that recalled working with a CBO, less than half recalled whether the CBO had followed up with them about participating.

Recommendation: To increase retrofits, CBO outreach activities should more actively conduct post-audit follow-up in addition to providing support during the audit process.

Survey findings suggest that this outreach is not conducted uniformly.

Conclusion: CBOs are successfully connecting with other local organizations to recruit under-represented populations into HPwES, yet as with other programs, homeowners who have a CBO-affiliated HPwES retrofit had considered home upgrades prior to contact with the CBO. CBO-affiliated participants were more likely to live in older housing stock, have lower incomes, less education, and identify as non-Caucasian. A majority of respondents had considered home upgrades, but were not familiar with HPwES, and most would not have completed the same project without their CBO. Furthermore, a large majority of CBO-affiliated HPwES participants had not heard of the CBO prior to participation. This suggests that CBOs are successfully leveraging their local connections and conducting outreach to recruit participants through increasing awareness of HPwES and providing support throughout the HPwES process.

Recommendation: Working with CBOs can be valuable to future program administrators seeking to serve hard-to-reach populations. Generating projects requires consistent and repeated messaging to increase awareness and develop community trust and infrastructure. Retrofit volume, a long-term indicator of success, does not fully capture CBO incremental and growing influence on target markets. Define a set of short- and medium-term indicators (such as community events conducted, leads generated, or audits completed) to complement long-term indicators to quantify and contextualize CBO program outcomes.

Conclusion: The GJGNY Outreach program poses evaluation challenges requiring creative solutions. The close alignment between the GJGNY Outreach program and the HPwES program limits the value of participant self-report because participants may not discriminate between HPwES staff, CBO staff, and their contractor. The relatively long timeframe between project completion and surveys compounds this problem. Thus, self-report may systematically undervalue CBO influence.

Recommendation: For future evaluations, consider targeted, real-time evaluation methods. To better understand participant attitudes and recall of such details as the type of financing discussed with CBOs and aggregation pilot experiences, use short, ongoing surveys focused on evaluating specific performance indicators, conducted with a sample of participants.

Appendix A. Additional Results

A.1. Research Objectives and Issues

Table A-1. Evaluation Research Objectives and Issues

Research Objective/ Issue		Topic (If Multiple)
1	Investigate awareness of and interest in CBO services.	
1a	Investigate awareness of CBOs among CBO-affiliated and unaffiliated participants and contractors	
1b	Explore interest in and barriers to leveraging CBO services	Explore opportunities for future CBO-contractor collaboration
		Document the level of interest in and the value of CBO-type services among nonparticipants and unaffiliated audit-only participants
		Investigate barriers to working with CBOs (for low-volume CBO-affiliated contractors and aggregation contractors)
2	Document the experience and expectations of homeowners and contractors interacting with the CBO activities.	
2a	Identify any upgrades audit recipients undertook to reduce energy waste in their homes subsequent to receiving the audit	
2b	Understand how contractors interacted with the CBOs and document contractor views on the additional value brought by the CBOs	Document the types of interaction and support received
		Document contractors' experience with aggregation
		Understand contractor perception of CBO value and influence (on closing the project; project comprehensiveness, financing assistance, customer follow-up)
2c	Investigate the extent to which CBO activities influenced homeowners	Document the types of interaction and support received (including financing, other funding sources, paperwork, contractor interaction)
		Understand source of homeowner awareness of CBOs
		Explore the level of influence of CBO support on projects

Research Objective/ Issue		Topic (If Multiple)
3	Explore any differences between CBO-affiliated and unaffiliated HPwES participants and projects.	
3a	Investigate the motivations for and barriers to completing energy audits and home energy efficiency upgrades through the HPwES program	
3b	Understand what prevented audit recipients from completing energy efficiency upgrades through the program	
3c	Investigate differences in program attitudes, experience, and satisfaction between CBO and non-CBO affiliated participants	
3d	Document the differences between CBO and non-CBO projects and homeowners	Differences in financing, project size and measures, and duration
		Differences between CBO and non-CBO AHP projects
		Differences in supplemental funding (matching grants, Sandy funding)

A.2. Program Background

A.2.1. Efficiency Program Landscape

New York State residential existing homes are served by a number of energy efficiency programs:

- **Home Performance with ENERGY STAR® (HPwES).** NYSERDA’s comprehensive residential efficiency program, described above. CBOs are responsible for generating retrofits through this program.
- **EmPower New YorkSM.** NYSERDA’s low-income program, EmPower provides free measures to households with incomes less than 60% of AMI. EmPower also is available to multifamily households.
- **New York Energy \$martSM Communities and the Economic Development Growth Extension (EDGE) program.** The **New York Energy \$martSM Communities** program was a NYSERDA-funded program that used regional organizations to conduct outreach to connect community members with NYSERDA programs. Several sub-initiatives were developed under the umbrella of this program, including the Retrofit NYC Block by Block program. The **New York Energy \$martSM Communities** program ended in 2012, and was replaced by the EDGE program, which facilitates similar types of community-focused outreach through 26 Regional Outreach Contractors. Both programs also conduct multifamily and small business outreach.

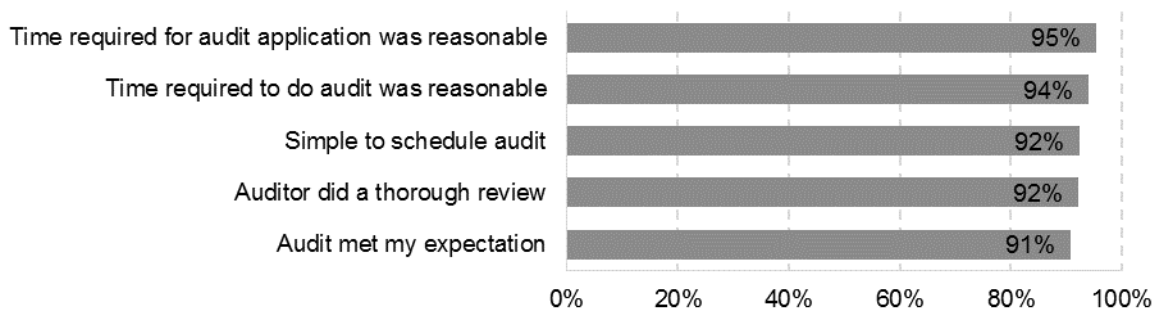
- **Better Buildings Neighborhood Program (BBNP).** Funded by ARRA funds and administered by the Department of Energy, BBNP gave grants to 40 entities nationally to create or expand energy efficiency retrofit programs, one of which was NYSERDA. This BBNP grant was used to expand NYSERDA’s HPwES program and Small Commercial Energy Efficiency program. It also was distributed to numerous sub-grantees, including New York City and numerous communities, municipalities, and utilities to expand efficiency program offerings. Some of these BBNP grantees provide efficiency programs targeting businesses as well.
- **Weatherization Assistance Program (WAP).** Another ARRA-funded program, WAP provides weatherization services to low-income (<60% AMI) households.
- **Utility Programs.** Several New York State utilities offer programs that provide incentives for residential efficiency improvements, such as natural gas conversion and efficient furnace upgrades.

A.3. Participants

A.3.1. Satisfaction

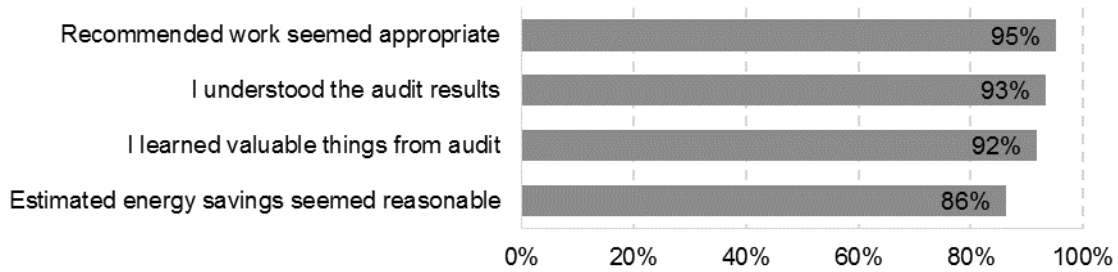
Comparisons between CBO-affiliated and CBO-unaffiliated participants’ satisfaction revealed no significant differences in any areas. The figures below summarize CBO-affiliated participant satisfaction with the HPwES process. When asked about their satisfaction with audit processes, a large majority of the CBO-affiliated participants reported satisfaction with all audit components – from scheduling to completion of an audit (Figure A-1). Ninety-one percent of the CBO-affiliated participants reported their overall audit experiences met their expectations.

Figure A-1. Satisfaction with Audit Process, % “Agree” (n=68)



CBO-affiliated participants also were highly satisfied with most areas of audit results they received (Figure A-2).

Figure A-2. Satisfaction with Audit Result, % “Agree” (n=67)



Among the CBO-affiliated participants who received a program-sponsored loan, they were generally satisfied with the process of obtaining the program loan (Figure A-3).

Figure A-3. Satisfaction with Program-Sponsored Loan, % “Satisfied” (n=37)

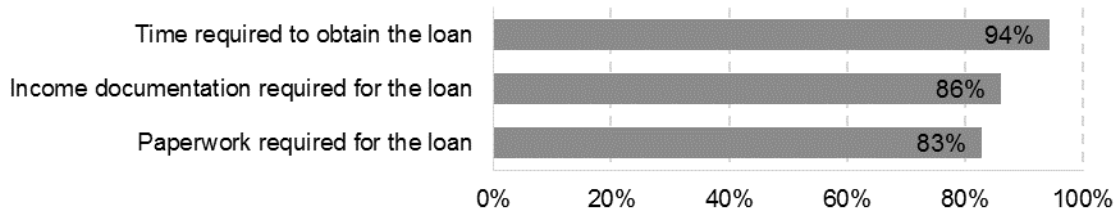
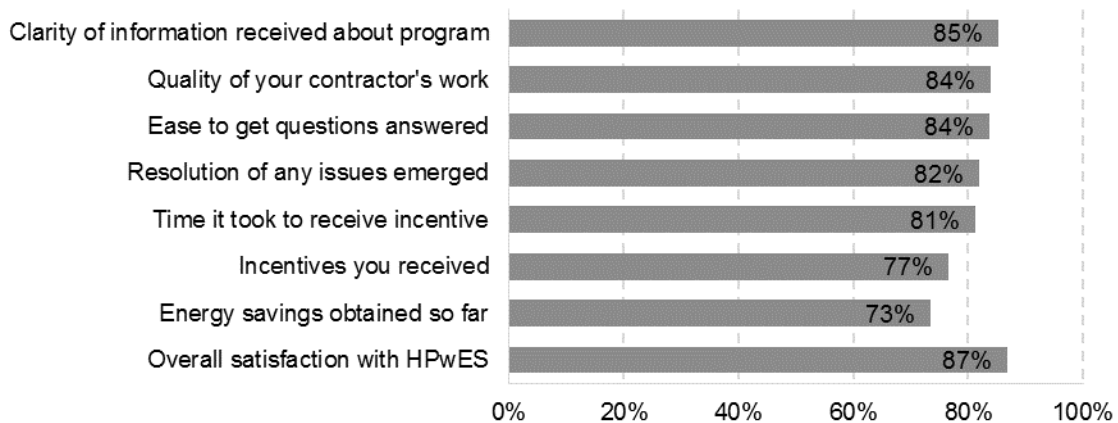


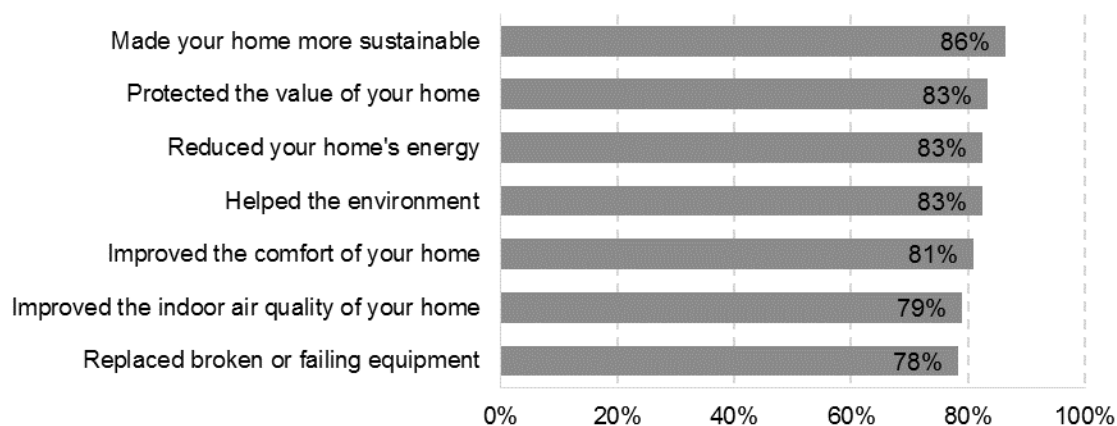
Figure A-4 shows respondents’ satisfaction with other program elements. Adequately high proportions of the CBO-affiliated participants reported they were satisfied with the HPwES program overall (87%) and most of the program elements – including clarity of program information received (85%), quality of contractor work (84%), ease of getting questions answered (84%), resolutions of issues emerged (82%), and time it took to receive incentive (81%). The program elements rated unsatisfactory by a noticeably high proportions were incentive amount they received (23%) and energy saving they have obtained so far (27%).

Figure A-4. Satisfaction with Other Program Elements, % “Satisfied” (n=67)



Finally, the team asked the CBO-affiliated participants to rate their perceived value of HPwES in influencing the various needs of participants (Figure A-5). A majority of the respondents reported HPwES provided positive values in all areas asked, which included HPwES helped reduce energy use (83%), improve comfort (81%), and improve indoor air quality (79%).

