research/into/action inc

Final Report Appendices

Preliminary Process and Market Evaluation: Better Buildings Neighborhood Program

Funded By:

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Introduction

Thank you for setting the time aside for us to talk. To recap what I said when scheduling this call, our evaluation purpose is to assess the DOE's Better Buildings Neighborhood Program. We are not assessing the performance of individuals or individual grantees. We are seeking to understand the entire BBNP effort, as well as existing market conditions and grantee activity, in order to identify what strategies work and, perhaps, do not work, to raise the energy efficiency of our national housing and commercial building stock. The DOE plans to build on our findings in crafting future initiatives, to ensure that the best approaches are built upon and pitfalls avoided.

Script

Roles and Responsibilities

1. First, can you describe your role and responsibilities in the BBNP?
2. Who do you communicate with regarding program activities, how often, about what, and by what means?

Program Objectives

I'd like to start with some general questions about the program's objectives. Briefly, the stated program objectives are to initiate energy-saving upgrades, demonstrate sustainable business models for providing upgrades, and identify and spread effective approaches to completing upgrades to develop a robust retrofit industry.

3. Does this mean the program seeks to demonstrate sustainable business models for program administrators or for contractors or someone else?

   [PROBE FOR DETAILS]

4. What would you expect to see, within the 3-year span of the program, as proof that a given business model is sustainable?
5. One of the DOE staff comments on the draft work plan was that a program objective was for grantees to "fill in" whatever is needed in the marketplace to make EE programs work. Such needs might relate to demand (consumer ed., incentives, etc.) or to supply (not enough trained contractors). Do you agree that that is a program objective?

a. If so, how does it relate to the objectives of initiating upgrades, demonstrating sustainable business models, and identifying and spreading effective approaches to completing upgrades?

Program Experience

Let's continue with some more details about the program's experience so far, particularly how the individual grantee programs are interacting with the market.

6. What have been the chief challenges in working with the 41 grantees?
   a. What implications do those challenges have for achieving the program objectives?
   b. What have you done to try to address those challenges? Is it working? If not, what do you think is the primary roadblock? What else might you do?
7. There are several categories of market actors in the residential and commercial retrofit markets targeted by the Better Buildings grantees.
   a. Are there any specific grantee programs that are not designed or set up to work effectively with the key *residential* groups? Which ones? What feedback have you given them about working more effectively with key groups?
   b. Are there any specific grantee programs that are not designed or set up to work effectively with the key *commercial market* groups? Which ones? What feedback have you given them about working more effectively with key groups?
8. Should grantee programs affect how these various groups interact?
   a. In what ways should grantee programs affect interactions?
   b. Have any specific grantees been more effective than others doing this? If so, which ones, and why do you think they have been more effective?
   c. How does this differ, if at all, for the residential and commercial markets?
9. What are the different models or approaches grantee programs are taking when their area is also served by utility (or other program administrator) program?
   a. Should the grantees' programs affect the residential retrofit market in ways that are different from programs operated by existing program administrators such as utilities? [If yes] How?
   b. [If not apparent] Are there ideal ways the two types of programs should interact (e.g., separate markets, feeder program, increased incentives)?
   c. And are the grantees programs complementing these working with the utility programs in these ways?
   d. How does this differ for residential and commercial markets?

10. What has DOE learned so far from grantee experience about what approaches are effective in supporting the development of a robust retrofit industry and what are not?

    PROBE FOR DETAILS

    a. To what extent would these models or approaches be exportable to other areas of the United States?

    b. What factors are there, if any, that may prevent an approach that is effective in one location from being effective elsewhere?

11. The program has established some mechanisms for grantees to communicate and spread effective approaches, such as the peer-to-peer network facilitation, the Google site, and grantee conferences. Can you fill me in on how they work?

    a. In what ways has DOE promoted these mechanisms to the grantees?

    b. Are grantees using these mechanisms as you expected them to?

    c. Are some grantees using them more than others? If so, which ones? Why do you think others are not using them?

    d. Are grantees using them differently than you expected? If so, how so? Why do think that is?

    [If not being used as expected:]

    e. What effect do you think that will have on the success of the program?

    f. What has been done about that? What else might be done?

12. In what ways, if any, do you interact with sub-grantees?

13. Have you learned anything about effective and ineffective grantee-subgrantee relationships?

14. Has DOE worked with any building industry or trade associations relating to BBNP?

    If so:

    a. What groups?

    b. In what ways has DOE worked with them?

Technical Assistance

The Better Buildings Grant Recipient Handbook describes several resources for technical assistance (TA). Several provide opportunities for live interaction between DOE staff and grantees, while others are online resources for program-related information.

[If needed: Interactive resources are the TAP and Energy Blogs, the Google site, webinars, and peer exchange calls, and various grantee workshops (where TA providers hold half-hour 1on1 and small group sessions) and conferences. Non-interactive sources are TAP Solution Center,

the BBNP website, and links to information on Buy American Provision, DOE Recovery Act Resources, Davis Bacon Act, National Environmental Policy Act, and DOE Financial Information.]

15. Are there other means of direct, interactive TA – 1on1 visits, phone calls, etc.? If so, what are they?

16. In general, what feedback do you get from grantees on the TA resources that you provide?

17. Are grantees making effective use of the various TA resources?

    a. Which are being used more effectively than others?

    b. If not, what do you think is keeping them from making effective use?

    c. What effect has this had on program success? What effect might it have?

    d. What has been done to get them to use the resources more effectively?

    e. What else might be done?

Drivers and Barriers

I'd like to get your views on key market drivers and barriers to effecting greater efficiency in the residential retrofit market targeted by the Better Buildings grantees.

18. What external market influences have had the greatest impact on the planning and implementation of BBNP?

    a. How does that differ for the residential and commercial markets?

19. Are any grantees having difficulty making effective use of key market drivers or addressing key market barriers?

    PROBE ABOUT difference in residential and commercial markets

    a. Which ones and what are they doing right or wrong?

    b. What have you observed to be the most effective program elements in addressing these barriers? *[If needed, program elements are: training of contractors, low-interest financing, marketing and outreach, rebates and other incentives, free or reduced cost energy assessment]*

Program Sustainability

20. What is your expectation regarding whether the BBNP grantees – or successor organizations – will increase their activity level, continue their activities at the same level, reduce their activity level, or cease activities altogether?

    a. Why do you say that?

b. How might that vary by grantee or region?

c. [*If cease activities:*] What would need to change or be in place in order for the activities to continue?

21. What is the status of the ARRA funds in general, for DOE and for grantees? What percent has been spent, and what percent remain?

22. Have you heard of any impacts on DOE and on the grantees from reduction in ARRA funding? Any specific examples that you can share?

Davis-Bacon Act

23. What, if anything, have you heard from grantees about challenges relating to Davis-Bacon requirements?

PROBE ABOUT:

Contracts with contractors

Determining prevailing wage

Grantee rebates and other offerings

24. How have Davis-Bacon requirements affected program success?

Non-Governmental Stakeholders

25. We were provided with a list of non-governmental stakeholders. What role have these stakeholders played in developing BBNP? *[NG stakeholders: ACEEE, Efficiency First, Green for All, BPI, NASEO]*

26. What additional roles do you expect them to play?

27. Are there other stakeholders that should be interviewed? If so, why?

Data Management

[Skip for Account Managers.]

28. Why are BBIS and SalesForce managed by different contractors?

29. What guidance has DOE given the contractors regarding coordination?

30. How well is the BBIS system matching expectations?

a. Are you satisfied with the quantity and quality of the data that grantees are submitting?

31. What type of contractual obligations do grantees have with DOE regarding data submission?

a. What about billing data?

32. What challenges would DOE have in requiring grantees to provide billing data in order to receive funding?

33. What does DOE plan or hope to do with the data collected in BBIS?

Grantee Evaluations

34. What requirements does DOE have grantees to carry out evaluations of their own programs?

35. Some grantees have carried out very detailed and thorough evaluations, others have done less involved evaluations, and some have done none at all – what do you think drives that variability?

36. Does DOE have any plans on using these evaluations? If so, how?

Closing

37. What has been the main success so far of BBNP?

38. What do you wish had been done differently in BBNP?

39. If more funds were to become available, how would they be spent on this program, if at all?

40. Is there anything you'd like to add

BBNP INTERVIEW GUIDE – DOE DATA STAFF AND SUPPORT CONTRACTORS

Introduction

Thank you for setting the time aside for us to talk. To recap what I said when scheduling this call, our evaluation purpose is to assess the DOE's Better Buildings Neighborhood Program (BBNP). We are not assessing the performance of individuals or individual grantees. We are seeking to understand the entire BBNP effort, as well as existing market conditions and grantee activity, in order to identify what strategies work and, perhaps, do not work, to raise the energy efficiency of our national housing and commercial building stock. The DOE plans to build on our findings in crafting future initiatives, to ensure that the best approaches are built upon and pitfalls avoided.

We received your name from the head of the BBNP. There is no payment for participating in this study. Knowing that this is voluntary, we appreciate that you are willing to be interviewed. You can decline to be interviewed or stop at any time. Your input is extremely valuable, as your input will help to improve energy efficiency programs designed for saving energy. We anticipate this interview will last about 20-30 minutes.

This evaluation is being conducted on behalf of Lawrence Berkeley National Laboratory (LBNL). The primary contact person at LBNL is Dr. Edward Vine; he can be reached at 510-486-6047.

DOE has contracted with LBNL to manage the evaluation and with independent research firms, Research Into Action, Inc. and NMR, Inc. to conduct the study. Neither Research Into Action, Inc. nor NMR, Inc. will identify participants to DOE. Instead, they will analyze the interview data and provide a summary analysis that will be presented to DOE. All publications will use only summary-level data and will not identify individual respondents or firms; however, because there are relatively few people being interviewed, it is possible that the BBNP Program Manager or others may be able to tell which comments are yours.

We will also be taping the interview as it provides an opportunity to revisit the interviews to make sure that the interview reports are accurate. The interview reports are confidential and will only be used by the evaluation team. The tapes and interview reports are destroyed when the project is completed,

Is it ok with you if we tape the interview?

If the respondent refuses, no recording is made.

If ok: Then let us jump right in.

[Note to Reviewer] Respondents are also reminded of the recording at the beginning of the interview and are told that if they wish to convey information that they do not want recorded, the

recorder will be stopped until the subject changes or the information can be conveyed at the end of the session after the recording is completed.]

Script

Roles and Responsibilities

1. First, can you describe your role and responsibilities in the BBNP?
2. How do your roles and responsibilities fit in with the program's stated objectives of initiating energy-saving upgrades, demonstrating sustainable business models for providing upgrades, and identifying and spread effective approaches to completing upgrades?
3. Who do you communicate with regarding program activities, how often, about what, and by what means?
4. How would you describe the quality of communication with DOE staff, including the program manager, the various account managers, and the data staff?
   a. Are there any communication challenges?
   b. Do you feel like you've gotten the direction you've needed?

   If there have been challenges:

   c. What has been done to resolve those issues?
   d. Has that worked?
   e. What else might be done?
5. In what ways do you work with or coordinate with any other technical assistance contractors for BBNP?
6. What guidance has DOE given you and other contractors regarding coordination?

Savings Calculation

7. How are grantees trained on how to calculate energy saving values?
8. Did DOE establish any requirements regarding the software for calculating savings? Is there any that is not acceptable? Did you ever consider any specific software requirements? Why or why not?
9. Are some grantees having more difficulty than others calculating energy savings?
   a. Which ones are having the most difficulty?
   b. Which are having the least difficulty?

10. What assistance is DOE providing to grantees that are having difficulty calculating savings?

11. What's the source of information for deemed saving values?

Technical Assistance

[Interviewer: Interviewees vary in the type of assistance they provide. Adapt following questions as necessary.]

The Better Buildings Grant Recipient Handbook describes several resources for technical assistance (TA). Several provide opportunities for live interaction between DOE staff and grantees, while others are online resources for program-related information.
[If needed: Interactive resources are the TAP and Energy Blogs, the Google site, webinars, and peer exchange calls, and various grantee workshops (where TA providers hold half-hour 1on1 and small group sessions) and conferences. Non-interactive sources are TAP Solution Center, the BBNP website, and links to information on Buy American Provision, DOE Recovery Act Resources, Davis Bacon Act, National Environmental Policy Act, and DOE Financial Information.]

12. Which of these have you been involved with?

13. Are there other means of direct, interactive TA – one-on-one visits, phone calls, etc.? If so, what are they and how are grantees using them?

14. Are grantee visits to the various online information resources tracked? *[If needed: e.g., TAP Solution Center]*

15. What other kinds of technical assistance or support do you specifically provide grantees?

16. Do some grantees make better use of those resources than other grantees? If so:
    a. Which grantees are making the best use of resources?
    b. Which grantees are making the worst or least use of resources?
    c. What do you think is keeping some grantees from making effective use of resources?
    d. Has the fact that some grantees have not made good use of resources been a problem for them?
    e. What has been done to get them to use the resources more effectively?
    f. What else might be done?

17. From what you know, do grantees make better use of some resources than others? If so:
    a. Which resources are grantees making the best use of?
    b. What are they making the worst or least use of?

c. Any idea why those resources are not being used?

d. Is the fact that some resources are underused a problem for the program?

e. What has been done to get grantees to use those resources more effectively?

f. What else might be done?

18. In general, what feedback do you get from grantees on the TA resources, interactive and non-interactive, that you provide?

Overall Implementation

19. What have been the chief challenges in working with the 41 grantees?

20. What implications do those challenges have for achieving the program objectives?

21. What have you done to try to address those challenges? Is it working? If not, what do you think is the primary roadblock? What else might you do?

22. What do you wish had been done differently in BBNP?

23. Is there anything you'd like to add?

Sustainability

24. In what ways would you say the BBNP program supports the development of a robust retrofit industry capable of providing a high volume of cost-effective energy upgrades?

25. What do you expect the BBNP grantees – or a successor organization – to do regarding promotion of energy efficiency upgrades after the BBNP grant period ends?
    a. [*If needed:*] For example, do you expect them to increase their activity level, continue their activities at the same level, reduce their activity level, or cease activities altogether?

    b. Why do you say that?

    c. How might that vary by grantee or region?

    d. What factors might affect sustainability?

    e. [*If cease or diminish activities:*] What would need to change or be in place in order for the activities to continue?

26. Do you have any feedback on the grantee-site evaluation activities? Any concerns or recommendations?

Closing

27. What has been the main success so far of BBNP?

28. What do you wish had been done differently in BBNP?

29. If more funds were to become available, how would they be spent on this program, if at all?

30. Is there anything you'd like to add?

BBNP INTERVIEW GUIDE – NON-GOVERNMENT STAKEHOLDERS

Introduction

Thank you for setting the time aside for us to talk. To recap what I said when scheduling this call, our evaluation purpose is to assess the DOE's Better Buildings Neighborhood Program. We are not assessing the performance of individuals or individual grantees. We are seeking to understand the entire BBNP effort, as well as existing market conditions and grantee activity, in order to identify what strategies work and, perhaps, do not work, to raise the energy efficiency of our national housing and commercial building stock. The DOE plans to build on our findings in crafting future initiatives, to ensure that the best approaches are built upon and pitfalls avoided.

We received your name from the head of the BBNP. There is no payment for participating in this study. Knowing that this is voluntary, we appreciate that you are willing to be interviewed. You can decline to be interviewed or stop at any time. Your input is extremely valuable, as your input will help to improve energy efficiency programs designed for saving energy. We anticipate this interview will last about 20-30 minutes.

This evaluation is being conducted on behalf of Lawrence Berkeley National Laboratory (LBNL). The primary contact person at LBNL is Dr. Edward Vine; he can be reached at 510-486-6047.

DOE has contracted with LBNL to manage the evaluation and with independent research firms, Research Into Action, Inc. and NMR, Inc. to conduct the study. Neither Research Into Action, Inc. nor NMR, Inc. will identify participants to DOE. Instead, they will analyze the interview data and provide a summary analysis that will be presented to DOE. All publications will use only summary-level data and will not identify individual respondents or firms; however, because there are relatively few people being interviewed, it is possible that the BBNP Program Manager or others may be able to tell which comments are yours.

We will also be taping the interview as it provides an opportunity to revisit the interviews to make sure that the interview reports are accurate. The interview reports are confidential and will only be used by the evaluation team. The tapes and interview reports are destroyed when the project is completed,

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Script

Stakeholder Involvement in BBNP

1. Very briefly, as a context to your other answers, what is your background and current work in energy efficiency?
2. What is your role or involvement in the Better Buildings Neighborhood Program?
3. When did you first get involved in BBNP, and how did your involvement come about?
4. What information or assistance did DOE solicit from you?
5. What advice, recommendations, or considerations did you offer?
6. To what extent do you feel your recommendations and opinions have been incorporated into the BBNP design and implementation?
7. What market outcomes would you like to see result from the BBNP?
8. What do you hope to learn from the evaluation of the BBNP?

Market Assessment

9. What do you think the retrofit efficiency market needs in order to move to sustainability? Let's discuss each market separately, to the extent you are familiar.
    a. Single family residential
    b. Multi-family/low income
    c. Nonresidential
    d. Other
10. Do you see roles for both grantee programs and utility (and other program administrator) programs in a given area?
    a. [If yes] How might they co-exist? For example, should the grantees' programs affect the residential retrofit market in ways that are different from programs operated by existing program administrators such as utilities? [If yes] How?
    b. [If not apparent] Are there ideal ways the two types of programs should interact (e.g., separate markets, feeder program, increased incentives)?
    c. How does this differ for residential and commercial markets?

There are several categories of market actors in the residential and commercial retrofit markets targeted by the Better Buildings grantees: general contractors, HVAC contractors, insulation contractors, Home Performance Contractors, other types of contractors, HERS raters and Home Energy Score raters, architects, lenders, retailers, distributors, real estate agents, and so forth.

11. Which of these groups would you say are most important when it comes to energy upgrades and increased efficiency in the residential market?

    a. How effectively would you say the grantee programs work with those key groups?

    b. Have you seen any evidence that projects from the Better Buildings Neighborhood Program become an important part of the businesses of any of these market actor groups? If so, which ones?

12. How about the commercial retrofit market? Which of these groups would you say are most important when it comes to energy upgrades and increased efficiency in the commercial market?

    a. How effectively would you say the grantee programs work with those key groups?

    b. Have you seen any evidence that projects from the Better Buildings Neighborhood Program become an important part of the businesses of any of these market actor groups? If so, which ones?

13. Have grantee programs affected how these various groups interact?
    [*If needed:* That is, do these various groups interact differently for projects within the grantees' programs and projects outside the grantees' programs?]

    a. Which grantees in particular?

    b. How does this differ, if at all, for the residential and commercial markets?

14. What are the key figures or market leaders that people look to in each of these groups – for example, trade associations that market actors follow or monitor?

    FOR EACH GROUP, PROBE FOR DIFFERENCES BY REGION, MARKET, ETC.

    a. General contractors:

    b. HVAC contractors:

    c. Insulation contractors:

    d. Home Performance Contractors:

    e. Other types of contractors [specify]:

    f. HERS raters and Home Energy Score raters:

    g. Architects:

    h. Lenders:

    i. Retailers:

    j. Distributors:

    k. Real estate agents:

    l. Other [specify]:

Drivers and Barriers

15. I'd like to get your views and key market drivers and barriers.

16. What external market influences have had the greatest impact on the planning and implementation of BBNP?

    a. How does that differ for the residential and commercial markets?

17. What do you think are the key drivers to greater efficiency in …

    a. …the residential retrofit market targeted by the Better Buildings grantees?

    b. …the commercial retrofit market targeted by the Better Buildings grantees?

    PROBE ABOUT: market actor group, technology/equipment, building practices, geography/climate

18. What are the key market barriers to effecting greater efficiency in the residential retrofit market targeted by the Better Buildings grantees?

    PROBE ABOUT: market actor group, technology/equipment, building practices, geography/climate, consumer demand/awareness

    a. How well do the Better Buildings grantees address these market barriers?

    b. Are some barriers addressed more than others? If so, which ones?

    c. Which program elements are most effective at addressing these barriers?

        Training of contractors

        Low-interest financing

        Marketing and outreach

        Rebates and other incentives

        Free or reduced cost energy assessment

    d. How does this vary by grantee or region?

19. What are the key market barriers to effecting greater efficiency in the commercial retrofit market targeted by the Better Buildings grantees?

    PROBE ABOUT: market actor group, technology/equipment, building practices, geography/climate, demand/awareness

    a. How well do the Better Buildings grantees address these market barriers?

    b. Are some barriers addressed more than others? If so, which ones?

    c. Which program elements are most effective at addressing these barriers?

        Training of contractors

        Low-interest financing

Marketing and outreach

Rebates and other incentives

Free or reduced cost energy assessment

d. How does this vary by grantee or region?

Davis-Bacon Act

20. How has the David-Bacon Act and any other regulations influenced BBNP activity, to the extent you have any information on this?

Technical Assistance

21. The program has established some mechanisms for grantees to communicate and spread effective approaches, such as the peer-to-peer network facilitation, the Google site, and grantee conferences. Do you have any experience with and feedback on how well these communication mechanisms are working?

22. Are there other communication approaches that you think would be effective?

The Better Buildings Grant Recipient Handbook describes several sources of technical assistance (TA). Several resources appear to provide opportunities for live interaction between DOE staff and grantees: these are the TAP and Energy Blogs, the Google site, webinars, and peer exchange calls, and various grantee workshops (where TA providers hold half-hour 1on1 and small group sessions) and conferences.

23. Have you any sense of how useful these have been?

24. How might these resources be added to or improved?

Data Management

25. What has been your involvement with BBNP data management, such as have you advised on data tracking or used any of the data collected to date?

26. Do you have any concerns about the data tracking and management, or any recommendations?

27. Do you have any feedback on how grantees calculate energy saving values, and any training they may have had or tools they use?

28. Do you have any concerns about the savings values calculations, or any recommendations?

Sustainability

29. In what ways would you say the BBNP program supports the development of a robust retrofit industry capable of providing a high volume of cost-effective energy upgrades?

30. What do you expect the BBNP grantees – or a successor organization – to do regarding promotion of energy efficiency upgrades after the BBNP grant period ends?

    a. [*If needed:*] For example, do you expect them to increase their activity level, continue their activities at the same level, reduce their activity level, or cease activities altogether?

    b. Why do you say that?

    c. How might that vary by grantee or region?

    d. What factors might affect sustainability?

    e. [*If cease or diminish activities:*] What would need to change or be in place in order for the activities to continue?

31. Do you have any feedback on the grantee-site evaluation activities? Any concerns or recommendations?

Closing

32. What has been the main success so far of BBNP?

33. If more funds were to become available, how would they be spent on this program, if at all?

34. Is there anything you'd like to add?

BETTER BUILDINGS MARKET EFFECTS MARKET INFORMANT SURVEY: RESIDENTIAL & COMMERCIAL

Interviewer:

Date:

Subject Name:

Organization:

Grantee(s) associated with:

Hello, my name is _____ from NMR Group, Inc and I am calling on behalf of the U.S. Department of Energy's Better Buildings Neighborhood Program. We are conducting research to better understand the change in the market for energy efficiency retrofits to existing homes as well as existing commercial buildings. As part of this research we are interviewing relevant market 'actors' (those involved in some way with the Better Buildings Program) to gather opinions and experiences with the Program.

[**IF ASKED**] We anticipate this interview will last about 20 to 30 minutes. Any information you provide will be treated as confidential.

[**IF ASKED**] NMR is an independent contractor hired to do this research. You can verify the legitimacy of this research by contacting Ed Vine of Lawrence Berkeley National Laboratory, US DOE at (510) 486-6047 or elvine@lbl.gov

[IF ASKED]: The Better Buildings Neighborhood Program provided $508 million in one-time grants to 41 localities and states in 2010. The funding was part of the American Recovery and Reinvestment Act (ARRA), also commonly referred to as the "Recovery Act" or "Stimulus" Funding. The grantees are working to develop and incubate community-based programs and incentives to spur demand for residential and commercial building energy upgrades.

Screening

First I would like to ask you some questions about your familiarity with the Better Buildings Neighborhood Program.

1. Have you heard of the Better Buildings Neighborhood Program? What do you know about the Better Buildings Neighborhood Program? [IF UNFAMILIAR – BE PREPARED TO PROVIDE A BRIEF DESCRIPTION] Are you familiar with any of the individual grantees? [IF FAMILIAR WITH INDIVIDUAL GRANTEES, ASK FOR NAMES OF GRANTEES]

a. [IF FAMILIAR WITH INDIVIDUAL GRANTEES] Which grantees have been successful? [PROBES: In what ways have they been successful? Why do you think they have been successful?]

b. Would you say that you are knowledgeable about both residential AND commercial retrofit markets? [IF NOT KNOWLEDGEABLE WITH RESIDENTIAL, SKIP TO COMMERCIAL SECTION]

Understanding the Residential Market

First I would like to ask you a few questions about the residential retrofit market. When answering these questions, I would like you to only consider the residential retrofit market for projects that result in homes that are more energy efficient, or an energy efficiency upgrade—for example, projects that include installing insulation, air sealing, energy-efficient windows or doors, energy-efficient heating, cooling or hot water equipment, or energy-efficient lighting.

2. From your perspective, who are the key market actors in the residential retrofit market when it comes to energy upgrades and increased efficiency [e.g., general contractors, HVAC contractors, insulation contractors, Home Performance Contractors, other types of contractors [SPECIFY], HERS raters and Home Energy Score raters, architects, lenders, retailers[SPECIFY], distributors [SPECIFY], real estate agents, etc.]? [IF NECESSARY, "In other words, who has the greatest influence on the residential market?"]

3. [IF NOT FAMILIAR WITH RESIDENTIAL MARKET – SKIP TO Q9]

4. [ASK FOR MARKET ACTORS IDENTIFIED IN Q2] Could you describe your understanding of the role of each of these market actor groups in the residential retrofit market when it comes to energy upgrades and increased efficiency?

   a. [PROBE: Do you know if these groups interact with one another, or do they act separately from one another?

   b. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] How does this interaction differ for projects within the program vs. projects outside the program?

   c. Who would you say are the key figures, such as trade associations, that members of industry or customers look to when making decisions about purchasing, stocking, or recommending energy efficient products?

   d. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] Does the Better Buildings Neighborhood Program work with all of these market actor groups? Does it spend more time with one or more market actor groups? If the latter, which ones?]

   e. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] Have projects from the Better Buildings Neighborhood Program become an important part of the businesses of any of these market actor groups? Which ones? How much of that extra business do you think will continue when the extra funding provided by the program winds down?

5. For residential retrofits that focus on energy efficiency upgrades, who do you think typically has the most influence on what measures or equipment are specified or installed for projects? [Probe: What role does the homeowner play in specifying upgrades/equipment? What role do market actors play in specifying upgrades/equipment? Who specifies the efficiency level of equipment installed? Who identifies what measures to install?] What factors do they consider? Have the ways decisions about efficiency are made changed over the years?
6. What are the key market barriers to advancing energy efficiency in the residential retrofit market?
   a. [PROBES: market actor group, technology/equipment, building practices, geography/climate]
   b. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] Does the objective of the Better Buildings Neighborhood Program address all of these market barriers? Does the Program appear to be more focused on certain barriers over others? If yes, which barriers does it focus on most?
7. What do you think are the key drivers to advancing energy efficiency in residential retrofits? [PROBES: market actor group, technology/equipment, building practices, geography/climate]
8. How has efficiency in the retrofit market (you have been working in) been affected by the housing boom in the 2000s? The economic downturn 2007-2010? Are there any other important external influences?

Understanding the Commercial Market

[ASK IF IDENTIFIED AS A COMMERCIAL MARKET INFORMANT]

Now I would like to ask you a few questions about the commercial retrofit market. When answering these questions, I would like you to only consider the commercial retrofit market for projects that result in buildings that are more energy efficient, or an energy efficiency upgrade—for example, projects that include upgrades to energy using equipment including lighting, cooling and heating equipment, or building envelope measures such as air sealing, energy-efficient windows or doors.

9. From your perspective, who are the key market actors in the commercial retrofit market when it comes to energy upgrades and increased efficiency [e.g., general contractors, HVAC contractors, insulation contractors, other types of contractors [SPECIFY], architects, lenders, LEED professionals, energy management companies, engineering firms, ESCO (energy service companies) retailers [SPECIFY], distributors [SPECIFY], real estate agents, etc.]?
10. [IF NOT FAMILIAR WITH COMMERCIAL MARKET – SKIP TO Q16]

11. Could you describe your understanding of the role of each of these market actor groups in the commercial retrofit market when it comes to energy upgrades and increased efficiency?

    a. [PROBE: Do you know if these groups interact with one another, or do they act separately from one another?

    b. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] How does this interaction differ for projects within the program vs. projects outside the program?

    c. Are there key figures that people look to in each of these groups – for example, a trade association that market actors follow or monitor?

    d. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] Does the Better Buildings Neighborhood Program work with all of these market actor groups? Does it spend more time with one or more market actor groups? If the latter, which ones?]

    e. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] Have projects from the Better Buildings Neighborhood Program become an important part of the businesses of any of these market actor groups? Which ones? How much of that extra business do you think will continue when the extra funding provided by the program winds down?

12. For commercial retrofits that focus on energy efficiency upgrades, who do you think typically has the most influence on what measures or equipment are specified or installed for projects? [Probe: What role does the business owner / building occupant play in specifying upgrades/equipment? What role do market actors play in specifying upgrades/equipment? Who specifies the efficiency level of equipment installed? Who identifies what measures to install?] What factors do they consider? Have the ways decisions about efficiency are made changed over the years?

13. What are the key market barriers to effecting greater efficiency in the commercial retrofit market?

    a. [PROBES: market actor group, technology/equipment, building practices, geography/climate]

    b. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] And does Better Buildings Neighborhood Program address all of these market barriers? Equally or does the Program spend more time addressing one or more market barriers? If the latter, which ones?

14. What do you think are the key drivers to greater efficiency in commercial retrofits? [PROBES: market actor group, technology/equipment, building practices, geography/climate]

15. How has efficiency in the retrofit market you have been working in been affected by the economic downturn 2007-2010? Are there any other important external influences?

Impact of Better Buildings Program & Other Factors

16. Next, I would like you to consider the impact of a number of factors on the market for energy efficiency upgrades. Some may have a negative impact and some may have a positive impact. What has been the impact of the following factors on the market for energy efficiency upgrades? [PROBE FOR IMPACTS] [IF RESIDENTIAL AND COMMERCIAL, PROBE FOR DIFFERENCES BETWEEN RESIDENTIAL AND COMMERCIAL MARKETS]

    a. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] The Better Buildings Neighborhood Program

    b. Programs funded by Energy Efficiency and Conservation Block Grants (EECBG)

    c. Home Performance with ENERGY STAR or other home efficiency programs sponsored by local utilities or state and local energy efficiency program administrators

    d. Federal Tax Credits (for energy efficiency improvements)

    e. State tax credits(for energy efficiency improvements)

    f. Weatherization Assistance Program (Run through EERE)

    g. Changes in local and national economy

    h. Changes in energy prices

    i. Public attitudes toward climate change

    j. The underlying "natural" change in the home energy retrofit market

    k. Any other factors?