Figure A-5. Perceived Value of HPwES, % “Agree” (n=68)



A.4. Audit-only Participants

A.4.1. Methods and Disposition

The teams acquired the sample of audit-only households that had a home energy audit in 2010-2013 from NYSERDA’s CRIS database. All households in the sample were first mailed a pre-notification letter informing them to expect a telephone call to request participation in a survey in the near future, and nonrespondents received up to six follow-up calls. In addition, households with an email address listed in the CRIS database were sent a pre-notification email after the postal letter was mailed, and nonrespondents were sent up to two follow-up emails as well as follow-up phone calls.

Households reached via phone were asked to complete a phone survey but were given the option to complete the survey online, and households reached via email were asked to complete the survey online but nonrespondents were called and asked to complete the survey via phone. Beginning September 19, 2014, letters were mailed and emails were sent in eight successive batches of about 2,500, and calling began approximately one week after the letters were mailed. Data collection ended on December 15, 2014.

Screening questions were used to determine if the audit-only households were eligible for billing analysis. Households were eligible for billing analysis if they made at least one of four upgrades that cost \$2,000 or more - insulation, air sealing, window or door replacement, and/or heating system replacement, - lived in their home at least one year before making the upgrades, and made the upgrades before the winter of 2013/2014. Eligible households were directed to the Impact team’s survey questions and ineligible

households that had an audit in 2012-2013 were directed to the PE/MCA team's survey questions. The audit-only households that were ineligible for the billing analysis and that used a CBO, as determined through the NYSERDA CRIS database, were asked the CBO-related process questions and the ineligible, non-CBO households were asked similar process survey questions.

Nearly 19,000 households were included in the sample and, of these, nearly 2,000 went through a CBO and over 17,000 did not. Over one-quarter of sampled households responded to the survey and about two-thirds of these were ineligible for the billing analysis, and thus went to the impact team, or were screened-out. The remaining 1,689 respondents were asked the process survey questions until quotas were met, but the quotas were exceeded due to the fielding of successive batches of surveys over the course of the data collection period (Table A-2).

A.4.2. Audit Services Importance Ratings

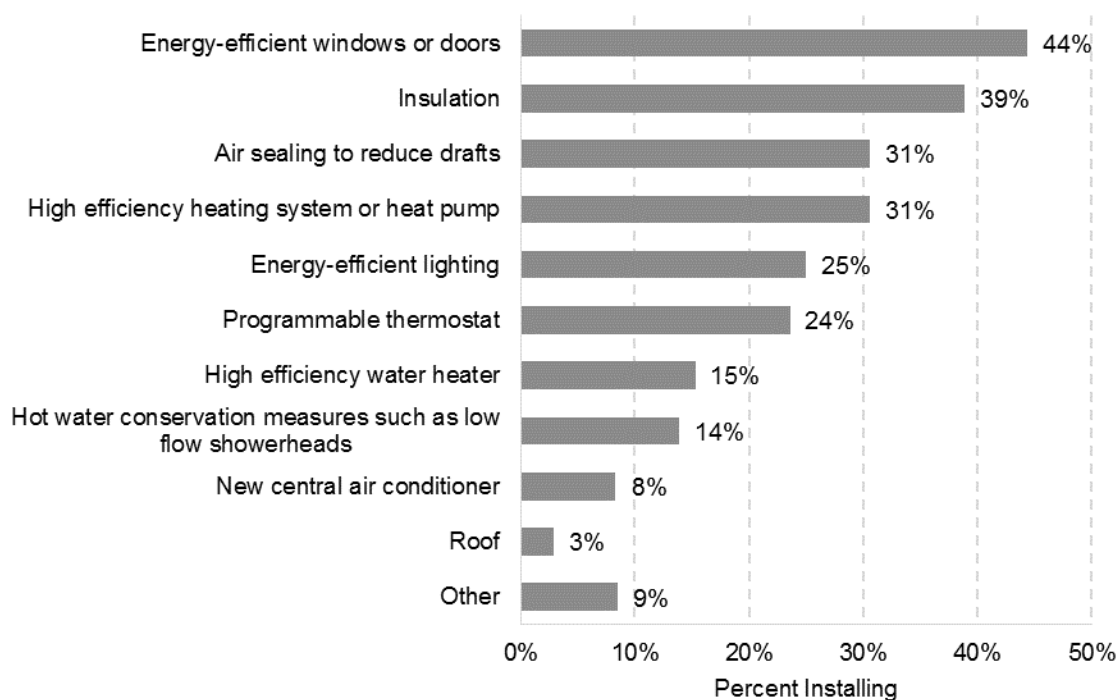
Table A-2. Audit-only Participant Rating of Importance of Audit Services (Percent Rating "Important")

	CBO-affiliated		No CBO	
	Percent Rating Important	n	Percent Rating Important	n
Help the environment*	52%	70	81%	192
Improve the indoor air quality*	57%	63	72%	189
Increase the value of your home*	62%	69	78%	192
Replace broken or failing equipment*	63%	67	74%	184
Reduce your home's energy use*	70%	67	81%	198
Protect the value of your home	71%	67	78%	190
Make your home more sustainable*	82%	70	91%	193
Improve the comfort of your home	83%	68	89%	197

* Significant difference.

A.4.3. Subsequent Upgrades

All CBO-affiliated audit-only participant respondents reported the types of upgrades they completed since their energy audit. Respondents most commonly reported installing windows or doors (44%), insulation (39%), air sealing (31%), and heating systems (Figure A-6).

Figure A-6. Audit-only Participant Reported Upgrades since Audit (n=72)

All contacts indicated that they had completed some upgrades since completing their audit (recall that this was a screening criterion for the survey), and no contacts reported they had installed all the recommended upgrades. Respondents most frequently cited cost as a barrier (50%), but one-fifth (21%) of contacts reported that the projected savings did not justify the cost, and a few contacts (14%) also cited other priorities for home improvements (Table A-3).

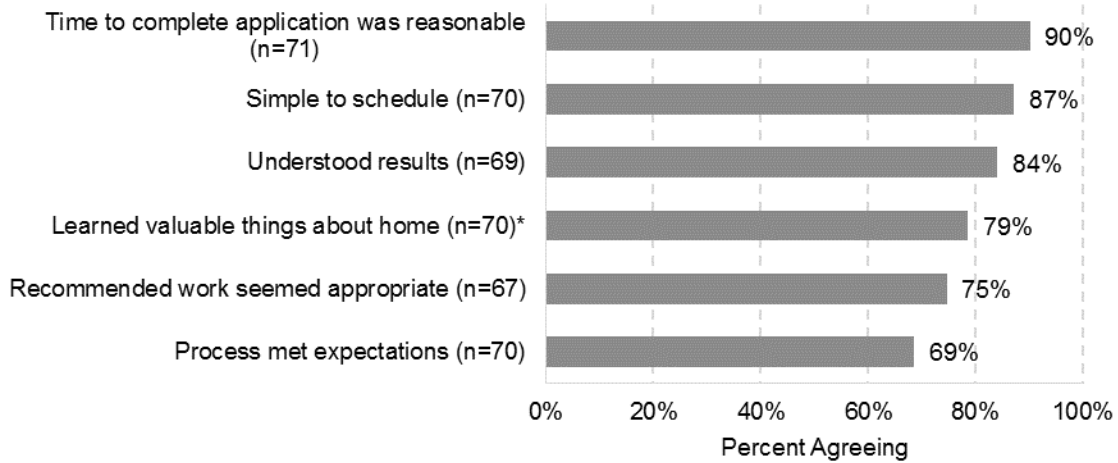
Table A-3. Audit-only Participant Reasons for not Installing Recommended Measures during Upgrade (Multiple responses allowed, n=56)

Reason for not installing recommended measures	Percent (n=56)
The recommended upgrades were too expensive	50%
The energy savings were not worth the cost	21%
Other priorities for home improvement dollars	14%
Did not like contractor	13%
Waiting for existing equipment to need replacement	9%
Planning to install, just haven't gotten to it	9%
Wanted to do the work	5%
Concerned about the comfort of home	2%
Other	9%

A.4.4. Satisfaction

Overall, CBO-affiliated contacts’ satisfaction with the audit process was high, with a large majority agreeing that the application time was reasonable, the audit was simple to schedule, they understood the results, and learned valuable things about their home (Figure A-7). A slightly lower percentage of contacts agreed that the recommended work seemed appropriate and that the process met their expectations.

Figure A-7. Audit-only Participant Satisfaction with Audit (Percent that Agree)



* Significant difference from CBO-unaffiliated respondents.

A.5. Demographics

Table A-4 summarizes the demographic and housing characteristics of CBO-affiliated HPwES participants and their differences with non-CBO participants.

Table A-4. HPwES Participant Demographic and Housing Characteristics

	Count	Percent	Differences with CBO-unaffiliated participants
Housing Type			
Single-family detached	56	82%	No difference
2- to 4-family	10	15%	
Other types	2	3%	
Year Built			
Before 1940	30	45%	CBO-affiliated participants’ homes are significantly older. 56% of CBO-unaffiliated respondents’ homes were built before 1960.
1940 – 1959	19	28%	
1960 – 1979	11	16%	
1980 – 1999	4	6%	
After 2000	3	4%	

	Count	Percent	Differences with CBO-unaffiliated participants
Years Lived in Current Home			
Less than 5 years	17	25%	No difference
5 – 9 years	12	18%	
10 – 19 years	11	16%	
20 years or longer	28	41%	
Years Planned to Live in Current Home			
0 – 5 years	5	8%	No difference
6 – 10 years	14	23%	
More than 10 years	42	69%	
Respondent's Education Achievement			
High school or less	13	19%	Non-CBO respondents are significantly more likely to have a bachelor's degree (63%) compared with CBO-affiliates (55%).
Some college	17	25%	
4-year college	11	16%	
Post graduate	26	39%	
Respondent's Age			
Younger than 40 year-old	6	9%	No difference
40 – 49 year-old	9	14%	
50 – 59 year-old	14	22%	
60 – 69 year-old	14	22%	
70 year-old or above	21	33%	
Respondent's Race			
White	50	76%	A significantly higher proportion of CBO-affiliated respondents are non-Caucasian race (25%) compared with CBO-unaffiliated respondents (10%).
Black	7	11%	
Asian	0	0%	
Other	9	14%	
Household Income			
Under \$30,000	12	19%	48% of CBO-unaffiliated respondents' household income exceeds \$75,000, significantly higher than CBO-affiliated respondents (24%).
\$30,000 to under \$50,000	17	27%	
\$50,000 to under \$75,000	18	29%	
\$75,000 to under \$100,000	5	8%	
\$100,000 or higher	10	16%	

Note: Respondents who said, "don't know" or refused to answer are excluded.

Similarly, Table A-5 summarizes the demographic and housing characteristics of audit-only respondents, and differences with CBO-unaffiliated audit-only participants. Use caution in interpreting these differences, as CBO-affiliated contacts completed upgrades subsequent to participation while non-CBO contacts did not; this difference may account for the lack of difference in income between the two samples.

Table A-5. Audit-only Demographic and Housing Characteristics

	Count	Percent	Differences with CBO-unaffiliated participants
Respondent's Age			
25 to 34	8	11%	No difference
35 to 44	14	19%	
45 to 54	13	18%	
55 to 64	24	32%	
Number of Persons Living in Household			
1	14	19%	No notable difference
2	31	42%	
3	13	18%	
4	8	11%	
5	3	4%	
6	2	3%	
7	2	3%	
Household Income			
Less than \$25,000	7	12%	No difference
\$25,000 to less than \$50,000	15	25%	
\$50,000 to less than \$75,000	12	20%	
\$75,000 to less than \$100,000	8	14%	
\$100,000 to less than \$150,000	11	19%	
\$150,000 to less than \$200,000	4	7%	
\$200,000 or more	2	3%	
Year Built			
1930's or earlier	43	57%	CBO housing stock significantly older than non-CBO, 27% of non-CBO housing stock from 1930s or earlier.
1940's or 1950's	16	21%	
1960's or 1970's	11	15%	
1980's or 1990's	5	7%	
2000 or later	0	0%	
Respondent's Education Achievement			
No high school diploma or GED	1	1%	No difference
High school graduate (or GED)	8	11%	
Associates Degree	16	22%	
Bachelor's Degree (4-yr degree)	23	31%	
Graduate or professional degree	26	35%	

Appendix B. Survey and Interview Guides

B.1. Participating Contractors Interview Guide

B.1.1. Introduction

Hello, my name is _____, may I please speak with [pipe in contact's name] [If no contact information: "the person who oversees the operations for your home performance business."] I'm calling on behalf of NYSERDA, the New York State Energy Research and Development Authority, from Research Into Action to evaluate NYSERDA's Home Performance with ENERGY STAR program.

S1. Are you the best person to talk to about your organization's experience and interactions with NYSERDA's HPwES program?

As part of our evaluation, NYSERDA has asked us to talk with their contractors involved with the Home Performance with ENERGY STAR program in order to understand benefits and challenges you're experiencing working with that program. Your opinions are very important to NYSERDA, and your suggestions may help improve the program. We will likely need about 45 minutes to get through the questions I have about the HPwES program, depending on how much you have to say.

Is this a convenient time for us to talk? [If not, schedule another time; if so, continue]

Please know that we will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our reports. If it is okay with you, I'd like to record this interview to ensure the accuracy of my notes. The recording will only be used by research staff and will not be provided to NYSERDA.

Do you have any questions before we get started?

B.1.2. Respondent Role [ASK ALL]

We have a few questions to help us understand your experience, and give us context for your perspective, so let's start with some information about you.

[Reviewer note: we will have firm tenure with the program; the questions below help us understand respondent perspective and expertise.]

Q1. [P/NP] For how many years have you been involved in home repair or home improvement contracting? years

Q2. [P/NP] Are you currently or have you ever been personally BPI certified?

1. Yes

- 2. No
- 98. DK

Q2A. [P/NP] [IF Q2=YES] Which certifications?