17. [IF FAMILIAR OF BETTER BUILDINGS PROGRAM (Q#1), CONTINUE. IF NOT FAMILIAR, SKIP TO Q#24]

18. How has the Better Buildings Neighborhood Program coordinated with other energy efficiency programs, such as programs sponsored by local utilities or state and local energy efficiency program administrators? [IF RESIDENTIAL] Does the program affect the residential retrofit market in ways that are different from these other programs? In what ways?

    a. [IF COMMERCIAL] Does the program affect the commercial retrofit market in ways that are different from these other programs? In what ways?

19. Better Buildings Neighborhood Programs, which vary across the country, have several different program elements. The major program elements are training for contractors, marketing and outreach, low-interest financing for program participants, free or reduced costs energy assessments, and rebates or other incentives. Based on your knowledge of this industry, which of these do you think in general are the most effective program

elements? Why? [IF RESIDENTIAL AND COMMERCIAL, PROBE FOR DIFFERENCES BETWEEN RESIDENTIAL AND COMMERCIAL MARKETS]

20. How do these program elements address the barriers to efficiency you mentioned earlier? [PROBE; ASK ABOUT EACH PROGRAM ELEMENT]

    a. Training of contractors

    b. Low-interest financing

    c. Marketing and outreach

    d. Rebates and other incentives

    e. Free or reduced cost energy assessment

21. In what ways would you say the program supports the development of a robust retrofit industry capable of providing a high volume of cost-effective energy upgrades? To what extent would this model or approach be exportable to other areas of the United States? [PROBE FOR DETAILS: Are there lessons learned by the grantees that can be applied to other areas of the United States? What elements of the program do you think other programs should emulate?]

22. [IF RESIDENTIAL] What would happen to the residential retrofit market if the Better Buildings Neighborhood Program ended now? Why do you say that?

23. [IF COMMERCIAL] What would happen to the commercial retrofit market if the Better Buildings Neighborhood Program ended now? Why do you say that?

24. [IF RESIDENTIAL] Now, I would like you to think about the number of residential energy efficiency retrofits that have taken place in 2011 and 2012, what would have been the impact on the number of retrofits if the following programs and factors did not exist or did not happen? Would you say an increase in the number of retrofits, a decrease in the number of retrofits or no change in the number of residential energy efficiency retrofits without… [ASK FOR EACH FACTOR]

    a. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] The Better Buildings Neighborhood Program

    b. Programs funded by Energy Efficiency and Conservation Block Grants (EECBG)

    c. Home Performance with ENERGY STAR or other home efficiency programs sponsored by local utilities or state and local energy efficiency program administrators

    d. Federal Tax Credits (for energy efficiency improvements)

    e. State tax credits(for energy efficiency improvements)

    f. Weatherization Assistance Program (Run through EERE)

    g. Changes in local and national economy

h. Changes in energy prices

i. Public attitudes toward climate change

j. The underlying "natural" change in the home energy retrofit market

k. [Other factors identified in Q#16]

[IF INCREASE, ASK] By what percentage would the number of residential energy efficiency retrofits have **increased** without [INSERT FACTOR]? [PROBE FOR PERCENTAGE]

[IF DECREASE, ASK] By what percentage would the number of residential energy efficiency retrofits have **decreased** without [INSERT FACTOR]? [PROBE FOR PERCENTAGE]

25. [IF COMMERCIAL] Now, I would like you to think about the number of commercial energy efficiency retrofits that have taken place in 2011 and 2012, what would have been the impact on the number of retrofits if the following programs and factors did not exist or did not happen? Would you say an increase in the number of retrofits, a decrease in the number of retrofits or no change in the number of residential energy efficiency retrofits without… [ASK FOR EACH FACTOR]

a. [ASK IF FAMILIAR OF BETTER BUILDINGS PROGRAM, Q#1] The Better Buildings Neighborhood Program

b. Benchmarking or labeling programs including: LEED or ENERGY STAR Portfolio Manager

c. Commercial energy efficiency programs sponsored by local utilities or state and local energy efficiency program administrators

d. Federal Tax Credits (for energy efficiency improvements)

e. State tax credits (for energy efficiency improvements)

f. Changes in local and national economy

g. Changes in energy prices

h. Public attitudes toward climate change

i. The underlying "natural" change in the home energy retrofit market

j. [Other factors identified in Q#16]

[IF INCREASE, ASK] By what percentage would the number of commercial energy efficiency retrofits have **increased** without [INSERT FACTOR]? [PROBE FOR PERCENTAGE]

[IF DECREASE, ASK] By what percentage would the number of commercial energy efficiency retrofits have **decreased** without [INSERT FACTOR]? [PROBE FOR PERCENTAGE]

Identification of Market Actors

26. Can you think of any experts on the residential or commercial retrofit markets who could help answer some of the questions we've been asking you? [GET NAMES, AFFILIATIONS, AND CONTACT INFORMATION]

THANKS VERY MUCH!

B MARKET INFORMANTS ORGANIZATIONS

Table 1: Market Informants Represent the Following Organization

ORGANIZATION
Air Conditioning Contractors of America (ACCA)
AFC First Financial Corporation
Building Performance Institute (BPI)
Consortium for Energy Efficiency (CEE)
Efficiency First
Energy & Environmental Building Association (EEBA)
Green Homes America (GH America)
Harvard University - Joint Center for Housing Studies (JCHS)
Lawrence Berkeley National Laboratory (LBNL) (two contacts)
Midwest Energy Efficiency Alliance (MEEA)
National Association of Home Builders (NAHB) National Office
National Association of Home Builders (NAHB) Research Center
National Association of the Remodeling Industry (NARI) National Office
National Association of State Energy Officials (NASEO)
National Alliance for Technician Excellence (NATE)
National Home Performance Council (NHPC)
National Electrical Manufacturers Association (NEMA)
Northeast Energy Efficiency Partnerships (NEEP)
Renewable Funding
Residential Energy Services Network (RESNET)
Southern Alliance for Clean Energy (SACE)
Southface Green Building Services
Southwest Energy Efficiency Project (SWEEP)

C SIC CODES USED TO IDENTIFY CONTRACTORS AND VENDORS

We used the following SIC codes to identify residential program contractors:

- 1521 General Residential Construction-Single Family
- 1521-05 Home Improvements
- 1522 General Residential Construction-Multi-Family
- 1542 General Contractors
- 1711 Plumbing, Heating, and Air Conditioning Contractors
- 1711-11 Solar Heating Contractors
- 1711-31 Energy Management Systems & Products
- 1731 Electrical Contractors
- 1742 Plastering, Drywall, Acoustical, and Insulation
- 1751 Carpentry
- 7623 Refrigeration and Air-conditioning Service and Repair

The following SIC codes were used to identify commercial program contractors:

- 1541 General Contractors – Industrial
- 1542 General Contractors
- 1711 Plumbing, Heating, and Air Conditioning Contractors
- 1731 Electrical Contractors
- 1742 Plastering, Drywall, Acoustical, and Insulation
- 7623 Refrigeration and Air-conditioning Service, and Repair

The following SIC codes were used to identify energy-efficient equipment vendors:

- 3430 Heating Equipment
- 3698 Other Electric Equipment
- 5033 Roofing, Siding and Insulation

- 5074 Plumbing and Hydronic Heating Supplies
- 5075 Warm Air Heating and Air Conditioning

D SURVEY SAMPLES AND GRANTEE GEOGRAPHY

Appendix D provides additional details of the methodology used to develop population estimates and samples for nonparticipating contractors and vendors.

In designing the sample for nonparticipating contractors and vendors, we first identified the geographic region for each grantee. Our goal was to systematically identify a geographic region for each grantee that captured an adequate population of contractors and vendors working in the grantee locations without defining a region that was so large that we would be unable to detect potential market effects. Grantees areas included major metropolitan regions, small cities or towns within major metropolitan regions, medium sized cities, rural counties, and small towns.

Figure 1 through Figure 6 map all 41grantee areas by geographic category. Grantees are organized by the original DOE Account Manager regions (Mid-Atlantic, New England, Southwest and Southeast, Northwest and Central, Midwest and West, and California).

Figure 1: Locations of BBNP Grantees in Mid-Atlantic States

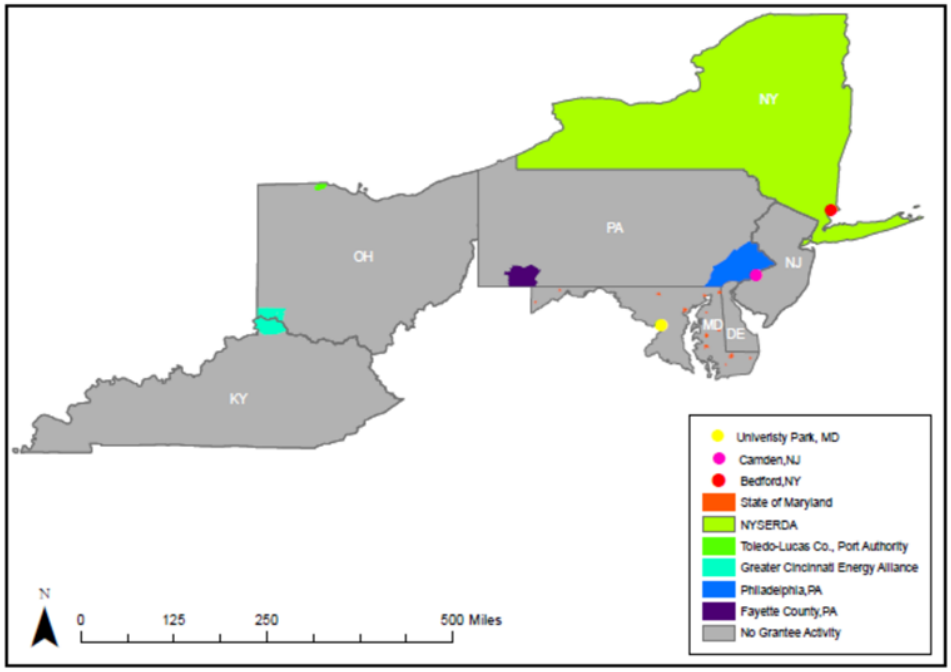


Figure 2: Locations of BBNP Grantees in New England States

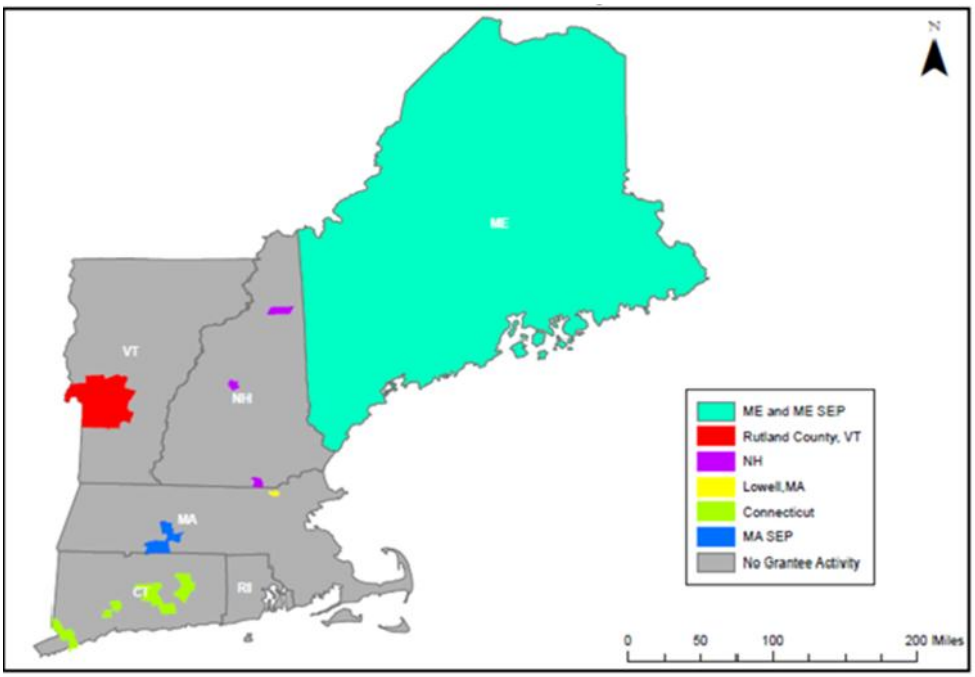


Figure 3: Locations of BBNP Grantees in the Southwest and Southeast States

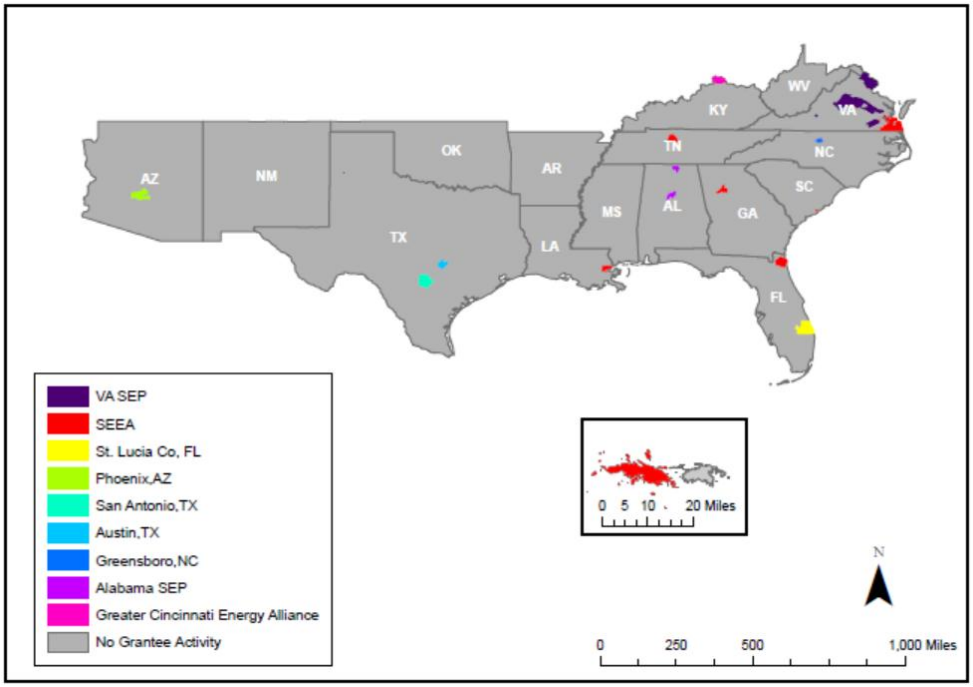


Figure 4: Locations of BBNP Grantees in the Northwest and Central States

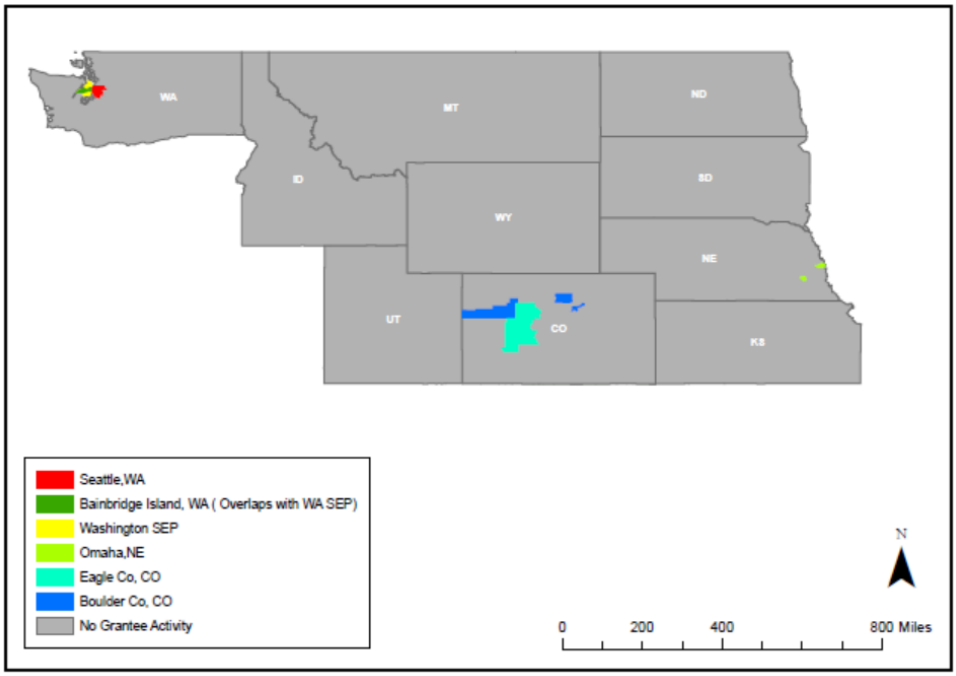


Figure 5: Locations of BBNP Grantees in the West and Midwest States

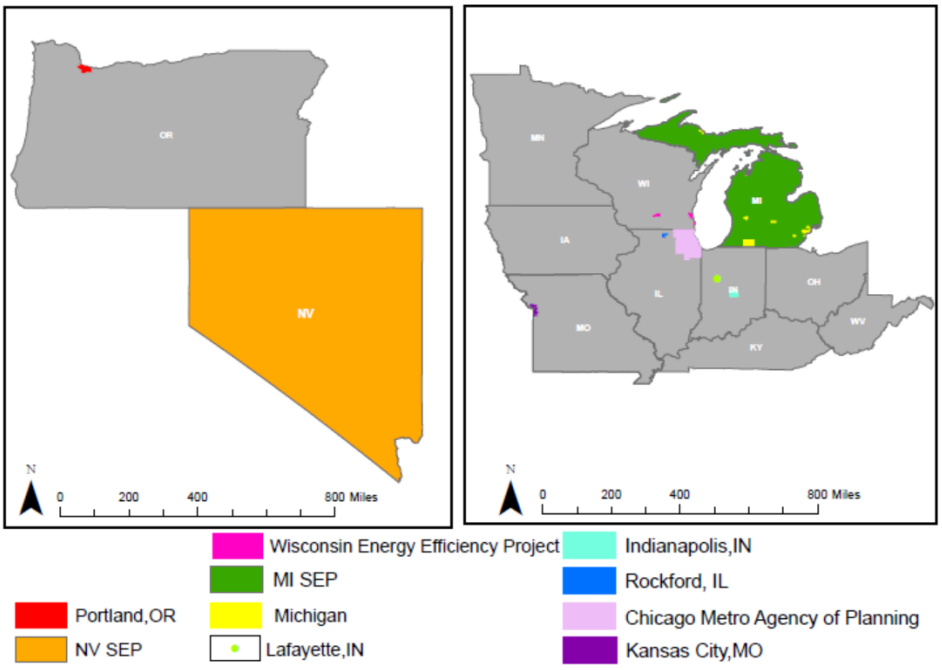
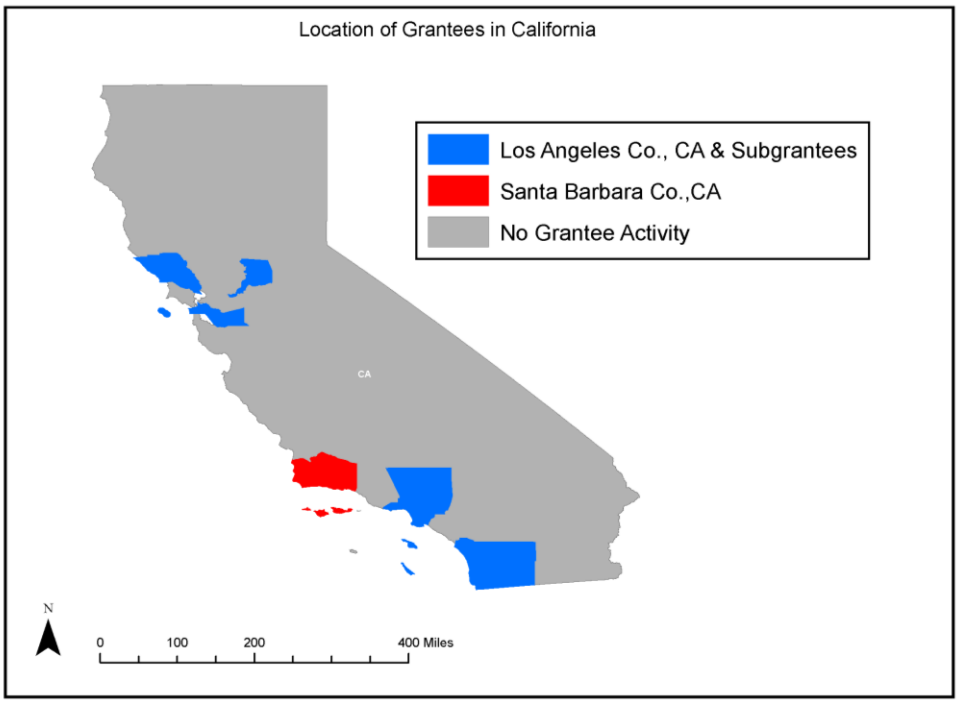


Figure 6: Locations of BBNP Grantees in California



We categorized grantees locations according to the Center for Disease Control's National Center for Health Statistics (NCHS) – 2006 Urban-Rural Classification Scheme for Counties.[1] The NCHS report classifies counties into one of six categories, four of which are urban and two of which are rural.

Table 2 provides the number of grantee counties associated with each NCHS code. In some cases, grantees' programs are active in multiple counties. As a result, individual grantees may have had more than one sampling rule applied to them. Additionally, as noted above, sampling for some grantees was limited for this preliminary evaluation to those regions where they had been most active; therefore, the counts here do not necessarily reflect the number of counties in the entire region in which the grantee is operating a program.

[1] See: http://www.cdc.gov/nchs/data_access/urban_rural.htm.

Table 2: Count of Grantees Associated with NCHS – 2006 Urban-Rural Classification County Codes

NCHS Urban-Rural County Code	Number of Grantees	Number of Counties
Large metro, central	10	11
Large fringe metro	4	7
Medium metro	8	8
Small metro	1	1
Nonmetro, micropolitan	3	4
Nonmetro, noncore	2	3
Total	**21**	**34***

* 21 grantees are associated with 34 different county-types. Because the Maine grantee is offered statewide, contractors and vendors were sampled from the entire state instead of individual counties. As such, classification for Maine is not reflected here.

Table 3 illustrates the counties we used for sampling for each grantee and the county codes assigned to them.

Table 3: Grantee Sampling Locations, Counties, and County Codes

Grantee	Location within County	County	NCHS Urban-Rural County Code
Austin, TX	Primary city	Travis	Large central metro
Bainbridge Island, WA	City/town**	Kitsap	Small metro
Boulder County, CO	Entire county	Boulder	Medium metro
	Entire county	Garfield	Noncore
	Entire county	Denver	Large central metro
Connecticut	Other*	Fairfield	Medium metro
Eagle County, CO	Entire county	Eagle	Micropolitan
	Entire county	Pitkin	Noncore
	Entire county	Gunnison	Noncore
Fayette County, PA	Entire county	Fayette	Large fringe metro
Greensboro, NC	City/town	Guilford	Medium metro
Kansas City, MO	Primary city	Jackson	Large central metro
Lowell, MA	City/town	Middlesex	Large fringe metro
Maine	State	N/A	N/A

Continued…

GRANTEE	LOCATION WITHIN COUNTY	COUNTY	NCHS URBAN-RURAL COUNTY CODE
Michigan	City/town	Kent	Medium metro
	Primary city	Wayne	Large central metro
New Hampshire****	City/town	Coos	Micropolitan
	City/town	Hillsborough	Medium metro
	City/town	Grafton	Micropolitan
NYSERDA ***	City/town	Onondaga	Medium metro
	City/town	Erie	Large central metro
	City/town	Monroe	Large central metro
Philadelphia, PA	Entire county	Philadelphia	Large central metro
	Entire county	Bucks	Large fringe metro
	Entire county	Chester	Large fringe metro
	Entire county	Delaware	Large fringe metro
	Entire county	Montgomery	Large fringe metro
Phoenix, AZ	Neighborhood	Maricopa	Large central metro
Portland, OR	Primary city	Multnomah	Large central metro
Rutland County, VT	Entire county	Rutland	Micropolitan
San Antonio, TX	Primary city	Bexar	Large central metro
Seattle, WA	Primary city	King	Large central metro
St. Lucie County, FL	Entire county	St. Lucie	Medium metro
Toledo-Lucas Co. Port Authority (OH)	Entire county	Lucas	Medium metro
University Park, MD	Entire county	Prince George's	Large Fringe Metro

* The rules for sampling were adjusted for Connecticut. Sampling was not based on the NCHS county code for Fairfield County. The geographic area was instead limited to a geographic radius encompassing the boundaries of the four most active cities in the southwest corner of the state—all of these cities happen to be in Fairfield County.

** Sampling in Kitsap County included two cities where the Bainbridge Island, WA grantee is most active: Bainbridge Island and Bremerton.

***Sampling for NYSERDA was limited to Syracuse, Rochester, and Buffalo, where over 60% of the 2011 NYSERDA HPwES residential retrofits had occurred.

****Sampling for New Hampshire was limited to the towns of Berlin, Nashua, and Plymouth

Table 4 provides the original sample frame and survey goals for each population. We set a target number of completed surveys for each population for each grantee by applying the percentage of the total grant value of the 22 grantees received by the grantee to the target of 170 completed surveys. For example, Austin's grant of $10,000,000 represents 3% of the total grant received by

the 22 grantees, resulting in a minimum goal of 5 completed surveys. Because of the small sample frames for participating contractors, we took into consideration the size of the sample frame for each grantee, so that minimum goals were at times reduced because of small sample frames. In addition, we set a minimum goal of at least two completed surveys for each population for each grantee. The sample frames for nonparticipating contractors and vendors were large enough that we did not need to adjust our targeted number of completed interviews.

Table 4: Grantees Sample Frames and Target Number of Surveys for Participating and Nonparticipating Contractors and Vendors

		Participant Contractors			Nonparticipant Contractors		Vendors	
Grantee	Grant Value	Sample Frame	Minimum Goal	Maximum Goal	Sample Frame	Goal	Sample Frame	Goal
Austin, TX	$10,000,000	28	5	8	258	5	62	5
Bainbridge Island, WA	$4,884,614	17	3	9	239	3	59	3
Boulder County, CO *	$25,000,000	59	11	17	225	13	104	13
Connecticut	$4,171,214	4	2	3	263	2	45	2
Eagle County, CO	$4,916,126	35	3	9	241	3	12	3
Fayette County, PA	$4,100,018	14	2	7	193	2	11	2
Greensboro, NC	$5,000,000	11	2	7	232	3	72	3
Kansas City, MO	$20,000,000	43	8	16	235	11	86	11
Lowell, MA *	$5,000,000	12	2	3	231	3	29	3
Maine	$34,538,571	369	18	27	231	18	77	18
Michigan	$30,000,000	53	11	17	246	16	147	16
New Hampshire	$10,000,000	55	5	8	214	5	29	5
NYSERDA	$40,000,000	62	12	22	236	21	143	21
Philadelphia, PA	$25,000,000	117	13	20	257	13	184	13
Phoenix, AZ *	$25,000,000	31	6	9	250	13	161	13
Portland, OR	$20,000,000	50	10	19	248	11	88	11
Rutland County, VT	$4,487,588	8	2	3	159	2	8	2
San Antonio, TX	$10,000,000	48	5	8	230	5	58	5
Seattle, WA	$20,000,000	15	3	9	256	11	117	11
St. Lucie County, FL	$2,941,500	56	2	7	225	2	13	2
Toledo-Lucas Co.	$15,000,000	7	2	3	199	8	45	8

Grantee	Grant Value	Participant Contractors			Nonparticipant Contractors		Vendors	
		Sample Frame	Minimum Goal	Maximum Goal	Sample Frame	Goal	Sample Frame	Goal
Port Authority (OH) *								
University Park, MD	$1,425,000	65	2	7	258	2	50	2
Total	**$321,464,631**	**1,159**	**129**	**238**	**5,126**	**172**	**1,600**	**172**

* Designates a grantee classified as a commercial program for the preliminary evaluation.

E ADDITIONAL TABLES & ANALYSIS OF CONTRACTOR & VENDOR SURVEYS

This section of the appendix is composed of additional tables that support the analysis and conclusions presented in Chapter 8 (Market Assessment: Contractors and Distributors).

Throughout this appendix we report statistically significant differences in survey responses of participating and nonparticipating contractors by grantee level of success. Significant differences between success levels at the 90% confidence level are indicated with the following symbol: †. We did not test for differences between participating and nonparticipating contractors.

RESPONDENT CHARACTERIZATION

This section discusses the characteristics of the contractors and distributors who responded to the surveys.

Contractors

As described in Volume 1, we completed surveys with 340 contractors from 22 of the BBNP grantees, including 189 contractors who had participated with the BBNP grantee (participating) and 151 contractors who had not participated with the BBNP grantees (nonparticipating).[2] As noted in Chapter 1, we surveyed contractors from grantees identified by DOE Account Managers as having active programs that had achieved a substantial numbers of upgrades.

When asked to describe the type of work their company performed, the majority of both participating and nonparticipating contractors (94% and 82%, respectively) reported that their companies installed energy-efficient equipment or conducted energy-efficiency improvements. Over one-half of participating contractors (60%) also said their companies conducted energy audits; in contrast, less than one-quarter of nonparticipating contractors (22%) did the same. The most common type of work nonparticipating contractors mentioned fell under the category of general contracting (cited by 85% of nonparticipating contractors). This suggests that participating contractors may be more likely to offer services that specialize in home performance and whole-house energy efficiency retrofits.

[2] During the interview process, a number of nonparticipating contractors indicated that they had completed upgrade projects through the BBNP grantees; we recoded these contacts as participating contractors.

Table 5: Type of Work Performed by Company (Multiple Responses)

TYPE OF WORK	PARTICIPANTS (N=189)	NONPARTICIPANTS (N=151)
Equipment installations/ installations of energy-efficiency improvements	94%	82%
Energy Audits	60%	22%
General contracting	36%	85%
Other*	4%	8%

* Other included design/architectural engineering, building inspection, ENERGY STAR verification, energy-efficiency education, refrigeration, etc.

In terms of types of projects, both participating and nonparticipating contractors most commonly identified building envelope improvements (73% and 51%, respectively), HVAC, and water heating system projects (62% and 59%, respectively) as the types of projects included in their companies' business. In addition to building envelope, HVAC and water heating projects, over half (56%) of the participant contractors also conducted energy assessments or energy audits.

Table 6: Types of Projects that Comprise Company's Business (Multiple Responses)

TYPE OF PROJECT	PARTICIPANTS (N=189)	NONPARTICIPANTS (N=151)
Building envelope improvements (insulation, air sealing, windows, etc)	73%	51%
HVAC and water heating systems	62%	59%
Energy assessments / energy audits	56%	29%
Lighting equipment	30%	40%
General Contracting	5%	32%
Motors	2%	5%
Building automation and/or controls	2%	5%
Refrigeration	2%	3%
Other	10%	9%
Don't Know	1%	2%

* General contracting included responses of remodeling, construction, renovation, plumbing, electrical work, service and repair.