Q3. [P] And, for how many years have you been involved with the Home Performance with ENERGY STAR program? years

Q4. [P/NP] Does your firm provide...? [Read all]

Expertise	Mark if yes
a. Heating or air conditioning for homes	
b. Electrical contracting	
c. Siding, window or door installation	
d. Insulation	
e. Renovation or general contracting	
f. Home building	
g. Plumbing	
h. Other (specify)	

B.1.3. Program Experience [ASK ALL]

[Interviewer note: We are interested in jobs that either accessed HPwES program incentives or those that could have (were potentially qualified upgrades) but that didn't go through the NYSERDA program. For any unclear response, clarify if response applies to program jobs, potentially qualified but out-of-program jobs, or standard projects.]

Now let's turn to your interaction with the Home Performance with ENERGY STAR program.

Q5. [P/NP] About what percentage of your organization's work is in residential buildings (excluding large multifamily)? %

Q6. [P] And about what portion of your jobs in existing homes (as opposed to new construction) involved installing equipment or providing services similar to those encouraged by NYSERDA's HPwES program? Could include both program projects and those similar to program projects. %

Q7. [P] About what percentage of your jobs in existing homes received incentives or financing through NYSERDA's HPwES program? %

B.1.4. Marketing and Leads [ASK ALL]

- Q8. [P] Do you get HPwES audit leads from...
- your own direct marketing activities? Yes/no/DK
 - from interest generated by NYSERDA marketing activities? Yes/no/DK
 - from equipment failures / emergencies? Yes/no/DK
 - adding to the scope of more typical projects? Yes/no/DK
- Q9. [P] And, do you get referrals from NYSERDA-affiliated contacts [IF NEEDED: such as program staff, trade allies, community based organizations, other NYSERDA programs]?
- Yes
 - No
 - DK
- Q10. [P] Where do most of your Home Performance job leads come from?

B.1.4.1. Marketing activities:

- Q11. [P] To promote your home performance services does your organization [RANDOMIZE]:
(interviewer note: cluster of services, not specifically the program alone)
- Pay for advertising? 1. Yes 2. No 98. DK
- Q11A1. [If Q11a=YES] What type?
- Maintain a website? 1. Yes 2. No 98. DK
 - Maintain an email list serve or access email lists to promote your HP services?
1. Yes 2. No 98. DK
 - Attend public events like street fairs? 1. Yes 2. No 98. DK
 - Attend home shows? 1. Yes 2. No 98. DK
 - Advertise your BPI accreditation? 1. Yes 2. No 98. DK
 - Work with local nonprofits or constituency-based organizations affiliated with NYSERDA?
1. Yes 2. No 98. DK

B.1.4.2. Co-op Marketing activities:

- Q12. Did your firm receive any NYSERDA co-op marketing funds in 2013 or 2014? (Yes/No/Don't know)
[Ask if Q12 = Yes; Else skip to Q14] Q12A. [P] How did you use NYSERDA's co-op marketing funds?
- Q13. [Ask if Q12 = Yes; Else skip to Q14] [P] How would your HP marketing activities change if you didn't have access to the co-op marketing funds?

B.1.5. CBO Experience/CBO Question Battery [Using previously reviewed CBO-specific question set]

Block 1: CBO Sample [Aggregation No + Yes]

- Q14. [P] In some areas of the state, NYSERDA has contracted community-based organizations (or CBOs for short) to conduct outreach to enroll homeowners in the Home Performance program. This is separate from the low-income EmPower program. According to our records, your firm completed Home Performance projects that were affiliated with a CBO. Are you aware of this CBO outreach?
- Yes
 - No

[ASK IF Aggregation = YES]

- Q15. [P] [moved to just before Q35].

[If Q14 = Yes]

- Q16. [P] Are you the best person to speak to about how your firm worked with the CBO?
- Yes
 - No

[ASK IF Q14 = No or Q16= No]

- Q17. [P] Is there someone else at your firm we could talk to specifically about program projects where CBOs were involved? Who?
- Name: _____
 - No

[IF contact info collected, skip to end of CBO block, resume HPwES questions. If no one at firm is able to speak to CBO involvement, skip to Non-CBO Affiliated block (starting at Q38)]

Q18. [P] What CBOs have you interacted with?

a. [RESPONSE]

98. Don't know

Q19. [P] How did your firm initially connect with these CBOs? [Do not read responses, probe to code, record additional detail]

a. Program staff connected us with a local CBO

b. The CBO approached us

c. The CBO referred a homeowner to us

d. Home show or other event

e. We had an existing relationship with the CBO. Please describe: _____

96. Other, specify: _____

Q20. [P] Has your firm ever attended an outreach event with a CBO to promote the HPwES program?

[If needed: For example, have you attended a home show or meeting with a CBO to answer questions about the program?]

a. Yes

b. No

98. Don't know

Q21. [P] I'm going to list several potential services CBOs may have provided. Thinking about your projects with a CBO involved, how often did the CBO provide these services (never, sometimes, or frequently) and then how helpful that service was or would be to your firm (not at all helpful, somewhat helpful, or very helpful). On your CBO-affiliated projects, how often did the CBO ...

Item	1 Never	2 Sometimes	3 Frequently	[Optional comment]	98 DK
Send your firm referrals					
Screen referrals for EmPower and Assisted Home Performance eligibility					
Provide program application paperwork assistance to referrals					
Provide financing information or application assistance to referrals					
Provide supplemental funding that allowed the project to move forward					

Item	1 Never	2 Sometimes	3 Frequently	[Optional comment]	98 DK
[deleted]					
Follow up with your “stalled” leads to reengage them					
Bundle retrofit projects to reduce overhead					

Q22. Q21B – incorporated into Q21 matrix

[LOGIC] Item	1 Not at all helpful	2 Somewhat helpful	3 Very helpful	[Optional comment]	98 DK
Attend marketing events with your firm to promote the program					
Send your firm referrals					
Screen referrals for EmPower and Assisted Home Performance eligibility					
Provide program application paperwork assistance to referrals					
Provide financing information or application assistance to referrals					
Provide supplemental funding that allowed the project to move forward					
[deleted]					
Follow up with your “stalled” leads to reengage them					
Bundle retrofit projects to reduce overhead					

I’d like to know more about how these CBO-affiliated projects work.

Q23. [P] Please describe how your firm typically interacts with these CBOs (in terms of communication, coordination, or any other assistance you might have received from them).

a. [RESPONSE]

98. Don’t know

Q24. [P] [deleted]

Q25. [P] What are the differences, if any, in CBO involvement between Assisted and Market rate Home Performance projects?

a. [RESPONSE]

98. Don't know

Q26. [P] How do CBO-affiliated projects differ from your other Home Performance with ENERGY STAR projects?

a. [deleted]

b. How about differences in your interaction with the homeowner and the level of support the homeowners need from you? _____

c. Any other differences? _____

Q27. [P] I'm interested in how CBOs might have benefited your Home Performance program work. To what extent have CBOs... (Not at all / Somewhat / A lot; add optional OE box) ... How?

Item	Not at all	Somewhat	A lot	How? [OE]	98 DK
Decreased marketing and administration costs on these projects					
Increased the volume of Home Performance work you do					
Increased the number of audit recipients who complete retrofits [conversion rate]					
Decreased the duration of projects (start to finish time)					
Increased the number of measures installed in Home Performance projects					
Decreased the "handholding" you must do with homeowners on Home Performance projects					
Increased the number of customers accessing NYSERDA financing.					

[ASK IF CBO AGGREGATION = NO ONLY]

Q28. [P] What kinds of challenges, if any, have you encountered in working with CBOs?

a. [RESPONSE]

98. Don't know

Q29. [ASK IF CBO AGGREGATION = NO ONLY][P] How have you addressed these challenges?

a. [RESPONSE]

98. Don't know

Q30. [P] Is there anything more the CBOs could do to help your firm's work on Home Performance projects?

a. [RESPONSE]

98. Don't know

Block 2: CBO Sample Yes Aggregation Only

Q31. [P] [deleted]

Q32. [P] [deleted]

Q33. [P] [deleted]

Q34. [P] [deleted]

Q15. Our records show your firm has been part of an aggregation pilot with a CBO. Aggregation involved an agreement with NYSERDA and a community organization to conduct Home Performance program retrofits with clusters of homes, giving each a small discount. Are you aware of your firm's involvement in the aggregation pilot?

a. Yes

b. No

98. Don't know

[IF Q15 = NO/DK, SKIP TO Q41]

Q35. [P] What types of challenges, if any, have you encountered in recruiting, scoping, or completing retrofit jobs through the aggregation pilot?

a. [RESPONSE]

98. Don't know

Q35A. How have you addressed these challenges?

a. [RESPONSE]

98. Don't know

Q36. [P] How has clustering projects in the same area at the same time worked for you... [IF NEEDED]: That is, completing groups of jobs in an area at the same time. [READ EACH; ALLOW OPEN-ENDED RESPONSE]

- a. In terms of reducing project costs?
- b. In terms of the ease of closing projects?
- c. In terms of scheduling the audits and upgrades?
- d. In terms of promoting financing?

Q37. [P] In providing a consistent stream of Home Performance work, how, if at all, has this aggregation work affected your staffing?

Block 3: Non-CBO Affiliated HP Contractor Sample

Q38. [P] In some areas of the state, NYSERDA has contracted community-based organizations (or CBOs) to conduct outreach to enroll homeowners in the Home Performance program. Prior to today, had you heard about this CBO outreach for the Home Performance program?

- a. Yes
- b. No
- 98. Don't know

[ASK IF Q38 = 1 Yes]

Q39. [P] To your knowledge, since 2012, has your firm worked on an audit or retrofit project where one of these CBOs was involved?

- a. Yes
- b. No
- 98. Don't know

Q40. [P] I'm going to read a list of several services that these CBOs might provide. For each, please tell me if it would be not at all helpful, somewhat helpful, or very helpful to your NYSERDA Home Performance activities.

[LOGIC] What if a CBO were to...	1 Not at all helpful	2 Somewhat helpful	3 Very helpful	[Optional comment]	98 DK
Attend marketing events with your firm to promote the program					
Send your firm referrals					

[LOGIC] What if a CBO were to...	1 Not at all helpful	2 Somewhat helpful	3 Very helpful	[Optional comment]	98 DK
Screen customers for EmPower and Assisted Home Performance eligibility					
Provide program application paperwork assistance to homeowner					
Provide financing information or application assistance to homeowner					
Provide project planning support to homeowner					
Follow up with your “stalled” leads to reengage them					
Work with you to bundle groups of projects in one region to reduce your overhead					
Any other support that would be helpful?	Open end:				

B.1.6. Selling HP [ASK ALL]

Now let’s turn to how you promote the whole house/home performance approach to customers.

Interviewer note: We are interested in what the firm is doing to help convince customers to pursue more efficient or comprehensive upgrade projects.

Q41. [P/NP] Briefly, how do you describe the benefits of the whole house approach to customers?

B.1.6.1. Audits and assessments [ASK ALL]

I have a few questions about the home energy assessments you provide...

Q42. [P] In the past two years, have you provided audits to customers outside of the program?

- 1. Yes
- 2. No
- 98. DK

Q43. [P/NP] Are there certain types of homes or homeowners for which you always recommend a diagnostic audit?

Which ones typically?

- Q44. [P/NP] Are there certain types of homeowners you are more likely to provide a simpler, walk-through audit? [Describe difference.]
- Q45. [P/NP] What software are you using to model energy savings estimates? [TREAT or other software?]
- Q45A. [P/NP] What advantages does using modeling software give your company compared to companies that don't model savings for their customers?
- Q45B. [P] What, if any, disadvantages come along with the program requirement that you use modeling software?
- Q46. [P] How do you go about getting the prior consumption information required to calibrate the model?
- Q46A. [P] What challenges do you encounter getting consumption data?
- Q46B. [P] [deleted]
- Q46C. [P] [IF DELIVERED FUELS NOT MENTIONED] How does this process differ for homes with delivered fuels?
- Q47. [P] What would help to improve the modeling process going forward?

Thinking about the full, diagnostic comprehensive home energy assessment....

- Q48. [P/NP] How often are you able to identify upgrade opportunities without conducting a full diagnostic audit?
- Q49. [P/NP] We're interested in learning about how long it takes to complete the various stages of the assessment.
- About how many hours does it take to conduct the audit? [Range of time needed.]
- And how long to complete the modeling associated with these assessments? [Range of time needed.]
- And how long does it typically take to generate an audit report? [Range of time needed.]
- Q50. [P/NP] Are there certain types of homes or performance problems that tend to require substantially more time with modeling? [Describe.]
- Q51. [P] [moved to Q49]
- Q51A. [P] When do you submit the audit results to the program?

- Q51B. [P] How do you submit audit results to the program?
- Q51C. [P] Do you have any suggestions for improving this process?
- Q51D. [P] Over the past year, about how many time have you used the “what if” mode in the Eligibility Screening Tool of the NY HP Portal?
- Q52. [P/NP] How often do you provide a copy of the assessment results to the homeowner? [Always, usually, sometimes, rarely, never, DK.]
- Q53. [P/NP] [IF Q52 ≠ “NEVER”] Do you typically review the document with them?
1. Yes
 2. No
 98. DK
- Q53A. [P] [IF Q53=YES] Is this typically done at their home, over the phone, or electronically?
- Q53B. [IF Q53=YES] [P] And who typically does this?
- Q53C. [IF Q53=YES] [P] About how long after the audit does this typically occur?
- Q54. [P/NP] How long does it typically take for your customers to decide to go forward?
- Q54A. [P/NP] In your experience, what factors most often contribute slow decision-making?
- Q55. [P] I’m going to read a few statements about the program’s Comprehensive Home Energy Audit. Please use a scale from 1 to 5 where ‘1’ means you ‘do not at all agree’ and ‘5’ means you ‘completely agree’ with the statement.
- a. The audit helps homeowners prioritize recommended upgrades.
 - b. The audit helps convince homeowners to choose more comprehensive upgrades.
 - c. The comprehensive audits are a major source of leads for HPwES projects.
 - d. The program’s reimbursement rate for the audit covers my cost.
- Q56. [P/NP] I’m going to list several factors that might motivate your customers to upgrade their energy using equipment. Thinking about your typical customer, please rate how important each is using a 1-5 scale where “1” means “not at all important” and “5” means “critically important.” How would you rate the importance of...
- a. Reducing household energy use or energy bills
 - b. Improving comfort
 - c. Protecting the value of their home

- d. Having a more sustainable home
- e. Helping the environment
- f. Accessing incentives to help offset the cost of their project
- g. Improving the indoor air quality in their home
- h. Other health or safety reasons

B.1.6.2. Work Scope Development [ASK ALL]

- Q57. Thinking about how projects are scoped and bids developed at your organization...
- a. Are office/admin staff involved? (yes/no/sometimes)
 - b. What about the auditor or assessor? (yes/no/sometimes)
 - c. Are installers or technicians involved? (yes/no/sometimes)
 - d. [P] Does your organization have dedicated sales staff? (yes/no)
- Q58. [P] Why do customers typically choose to complete their project without NYSERDA HP incentives or financing, even though the project would otherwise qualify for incentives?
- Q59. [P] Have you had customers choose to access utility incentives rather than pursuing HPwES?
- Q59A. [P] If yes: Why does this occur?
- Q60. [P] Based on your experience, what would increase the number of HPwES projects your firm does each year?

B.1.6.3. Financing [ALL]

We'd also like to know when and how you discuss project financing with homeowners.

- Q61. [P] Do you encourage customers to consider financing options available through NYSERDA all the time, most of the time, some of the time or rarely?
- Q62. [P/NP] Do you offer any other financing to your customers, such as distributor or manufacturer financing?
- 1. Yes, distributor financing
 - 2. Yes, manufacturer financing
 - 3. Yes, other financing (specify): [OPEN-ENDED RESPONSE]
 - 4. No, only financing available through NYSERDA
 - 5. Don't know
- Q63. [P] When do program-provided financing options typically come up?
- a. [P] And who presents the financing options for HPwES projects to customers?

- Q64. [P] In your experience, how long does it typically take for program financing to be arranged?
- Q65. [P] I'm going to read a few statements about the program's financing options. Please use a scale from 1 to 5 where '1' means you 'do not at all agree' and '5' means you 'completely agree' with the statement.
- Financing helps projects that otherwise may have stalled.
 - The financing options available through NYSERDA are attractive to my customers
 - Customers can complete the paperwork easily on their own.
 - The time required for approval is reasonable.
- Q66. [P] What do you like best about program financing?

B.1.6.4. Assisted Home Performance

- Q67. [P] In the last twelve months, has your firm completed any projects that qualified for assisted home performance? (Y/N/DK)

[IF NO ASSISTED PROJECT IN PAST 12 MONTHS IN CRIS]

- Q67A. [P] Why do you suppose your firm has not completed any assisted rate projects through the program over the past year?

[ASK Q68-69 ONLY IF COMPLETED 1 OR MORE ASSISTED PROJECTS IN PAST YEAR]

- Q68. [P] How do Assisted (or limited income) projects differ from market-rate projects in terms of...
- The types of homes that qualify.
 - The measures typically installed.
 - The approval process. [Length of time, verifying income, anything else?]
 - Financing options.
 - Does anything else differ?
- Q69. [P] What is your firm's role in getting the financing process started for these projects? [Any difference in the level or type of information you get from customers, anything else?]

B.1.7. Construction and Installation [ALL]

[If Q67 = YES, Display: "Now let's focus on all HP jobs- including both assisted and market rate"]

I have a few questions about how the equipment installations and upgrades get done.

- Q70. [P] Do you hire subcontractors for your HPwES projects? Y/N/DK
- Q70A. [If Q70=YES] For what percentage of your HPwES projects do you hire sub-contractors? %

Q71. [P] [IF Q70 = Yes; Else skip to Q73] What type of subcontractors do you typically use? (Type or specialty)

[MULTIPLE RESPONSE]

- a. Insulation and air sealing
- b. Controls
- c. Electrical [including lighting]
- d. Plumbing
- e. HVAC installation
- f. Duct and sheet metal work
- g. Carpentry
- h. Window or door installation

[Do not read]

96. Other, please specify: [OPEN-ENDED RESPONSE]
97. Not applicable
98. Don't know

Q71A. [P] And how often are your subs for these projects BPI certified? [added to matrix above]

1. Always
2. Sometimes
3. Never
4. N/A
98. Don't know

Q71B. [P] Do they hold types of BPI certifications that your company doesn't maintain on staff? [added to matrix above]

1. Yes
2. No
97. N/A
98. Don't know

Q72. [P] Are you able to find the subs with certifications you want?

1. Yes
2. No
97. N/A
98. Don't know

Q72A. [P] [IF Q72 = NO] Why not?

Q73. [P/NP] Does your organization have a...?

- | | | | |
|---|--------|-------|--------|
| a. Blower door | 1. Yes | 2. No | 98. DK |
| b. Duct blaster fan with fan speed controller | 1. Yes | 2. No | 98. DK |
| c. Infrared camera | 1. Yes | 2. No | 98. DK |
| d. Combustion analyzer | 1. Yes | 2. No | 98. DK |
| e. Combustible gas leak detector | 1. Yes | 2. No | 98. DK |
| f. Exhaust fan flow meter | 1. Yes | 2. No | 98. DK |
| g. Pressure pan test equipment (for duct leakage diagnostics) | 1. Yes | 2. No | 98. DK |
| h. Digital pressure and flow gauge (simultaneous display of both duct pressure and Duct Blaster® fan flow readings) | 1. Yes | 2. No | 98. DK |

[ASK ALL]

Q74. [P/NP] Does your organization install?

- | | | | |
|--|--------|-------|--------|
| a. [Display insulation items if Q4d=Yes] | | | |
| 1) Attic insulation? | 1. Yes | 2. No | 98. DK |
| 2) Wall insulation? | 1. Yes | 2. No | 98. DK |
| 3) Floor or sill insulation? | 1. Yes | 2. No | 98. DK |
| b. Air sealing | 1. Yes | 2. No | 98. DK |
| c. Duct sealing | 1. Yes | 2. No | 98. DK |
| d. [Display if Q4c=Yes] Energy efficient windows | 1. Yes | 2. No | 98. DK |
| e. [Display if Q4a=Yes] ENERGY STAR furnaces or boilers | 1. Yes | 2. No | 98. DK |
| f. [Display if Q4a=Yes] ENERGY STAR central air conditioners or heat pumps | 1. Yes | 2. No | 98. DK |
| g. Programmable thermostats | 1. Yes | 2. No | 98. DK |
| h. Energy efficient water heaters | 1. Yes | 2. No | 98. DK |
| i. Hot water pipe insulation | 1. Yes | 2. No | 98. DK |
| j. Whole house fans | 1. Yes | 2. No | 98. DK |

Q75. [P/NP] [If Q74= “ENERGY STAR furnace or boiler” or “ENERGY STAR central air conditioner or heat pump.”; Else skip to Q78] How do you usually size HVAC equipment?

- Matching the size of the unit being replaced
- Heat load calculations based on home measurements
- Manual J calculations
- Manufacturer’s computer model

e. Other [Specify:]

Q76. [P] Is your approach to sizing different for non HPwES jobs? [If yes: How so?]

Q77. [P/NP] Thinking about all of your residential HVAC projects over a typical year, in what percent of residential HVAC installation projects in existing homes do you typically

- a. Install ENERGY STAR-labeled heating or cooling units %
- b. Install programmable thermostats %
- c. Install advanced heating or cooling controls such as: zone controls, NEST or similar “smart” thermostats, or thermostats that can be controlled remotely through cell phones or computers %
- d. Install or rework distribution systems such as ducts or heat pipes %
- e. Seal ducts %
- f. Insulate circulation ducts or pipes %
- g. Test ducts for leakage %
- h. Check charge levels and air flow over condenser coils %
- i. Calculate the recommended amount of mechanical ventilation

Q78. [P/NP] About what percent of your residential jobs in existing homes include X service? And, what percent of all of your HP jobs include X service? *[Interviewer, probe to get percentages or ranges of percentages. I.e.: "Most of the time" is not an acceptable answer. Continue with other services using same framework.]*

	[P/NP] Percent of all res jobs	[P] Percent of HP jobs
a. Energy audits		
b. Infrared inspection of insulation		
c. Blower door test for infiltration		
d. Duct leakage testing		
e. Combustion efficiency for heating equipment		
f. Refrigeration diagnostics for air conditioning equipment (for homes with central air conditioning)		
g. Radon test		
h. Combustion Appliance Zone (CAZ) test		

B.1.8. Assuring Quality

Q79. [P] Other than the required test-out, are there things your firm does to ensure the quality of completed projects?

- a. Yes
- b. No
- c. Don't know

Q79A. [P] [IF Q79=YES] What are those things?

Q79B. On what percentage of your residential projects do you return to the home to address a customer complaint?

Q80. [P] Are there specific types of projects or measures that seem to cause issues?

- a. How have you been addressing these issues?

B.1.8.1. Training [ALL]

We have a few questions about the training available for you or your employees.

Q81. [P/NP] Has anyone in your firm taken any training on energy efficiency improvements for existing homes?

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

Q81A. [P/NP] [IF Q81=YES] What organization(s) provided the training?

1. Building Performance Institute
2. Local college or junior college
3. Utility program
4. State or local government agency
5. Equipment or materials manufacturer
6. Other: (Specify)

Q82. [P/NP] Are there gaps in training opportunities that you'd like to see addressed?

B.1.9. Contractor view of BPI

Q83. [P/NP] Have your customers typically heard of BPI?

1. Yes

2. No
 98. Don't know
- Q84. [P/NP] Do you explain BPI accreditation to customers?
1. Yes
 2. No
 98. Don't know
- Q85. [P/NP] What proportion of your customers think BPI accreditation is important?
1. All
 2. Some
 3. None
 98. Don't know
- Q86. [P/NP] In terms of helping differentiate you from competitors, how valuable is BPI accreditation to your firm? Please give your response on a 1 to 5 scale, where 1 is not at all valuable and 5 is very valuable
1. Not at all valuable
 - 2.
 - 3.
 - 4.
 5. Very valuable
 98. Don't know
- Q86A. [P/NP] In terms of helping ensure that your technicians perform high quality work, how valuable is BPI accreditation to your firm? Please give your response on a 1 to 5 scale, where 1 is not at all valuable and 5 is very valuable
1. Not at all valuable
 - 2.
 - 3.
 - 4.
 5. Very valuable
 98. Don't know

Q86B. [P/NP] In terms of helping identify and address opportunities to save energy in customers' homes, how valuable is BPI accreditation to your firm? Please give your response on a 1 to 5 scale, where 1 is not at all valuable and 5 is very valuable

1. Not at all valuable
- 2.
- 3.
- 4.
5. Very valuable
98. Don't know

Q86C. [P] And how valuable is the program support for BPI certification and accreditation activities to your organization? Please give your response on a 1 to 5 scale, where 1 is not at all valuable and 5 is very valuable

1. Not at all valuable
- 2.
- 3.
- 4.
5. Very valuable
98. Don't know

Q87. [P] Would you renew your accreditation if it were not required by the program?

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

B.1.10. Program Experiences

We'd also like to understand the effects of the program on organizations like yours. [Interviewer note: these are open ended questions, probe to understand decreases or increases attributed to the program.]

Q88. [P] Has your association with NYSERDA's HPwES program led to an increase in the services your company provides, a decrease, or have the services you offer stayed the same?

1. Increase
2. Stayed about the same
3. Decrease
98. DK

Q88A. [P] Has your association with NYSERDA's HPwES program increased the number of projects your company expects to complete each year, decreased, or has it stayed the same?

1. Increase
2. Stayed about the same
3. Decrease
98. DK

Q88B. [P] What about revenue per project? Would you say it's increased, decreased or stayed the same?

1. Increase
2. Stayed about the same
3. Decrease
98. DK

Q88C. [P] Has the program caused an increase in profitability, a decrease, or has it stayed the same?

1. Increase
2. Stayed about the same
3. Decrease
98. DK

Q88D. [P] What about investments in new equipment, such as diagnostic equipment or trucks? Has the level of investment increased, decreased or stayed the same?

1. Increase
2. Stayed about the same
3. Decrease
98. DK

Q88E. [P] What about the level of technical expertise among your staff? Would you say that your involvement with the program has led to an increase in the level of technical expertise, a decrease, or would you say it's about the same?

1. Increase
2. Stayed about the same
3. Decrease
98. DK

Q88F. [P] And, number of employees? Has your involvement with the program led to an increase in the number of employees, a decrease, or has it had no effect on the number of employees?

- 1. Increase
- 2. Stayed about the same
- 3. Decrease
- 98. DK

Thinking about your expectations for the next two years...

Q89. [P] Does your company expect to grow the Home Performance component in your organization?

- 1. Yes
- 2. No
- 98. DK

Q90. [P/NP] On a scale of 1-5, where 1 is very unfavorable and 5 is very favorable, how would you describe the current overall outlook for your business?

B.1.11. Satisfaction [ALL]

I have a few questions about your satisfaction with the HPwES program.

Q91. [P] On a scale of one to five where ‘1’ means Very Dissatisfied, ‘2’ means Somewhat Dissatisfied, ‘3’ means Neither Satisfied nor Dissatisfied, ‘4’ means Somewhat Satisfied, and ‘5’ means Very Satisfied, please indicate your level of satisfaction with the following HPwES program elements:

Interviewer: do not read 97-99

[MATRIX QUESTION: SCALE]

	1 Very Dissatisfied	2 Somewhat Dissatisfied	3 Neither Satisfied nor Dissatisfied	4 Somewhat Satisfied	5 Very Satisfied	97 NA	98 DK	99 RF
Length of time for project approval								
Length of time required to approve customer financing								
The incentives available to contractors								

	1 Very Dissatisfied	2 Somewhat Dissatisfied	3 Neither Satisfied nor Dissatisfied	4 Somewhat Satisfied	5 Very Satisfied	97 NA	98 DK	99 RF
The incentives available to homeowners								
The number and diversity of eligible measures								
Time it takes to receive payments from the program								
The clarity of communication from program staff, including CSG								
Extent to which program staff are able to answer questions about program rules and eligibility.								
Support provided by the program to help ensure projects pass inspection								
Overall satisfaction with the HPwES program								

For any topic with a '1' or a '2', ask a follow up question.