Participating contractors had larger firms, with a median of five employees compared to two for nonparticipating contractors; 48% of participating contractors have six or more employees, compared to 31% among nonparticipating contractors (Table 7)

Table 7: Company Size

# OF FULL TIME EMPLOYEES	PARTICIPANTS (N=189)	NONPARTICIPANTS (N=151)
Average	21	11
Median	5	2
1 to 5 (% of respondents)	51%	71%
6 to 10 (% of respondents)	14%	11%
11 to 20 (% of respondents)	18%	7%
More than 20 (% of respondents)	16%	11%

The average number of upgrades completed by contractors varied by grantee level of success (Table 8). Participating contractors from low-success grantees performed, on average, the highest number of upgrades among participating contractors while nonparticipating contractors from medium-success grantees performed the highest number of upgrades among nonparticipating contractors. [3]

Table 8: Total and Average Number of Energy-efficiency upgrades Completed in Existing Buildings, 2010 to 2012, by Level of Grantee Success

	PARTICIPANTS (N=184)			NONPARTICIPANTS (N=135)		
LEVEL OF SUCCESS	N	Average Number of Upgrades	Total Number of Upgrades	N	Average Number of Upgrades	Total Number of Upgrades
Low	26	794	20,649	23	63	1,448
Medium	54	445	24,034	51	276	14,085
High	104	507	52,742	61	83	5,041
Total	**184**	**529**	**97,425**	**135**	**152**	**20,574**

As shown in Table 9, the majority of the contractors (94% of participating contractors and 82% of nonparticipating contractors) indicated that their company worked mainly on projects involving new or existing homes, while the minority (6% or participating contractors and 18% of nonparticipating contractors) reported most of their company's business was conducted in the commercial market. In terms of the number of total upgrades contractors performed between 2010 and 2012, almost all (98% of all upgrades, with 82% completed by participating contractors

[3] Almost all (98% of all upgrades, with 82% completed by participating contractors and 16% by nonparticipating contractors) were completed with existing homes while 2% were with commercial buildings

and 16% by nonparticipating contractors) were completed on existing homes rather than commercial buildings.[4]

Table 9: Residential and Commercial Upgrades

	PARTICIPANTS (N=189)		NONPARTICIPANTS (N=151)	
	% of Contractors	% of All Upgrades	% of Contractors	% of All Upgrades
Residential	94%	82%	82%	16%
Commercial	6%	<1%	18%	1%

Overall, the 22 BBNP grantees included in our surveys reported that they have completed 20,511 upgrades through Q2, 2012; participating contractors from the survey reported completing 8,388 upgrades with the BBNP grantees, or 41% of the total upgrades (Table 10). Participating contractors from low-success grantees reported completing more upgrades than the grantees have reported. This discrepancy may be because participating contractors were interviewed during Q3 2012 while the BBNP program data is from Q2 2012, or it may be due to respondent error.

Table 10: BBNP Completed Upgrades Reported by Grantees and Participating Contractors by Level of Success

LEVEL OF SUCCESS	TOTAL # OF UPGRADES REPORTED BY GRANTEES, THROUGH Q2 2012 (% OF TOTAL) *	# OF UPGRADES REPORTED BY PARTICIPATING CONTRACTORS COMPLETED WITH GRANTEES, Q3, 2012 (% OF TOTAL)**	% OF GRANTEE UPGRADES COMPLETED BY SURVEYED CONTRACTORS
Low	714 (3%)	836 (10%)	117%**
Medium	4,284 (21%)	1,484 (18%)	35%
High	15,513 (76%)	6,068 (72%)	39%
Total*	**20,511**	**8,388**	**41%**

* The retrofit counts are limited to the 22 grantees included in the preliminary process and market impacts evaluation. The counts only include residential upgrades for 18 of the 22 grantees whose contractors were interviewed about residential upgrades and commercial upgrades for the four grantees whose contractors were interviewed about their commercial upgrades. Of the total number of upgrades completed by grantees (20,511), residential upgrades represent 96% of total upgrades and commercial upgrades represent 4% of all upgrades.

** Participating contractors estimated projects completed with the BBNP grantees at the end of Q3 2012 while the BBNP program data is from Q2 2012.

Respondents were asked to estimate the percentage of their company's business that came from the region served by the BBNP grantee. Both participating and nonparticipating contractors

[4] Contractors from the following grantees were asked about commercial upgrades: Lowell, MA; Phoenix, AZ; Boulder County, CO; and Toledo-Lucas Co. Port Authority (OH). Contractors from the remaining 18 grantees were asked about residential upgrades.

reported that the majority (73% and 60%, respectively) of their business originated within the grantee program area.[5]

Participating contractors estimated that 28% of their business was due to the BBNP grantee in 2011 and anticipated 30% of their business in 2012 would be due to the BBNP grantee (Table 11).

Table 11: Business Funded by the BBNP Grantee Programs

PARTICIPATING CONTRACTOR ESTIMATES	2011 (N=193)	2012 (ESTIMATED) (N=170)
Average % of business due to the BBNP grantee	28%	30%
0% to less than 25% of business funded by the BBNP	50%	50%
25% to less than 50% of business funded by the BBNP	9%	15%
50% to less than 75% of business funded by the BBNP	10%	17%
75% to 100% of business funded by the BBNP	12%	10%

Table 12 presents program awareness and participation; discussion follows the table.

Table 12: Program Awareness and Participation

	PARTICIPANTS (N=189)			NONPARTICIPANTS (N=151)		
PROGRAMS	% Aware	% Participated	# Program Projects	% Aware	% Participated	# Program Projects
BBNP Grantee	100%	100%	8,388	44%	NA	NA
EECBG funded programs	48%	20%	2,722	25%	4%	454
Utility sponsored programs*	88%	65%	26,302	77%	35%	3,945
Weatherization Assistance Program (WAP)*	79%	27%	20,305	61%	7%	264
Commercial programs sponsored by local utilities**	91%	73%	111	78%	41%	224
Benchmarking or labeling programs (LEED; ENERGY STAR Portfolio Manager)**	73%	55%	22	67%	33%	184
Federal tax credits	96%	NA	NA	91%	NA	NA
State tax credits	70%	NA	NA	70%	NA	NA

* Only those respondents associated with the residential sector were asked about this program: for participating contractors n=178 and for nonparticipating contractors n=124.

** Only those respondents associated with the commercial sector were asked about this program: for participating contractors n=11 and for nonparticipating contractors n=27.

[5] Grantee regions are defined in Chapter 1; maps of the grantee regions are available in Appendix D.

Respondents showed a high level of awareness of other programs and policies that encourage the installation of energy-efficient equipment in buildings and homes. As shown in Table 12 presents program awareness and participation; discussion follows the table.

Table 12 (above), contractors in the residential sector had completed the highest number of upgrades – over 26,000 among participating contractors and almost 4,000 among nonparticipating contractors – through utility-sponsored programs (e.g., Home Performance with ENERGY STAR (HPwES) programs). Overall, higher percentages of contractors who participated in the BBNP grantee programs also participated more in other energy-efficiency programs than did nonparticipating contractors.

Distributors

A large majority of both residential and commercial distributors reported selling HVAC and water heating systems (91% and 86% respectively), and more than one-half of each group (59% and 54%) reported selling motors. Building automation and/or controls were sold by more than one-third (36%) of the residential distributors and one-half of the commercial distributors. Fewer than one-quarter reported selling refrigeration equipment (21% of both groups), building envelope products such as insulation, windows, and air sealing (15% of the residential distributors and 18% of the commercial distributors), lighting equipment (13% and 14%), and renewable energy equipment (10% and 18%) (Table 13).

Table 13: Energy-Related Products Sold in Grantee Area (Multiple Responses)
(base: all respondents)

ENERGY-RELATED PRODUCT	RESIDENTIAL (N=136)	COMMERCIAL (N=28)
HVAC and water heating systems	91%	86%
Motors	59%	54%
Building automation and/or controls	36%	50%
Refrigeration equipment	21%	21%
Building envelope products (insulation, windows, air sealing)	15%	18%
Lighting equipment	13%	14%
Renewables	10%	18%

The number of staff employed full-time by the distributors' companies varied widely. Most companies (77%) were relatively small, with twenty-five or fewer employees, while 7% had between twenty-six and fifty employees (Table 14).

Table 14: Company Size

NUMBER OF FULL TIME EMPLOYEES	DISTRIBUTORS (N=164)
0-25	77%
26-50	7%
51-75	4%
76-100	3%
101-200	3%
201 -400	2%
401- or more	2%
Don't know/Refused	1%

PERCEIVED BARRIERS TO ENERGY EFFICIENCY INVESTMENTS

Contractors

We asked respondents in both the participating and non-participating contractor surveys what they considered to be the single greatest barrier that keeps customers from implementing or pursuing a greater degree of energy efficiency improvements. The majority (79%) of all respondents noted economic issues, with 'cost, payback, and capital' being the most commonly reported cluster of economic barriers. Reported barriers significantly (p=.015) varied by participation status, with participating contractors being more likely to indicate 'lack of financing' and 'lack of knowledge or understanding of benefits' than non-participating contractors.

We then asked contractors about other barriers that often prevent customers from pursuing energy efficient upgrades. For both participants and nonparticipants, 'lack of knowledge and understanding of energy efficiency's benefits' and 'cost, payback, and capital' were the most commonly reported other barrier areas. These two areas were also two of the most common choices amongst single greatest barriers, further demonstrating that economic issues and knowledge and awareness pose the most significant barriers to efficiency upgrades.

Table 15: Single Greatest Barrier to Energy Efficiency Upgrades

Barrier	Participating Contractors (N = 189)		Nonparticipating Contractors (N = 151)	
	Count	Percent	Count	Percent
Cost/payback/capital	111	59%	103	68%
Lack of financing	27	14%	11	7%
Economy in general	10	5%	5	3%
Lack of knowledge/ understanding of benefits	25	13%	7	5%
Lack of awareness	8	4%	7	5%
Too much work/hassle	3	2%	3	2%
Lack of time	0	0%	1	1%
Do not own building/landlord makes decision	0	0%	1	1%
Other	5	3%	9	6%
None	0	0%	1	1%
Don't know	0	0%	3	2%

Distributors

We asked respondents what they considered the single greatest barrier that keeps customers from implementing or pursuing a greater degree of energy efficiency improvements. The majority (90%) of distributors indicated one of several economic issues as the greatest barriers including: cost, payback, and capital. The next highest barrier was awareness and knowledge as shown in Table 16.

Table 16: Perceived Single Greatest Barrier to Energy Efficiency Upgrades

Barrier	Distributors (N = 164)	
	Count	Percent
Cost/payback/capital	140	85%
Lack of financing	5	3%
Economy in general	4	2%
Lack of knowledge/ understanding of benefits	8	5%
Lack of awareness	1	1%
Lack of interest	1	1%
Other	4	2%
None	1	1%

We asked respondents whether any barriers had increased or decreased in importance over the past two years and, if so, which ones had increased or decreased in importance. More respondents indicated some barriers that had increased (44%) than decreased (10%). Cost, payback, and capital was most commonly identified as having increased or decreased in importance, with a total of 39 respondents (24% of the sample) saying it had changed in importance. Of those 39 respondents, five times as many said it had increased in importance (20% of the sample) as said it had decreased (4%).

Table 17: Barriers to Energy Efficiency Upgrades That Have Become More or Less Important Since the Program Began (Multiple Responses Allowed)

BARRIER	DISTRIBUTORS (N = 163)			
	Increased Importance		Decreased Importance	
	Count	Percent	Count	Percent
ECONOMIC FACTORS				
Cost/payback/capital	32	20%	7	4%
Economy in general	11	7%	0	0%
Lack of financing	8	5%	1	1%
Lack of federal tax credit	5	3%	0	0%
Cost of fuel	0	0%	2	1%
KNOWLEDGE AND AWARENESS				
Lack of knowledge/ understanding of benefits	4	2%	4	2%
Uncertainty about performance of energy efficient equipment	2	1%	0	0%
Lack of awareness	0	0%	1	1%
Availability of energy efficient products	0	0%	2	1%
Governing bodies and regulations	4	2%	0	0%
Other	11	7%	0	0%
Don't know	2	1%	0	0%
Nothing	96	59%	147	90%

OVERALL IMPACTS ON THE UPGRADES MARKET

Table 18 shows the responses of those who strongly agreed that there was more business in general in the marketplace than there would have been without the program by grantee level of success.[6] We found that a higher percentage of participating contractors from the low-success grantees said the BBNP grantee program had led to more business in the marketplace in general compared to contractors from him-success grantees. In addition, the participating contractors

from low-success grantees were responsible for 68% of the upgrades performed in low-success grantee regions.

Table 18: Respondents Who Strongly Agreed that There Was More Business in General with the BBNP

	PARTICIPANTS			NONPARTICIPANTS		
LEVEL OF SUCCESS	n	% of Participants who Strongly Agreed (7-10)*	% of all Upgrades**	n	% of Non-participants Respondents who Strongly Agreed (7-10)*	% of all Upgrades
Low success	28	64%†	68%	28	4%	<1%
Medium success	56	52%	18%	55	7%	<1%
High success	105	43%	33%	68	12%	<1%
Total	**189**	**49%**	**35%**	**151**	**9%**	**<1%**

* Percentages of respondents are based on the total number of each respective population of participating and nonparticipating contractors for each level of success and overall.

** Percentages of upgrades are based on the total number upgrades for each level of success and overall (i.e., 22,097 for low-success grantees, 38,119 for medium, 57,783 for high, and 117,999 for total).

† The low-success percentage is significantly different from the high success percentage at the 90% confidence level.

The same pattern appeared for those who strongly agreed that there will be more business for their company in the next two years than there would have been without the program: a higher percentage of contractors from low-success grantees strongly agreed, and they were responsible for a higher percentage of the upgrades in their regions, though the differences are not statistically significant at the 90% confidence level (Table 19).

Table 19: Respondents who Strongly Agreed that There Will Be More Business for Their Company in the Next Two Years with the BBNP

	PARTICIPANTS			NONPARTICIPANTS		
LEVEL OF SUCCESS	n	% of Participants who Strongly Agreed (7-10)	% of all Upgrades**	n	% of Nonparticipants Respondents who Strongly Agreed (7-10)	% of all Upgrades
Low success	28	68%	70%	28	7%	<1%
Medium success	56	50%	16%	55	7%	<1%
High success	105	56%	51%	68	12%	<1%
Total	**189**	**56%**	**43%**	**151**	**9%**	**1%**

* Percentages of respondents are based on the total number of each respective population of participating and nonparticipating contractors for each level of success and overall.

** Percentages of upgrades are based on the total number upgrades for each level of success and overall (i.e., 22,097 for low-success grantees, 38,119 for medium, 57,783 for high, and 117,999 for total).

Again, the same pattern appeared for those who strongly agreed that there will be more business in general in the marketplace in the next two years than there would have been without the program: a higher percentage of contractors from low-success grantees strongly agreed (compared to contractors from him-success grantees), and they were responsible for a higher percentage of the upgrades in their regions (Table 20).

Table 20: Respondents who Strongly Agreed that There Will Be More Business in General in the Next Two Years with the BBNP

	PARTICIPANTS (N=189)			NONPARTICIPANTS (N=151)		
LEVEL OF SUCCESS	n	% of Participants who Strongly Agreed (7-10)*	% of all Upgrades**	n	% of Non-participants Respondents who Strongly Agreed (7-10)*	% of all Upgrades
Low success	28	75%†	84%	28	7%	<1%
Medium success	56	59%	21%	55	9%	<1%
High success	105	52%	52%	68	15%	<1%
Total	**189**	**58%**	**48%**	**151**	**11%**	**1%**

* Percentages of respondents are based on the total number of each respective population of participating and nonparticipating contractors for each level of success and overall.

** Percentages of upgrades are based on the total number upgrades for each level of success and overall (i.e., 22,097 for low-success grantees, 38,119 for medium, 57,783 for high, and 117,999 for total).

† The low success percentage is significantly different from the high success percentage at the 90% confidence level.

Rates of participation in other residential energy-efficiency programs by participating and nonparticipating contractors did not vary substantially by level of grantee success (Table 21).