Q91A. [P] What about (XX - indicated by a '1' or a '2') are you dissatisfied with?

Q92. [P] When it comes to review of your submittals, where are the longest delays? [PROBES: perhaps the audit review, the financing process, jobs with fuel-switching, other areas?]

- a. Has the Portal helped to streamline your submittals and program reviews compared to projects reviewed through the HUB system? Why or why not?

B.1.12. Firmographics – MCA / ME [ASK ALL]

Finally, I have some questions about your company, staffing levels, and the home performance market in New York. Mostly I'll be asking for numbers so we'll be wrapping up soon.

Q93. [P/NP] About how many staff do you have that conduct energy audits? [IF ANSWER = 'DEPENDS' ASK "DEPENDS ON WHAT?" Seasonality, market conditions, etc.]

Q93A. [P/NP] And, how many of those are BPI certified?

Q94. [P/NP] How many technicians/installers does your firm have?

Q94A. [P/NP] How many are BPI certified?

Q95. [P/NP] [deleted]

Q96. [P/NP] How many crew supervisors do you have?

Q96A. [P/NP] And how many are BPI certified?

Q96B. How many staff do you have that are pursuing new BPI certification?

Q97. [P/NP] When hiring staff, does your company prefer candidates with BPI certification(s)?

Q98. [P/NP] Do BPI certified employees earn a higher wage than employees with similar responsibilities who have not been certified?

a. Yes

b. No

[Do not read:]

98. Don't know

[IF Q98= YES]

Q98A. [P/NP] In general, how much more are they paid per hour?

B.1.12.1. Business Type [ALL]

These last questions will help us understand the home improvement market in New York.

Q99. [P/NP] Including your location, how many separate locations does your company have in the state of New York?

[Do not read:]

98. Don't know

Q100. [P/NP] Including yourself, how many employees work at your location?

[Do not read:]

98. Don't know

Q101. [P] And how many of them work on HPwES jobs?

[Do not read:]

98. Don't know

Those are all my questions—thank you so much for your time today.

B.2. Participating Households Interview Guide

B.2.1. Introduction

Hello, my name is _____. I'm calling on behalf of NYSERDA, the New York State Energy Research and Development Authority, from Abt/SRBI to evaluate NYSERDA's Home Performance with ENERGY STAR program. Our records show that you completed a home energy improvement project at some point during the past three years and have received an incentive from NYSERDA for that project.

Is that correct?

[IF NO] Prompt with brief description of program, confirm. If still no, terminate.

Your opinions will help improve energy efficiency programs offered in New York. Would you be willing to answer questions about your experience? Please know that we will keep your responses confidential to the full extent of the law; nothing you say will be identified with you in our reports.

Is this a convenient time for us to talk? [If not, reschedule]

Do you have any questions for me before we get started?

B.2.2. Awareness [ASK ALL]

Q1. How did you hear about NYSERDA's Home Performance with ENERGY STAR Program? Did you hear about it from... [MULTIPLE RESPONSES ALLOWED; DO NOT READ; PROBE TO CODE]

1. The auditor that completed your home assessment
2. The NYSERDA website
3. Through a constituency based organization or a non-profit group
4. From family member /friend/ or coworker
5. Through a contractor [IF YES: Was this the contractor who installed your energy efficiency upgrades?]
6. Something in the mail
7. Newspaper ad or article
8. Radio
9. Information provided in a utility bill
10. Home show/trade show

[ASK ALL]

Q2. During the course of your project did you access the program's ...? [do not randomize]

[SINGLE RESPONSE]

[Do not read:]

- | | | | | |
|-------------------------|--------|-------|----------------|-------------|
| a. Information Hotline: | 1. Yes | 2. No | 98. Don't know | 99. Refused |
| b. Website: | 1. Yes | 2. No | 98. Don't know | 99. Refused |

Q3. Did you access online applications for ...? [do not randomize]

[SINGLE RESPONSE]

[Do not read:]

- | | | | | |
|---------------|--------|-------|----------------|-------------|
| a. The audit: | 1. Yes | 2. No | 98. Don't know | 99. Refused |
| b. Loans | 1. Yes | 2. No | 98. Don't know | 99. Refused |

Q4. Did you use the online listing of program-approved contractors operating in your area?

[SINGLE RESPONSE]

1. Yes
2. No

[Do not read:]

98. Don't know
99. Refused

Q5. How useful was the [INSERT ITEM] as a source of program information? Please use a 1-to-5 scale where 1="not at all valuable" and 5 = "very valuable." [randomization not necessary]

- a. [IF Q2a=YES] The program's information hotline
- b. [IF Q2b=YES] The program's website
- c. [IF Q4=YES] The list of program-approved contractors operating in your area

B.2.3. CBO Sample Awareness [IF CBO Sample = Yes]

Q6. The program records indicate that you had contact with [Pipe in CBO name], a constituency-based organization (or CBO) while completing your retrofit project. Is that correct?

1. Yes
2. No, had contact with a different organization: _____
3. No, did not have contact with a CBO
98. Don't know

[IF Q6 = 3]

Q7. Just to confirm, you do not recall talking with anyone from a CBO about NYSERDA's Home Performance program?

1. Yes
2. No [SKIP TO Q12]
98. Don't know

[IF Q7 = NO, skip to Q12]

Q8. How did you first learn about the assistance this CBO offers? [OPEN-ENDED RESPONSE]

1. [RESPONSE]
98. Don't know

Q9. Were you familiar with the CBO prior to your participation in this program?

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

Q10. Were you aware of NYSERDA's Home Performance program before hearing about it from the CBO?

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

[IF Q10 = Yes]

Q11. Had you considered participating in NYSERDA's Home Performance program before hearing about it from the CBO?

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

B.2.4. Audit Contractor Interaction

Q12. As part of your HPwES project did you get a home energy audit? [IF YES, CONTINUE. IF NO, SKIP TO SECTION 4.]

Q13. How did you find your energy auditor? [DO NOT READ, PROBE TO CODE]

1. Contacted directly (by firm or auditor)

2. NYSERDA website
3. Yellow pages/online search
4. Referral from friend/family/other
5. Contacted a contractor with whom you had an existing relationship
6. Community-based organization or a non-profit group
7. Other: _____
98. Don't know
99. Refused

Q14. Did you have any trouble finding someone to do your energy audit?

1. Yes, Can you tell me more about the trouble you had? _____
2. No
98. Don't know

[READ FOR FIRST QUESTION, AS NEEDED FOR SUBSEQUENT QUESTIONS] Thinking about your energy audit, please rate the following statements using a five point scale where 1 means you 'Strongly Disagree' and 5 means you 'Strongly Agree.' First, to what extent do you agree that...(CODE 1-5 ADDING 97= NOT APPLICABLE AND 98 =DK) [RANDOMIZATION NOT NECESSARY, IN SEQUENTIAL ORDER]

Q15. The time required to complete the audit application was reasonable

Q16. It was simple to schedule my home energy audit

Q17. The time required to do my audit was reasonable

Q18. My auditor did a thorough review of my home

Q19. The audit met my expectations

[ITERATE UP TO 5 QUESTION AS NEEDED FOLLOW-UP Q FOR EACH STATEMENT WITH A RATING <3]

Q20. [IF Q15 RATING <3] You didn't agree with the statement [pipe in statement] Please tell me about any issues you had.

Q21. [IF Q16 RATING <3] You didn't agree with the statement [pipe in statement] Please tell me about any issues you had.

Q22. [IF Q17 RATING <3] You didn't agree with the statement [pipe in statement] Please tell me about any issues you had.

- Q23. [IF Q18 RATING <3] You didn't agree with the statement [pipe in statement] Please tell me about any issues you had.
- Q24. [IF Q19 RATING <3] You didn't agree with the statement [pipe in statement] Please tell me about any issues you had.
- Q25. About how many weeks after requesting your audit was it conducted?
1. Response: [RANGE: Less than one week to 52 weeks]
 98. Don't know
- Q26. About how many weeks after your audit was completed did you receive a written audit report with recommended upgrades?
1. Response: [RANGE: Less than one week to 52 weeks]
 97. [Do not read] Did not receive a written report
 98. [Do not read] Don't know
- Q27. Did your auditor... [Yes=1, No=2, 97= NA 98 =DK] [do not randomize]
- a. Explain the audit process
 - b. Suggest home improvements to you while they were doing the audit? [IF YES] Were any of the improvements things you could do yourself, without a contractor?
- Q28. Did someone go over the audit results with you, including recommended upgrades and provide estimated energy savings? [With you or others in your household?]
1. Yes
 2. No [How did you receive the results?]
 98. Don't know/remember
 99. Refused
- Q29. [IF Q28=YES] When during the audit process did the auditor discuss the results with you [or others in your household]? _____

[IF Q28=YES] [READ FOR FIRST QUESTION, AS NEEDED FOR SUBSEQUENT QUESTIONS]

Thinking about the audit's recommendations and savings estimates, please rate the following statements using a five point scale where 1 means 'Strongly Disagree' and 5 means 'Strongly Agree.' To what extent do you agree that...(CODE 1-5 AND 97= NA 98 =DK) [do not randomize]

- Q30. I understood the audit results
- Q31. I learned valuable things about my home from the audit

Q32. The recommended work seemed appropriate

Q33. The estimated energy savings seemed reasonable

[ASK ALL]

Q34. Before your audit were you considering any energy efficiency upgrades?

[SINGLE RESPONSE]

1. Yes [IF YES] What? _____
2. No

[Do not read:]

98. Don't know
99. Refused

[IF Q34=YES]

Q35. Did your audit report convince you to install energy efficiency upgrades you hadn't previously considered?

1. Yes [What extra upgrades did you install?]
2. No
98. Don't know

Q36. Did your auditor emphasize the upgrades that would save you the most?

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

Q37. Did your auditor indicate the upgrades most likely to improve the comfort of your home?

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

Q38. Given what you learned from the audit, would you be willing to pay for a similar service in the future?

1. Yes
2. No
98. Don't Know

Q38A. [IF Q38=YES] How much would you be willing to pay?

1. Nothing
2. Record verbatim: _____ [RANGE: \$1 to \$250,000]

[Do not read:]

98. Don't know
99. Refused

Q39. Did you hire the firm that completed your energy audit to also install your energy efficiency upgrades?

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

[IF Q39=NO]

Q40. Why did you use a different contractor or contractors to complete your energy upgrade project?
[DO NOT READ; PROBE TO CODE; MULTIPLE RESPONSES ALLOWED]

1. The bid was too expensive
2. The auditor did not seem to value my preferences
3. The auditor referred me to another contractor
4. Wanted a second opinion/bid
5. Had an existing relationship with another contractor
98. Something else [Specify]:

B.2.5. Contractor Interaction

Now let's talk about the upgrades you made...

[IF Q12 OR Q39=NO]

Q41. How did you find the contractor who installed your energy upgrades? [DO NOT READ, PROBE TO CODE]

1. My auditor
2. The contractor contacted me
3. NYSERDA website
4. Advertisement in yellow pages/online search
5. Referral from friend/family/other
6. I already knew the contractor
7. Community-based organization or a non-profit group
8. Homeshow/event

9. Other: _____

10. Don't know

11. Refused

[ASK ALL]

Q42. Did you get more than one bid in the process of deciding on an installation contractor?

1. Yes [IF YES] How many bids did you get? [RANGE: 1 to 25]

2. No

98. Don't know

[IF Q42=No]

Q43. Did you have any trouble finding a contractor to complete the work?

1. Yes: [IF YES] what sort of trouble did you have? _____

2. No

98. Don't know

Q44. When you need to hire a contractor, do you "Never, Sometimes, or Always consider... [READ ALL: 1=Never, 2=Sometimes, 3=Always; 98=DK] [Randomize, except item i. Keep item i last.]

a. Training certifications

b. Service quality

c. The cost of the bid

d. Referrals from friends/colleagues

e. Listings on NYSERDA or utility websites

f. Ratings on Angie's List, Yelp or other Internet referral sources

g. Better Business Bureau accreditation

h. Whether or not the firm is a locally operated business

i. Anything else?

Q45. Have you heard of the following organizations or agencies that certify contractors... [READ ALL. 1=YES, 2=NO; 98=DK] Randomize, hold item "f" for end.

a. The Building Performance Institute, or BPI

b. ENERGY STAR

c. Resnet

d. NATE (North American Technician Excellence)

e. NY Department of Consumer Affairs

f. Is there any other type of technical certification that you look for? [IF YES]

Which one(s) _____

- Q46. Before today, were you aware that contracting firms that work with NYSERDA's Home Performance program must be accredited by the Building Performance Institute?
1. Yes
 2. No
 98. Don't know
- Q47. Using a scale of 1-to-5, where one means "not at all important," and five means "very important," how important is it to you to have a contractor who is able to assess different parts of your home such as lighting, heating and air conditioning within your home?
1. Response:___
 98. Don't know
- Q48. How important is it to you to have a contractor who is able to use diagnostic equipment and software to estimate energy savings potential? [If needed: Please use the same 1-to-5 scale, where one means "not at all important," and five means "very important."]
1. Response:___
 98. Don't know

B.2.6. Project Scope [ALL]

- Q49. Did you end up deciding to complete all or some of the upgrades your contractor recommended?

All [SKIP TO Q52]

1. Some
98. Don't know

[IF Q49 =2 (Some)]

- Q50. Which of the recommended energy efficiency upgrades did you not install? [Probe to code]

1. Insulation
 - Attic insulation
 - Wall insulation
 - Floor insulation
2. Air sealing
3. Energy-efficient windows
4. New furnace or boiler
5. New central air conditioner
6. New heat pump
7. Programmable thermostat or other heating/cooling controls

8. Efficient water heater
9. Tankless water heater
10. Duct sealing
11. Hot water pipe insulation
12. Whole house fan
13. Energy-efficient lighting
14. Lighting controls
15. Appliances (like your refrigerator, laundry machines)
16. Something else? _____
98. Don't know

Q51. Why didn't you install all of the measures recommended by your audit?