Table 21: Rates of Participation in Other Energy-efficiency Programs, by Level of Success

OTHER EFFICIENCY PROGRAMS	PARTICIPANTS			NONPARTICIPANTS		
	Low Success	Medium Success	High Success	Low Success	Medium Success	High Success
n	28	56	105	28	55	68
EECBG funded programs	18%	21%	19%	4%	4%	4%
Utility sponsored programs	64%	64%	59%	25%	42%	19%
Weatherization Assistance Program (WAP)	25%	25%	26%	4%	7%	6%

Among participating contractors, there are no statistically significant differences in the percentage of contractors who strongly agree that the BBNP has resulted in more business for

their company. Among nonparticipants, a significantly higher percentage of nonparticipants in other utility-sponsored programs and the WAP strongly agree that the BBNP has resulted in more business for their company (Table 22).

Table 22: Contractors Who Strongly Agree with Statement: "There is more business for your company than there would have been without the program" by Participation in Other Programs

Statement	Participants (% who strongly agree)		Nonparticipants (% who strongly agree)	
	Participated in Other Program	Nonparticipant in Other Program	Participated in Other Program	Nonparticipant in Other Program
EECBG funded programs	54%	50%	17%	6%
Utility sponsored programs	53%	48%	0%	8%†
Weatherization Assistance Program (WAP)	42%	54%	0%	6%†

† Significantly different from the participants at the 90% confidence level

Among participating contractors, a significantly higher percentage of those who participated in utility programs strongly agree that there is more business in general in the marketplace because of the BBNP. Among nonparticipants, a significantly higher percentage of nonparticipants in other utility-sponsored programs and the WAP strongly agree that there is more business in general in the marketplace because of the BBNP (Table 23).

Table 23: Contractors Who Strongly Agree with Statement: " There is more business in general in the marketplace than there would have been without the program" by Participation in Other Programs

Statement	Participants (% who strongly agree)		Nonparticipants (% who strongly agree)	
	Participated in Other Program	Nonparticipant in Other Program	Participated in Other Program	Nonparticipant in Other Program
EECBG funded programs	54%	47%	17%	8%
Utility sponsored programs	54%	40%†	2%	11%†
Weatherization Assistance Program (WAP)	44%	50%	0%	9%†

† Significantly different from the participants at the 90% confidence level

Among participating contractors, there are no statistically significant differences in the percentage of contractors who strongly agree that the BBNP will result in more business for their company in the next two years. Among nonparticipants, a significantly higher percentage of nonparticipants in other utility-sponsored programs and the WAP strongly agree that the BBNP will result in more business for their company in the next two years (Table 24).

Table 24: Contractors Who Strongly Agree with Statement: "In the next two years, there will be more business for your company than there would have been without the program" by Participation in Other Programs

Statement	Participants (% who strongly agree)		Nonparticipants (% who strongly agree)	
	Participated in Other Program	Nonparticipant in Other Program	Participated in Other Program	Nonparticipant in Other Program
EECBG funded programs	59%	55%	17%	9%
Utility sponsored programs	59%	51%	2%	12%†
Weatherization Assistance Program (WAP)	56%	56%	0%	10%†

† Significantly different from the participants at the 90% confidence level

Among participating contractors, a significantly higher percentage of those who participated in utility programs strongly agree that there will be more business in general in the marketplace in the next two years because of the BBNP. Among nonparticipants, a significantly higher percentage of nonparticipants in other utility-sponsored programs strongly agree that there will be more business in general in the marketplace because of the BBNP (Table 25).

Table 25: Contractors Who Strongly Agree with Statement: " In the next two years, there will be more business in general in the marketplace than there would have been without the program" by Participation in Other Programs

Statement	Participants (% who strongly agree)		Nonparticipants (% who strongly agree)	
	Participated in Other Program	Nonparticipant in Other Program	Participated in Other Program	Nonparticipant in Other Program
EECBG funded programs	68%	55%	17%	11%
Utility sponsored programs	65%	47%†	2%	15%†
Weatherization Assistance Program (WAP)	58%	57%	11%	11%

† Significantly different from the participants at the 90% confidence level

We compared the average number of total upgrades for both participating and nonparticipating contractors who also participated in other programs, such as utility-sponsored programs. Both participating and nonparticipating contractors who participated in other programs reported completing more total upgrades than those who did not participate in other programs (though many of the differences are not statistically different; Table 26).

Table 26: Average Number of Total Upgrades by Participation in Other Programs

Statement	Participants (% who strongly agree)		Nonparticipants (% who strongly agree)	
	Participated in Other Program	Nonparticipant in Other Program	Participated in Other Program	Nonparticipant in Other Program
EECBG funded programs	581	380	845	134
Utility sponsored programs	641	423	355	51†
Weatherization Assistance Program (WAP)	984	341†	524	144

† Significantly different from the participants at the 90% confidence level

We compared the average number of net upgrades for both participating and nonparticipating contractors who also participated in other programs, such as utility-sponsored programs. We found that participating contractors who also participated in EECBG-funded programs reported a significantly higher average number of net BBNP upgrades than those who did not participate in EECBG-funded programs. Participating contractors who also participated in utility-sponsored programs or WAP also reported more net upgrades, though the differences are not statistically different (Table 27).

Table 27: Average Number of Net-BBNP Upgrades by Participation in Other Programs

Statement	Participants (% who strongly agree)		Nonparticipants (% who strongly agree)	
	Participated in Other Program	Nonparticipant in Other Program	Participated in Other Program	Nonparticipant in Other Program
EECBG funded programs	104	37†	0	<1
Utility sponsored programs	59	48	1	1
Weatherization Assistance Program (WAP)	66	61	<1	1

† Significantly different from the participants at the 90% confidence level

CONTRACTOR BUILDING PRACTICES

Residential Building Practices

Respondents reporting that residential building envelope services comprised one of the two largest shares of their company's business most commonly installed insulation and conduct air sealing. A greater share of participating contractors than nonparticipating contractor respondents indicated they installed insulation (Table 28).

Table 28: Residential Energy-efficiency Building Envelope Services (Multiple Responses)
(base: respondents reporting that building envelope services comprise one of the largest two shares of the respondent's company's business)

SERVICE OFFERED	% OF PARTICIPANTS (N = 128)	% OF NONPARTICIPANTS (N = 68)
Insulation	95%	88%
Air sealing	98%	96%
Windows and doors	34%	35%
Siding and roofing	6%	9%

Residential Building Envelope

We asked contractors which building envelope services and materials their company installs in residential energy efficiency upgrades. Participating and non-participating contractors responding to our survey provided insulation, air sealing and shell related services in similar proportions. The few contractors mentioning the provision of 'other' services generally reported HVAC or duct sealing services that are unrelated to building envelope services.

Table 29: Residential Energy Efficiency Building Envelope Services (Multiple Responses Allowed)

SERVICE OFFERED	PARTICIPANTS (N = 128)		NONPARTICIPANTS (N = 68)	
	Count	Percent	Count	Percent
Insulation	116	91%	58	85%
Air sealing	115	90%	54	79%
Windows and doors	43	34%	24	35%
Siding and roofing	8	6%	6	9%
Other	18	14%	4	6%
Don't know	5	4%	3	4%

We then asked residential contractors to estimate the percentage of efficient upgrades that included insulation that exceeded the ENERGY STAR R-value for their particular climate zone. Compared to participant survey respondent reports, nonparticipants upgrading attic or ceiling insulation were less likely (nearly by half) to have installed levels exceeding the ENERGY STAR recommended minimum R-value for their climate zone, respectively 60% vs. 35% of jobs in 2010. Between 2010 and 2012, both groups reported an increase in the percentage of insulation projects exceeding recommended minimum levels, with percentage increase among participating contractors slightly exceeding the percentage increase reported by nonparticipant respondents – respectively a 5% vs. 3% increase between 2010 and 2012.

Table 30: Reported Approximate Residential Upgrades that Exceeded ENERGY STAR Recommended Minimum R-Value

Year	Participants (N = 117)		Nonparticipants (N = 56)	
	Number Reporting	Mean % Exceeded (of Those Reporting)	Number Reporting	Mean % Exceeded (of Those Reporting)
2010	115	60%	55	35%
2011	115	64%	56	38%
2012	115	65%	55	38%

We asked residential contractors to rate how much influence their grantee's program had on the efficiency levels of insulation and air sealing installed by their company over the last two years (since the program began). Table 31 exhibits contractors who indicated 'a great deal of influence,' by participation status. Nearly 40% of participating contractors indicated 'a great deal of influence,' comprising approximately half of the net BBNP projects for both insulation and air sealing (respectively). Conversely, 10% of nonparticipants indicated 'a great deal of influence' for either insulation or air sealing, accounting for less than one percent of the net BBNP projects for those categories.

Table 31: Level of Influence Better Building Program on Energy Efficiency Measures Installed between 2010 and 2012

A great deal of influence (7 to 10)	Participants			Nonparticipants		
	# of Respondents Asked	% of Respondents Asked	% of Net BBNP Projects	# of Respondents Asked	% of Respondents Asked	% of Net BBNP Projects
Insulation	116	39%	50%	24	8%	<1%
Air sealing	113	39%	48%	23	13%	<1%

Residential HVAC

Table 32 presents the types of residential HVAC equipment that respondents install or service. Participating contractors most commonly install and service HVAC equipment while nonparticipating contractors most commonly install and service water-heating equipment.

Table 32: Residential HVAC Services (Multiple Responses)
(base: respondents reporting that HVAC and water heating systems comprise one of the largest two shares of the respondent's company's business)

SERVICE	% OF PARTICIPANTS (N=96)	% OF NONPARTICIPANTS (N=62)
HVAC Equipment	84%	74%
Duct Systems	76%	60%
Water Heating Equipment	79%	77%

Residential Lighting

We asked respondents to estimate the percentage of incandescent bulbs replaced with high efficiency bulbs during typical residential efficiency upgrade projects in 2010 and 2011, and then asked them to project this percentage for 2012. Surprisingly, nonparticipants reported higher percentages of efficient bulb replacements and demonstrated a larger percent increase than participating contractors – respectively, an 11% vs. 3% increase between 2010 and 2012.

Table 33: Percent of High Efficiency Bulbs Installed in Typical Residential Upgrades

	PARTICIPANTS, MEAN % OF LIGHTING (N = 17)			NONPARTICIPANTS, MEAN % OF LIGHTING (N = 32)		
	2010	2011	2012	2010	2011	2012
Incandescent bulbs replaced by CFLs	47%	47%	50%	53%	59%	64%

We asked respondents to estimate the percentage of interior fixtures replaced with high efficiency fixtures during typical residential efficiency upgrade projects in 2010 and 2011, and then asked them to project this percentage for 2012. While participants reported higher percentages of efficient installations for each respective year, their percent increase was not as dramatic as that of nonparticipants (2% vs. 14% between 2010 and 2012). Furthermore, while nonparticipant efficient fixture estimations steadily rose by 7% each year, participants slightly fluctuated up and down throughout the three years.

Table 34: Percent of High Efficiency Lighting Fixtures Installed in Typical Residential Upgrades

	PARTICIPANTS, MEAN % OF LIGHTING (N = 16)			NONPARTICIPANTS, MEAN % OF LIGHTING (N = 33)		
	2010	2011	2012	2010	2011	2012
High efficiency interior fixtures installed	53%	52%	55%	40%	47%	54%

We asked contractors to rate how much influence their grantee's program had on the efficiency levels of residential lighting installed by their company over the last two years (since the program began). Table 35 exhibits contractors who indicated 'a great deal of influence,' by participation status. A minority of respondents indicated 'a great deal of influence,' but participants were more likely than nonparticipants to do so. These highly influenced contractors accounted for a negligible amount of net BBNP projects: highly influenced participants comprised less than one percent of net BBNP projects, highly influenced nonparticipants accounted for zero percent.

Table 35: Level of Influence Better Building Programs High Efficiency Lighting Installed between 2010 and 2012

A GREAT DEAL OF INFLUENCE (7 TO 10)	PARTICIPANTS (N = 20)		NONPARTICIPANTS (N = 14)	
	% of Respondents	% of Net BBNP Projects	% of Respondents	% of Net BBNP Projects
High efficiency lighting	25%	<1%	7%	0%

Commercial Building Practices

Commercial HVAC

Of the six participating contractors that we spoke with about commercial HVAC, most installed or serviced air-cooled HVAC systems, demand control ventilation, economizers, and programmable thermostats in commercial energy-efficiency projects. The 14 nonparticipating contractors that we interviewed indicated that they most commonly installed or serviced natural gas boilers, programmable thermostats, and air-cooled HVAC systems (Table 36).

Table 36: Commercial HVAC Measures (Multiple Responses)

EQUIPMENT	# OF PARTICIPANTS (N=6)	# OF NONPARTICIPANTS (N=14)
Air-cooled HVAC systems	5	7
Natural gas furnaces	1	1
Natural gas boilers	4	9
Demand control ventilation	5	5
Economizers	5	6
Programmable thermostats	5	8
Oil furnaces	3	3
Oil boilers	1	2
ECM fan motors	4	6

On average, participating commercial HVAC contractors have been installing more high-efficiency natural gas heating equipment and large air conditioning systems in 2012 compared to 2010, whereas there was less evidence of a shift to high-efficiency HVAC equipment among nonparticipating commercial contractors (Table 37). However, these results should be interpreted cautiously because of very small samples sizes.

Table 37: Commercial Energy-Efficient HVAC Upgrades

	Participants, mean % of Equipment (n=6)*			Nonparticipants, mean % of Equipment (n=14)*		
Equipment (value)**	2010	2011	2012	2010	2011	2012
Natural Gas Furnaces (AFUE 94% or Greater)	52%	48%	68%	71%	77%	76%
Natural Gas Boilers (AFUE 90% or Greater)	64%	59%	90%	65%	65%	55%
Oil Furnaces (AFUE 85% or Greater)	55%	55%	55%	70%	70%	55%
Oil Boiler (AFUE 85% or Greater)	0%	0%	0%	5%	5%	5%
Air Cooled Unitary/ Split System (< 5.4 tons) (12 EER)	70%	53%	65%	73%	74%	83%
Air Cooled Unitary/Split System (5.4 to 20 tons) (11.5 EER)	51%	51%	49%	35%	30%	32%
Air Cooled Unitary/Split System (< 20 tons) (10.5 EER)	33%	33%	51%	24%	24%	33%

* Percentages are from valid responses only: Responses of *don't know*, *do not sell*, and *refused* were removed. Therefore, sample sizes vary for each year and each equipment type.

** An explanation of how we chose these values can be found in Appendix E.

Participating contractors installed more HVAC controls in commercial upgrades than non-participating contractors, on average. With the exception of demand control ventilation, participating contractors indicated that they have begun to install more HVAC controls than they did in 2010 (see Table 38).

Table 38: Commercial HVAC Control Installations

	Participants, Mean Units (n=6)*			Nonparticipants, Mean Units (n=14)*		
Measure	2010	2011	2012	2010	2011	2012
Demand Control Ventilation	16	18	12	3	3	4
Dual Enthalpy Economizer	20	21	24	8	8	7

Measure	Participants, Mean Units (n=6)*			Nonparticipants, Mean Units (n=14)*		
	2010	2011	2012	2010	2011	2012
ECM Fan Motors	155	131	208	63	63	69
Programmable Thermostats *(ENERGY STAR – 7 Day)*	459	463	547	152	217	149

* Mean numbers of units are from valid responses only: Responses of *don't know*, *do not sell*, and *refused* were removed. Therefore, sample sizes vary for each year and each equipment type.

Table 39 shows the number of respondents indicating that BBNP was highly influential on the efficiency levels of the commercial HVAC equipment they installed. Because of the small sample sizes, it is difficult to draw firm conclusions from these results. Four of the six participating contractors reported that BBNP strongly influenced the efficiency of the air cooled unitary/split systems they installed, and three of the six said that it strongly influenced the efficiency level of the natural gas furnaces and boilers, economizers, and programmable thermostats. These respondents represented less than 1% of total and net BBNP upgrades. There was little evidence that BBNP affected the practices of nonparticipating HVAC contractors.