[MULTIPLE RESPONSE]

1. The total estimated costs of the project were too high
2. It was difficult to prioritize upgrades
3. A desire to do work yourself
4. The estimated energy savings did not justify the cost
5. Competing priorities for home improvement dollars

[Do not read:]

96. Other, please specify: [OPEN-ENDED RESPONSE]
98. Don't know
99. Refused

Q52. Did your contractor estimate the dollar value of NYSERDA incentives available for the upgrades you did?

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

Q53. Did you complete all your upgrades through the Home Performance program contract?[IF needed: rather than installing them yourself or upgrading without incentives]

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

[IF Q53=NO]

Q54. What upgrades did you complete outside the program?

[Probe to code]

1. Insulation [if yes to insulation ask did you install attic insulation? Y/N, wall insulation Y/N, floor insulation Y/N]
Attic insulation
Wall insulation
Floor insulation
2. Air sealing
3. Energy-efficient windows
4. New furnace or boiler
5. New central air conditioner
6. New heat pump
7. Programmable thermostat or other heating/cooling controls
8. Efficient water heater
9. Tankless water heater
10. Duct sealing
11. Hot water pipe insulation
12. Whole house fan
13. Energy-efficient lighting
14. Lighting controls
15. Appliances (like your refrigerator, laundry machines)
16. Something else? _____
98. Don't know

Q55. [IF Q53=NO] Who installed these upgrades? Was it..

1. You
2. Your program contractor
3. Another contractor
4. A combination of the above
96. Someone else: [specify] _____
98. Don't know

B.2.7. Motivation [ASK ALL]

Q56. Prior to completing your project, did your home have problems with... [1=YES; 2=NO; DK 98; 99 REF] Randomize, keep item h last.

- a. Mold
- b. Storm damage
- c. Ice dams
- d. Radon
- e. Air leakage/drafty rooms
- f. Heating system
- g. Water heating
- h. Any others problems that I haven't mentioned? _____

Q57. I'm going to list several features of this program. Please tell me how important each feature was in your decision to complete your upgrade project, where 1 means "not at all influential" and 5 means "very influential"? How influential was ... [RANDOMIZE]

- a. The information you received about your home's energy performance
- b. Accessing incentives to help offset the cost of your project
- c. The availability of program financing
- d. [IF CBO Sample= YES and Q8= No] The assistance of the community-based organization (CBO)

B.2.8. Financing and Savings

Now I have a few questions about financing ...

Q58. How did you pay for your project? [DO NOT READ; select multiple]

1. Cash/Check
2. Credit card
3. HELOC (Home Equity Line of Credit)
4. Bank loan
5. Program-sponsored loan
6. Contractor financing
96. Other:
98. Don't know

[IF Q58_5 (Program-sponsored loan) IS NOT SELECTED]

Q59. Did you apply for a program-sponsored loan to pay for your project?

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

Q60. [IF Q58_5 (Program loan) IS SELECTED OR Q59=YES] How did you first learn about the opportunity to get a program-sponsored loan for your project? [DO NOT READ, PROBE TO CODE]

1. Contractor
2. NYSERDA representative
3. NYSERDA website
4. Constituency-based organization or non-profit group
5. Other, specify: _____
98. Don't know

[IF Q59_5 (PROGRAM LOAN) IS NOT SELECTED AND Q59=NO]

Q61. Did you know that financing was available through NYSERDA for the measures recommended by the auditor or contractor?

[SINGLE RESPONSE]

1. Yes
2. No

[Do not read:]

98. Don't know
99. Refused

[IF Q62≠NO]

Q62. Before today, did you know that NYSERDA's offered... [READ EACH; 1= YES 2 = NO 98 = Don't know] do not randomize

- a. Financing you can pay back on your utility bill
- b. Alternative approval criteria for borrowers with less than perfect credit

[IF q59=No and Q61=YES]

Q63. What stopped you from pursuing program financing? [DO NOT READ, PROBE TO CODE]

1. I did not know financing was offered through the program
2. I did not need financing
3. The paperwork required

4. I didn't want to take on debt
5. I did not think I would qualify for a loan
96. Other: _____
98. Don't know

[IF q58_5=YES OR Q59 = YES]

Q64. On a scale of one to five with '1' means not at all satisfied and '5' means very satisfied, please indicate your level of satisfaction with ...Randomize

- a. The income documentation required for the program-sponsored loans
- b. The paperwork required for the program-sponsored loans
- c. The time required to obtain program-sponsored financing

Q65. [IF ANY ASPECT <3] You reported some dissatisfaction with [READ ITEM] Please explain why you gave that rating?

Q66. Does your local electric or gas utility provide incentives or rebates to offset the cost of purchasing energy efficient equipment?

1. Yes
2. No

[Do not read:]

97. Not applicable
98. Don't know

[IF Q66=YES]

Q67. Did you receive incentives from your utility for equipment installed since you received your audit?

1. Yes
2. No

[Do not read:]

97. Not applicable
98. Don't know

Q68. Did you receive any other grants or incentives for the equipment you installed through the Home Performance program?

[SINGLE RESPONSE]

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

[IF Q68=1 Yes]

Q69. What funding did you receive?

- 1. [OPEN-ENDED Response]

B.2.9. CBO Awareness and Interaction [Independent GJGNY CBO Questions – already reviewed and approved for households known to be affiliated with a CBO.]

HP Sample [ASK IF HP Sample = Yes, CBO Sample = NO]

Q70. In some regions of the state, community-based organizations, or CBOs for short, help homeowners wanting to complete energy efficiency upgrades in their homes. Before today, had you heard of this option?

- 1. Yes
- 2. No
- 98. [Do not read] Don't know

[ASK IF Q70=YES]

Q71. Did you receive any assistance from a CBO during the process of receiving your audit?

- 1. Yes
- 2. No
- 98. Don't know

Q72. CBOs provide a variety of services at no cost to the homeowner. Based on your experience, using a one-to-five scale, where 1= not at all valuable and 5= extremely valuable, how valuable would it be to you to have someone to help you]...[RANDOMIZE]

[LOGIC] Item	1 Not at all valuable	2	3	4	5 Extremely valuable	98 DK
a. Understand the NYSERDA Home Performance program						
b. Choose a contractor						
c. Complete audit application paperwork						
d. Review bids and design your project						
e. Schedule audit and installation work with your contractor						
f. Find information about grants, incentives or financing for energy efficiency upgrades						
g. Apply for project financing						

CBO Sample [ASK IF CBO Sample = YES, otherwise skip to Inspection block]

I have a few more questions about how the constituency-based organization supported your project.

- Q73. I'm going to read several types of support you may have received from the CBO in completing your Home Performance project. For each, rate the value of this support from 1, not at all valuable to 5, extremely valuable, or didn't receive that support. Do not randomize.

[LOGIC] Item	1 Not at all valuable	2	3	4	5 Extremely valuable	97 Didn't receive	98 DK
a. Help you understand the NYSERDA Home Performance program,							
b. Help you choose the right NYSERDA program for your income							
c. Help you choose a contractor							
d. Help you complete audit paperwork							
e. Help you review bids and design your project							
f. Help you schedule audit and installation work with your contractor							
g. Give you information about grants, incentives, or financing for energy efficiency upgrades							
h. Help you apply for project financing							
i. Anything else this CBO helped you with? [SPECIFY:]							

[If Q73g (Give you information about grants etc) OR Q73h (Help you apply for project financing) ≠ 97 or 98]

- Q74. There are a variety of funding sources available to New York households to install energy efficient measures. Did [CBO name] mention the possibility that you might be eligible for... [READ ALL, SELECT MULTIPLE]

1. NYSERDA 10% cash-back incentives
2. NYSERDA 50% Assisted Home Performance grant
3. NYSERDA Smart Energy Loan
4. NYSERDA On-Bill Recovery Loan
5. Super storm Sandy Relief funding
6. A matching grant
7. A utility rebate

- 8. Anything else? [SPECIFY:]
- 97. [EXCLUSIVE] None of the above
- 98. [DO NOT READ] Don't recall

[If Q73g (Give you information about grants...) OR Q73h (Help you apply for project financing) ≠ 97 or 98]

Q75. At what point in the process did you discuss financing with the [CBO name]? Was it before or after you received your audit? [DO NOT READ, SELECT ONE]

- 1. Before
- 2. After
- 96. Some other time
- 97. Did not discuss financing
- 98. Don't know

Q76. In total, about how many times would you say you communicated with the [CBO name] during the course of your project?

- 1. [NUMERIC RESPONSE]
- 98. Don't know

Q77. If you had not had any contact with the [CBO name], would you have... [READ, SELECT ONE]

- 1. Not completed your project
- 2. Postponed your project for more than a year
- 3. Installed fewer pieces of equipment retrofit
- 4. Installed less expensive equipment
- 5. Completed the same project in the same timeframe
- 6. Or, done something else? [SPECIFY:] _____
- 98. [DO NOT READ] Don't know

Q78. Do you have any suggestions for how CBOs could better help homeowners like yourself complete retrofits through NYSERDA's program?

- 1. [OE Response]
- 98. Don't know

B.2.10. Inspection

Q79. After your project was completed, did anyone from the program come to your home to inspect the completed work? [Interviewer note: exclude permit officials or building inspectors.]

1. Yes
2. No
3. Don't know
4. Refused

Q80. [IF Q79=YES] Did any issues emerge during inspection?

1. Yes, please specify: _____
2. No
3. Don't know
4. Refused

B.2.11. Satisfaction

We are getting fairly close to the end...

Q81. On a scale of one to five with '1' being very dissatisfied, '2' being somewhat dissatisfied, '3' being neither satisfied nor dissatisfied, '4' being somewhat satisfied, and '5' being very satisfied, please indicate your level of satisfaction with the following NYSERDA program elements:

Interviewer: do not read 97-99 do not randomize

[MATRIX QUESTION: SCALE]

	1 Very Dissatisfied	2 Somewhat Dissatisfied	3 Neither Satisfied nor Dissatisfied	4 Somewhat Satisfied	5 Very Satisfied	97 NA	98 DK	99 RF
a. Quality of your contractor's work								
b. The incentives you received [Didn't receive incentive = NA; Don't know = DK]								
c. Energy savings obtained so far from the upgrades you installed through the Home Performance program								

	1 Very Dissatisfied	2 Somewhat Dissatisfied	3 Neither Satisfied nor Dissatisfied	4 Somewhat Satisfied	5 Very Satisfied	97 NA	98 DK	99 RF
d. [IF NOT ASSISTED OR IF Q81b=97 or 98] The time it took to receive your incentive*								
e. Clarity of information you received about the program.								
f. Ease with which you were able to get your questions answered.								
g. Resolution of any issues that emerged (No issues=NA)								
h. Overall satisfaction with the Home Performance Program								

* According to program staff, about 60% of market-rate participants choose to have incentive sent to contractor instead of their home; all Assisted participants incentives go to contractors.

Q82. [IF ANY ASPECT IN Q81<3] You reported some dissatisfaction with [READ ITEM] Please explain why you gave that rating?

Q83. Thinking about your Home Performance project, please rate the following statements using a five point scale where 1 means you ‘Strongly Disagree’ and 5 means you ‘Strongly Agree.’ First, to what extent do you agree that the project..... *Do not read 97-99.*] Randomize

[MATRIX QUESTION: SCALE]

[LOGIC] Item	1	2	3	4	5	97 NA	98 DK	99 RF
a. Improved the comfort of your home								
b. Protected the value of your home								
c. Replaced broken or failing equipment								
d. Made your home more sustainable								
e. Helped the environment								
f. Improved the indoor air quality of your home								
g. Reduced your home’s energy use								

Q84. Which reason was most important to you? [READ AS NEEDED, CHOOSE ONE]

1. Reducing my household energy use
2. Improving comfort
3. Protecting the value of my home
4. Helping the environment
5. making my home more sustainable
6. Improving the indoor air quality in my home
7. Replacing broken or failing equipment

B.2.12. Other Actions [ASK ALL]

Q85. In the next two years, what other upgrades do you expect to do to reduce your home's energy use?
[DO NOT READ; PROBE TO CODE]

1. Nothing
2. Insulation
 - a) Attic insulation
 - b) Wall insulation
 - c) Floor insulation
3. Weatherized or addressed air infiltration
4. Energy-efficient windows or doors
5. A new furnace or boiler
6. New central air conditioner
7. A new heat pump
8. Programmable thermostat or other heating/cooling controls
9. A new water heater
 - a) Efficient storage
 - b) Tankless or on-demand water heater
10. Sealing heating or cooling ducts
11. Insulating hot water pipes
12. A whole house fan
13. Energy-efficient lighting
14. Energy-efficient appliances (like a refrigerator, laundry machines)
15. Something else: _____
98. Don't know

B.2.13. Demographics [ASK ALL]

I have a few more questions to help us understand the characteristics of households with completed projects.

Q86. Including all adults and children, how many people currently live in your household more than nine months out of the year?

1. [OPEN-ENDED RESPONSE]

[Do not read:]

98. Don't know

99. Refused

Q87. How long have you lived in your current home?

1. Number of years:

98. Don't know

99. Refused

Q88. How long do you intend to live in your current home?

1. 0 to 5 years

2. 6 to 10 years

3. More than 10 years

98. Don't know

99. Refused

Q89. What type of home do you live in? Is it a... [READ LIST, stop at correct response]

1. Single-family detached house,

2. Single-family attached house (like a townhouse, row house, or duplex),

3. Apartment building with 2-4 units,

4. Apartment building with 5 or more units,

5. Mobile home or house trailer,

6. Or something else? (SPECIFY)

98. Don't know

Q90. Approximately when was your home built?

1. RECORD: _____ [YEAR, RANGE: 1850 to 2014; NUMBER OF YEARS, RANGE: Less than 1 to 164]

98. Don't know

Q91. What is the highest level of education you have completed so far? [DO NOT READ; PROBE TO CODE]

1. Less than high school
2. High school graduate (or GED)
3. Some college/vocational or technical school (including Associate's degree)
4. College graduate (Bachelor's degree)
5. Some graduate school
6. Post graduate school
99. Refused

Q92. In what year were you born?

1. [OPEN-ENDED RESPONSE] [YEAR OF BIRTH]

[Do not read:]

98. Don't know
99. Refused

Q93. Do you consider yourself to be Spanish, Hispanic, or Latino?

1. Yes
2. No
99. Refused

Q94. Do you consider yourself to be ...?

1. White
2. Black or African-American
3. American Indian, Native Hawaiian, Pacific Islander, or Alaska Native
4. Asian
96. Something else [SPECIFY:]
99. Refused

Q95. I'm going to read a list of options. Please stop me when I reach the range that includes your annual household income. [READ LIST]

1. Under \$20,000
2. \$20,000 to under \$30,000
3. \$30,000 to under \$40,000
4. \$40,000 to under \$50,000
5. \$50,000 to under \$60,000

6. \$60,000 to under \$75,000
7. \$75,000 to under \$100,000
8. \$100,000 to under \$150,000
9. \$150,000 to under \$200,000
10. Over \$200,000
98. Don't know
99. Refused

That's all the questions we have for you, thank you very much for your participation, it was very helpful. Also, before you go, we wanted to let you know that a second NYSERDA research project is currently in progress and it is possible, although very unlikely, that you might be contacted by another research team in the near future. We just wanted to give you an advanced notice. Have a great rest of your day.

B.3. Audit-only Households Interview Guide

B.3.1. Introduction

Thank you. I'd like to ask you some questions about your experience with the program and the usefulness of the audit services you received. These questions might take about 15 more minutes, but your feedback is important in helping to improve programs like this for New Yorkers.

B.3.2. Customer Awareness and Experience [ASK ALL]

- Q1. How did you hear about the opportunity to receive an audit through NYSERDA? [DO NOT READ; PROBE TO CODE; MULTIPLE RESPONSES ALLOWED. 97 = NA; 98=DK]
1. The NYSERDA website
 2. Through a constituency based organization or a non-profit group
 3. From family member /friend/ or coworker
 4. Through a contractor
 5. Something in the mail
 6. Newspaper ad or article
 7. Radio
 8. Information provided in a utility bill
 9. A home show or trade show
 10. Some other way? _____
- Q2. How did you find the auditor who performed your energy audit? [DO NOT READ, PROBE TO CODE]
1. I was contacted directly (by firm or auditor)
 2. NYSERDA website
 3. Yellow pages/online search
 4. Referral from friend/family/other
 5. Contacted a contractor I knew of
 6. Community-based organization or a non-profit group
 7. A home show or trade show
 8. Other: _____
 98. Don't know
 99. Refused
- Q3. Did you have any trouble finding someone to do your energy audit?
1. Yes, [IF YES] What difficulty did you have? _____
 2. No
 98. Don't know

[READ] Thinking about your audit, please rate the following statements using a five point scale where 1 means you ‘do not at all agree’ and 5 means you ‘completely agree.’ First, to what extent do you agree that...(CODE 1-5 ADDING 97= NOT APPLICABLE AND 98 =DK)

- Q4. It was simple to schedule my home energy audit
- Q5. The time required to complete the application was reasonable
- Q6. I was able to schedule an audit within two weeks of requesting one
- Q7. My auditor did a thorough review of my home
- Q8. The time required to do my audit was reasonable
- Q9. The audit process met my expectations

[ITERATE UP TO 6 QUESTION AS NEEDED FOLLOW-UP Q FOR EACH STATEMENT WITH A RATING <3]

- Q10. [IF Q4 RATING <3] You didn’t agree with the statement [pipe in Q4 Statement] Please tell me about any issues you had.
- Q11. [IF Q5 RATING <3] You didn’t agree with the statement [pipe in Q5 Statement] Please tell me about any issues you had.
- Q12. [IF Q6 RATING <3] You didn’t agree with the statement [pipe in Q6 Statement] Please tell me about any issues you had.
- Q13. [IF Q7 RATING <3] You didn’t agree with the statement [pipe in Q7 Statement] Please tell me about any issues you had.
- Q14. [IF Q8 RATING <3] You didn’t agree with the statement [pipe in Q8 Statement] Please tell me about any issues you had.
- Q15. [IF Q9 RATING <3] You didn’t agree with the statement [pipe in Q9 Statement] Please tell me about any issues you had.
- Q16. Did the energy audit you received include... [READ LIST. CODE 1=YES; 2=NO; 98 DON’T KNOW, 99 = REFUSED]
 - 1. In-person inspection of your home
 - 2. Blower door test with a large fan to measure air leakage
 - 3. Tests to measure leaks in heating and air conditioning ducts, sometimes known as “Duct Blaster”

4. Testing of the combustion efficiency of your furnace or boiler
5. Projected energy savings from possible upgrades
6. Anything else? _____

Q17. Did your auditor... [Yes=1, No=2, 98=DON'T KNOW]

1. Suggest home improvements to you while they were doing the audit?
2. Give you a written report with recommended upgrades?
3. Provide audit results in any other way? [IF YES] How? [SPECIFY]

Q18. Did anyone go over the energy audit results with you, including recommended retrofits and their estimated savings? [With you or others in your household?]

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

Thinking about the audit's recommendations, please rate the following statements using a five point scale where 1 means 'do not agree' and 5 means 'completely agree.' First, to what extent do you agree that...[CODE 1-5 AND 97= NA 98 =DK]

Q19. I/we understood the audit results

Q20. I/we learned valuable things about my/our home from the audit

Q21. The recommended work seemed appropriate

Q22. Given what you learned from the audit, how much might you pay for a similar service in the future?

1. Nothing
2. Record verbatim: _____

[Do not read:]

98. Don't know
99. Refused

Q23. Did your auditor or contractor tell you about NYSERDA's Home Performance with ENERGY STAR program? [If needed: a program that provides incentives or financing to help New York homeowners complete energy upgrades in their homes.]

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

Q24. Does your local electric or gas utility provide incentives or rebates to offset the cost of purchasing energy efficient equipment?

- 1. Yes
- 2. No
- 98. Don't know

Q25. Using a 1-to-5 scale, where 1 = not at all important and 5=very important, how important was it to you that your audit help you identify ways to...[...[RANDOMIZE]

[MATRIX QUESTION: SCALE]

[LOGIC] Item	1	2	3	4	5	97 NA	98 DK	99 RF
Improve the comfort of your home								
Protect the value of your home								
Increase the value of your home								
Make your home more sustainable								
Help the environment								
Improve the indoor air quality of your home								
Reduced your home's energy use								
Replace broken or failing equipment								

Q26. Which reason was most important? [CHOOSE ONE]

- 1. Improving comfort
- 2. Protecting the value of my home
- 3. Increase the value of my home
- 4. Make my home more sustainable
- 5. Helping the environment
- 6. Improving the indoor air quality in my home
- 7. Reducing my household energy use
- 8. Replace broken or failing equipment

CBO Awareness

Q27. In some regions of the state, community-based organizations, or CBOs for short, help homeowners wanting to complete energy efficiency upgrades in their homes. Before today, had you heard of this option?

- 1. Yes
- 2. No
- 98. [Do not read] Don't know

[ASK IF Q27 = Yes]

Q28. Did you receive any assistance from a CBO during the process of receiving your audit?

- 1. Yes
- 2. No
- 98. Don't know

Q29. CBOs provide a variety of services at no cost to the homeowner. Based on your experience, using a one-to-five scale, where 1= not at all valuable and 5= extremely valuable, how valuable would be to you to have someone to help you]...[RANDOMIZE]

[LOGIC] Item	1 Not at all valuable	2	3	4	5 Extremely valuable	98 DK
Understand the NYSERDA Home Performance program						
Choose a contractor						
Complete audit application paperwork						
Review bids and design your project						
Schedule audit and installation work with your contractor						
Find information about grants, incentives or financing for energy efficiency upgrades						
Apply for project financing						

[IF YES TO QDS1]

Since receiving your audit...

Q30. Since receiving your audit, have you installed...? [RADNOMIZE; READ NUMBERED ITEMS; MULTIPLE RESPONSES ALLOWED.]

- 1. Insulation
- 2. Air sealing to reduce drafts
- 3. Energy-efficient windows or doors
- 4. High efficiency heating system or heat pump
- 5. Programmable thermostat
- 6. High efficiency water heater
- 7. Energy-efficient lighting
- 8. New central air conditioner
- 9. Hot water conservation measures such as low flow showerheads
- 10. Something else mentioned: _____
- 98. Don't know

Q31. And, what, if any, of the recommended energy efficiency measures did you not install? [DO NOT READ unless respondent requests]

1. None, we installed all upgrades recommended in audit
2. Insulation
3. Air sealing to reduce drafts
4. Energy-efficient windows or doors
5. High efficiency heating system or heat pump
6. Programmable thermostat
7. High efficiency water heater
8. Energy-efficient lighting
9. New central air conditioner
10. Hot water conservation measures such as low flow showerheads
11. Something else mentioned: _____
98. Don't know

Q32. What, if any, additional energy upgrades do you plan to install in the next two years?

[MULTIPLE RESPONSE; DO NOT READ UNLESS RESPONDENT REQUESTS; IF IT WOULD HELP SURVEY TEAM, CAN CONSIDER PROGRAMMING OPTIONS THAT WOULD REMOVE MEASURES ALREADY REPORTED AS INSTALLED]

1. None
2. Insulation
3. Air sealing to reduce drafts
4. Energy-efficient windows or doors
5. High efficiency heating system or heat pump
6. Programmable thermostat
7. High efficiency water heater
8. Energy-efficient lighting
9. New central air conditioner
10. Hot water conservation measures such as low flow showerheads
11. Something else mentioned: _____
98. Don't know

Q33. [If Q31 Does Not Equal 0] What stopped you from installing all of the measures recommended by your audit? What it because [READ OPTIONS, RANDOMIZE OPTIONS, ALLOW MULTIPLE]

[MULTIPLE RESPONSE]

1. The recommended upgrades were too expensive

2. You were waiting for existing equipment to need replacement
3. The energy savings were not worth the cost
4. You were concerned about the comfort of your home
5. You are planning to install them, just haven't gotten to it
6. Other priorities for home improvement dollars
7. You wanted to do the work yourself

[Do not read:]

96. Other, please specify: [OPEN-ENDED RESPONSE]
98. Don't know
99. Refused

[If DS1 = Yes]

Q34. How did you pay for your project? [DO NOT READ; select multiple]

1. Cash
2. Credit card
3. HELOC (Home Equity Line of Credit)
4. Bank loan
5. Loan through NYSERDA
6. Contractor financing
7. Utility incentive
96. Other:
98. Don't know
99. Prefer not to say

Q35. Did you know that financing was available through the Home Performance program?

[SINGLE RESPONSE]

1. Yes
2. No

[Do not read:]

98. Don't know
99. Refused

[ASK ALL]

Q36. Why did you decide not to participate in NYSERDA's Home Performance with ENERGY STAR program?

1. [OPEN-ENDED Response]

B.3.3. Motivations/Benefits/Intention

Q37. In the past two years, have you completed any project in your home costing more than \$3,000?

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

Q38. What was the main purpose for this project? [DO NOT READ; SINGLE RESPONSE FROM LIST BELOW]

Q39. What were some of the other purposes of the project? [DO NOT READ; ALLOW MULTIPLE RESPONSES]

1. Replace old or failing equipment
2. Modernize kitchen and/or bath
3. Add or reconfigure living space
4. Reduce household energy use or costs
5. Repair or replace exterior of the house
6. Repair or replace interior elements of the house
7. Repair due to damage, natural disaster,
8. Improve comfort [e.g. stop drafts; keep cooler in the summer or warmer in the winter]
9. Access funding to help offset the cost of the project
10. Improve indoor air quality
11. Protect the value of my home
12. Some other reason? _____
98. Don't know

B.3.4. Contractor Selection Considerations

(If no measures in DS1)

Q40. If you were to decide to use a program like NYSERDA's to help you complete additional energy upgrades in your home, how valuable would it be for you to have... [Please use a 1-to-5 scale where 1="not at all valuable" and 5 = "very valuable."]

1. Access to an information hotline
2. Online applications for incentives
3. Online tools for estimating costs and identifying financing options
4. Assistance obtaining multiple bids for your project
5. Help understanding the bids you've received
6. A list of program-approved contractors operating in your area

Q41. How do you typically find a contractor when you need one? [DO NOT READ, PROBE TO CODE; ALLOW MULTIPLE RESPONSES]

1. Yellow Pages (including Internet Yellow Pages)
2. Online search
3. Referral from friend/family/other
4. Choose someone I know
5. Yelp/Angie's List or other rating site
6. Other: _____
7. Don't know
8. Refused

Q42. When you need to hire a contractor, how many bids do you typically get?

1. One
2. Two or Three
3. More than three
4. Other: _____
97. Not applicable
98. Don't know

Q43. When you need to hire a contractor, do you sometimes, always, or never consider...
[READ ALL; 1 Never 2 Sometimes 3 Always]

1. Certifications of training or service quality
2. Cost estimates
3. Referrals from friends/colleagues
4. Listings on NYSERDA or utility websites
5. Ratings on Angie's List, Facebook or other Internet referral sources
6. Better Business Bureau accreditation
7. Whether or not the firm is a locally operated business
8. Other: _____
97. Not applicable
98. Don't know/remember

Q44. Have you heard of the following certifications... [READ ALL. ALLOW 98 =DK]

1. The Building Performance Institute [Y/N]
2. ENERGY STAR [Y/N]
3. Resnet [Y/N]

4. NATE (North American Technician Excellence) Certification [Y/N]
5. NY DCA (Department of Consumer Affairs' Home Improvement Contractor License) [Y/N]
6. Is there another certification you look for? _____

Q45. Before today, were you aware that contracting firms that work with NYSERDA's Home Performance program must be accredited by the Building Performance Institute?

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

Q46. Using a scale of 1-to-5, where one means "not at all important," and five means "very important," how important is it to you to have a contractor able to assess your home's overall performance?