Table 39: BBNP Level of Influence on Energy-efficient Commercial HVAC Measures Installed between 2010 and 2012

A great deal of influence (7 to 10)	Participants (n = 6)			Nonparticipants (n = 14)		
	# of Respondents	% of Total Upgrades	% of Net BBNP Upgrades	# of Respondents	% of Total Upgrades	% of Net BBNP Upgrades
Air Cooled Unitary/Split System	4	<1%	<1%	0	0%	0%
Natural Gas Furnaces	3	<1%	<1%	1	<1%	10%
Natural Gas Boilers	3	<1%	<1%	1	<1%	10%
Oil Furnaces	0	0%	0%	0	0%	0%
Oil Boiler	0	0%	0%	0	0%	0%
Demand Control Ventilation	2	<1%	<1%	0	0%	0%
Economizers	3	<1%	<1%	0	0%	0%
Programmable Thermostats	3	<1%	<1%	1	<1%	10%

* Sample sizes reflect those respondents reporting that HVAC comprise one of the largest two shares of the respondent's company's business. Counts reflect those that identified the program's level of influence from 7-10 on a scale of 0-10 where 0 is *no influence at all* and 10 is *a great deal of influence*. Only those reporting installing the specific *energy-efficient* measures from 2010-2012 were asked about the program's level of influence on the respective measure.

Commercial Lighting

Table 40 outlines the energy-efficient commercial lighting products that contractors indicated they have been installing since 2010. All four participating contractors said they installed energy-

efficient lighting products. Participating contractors most commonly reported they installed high performance T5 or T8 lamps and LED lamps (three of four for both). The nine nonparticipating contractors we spoke with most commonly installed high performance T5 or T8 fluorescent lamps, hardwired CFL fixtures, metal halide fixtures, exit signs, LED lamps, or lighting controls (eight out of nine for each).

Table 40: Types of Commercial Energy-efficient Lighting Installed (Multiple Responses)
(base: respondents reporting that lighting services comprise one of the largest two shares of the respondent's company's business.)

PRODUCT	# OF PARTICIPANTS (N = 4)	# OF NONPARTICIPANTS (N=9)
High performance T5 or T8 fluorescent lamps	3	8
High bay fluorescent fixtures	2	6
Hardwired CFL fixtures	0	8
Metal halide fixtures	1	8
Exit signs	2	8
LED lamps (not exit signs)	3	8
Refrigerated LED case lighting	1	3
Lighting controls (occupant sensors, day light controls)	1	8
Other	0	2

There is little evidence of an increase in the percentage of lighting projects that achieve at least 15% savings among participating and nonparticipating contractors, with large fluctuation for both types of contractors during the 2010 to 2012 period (Table 41).

Table 41: Lighting Projects That Achieved at Least 15% Savings

	PARTICIPANTS, MEAN % OF UPGRADES (N=4)*			NONPARTICIPANTS, MEAN % OF UPGRADES (N=7)*		
	2010	2011	2012	2010	2011	2012
Projects	75%	95%	76%	63%	46%	61%

* Percentages are from valid responses only: Responses of *don't know*, *do not sell*, and *refused* were removed. Therefore, sample sizes vary for each year.

We found no evidence that the BBNP influenced the amount of energy-efficient lighting installed. While two of the four participating contractors reported that the BBNP highly influenced the amount of energy-efficient lighting they installed between 2010 and 2012, Table 42 shows that these two individuals represent less than 1% of total upgrade and net BBNP upgrades. None of the seven nonparticipating contractors installing energy-efficient lighting attributed the amount they sell to the BBNP.

Table 42: Level of Influence Better Building Programs had on Energy-efficient Lighting Installation

A GREAT DEAL OF INFLUENCE (7 TO 10)	PARTICIPANTS (N=4)*			NONPARTICIPANTS (N=9)		
	# of Respondents	% of Total Upgrades	% of Net BBNP Upgrades	# of Respondents	% of Total Upgrades	% of Net BBNP Upgrades
Lighting	2	<1%	<1%	0	0	0%

* Sample sizes reflect those respondents reporting that lighting comprises one of the largest two shares of their company's business. Percentages reflect those that identified the program's level of influence from 7-10 on a scale of 0-10 where 0 is no influence at all and 10 is a great deal of influence. Only those reporting installing the specific energy-efficient measures from 2010-2012 were asked about the program's level of influence on the respective measure.

DISTRIBUTORS

Distributors of Building Envelope Materials

Distributors who had reported selling building envelope materials were asked a series of questions designed to gauge any changes in sales from 2010 to 2012 (the BBNP period) of the building envelope materials that they sell.

First, these distributors reported the different types of building materials that they sold. More than three-quarters (77%) reported selling insulation, while less than one-third sold the other types of measure: windows (32%), doors (23%), air sealing (14%), and roofing materials (14%) (Table 43).

Table 43: Building Envelope Materials Sold (Multiple Responses)
(base: respondents who sell building envelope materials)

BUILDING ENVELOPE MEASURE	PERCENT OF DISTRIBUTORS (N=22)
Insulation	77%
Windows	32%
Doors	23%
Air sealing	14%
Roofing	14%

The six distributors who had experienced an increase in sales of insulation materials estimated the percent of increase in sales from 2010 to 2011 as well as the percent increase that they expected to experience from 2011 to 2012 (Table 44). For the period of 2010 to 2011, one of these distributors reported an increase in sales of between 0% and 10%, one reported an increase of between 21% and 30%, and a third reported an increase of between 91% and 100%. The average percent increase among these three distributors was 43%. The remaining three did not know the percent of increase in sales for this period.

For the period between 2011 and 2012, respondents overall expected a somewhat larger percentage increase in sales than they had experienced in the previous one-year period. One of these distributors reported an increase in sales of between 0% and 10%, and one reported an increase of between 21% and 30%. Two projected an increase of between 91% and 100%. The average percent increase among these four distributors was 59%. The remaining two did not know what the increase in sales would be for the period between 2011 and 2012.

Table 44: Percent of Insulation Materials Sales Increase
(base: respondents who have experienced an increase in sales of insulation materials)

TIME FRAME	BETWEEN 2010 & 2011 (N=6)	BETWEEN 2011 & 2012 (N=6)
Mean	43% (n=3)	59% (n=4)
0-10%	17% (1)	17% (1)
11-20%	0	0
21-30%	17% (1)	17% (1)
31-90%	0%	0%
91-100%	17% (1)	33% (2)
Don't know/Refuse	50% (3)	33% (2)

Distributors of HVAC Equipment

Distributors who reported selling HVAC/water heating equipment were asked a series of questions parallel to those in the previous section in order to assess whether sales of energy-efficient HVAC equipment had increased since the BBNP implementation started.

Of the residential distributors who had reported selling HVAC/water heating equipment, slightly more than one-half (52%) sold HVAC equipment, and slightly less than one-half (48%) sold water heating equipment (Table 43). Among commercial distributors who had reported selling HVAC/water heating equipment, 59% sold HVAC equipment and fewer (38%) sold water heating equipment (Table 45).

Table 45: Type of Equipment Sold (Multiple Responses)
(base: respondents who sell HVAC and/or water heating equipment)

EQUIPMENT TYPE	RESIDENTIAL (N=107)	COMMERCIAL (N=21)
HVAC equipment	52%	59%
Water heating equipment	48%	38%
Neither HVAC nor water heating equipment	1%	3%

We asked distributors to estimate the number of systems sold from 2010 to 2012 for a variety of HVAC measures. Table 46 shows the average reported number of each HVAC equipment type sold (or expected to sell) each year among both residential and commercial distributors.

For the period between 2010 and 2011, sales of natural gas furnaces increased somewhat for both residential and commercial distributors (from 456 to 492, and from 35 to 43, respectively). However, both types of distributors expected that sales of natural gas furnaces would decrease again in 2012, to a point in-between 2010 and 2011 sales levels.

The pattern was similar for natural gas boilers as for natural gas furnaces among residential distributors—sales increased from a mean of 78 systems in 2010 to a mean of 99 systems in 2011, but were then expected to decrease slightly in 2012 to 96. Among commercial distributors, in contrast, sales dropped slightly between 2010 and 2011 (from a mean of 75 to a mean of 73 systems sold), and were expected to decrease further, to 70, in 2012.

Sales of oil furnaces saw little movement between 2010 and 2011, and were not expected to change substantially in the following year.

Sales of oil boilers also remained steady from 2010 to 2011 for both groups of distributors, but residential distributors expected their sales of oil boilers to plummet in 2012 from 69 systems to an average of 49 systems. The commercial distributors projected no such decrease in sales for 2012.

Sales of central air conditioners increased for both groups of distributors between 2010 and 2011 (from 533 to 544 for residential and from 54 to 80 for commercial). Residential distributors projected another increase in sales (to 580) for 2012, whereas commercial distributors expected sales not to change substantially in 2012.

Table 46: Average Number of Systems Sold (base: respondents who sell HVAC equipment)

Equipment Type	Residential			Commercial		
	2010	2011	2012 (Projection)	2010	2011	2012 (Projection)
Natural Gas Furnaces						
Sample size (n)	81	81	83	16	16	17
Mean number sold	456	492	464	35	43	41
Natural Gas Boilers						
Sample size (n)	89	90	91	16	16	17
Mean number sold	78	99	96	75	73	70

Continued…

Equipment Type	Residential			Commercial		
	2010	2011	2012 (Projection)	2010	2011	2012 (Projection)
Oil Furnaces						
Sample size (n)	89	89	90	18	18	18
Mean number sold	34	33	29	3	3	4
Oil Boilers						
Sample size (n)	89	89	90	18	18	18
Mean number sold	66	69	49	4	4	5
Central Air Conditioners						
Sample size (n)	83	83	84	16	16	17
Mean number sold	533	544	580	54	80	81

Distributors of Lighting Equipment

Distributors who reported selling lighting equipment were asked a series of questions about the types of standard and high-efficiency lighting equipment that they sold, the percentage of total lighting sales represented by such equipment, and whether sales of certain energy-related lighting equipment had increased since 2010. The purpose of these questions was to assess the extent of penetration of high-efficiency lighting in the market and to gauge whether this penetration had changed over the past few years.

First, distributors who sold lighting equipment were asked whether they sold a number of different types of standard and high-efficiency lighting equipment. The following two tables show the percent of residential (Table 47) and commercial (Table 48) distributors who reported selling each type.

Among residential distributors, more than half (57%) reported selling LED fixtures, and half reported selling screw-based fixtures. Just over one-third (36%) said that they sold fluorescent tube fixtures, while less than one-third (29%) said that they sold pin-based CFL fixtures. Twenty-one percent did not sell any of these types of fixtures. Among the three commercial distributors who reported selling lighting equipment, two sold LED lamps or luminaries and one sold each of the other types of equipment asked in the survey.

Table 47: Type of Lighting Fixtures Sold Since 2010 – Residential (Multiple Responses)
(base: respondents who sell lighting equipment)

TYPE OF LIGHTING FIXTURE	DISTRIBUTORS (RESIDENTIAL) (N=14)
LED Fixtures	57% (8)
Screw-based Fixtures	50% (7)
Fluorescent Tube Fixtures	36% (5)
Pin-Based CFL Fixtures	29% (4)
Other High-Efficiency Fixtures	14% (2)
None of the above	21% (3)

Table 48: Type of Lighting Fixtures Sold Since 2010 – Commercial (Multiple Responses) (L1)
(base: respondents who sell lighting equipment)

TYPE OF LIGHTING EQUIPMENT	DISTRIBUTORS (COMMERCIAL) (N=3)
LED Lamps or Luminaries	67% (2)
T5 Lamps and Ballasts	33% (1)
T8 Lamps and Ballasts	33% (1)
High-bay Fluorescent Fixtures	33% (1)
Hardwired CFL Fixtures	33% (1)
Metal Halide Fixtures	33% (1)
LED Exit Signs	33% (1)
Fluorescent Tube Fixtures	33% (1)

The following question asked distributors who sold lighting equipment whether they sold a number of different types of lighting controls. Among the fourteen residential distributors who were asked the question, seven sold dimmers, seven sold motion sensors, five sold photo controls, four sold occupant sensors, and three did not sell any of those products. Out of the three commercial distributors, two sold dimmers and one each sold the other types of controls (Table 49).

Table 49: Types of Lighting Controls Sold since 2010 (Multiple Responses)
(base: respondents who sell lighting equipment)

Equipment Type	Residential (N=14)	Commercial (N=3)
Dimmers	50% (7)	33% (1)
Motion Sensors	50% (7)	33% (1)
Photo Controls	36% (5)	33% (1)
Occupant Sensors	29% (4)	67% (2)
None of the above	21% (3)	33% (1)

Commercial Lighting Distributors

Among commercial distributors who sold lighting equipment, most of the equipment types asked about represented a very small percentage of total lighting sales, with the exception of LED lamps or luminaries, which represented less than one-half of total lighting sales. No changes in percent of sales were seen across the three years, except for the percent represented by "other high-efficiency fixtures," which, from 2010 to 2011, jumped from 10% to 100% of sales for the respondent who had reported selling such fixtures (Table 50).

Table 50: Average Percentage of Lighting Sales by Type of Lighting Equipment (Commercial)
(base: respondents who sell each type of lighting equipment)

Equipment Type	Number of Distributors	2010 Average Percent of Sales	2011 Average Percent of Sales	2012 (Projection) Average Percent of Sales
LED Lamps or Luminaries	2	48%	45%	48%
T5 Lamps and Ballasts	1	1%	1%	1%
T8 Lamps and Ballasts	1	1%	1%	1%
High-bay Fluorescent Fixtures	1	0%	0%	0%
Hardwired CFL Fixtures	1	1%	1%	1%
Metal Halide Fixtures	1	1%	1%	1%
LED Exit Signs	1	0%	0%	0%
Other High-Efficiency Fixtures	1	10%	100%	100%

Stimulating the Energy Efficiency Market

Finally, we asked distributors whether they thought there were more effective ways to stimulate the market than the efforts currently in place. About three-quarters (74%) responded affirmatively (Table 51).

Table 51: Whether there are More Effective Ways to Stimulate the Market

	DISTRIBUTORS (N=164)
Yes	74%
No	24%
Don't know/Refused	2%

A follow-up question asked respondents who had said there were more effective ways to stimulate the market what some of these ways might be. Most of the suggestions involved increasing strategies that were already in place. More than one-third (36%) suggested increasing government tax credits, grants, and subsidies for energy-efficient equipment, slightly less than one-third (29%) suggested increasing utility or other rebates and grants for purchasing energy-efficient equipment, and over one-quarter (28%) mentioned increasing advertising, education, and information dissemination. Other suggestions included improving the process of participating in energy-efficiency programs (9%), offering low-interest loans (7%), and increasing the price of energy (5%) (Table 52).

Table 52: More Effective Ways to Stimulate the Market
(base: respondents who said there are more effective ways to stimulate the market)

STRATEGY	DISTRIBUTORS (N=114)
Increase/add government tax credits, grants, subsidies	36%
Increase/add utility or other rebates, incentives or grants (not specifying government-funded)	29%
Advertise; educate and disseminate information	28%
Improve energy-efficiency program participation processes	9%
Offer low interest loans/financing opportunities	7%
Reduce equipment costs	6%
Increase cost of energy	5%
Improve government regulations on equipment	4%
Government deregulation	4%
Offer utility programs	4%
Have government endorse high-efficiency equipment	3%
Other	11%

GUIDELINES FOR HIGH-EFFICIENCY EQUIPMENT AND MATERIALS

We asked contractor and distributor survey respondents about the level of efficiency of their sales and services related to specific equipment. We chose values indicating specific levels of efficiency from several different sources. Table 53 shows the guidelines we used in our determination of what constituted a high-efficiency measure.