1. Response: ____
98. Don't know

Q47. How important is it to you to have a contractor able to use diagnostic equipment and software to estimate energy savings potential? [If needed: Please use the same 1-to-5 scale, where one means "not at all important," and five means "very important."]

1. Response: ____
98. Don't know

(If measures=yes in DS1)

Q48. If you were to decide to use a program like NYSERDA's to help you complete additional energy upgrades in your home, how valuable would it be for you to have... [Please use a 1-to-5 scale where 1="not at all valuable" and 5 = "very valuable."]

1. Access to an information hotline
2. Online applications for incentives
3. Online tools for estimating costs and identifying financing options
4. Assistance obtaining multiple bids for your project
5. Help understanding the bids you've received
6. A list of program-approved contractors operating in your area

Q49. Did you use a contractor to complete the [Upgrade reported in Q31] project you described?

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

Q50. [If yes to Q49] How did you find your contractor? [DO NOT READ, PROBE TO CODE; ALLOW MULTIPLE RESPONSES]

1. Used same firm that did the audit
2. Yellow Pages (including Internet Yellow Pages)
3. Online search
4. Referral from friend/family/other
5. Choose someone I know
6. Yelp/Angie's List or other rating site
7. Other: _____
8. Don't know
9. Refused

Q51. [If yes to Q49] Did you get multiple bids? If yes: how many?

1. One
2. Two or Three
3. More than three
4. Other: _____
98. Don't know

Q52. [If yes to Q49] When you chose your contractor did you consider...

1. Certifications of training or service quality
2. Cost estimates
3. Referrals from friends/colleagues
4. Listings on NYSERDA or utility websites
5. Ratings on Angie's List, Facebook or other Internet referral sources
6. Better Business Bureau accreditation
7. Whether or not the firm is a locally operated business
8. Other: _____
98. Don't know/remember

Q53. [If yes to Q49] You had indicated earlier that you installed energy efficiency upgrades since the audit. Thinking of the work done by the contractor who installed those measures, on a scale of one to five with '1' being very dissatisfied, '2' being somewhat dissatisfied, '3' being neither satisfied nor dissatisfied, '4' being somewhat satisfied, and '5' being very satisfied, please indicate your level of satisfaction with the quality of the contractor's work.

1. Very dissatisfied

2. Somewhat dissatisfied
 3. Neither satisfied nor dissatisfied
 4. Somewhat satisfied
 5. Very satisfied
 97. <DO NOT READ> NA
 98. <DO NOT READ> DK
 99. <DO NOT READ> RF
- Q54. Q2. [IF Q1 <3] You reported some dissatisfaction with the quality of your contractor's work. Please explain why you gave that rating?
- Q55. [If no to Q49] How do you typically find a contractor when you need one? [DO NOT READ, PROBE TO CODE; ALLOW MULTIPLE RESPONSES]
1. Yellow Pages (including Internet Yellow Pages)
 2. Online search
 3. Referral from friend/family/other
 4. Choose someone I know
 5. Yelp/Angie's List or other rating site
 6. Other: _____
 98. Don't know
 99. Refused
- Q56. [If no to Q49] When you need to hire a contractor, how many bids do you typically get?
1. One
 2. Two or Three
 3. More than three
 4. Other: _____
 98. Don't know
- Q57. [If no to Q49] When you need to hire a contractor, do you sometimes, always, or never consider... [READ ALL; 1 Never 2 Sometimes 3 Always]
1. Certifications of training or service quality
 2. Cost estimates
 3. Referrals from friends/colleagues
 4. Listings on NYSERDA or utility websites
 5. Ratings on Angie's List, Facebook or other Internet referral sources
 6. Better Business Bureau accreditation

7. Whether or not the firm is a locally operated business
 8. Other: _____
 98. Don't know/remember
- Q58. Have you heard of the following certifications... [READ ALL. ALLOW 98 =DK]
1. The Building Performance Institute [Y/N] [if Yes and IF Q49 = YES: Did you use a BPI affiliated firm to do [pipe in Q31 Responses] X]
 2. ENERGY STAR [Y/N]
 3. Resnet [Y/N]
 4. NATE (North American Technician Excellence) Certification [Y/N]
 5. NY DCA (Department of Consumer Affairs' Home Improvement Contractor License) [Y/N]
 6. Is there another certification you look for? _____
- Q59. Before today, were you aware that contracting firms that work with NYSERDA's Home Performance program must be accredited by the Building Performance Institute?
1. Yes
 2. No
 98. Don't know
- Q60. Using a scale of 1-to-5, where one means "not at all important," and five means "very important," how important is it to you to have a contractor able to assess your home's overall performance?
1. Response: _____
 98. Don't know
- Q61. How important is it to you to have a contractor able to use diagnostic equipment and software to estimate energy savings potential? [If needed: Please use the same 1-to-5 scale, where one means "not at all important," and five means "very important."]
1. Response: _____
 98. Don't know
- ALL*
- Q62. Go to Demographics

B.3.5. CBO Sample

(Previously approved CBO questions for audit only sample. Asked only of those with CBO flag on record. 68 Completes. Independent Sample, asked a limited set of embedded process questions to facilitate comparison.)

Q63. Our program records indicate that you had contact with [CBO], a constituency-based organization (or CBO) while completing your energy audit. Is that correct?

1. Yes
2. No, had contact with a different organization: _____
3. No, did not have contact with a CBO
98. Don't know

[IF Q61 = 3, No CBO contact]

Q64. Just to confirm, you do not recall talking with anyone from a CBO about NYSERDA's Home Performance program?

1. Correct, I do not recall talking to a CBO
2. Not correct, I did talk with a CBO
98. Don't know

[IF Q62= 1, skip to end of block]

Q65. How did you learn about the Home Performance services this CBO offers? [OPEN-ENDED RESPONSE]

1. [RESPONSE]
98. Don't know

Q66. Were you familiar with this organization before this energy audit?

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

Q67. How did you hear about the opportunity to receive an audit through NYSERDA? [DO NOT READ; PROBE TO CODE; MULTIPLE RESPONSES ALLOWED. 97 = NA; 98=DK]

1. The NYSERDA website
2. Through a constituency based organization or a non-profit group
3. From family member /friend/ or coworker
4. Through a contractor
5. Something in the mail

- 6. Newspaper ad or article
- 7. Radio
- 8. Information provided in a utility bill
- 9. A home show or trade show
- 10. Some other way? _____

Q68. Had you considered receiving an audit through NYSERDA’s Home Performance program before hearing about it from the CBO?

- 1. Yes
- 2. No
- 98. Don’t know

[READ] Thinking about your energy audit, please rate the following statements using a five point scale where 1 means you ‘do not at all agree’ and 5 means you ‘completely agree.’ To what extent do you agree that... (CODE 1-5 ADDING 97= NOT APPLICABLE AND 98 =DK)

- Q69. It was simple to schedule my home energy audit
- Q70. The time required to complete the application was reasonable
- Q71. The audit process met my expectations
- Q72. I/we understood the audit results
- Q73. I/we learned valuable things about my/our home from the audit
- Q74. The recommended work seemed appropriate
- Q75. I’m going to read several types of support you may have received from [CBO name] in completing your Home Performance audit. For each, rate the value of this support from 1, not at all valuable to 5, extremely valuable, or let me know if you didn’t receive that support.

[LOGIC] Item	1 Not at all valuable	2	3	4	5 Extremely valuable	97 Didn’t receive	98 DK
Help you understand the NYSERDA Home Performance program							
Help you choose the right NYSERDA program for your income							
Help you choose a contractor							
Help you complete audit paperwork							
Help you schedule with your contractor							
Give you information about grants, incentives, or financing for energy efficiency upgrades							

[LOGIC] Item	1 Not at all valuable	2	3	4	5 Extremely valuable	97 Didn't receive	98 DK
Help you apply for project financing							
Anything else this CBO helped you with? [SPECIFY:]							

[If Q73 6 (information about grants) or 7 (apply for financing) option 97 is NOT selected]

Q76. There are a variety of funding sources available to eligible New York households to help them install energy efficient measures. Did [CBO name] mention the possibility that you might be eligible for... [READ; SELECT MULTIPLE]

- 1. NYSERDA 10% cash-back incentives
- 2. NYSERDA 50% Assisted Home Performance grant
- 3. NYSERDA Smart Energy Loan
- 4. NYSERDA On-Bill Recovery Loan
- 5. Super storm Sandy Relief funding
- 6. A matching grant
- 7. A utility rebate
- 8. Anything else? [SPECIFY:]
- 97. [EXCLUSIVE] None of the above
- 98. [DO NOT READ] Don't recall

[If Q73 6 (information about grants) or 7 (apply for financing) option 97 is NOT selected]

Q77. Did you discuss financing with [CBO name] before or after you received your audit? [DO NOT READ; SELECT ONE]

- 1. Before
- 2. After
- 96. Some other time

Q78. In total, about how many times would you say you communicated with the CBO during the course of your audit?

- 1. [NUMERIC RESPONSE]
- 98. Don't know

Q79. After completing your audit, did this organization contact you about moving forward to complete a retrofit?

- 1. Yes
- 2. No
- 98. Don't know

Q80. Since receiving your audit, have you installed...? [RANDOMIZE; READ NUMBERED ITEMS; MULTIPLE RESPONSES ALLOWED.]

1. Insulation
2. Air sealing to reduce drafts
3. Energy-efficient windows or doors
4. High efficiency heating system or heat pump
5. Programmable thermostat
6. High efficiency water heater
7. Energy-efficient lighting
8. New central air conditioner
9. Hot water conservation measures such as low flow showerheads
10. Something else mentioned: _____
98. Don't know

Q81. And, what, if any, of the recommended energy efficiency measures did you not install?

1. Insulation
2. Air sealing to reduce drafts
3. Energy-efficient windows or doors
4. High efficiency heating system or heat pump
5. Programmable thermostat
6. High efficiency water heater
7. Energy-efficient lighting
8. New central air conditioner
9. Hot water conservation measures such as low flow showerheads
10. Something else mentioned: _____
98. Don't know

Q82. What, if any, additional energy upgrades do you plan to install in the next two years?

[MULTIPLE RESPONSE; DO NOT READ UNLESS RESPONDENT REQUESTS; CONSIDER PROGRAMMING OPTIONS THAT WOULD REMOVE MEASURES ALREADY REPORTED AS INSTALLED]

1. None
2. Insulation
3. Air sealing to reduce drafts
4. Energy-efficient windows or doors
5. High efficiency heating system or heat pump

6. Programmable thermostat
7. High efficiency water heater
8. Energy-efficient lighting
9. New central air conditioner
10. Hot water conservation measures such as low flow showerheads
11. Something else mentioned: _____
98. Don't know

Q83. [If Q78 Does Not Equal 0] What stopped you from installing all of the measures recommended by your audit? What it because [READ OPTIONS, RANDOMIZE OPTIONS, ALLOW MULTIPLE]

[MULTIPLE RESPONSE]

1. The recommended upgrades were too expensive
2. You were waiting for existing equipment to need replacement
3. The energy savings were not worth the cost
4. You were concerned about the comfort of your home
5. You are planning to install them, just haven't gotten to it
6. Other priorities for home improvement dollars
7. You wanted to do the work yourself

[Do not read:]

96. Other, please specify: [OPEN-ENDED RESPONSE]
98. Don't know
99. Refused

Q84. In the past two years, have you completed any project in your home costing more than \$3,000?

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

Q85. What was the main purpose for this project? [SINGLE REPSONSE FROM LIST BELOW]

Q86. What were some of the other purposes of the project? [ALLOW MULTIPLE RESPONSES]

1. Replace old or failing equipment
2. Modernize kitchen and/or bath
3. Add or reconfigure living space
4. Reduce household energy use or costs

5. Repair or replace exterior of the house
6. Repair or replace interior elements of the house
7. Repair due to damage, natural disaster, vector infiltration
8. Improve comfort [e.g. stop drafts; keep cooler in the summer or warmer in the winter]
9. Accessing incentives to help offset the cost of the project
10. Help the environment
11. Improve indoor air quality
12. Protect the value of my home
13. Increase the value of my home
14. Some other reason? _____
98. Don't know

[IF DSI = Yes]

Q87. How did you pay for your project? [DO NOT READ; select multiple]

1. Cash
2. Credit card
3. HELOC (Home Equity Line of Credit)
4. Bank loan
5. Contractor financing
6. Utility incentive
96. Other:
98. Don't know
99. Prefer not to say

Q88. Did you know that financing was available through the Home Performance program?

[SINGLE RESPONSE]

1. Yes
2. No

[Do not read:]

98. Don't know
99. Refused

[ASK ALL]

Q89. Why did you decide not to participate in NYSERDA's Home Performance with ENERGY STAR program?

1. [OPEN-ENDED Response]

[ASK IF DS1 = Yes, installed some upgrades]

Q90. If you had not had any contact with the CBO, would you have... [READ, SELECT ONE]

1. Not completed any upgrades
2. Postponed your upgrades for more than a year
3. Completed a smaller number of upgrades
4. Completed the same upgrades
5. Or, done something else? [SPECIFY:]
98. [DO NOT READ] Don't know

Q91. Using a 1-to-5 scale, where 1 = not at all important and 5=very important, how important was it to you that your audit help you identify ways to...[RANDOMIZE]

[MATRIX QUESTION: SCALE]

[LOGIC] Item	1	2	3	4	5	97 NA	98 DK	99 RF
Improve the comfort of your home								
Protect the value of your home								
Increase the value of your home								
Make your home more sustainable								
Help the environment								
Improve the indoor air quality of your home								
Reduced your home's energy use								
Replace broken or failing equipment								

Q92. Which reason was most important? [CHOOSE ONE]

1. Improving comfort
2. Protecting the value of my home
3. Increase the value of my home
4. Make my home more sustainable
5. Helping the environment
6. Improving the indoor air quality in my home
7. Reducing my household energy use
8. Replace broken or failing equipment

Q93. Do you have any suggestions for how these CBOs could better help homeowners like yourself complete retrofits through NYSERDA's Home Performance program?

1. [Response]
98. Don't know