Table 53: High-Efficiency Measure Qualification Guidelines

EQUIPMENT	VALUE	GUIDELINE	REFERENCE
Natural Gas Furnaces (Residential & Commercial)	AFUE ≥ 94%	CEE Tier 3 Specification	*http://www.cee1.org/gas/gs-ht/gas_heat_specs.pdf*
Natural Gas Boilers (Residential & Commercial)	AFUE ≥ 90%	CEE Tier 2 Specification	*http://www.cee1.org/gas/gs-ht/gas_heat_specs.pdf*
Oil Furnaces (Residential & Commercial)	AFUE ≥ 85%	ENERGY STAR Specification	*http://www.energystar.gov/index.cfm?c=furnaces.pr_crit_furnaces*
Oil Boilers (Residential & Commercial)	AFUE ≥ 85%	ENERGY STAR Specification	*http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO*
Central Air Conditioners (Residential)	≥ 15 SEER	CEE Tier 2 Specification	*http://www.cee1.org/resid/rs-ac/res-ac_specs.pdf*
Air Cooled Unitary/ Split System (Commercial)	12 EER (< 5.4 tons) 11.5 EER (5.4 to 20 tons) 10.5 EER (< 20 tons)	AHRI Level 1/ ENERGY STAR Specifications	*http://www.energystar.gov/index.cfm?c=lchvac.pr_crit_lchvac*
Insulation, air sealing, windows and doors, and siding and roofing (Residential)	R-values based on climate zone	ENERGY STAR Recommended	*http://www.energystar.gov/index.cfm?c=home_sealing.hm_improvement_insulation_table*

COMMENTS ON THE ENERGY EFFICIENCY UPGRADE MARKET

The contractor and distributor surveys both concluded with open-ended questions asking respondents what else they would like tell us about the energy efficiency upgrade market. In response, most contractors and distributors mentioned views on their BBNP program but not the general upgrade market in their area. However, interspersed in many of their comments were references to the importance of educating the public on the benefits of energy upgrades and of supporting upgrade activities through the provision of audits for customers and technical training for contractors, and of providing financial assistance (including both rebates and financing) to reduce the financial burden to customers. These comments are all consistent with some of the key findings and conclusions from the qualitative and quantitative analyses of grantee data, specifically the importance of:

- Partnering with financial organizations to facilitate effective financing solutions.

- Developing strong energy efficiency experience in the community to promote community interest in upgrades.
- Identifying and providing sales training to the individuals and groups responsible for selling upgrades.
- Connecting assessments to the upgrade sales process.
- Providing contractors with opportunities to share experience and insights.

F FREQUENCY OUTPUTS

CONTRACTOR SURVEY

GRANTEE. GRANTEE (n=340)

RESPONSE	PERCENT
Austin	2%
Bainbridge	4%
Boulder County	4%
Connecticut	2%
Eagle County	4%
Fayette County	3%
Greensboro	3%
Kansas City	6%
Lowell	1%
Maine	13%
Michigan	5%
New Hampshire	4%
NYSERDA	7%
Philadelphia	8%
Phoenix	4%
Portland	9%
Rutland	2%
San Antonio	4%
Seattle	4%
St. Lucie	3%
Toledo	2%
University Park	4%

PART. Participant (n=340)

RESPONSE	PERCENT
Nonparticipant	43%
Participant	57%

RPART_New. Same as RPART plus Recoded nonparticipants who completed BBNP projects (IN81c) as participant (n=340)

RESPONSE	PERCENT
Nonparticipant	44%
Participant	56%

COMM_FLAG. Commercial/Residential Flag (n=340)

RESPONSE	PERCENT
Residential	89%
Commercial	11%

SC3A. Approximately what percentage of your company's business comes from projects that involve - Existing homes? (n=334)

STATISTIC	VALUE
Mean	74.1
Median	85.0
Mode	100.0
Std. Deviation	28.2

SC3B. Approximately what percentage of your company's business comes from projects that involve - New homes? (n=243)

STATISTIC	VALUE
Mean	12.7
Median	5.0
Mode	0.0
Std. Deviation	17.5

SC3C. Approximately what percentage of your company's business comes from projects that involve - Existing commercial buildings? (n=244)

STATISTIC	VALUE
Mean	17.8
Median	10.0
Mode	0.0
Std. Deviation	20.6

SC3D. Approximately what percentage of your company's business comes from projects that involve - New commercial buildings? (n=172)

STATISTIC	VALUE
Mean	8.2
Median	1.0
Mode	0.0
Std. Deviation	13.6

SC3E. Approximately what percentage of your company's business comes from projects that involve - Other? (n=35)

STATISTIC	VALUE
Mean	11.4
Median	5.0
Mode	0.0
Std. Deviation	17.9

SC4. Approximately what percentage of your company's business comes from Grantee Area? (n=336)

STATISTIC	VALUE
Mean	67.3
Median	80.0
Mode	100.0
Std. Deviation	36.3

IN3. About how many full-time equivalent employees work for your company? (n=336)

STATISTIC	VALUE
Mean	16.4
Median	4.0
Mode	1.0
Std. Deviation	62.9

IN4new_1. Which of the following types of work does your company perform? #1 (n=340)

RESPONSE	PERCENT
Energy Audits	30%
Equipment installations/installations of energy efficiency improvements	46%
General contracting	24%

IN4new_2. Which of the following types of work does your company perform? #2 (n=183)

RESPONSE	PERCENT
Energy Audits	18%
Equipment installations/installations of energy efficiency improvements	54%
General contracting	28%

IN4new_3. Which of the following types of work does your company perform? #3 (n=50)

RESPONSE	PERCENT
Energy Audits	26%
Equipment installations/installations of energy efficiency improvements	40%
General contracting	34%

IN4new_4. Which of the following types of work does your company perform? #4 (n=80)

RESPONSE	PERCENT
Equipment installations/installations of energy efficiency improvements	31%
General contracting	45%
New other	24%

IN4new_5. Which of the following types of work does your company perform? #5 (n=340)

RESPONSE	PERCENT
General contracting	91%
New other	9%

IN5A_1. Approximately what percentage of your company's business comes from projects that involve - Building envelope improvements (including insulation, air sealing and windows)? (n=280)

STATISTIC	VALUE
Mean	40.0
Median	30.0
Mode	0.0
Std. Deviation	35.9

IN5A_2. Approximately what percentage of your company's business comes from projects that involve - HVAC and water heating systems? (n=263)

STATISTIC	VALUE
Mean	36.7
Median	20.0
Mode	0.0
Std. Deviation	37.8

IN5A_3. Approximately what percentage of your company's business comes from projects that involve - Lighting equipment? (n=208)

STATISTIC	VALUE
Mean	11.3
Median	5.0
Mode	0.0
Std. Deviation	18.7

IN5A_4. Approximately what percentage of your company's business comes from projects that involve - Energy assessments/energy audits? (n=217)

STATISTIC	VALUE
Mean	17.3
Median	5.0
Mode	0.0
Std. Deviation	25.8

IN5A_5. Approximately what percentage of your company's business comes from projects that involve - Motors? (n=38)

STATISTIC	VALUE
Mean	2.5
Median	0.0
Mode	0.0
Std. Deviation	5.0

IN5A_6. Approximately what percentage of your company's business comes from projects that involve - Building automation and/or controls? (n=38)

STATISTIC	VALUE
Mean	1.8
Median	0.0
Mode	0.0
Std. Deviation	3.9

IN5A_7. Approximately what percentage of your company's business comes from projects that involve - Refrigeration? (n=38)

STATISTIC	VALUE
Mean	2.4
Median	0.0
Mode	0.0
Std. Deviation	7.1

IN5A_8. Approximately what percentage of your company's business comes from projects that involve - Other? (n=38)

STATISTIC	VALUE
Mean	60.1
Median	68.5
Mode	100.0
Std. Deviation	36.9

IN5A_11. Approximately what percentage of your company's business comes from projects that involve - General contracting (n=57)

STATISTIC	VALUE
Mean	67.6
Median	70.0
Mode	50.0
Std. Deviation	24.6

IN5B. About what percentage of your business in 2011 came from the Grantee Program, which is a program that was funded by the U.S. Department of Energy's Better Buildings Neighborhood Program? (n=158)

STATISTIC	VALUE
Mean	27.6
Median	10.0
Mode	0.0
Std. Deviation	32.9

IN5B1. Did you in fact participate in the Grantee Program? (n=31)

RESPONSE	PERCENT
Don't Know	6%
Yes	26%
No	68%

IN5C. About what percentage of your business do you anticipate will come from the Grantee Program in 2012? (n=158)

STATISTIC	VALUE
Mean	29.7
Median	20.0
Mode	0.0
Std. Deviation	30.5

IN6_10. In how many existing buildings/homes did you perform an energy efficiency upgrade in 2010? (n=319)

STATISTIC	VALUE
Mean	110.1
Median	20.0
Mode	0.0
Std. Deviation	292.3

IN6_11. In how many existing buildings/homes did you perform an energy efficiency upgrade in 2011? (n=324)

STATISTIC	VALUE
Mean	125.1
Median	25.0
Mode	0.0
Std. Deviation	317.5

IN6_12. In how many existing buildings/homes did you perform an energy efficiency upgrade in 2012? (n=326)

STATISTIC	VALUE
Mean	129.8
Median	30.0
Mode	0.0
Std. Deviation	328.8

IN6_TOT. In how many existing buildings/homes did you perform an energy efficiency upgrade in - 2010-2012 Total? (n=312)

STATISTIC	VALUE
Mean	468.4
Median	80.0
Mode	0.0
Std. Deviation	1916.0

IN81A. Have you heard of - Grantee Program, a program that was funded by the U.S. Department of Energy's Better Buildings Neighborhood Program? (n=340)

RESPONSE	PERCENT
Don't Know	1%
Yes	75%
No	24%

IN81B. Did your company participate in Grantee Program, a program that was funded by the U.S. Department of Energy's Better Buildings Neighborhood Program from 2010 to 2012? (n=262)

RESPONSE	PERCENT
Don't Know	1%
Yes	73%
No	26%

IN81C. How many buildings/homes did your company install energy efficient equipment or measures into with the help of Grantee Program from 2010 to 2012? (n=181)

STATISTIC	VALUE
Mean	46.3
Median	10.0
Mode	0.0
Std. Deviation	90.8

IN82A. Have you heard of - Programs funded by Energy Efficiency and Conservation Block Grants (EECBG)? (n=340)

RESPONSE	PERCENT
Don't Know	2%
YES	38%
NO	60%

IN82B. Did your company participate in Programs funded by Energy Efficiency and Conservation Block Grants (EECBG) from 2010 to 2012? (n=129)

RESPONSE	PERCENT
Don't Know	5%
YES	33%
NO	61%

IN82C. How many buildings/homes did your company install energy efficient equipment or measures into with the help of Programs funded by Energy Efficiency and Conservation Block Grants (EECBG) from 2010 to 2012? (n=37)

STATISTIC	VALUE
Mean	85.8
Median	30.0
Mode	0.0
Std. Deviation	134.3

IN83A. Have you heard of - Home Performance with ENERGY STAR or other home efficiency programs sponsored by local utilities or state and local energy efficiency program administrators? (n=302)

RESPONSE	PERCENT
Yes	83%
No	17%

IN83B. Did your company participate in Home Performance with ENERGY STAR or other home efficiency programs sponsored by local utilities or state and local energy efficiency program administrators from 2010 to 2012? (n=252)

RESPONSE	PERCENT
Don't Know	1%
Yes	63%
No	36%

IN83C. How many buildings/homes did your company install energy efficient equipment or measures into with the help of Home Performance with ENERGY STAR or other home efficiency programs from 2010 to 2012? (n=151)

STATISTIC	VALUE
Mean	200.3
Median	45.0
Mode	0.0
Std. Deviation	467.3

IN84A. Have you heard of - Weatherization assistance program? (n=302)

RESPONSE	PERCENT
Don't Know	1%
Yes	72%
No	27%

IN84B. Did your company participate in Weatherization assistance program from 2010 to 2012? (n=217)

RESPONSE	PERCENT
Don't Know	2%
Yes	26%
No	72%

IN84C. How many buildings/homes did your company install energy efficient equipment or measures into with the help of Weatherization assistance program from 2010 to 2012? (n=53)

STATISTIC	VALUE
Mean	388.1
Median	50.0
Mode	0.0
Std. Deviation	848.1

IN85A. Have you heard of - Commercial energy efficiency programs sponsored by local utilities or state and local energy efficiency program administrators? (n=38)

RESPONSE	PERCENT
Yes	82%
No	18%

IN85B. Did your company participate in Commercial energy efficiency programs sponsored by local utilities or state and local energy efficiency program administrators from 2010 to 2012? (n=31)

RESPONSE	PERCENT
Don't Know	3%
Yes	61%
No	35%

IN85C. How many buildings/homes did your company install energy efficient equipment or measures into with the help of Commercial energy efficiency programs from 2010 to 2012? (n=18)

STATISTIC	VALUE
Mean	18.6
Median	6.0
Mode	3.0
Std. Deviation	35.0

IN86A. Have you heard of - Benchmarking or labeling programs including: LEED or ENERGY STAR Portfolio Manager? (n=38)

RESPONSE	PERCENT
Yes	68%
No	32%

IN86B. Did your company participate in Benchmarking or labeling programs including: LEED or ENERGY STAR Portfolio Manager from 2010 to 2012? (n=26)

RESPONSE	PERCENT
Yes	58%
No	42%

IN86C. How many buildings/homes did your company install energy efficient equipment or measures into with the help of Benchmarking or labeling programs including: LEED or ENERGY STAR Portfolio Manager from 2010 to 2012? (n=15)

STATISTIC	VALUE
Mean	13.7
Median	4.0
Mode	0.0
Std. Deviation	26.8

IN87A. Have you heard of - Federal Tax Credits for energy efficiency improvements? (n=340)

RESPONSE	PERCENT
Don't Know	1%
YES	94%
NO	6%

IN88A. Have you heard of - State tax credits for energy efficiency improvements? (n=340)

RESPONSE	PERCENT
Don't Know	1%
YES	70%
NO	29%

IN91A. How many energy efficiency upgrades would you have completed without Grantee Program? (n=172)

STATISTIC	VALUE
Mean	501.6
Median	90.0
Mode	0.0
Std. Deviation	1322.4

IN91B. Would you have completed more energy efficiency upgrades without Grantee Program? (n=3)

RESPONSE	PERCENT
No	100%

IN10_1. Estimate the percentage of the upgrades attributable to each Grantee Program element - Training of contractors (n=104)

STATISTIC	VALUE
Mean	10.7
Median	5.0
Mode	0.0
Std. Deviation	15.6

IN10_2. Estimate the percentage of the upgrades attributable to each Grantee Program element - Low-interest financing (n=119)

STATISTIC	VALUE
Mean	25.1
Median	20.0
Mode	20.0
Std. Deviation	24.8

IN10_3. Estimate the percentage of the upgrades attributable to each Grantee Program element - Marketing and outreach (n=119)

STATISTIC	VALUE
Mean	20.2
Median	15.0
Mode	0.0
Std. Deviation	20.5

IN10_4. Estimate the percentage of the upgrades attributable to each Grantee Program element - Rebates and other incentives (n=124)

STATISTIC	VALUE
Mean	33.4
Median	25.0
Mode	20.0
Std. Deviation	26.1

IN10_5. Estimate the percentage of the upgrades attributable to each Grantee Program element - Free or reduced cost energy assessments (n=126)

STATISTIC	VALUE
Mean	23.1
Median	18.0
Mode	10.0
Std. Deviation	22.1

IN1515_10. Of the energy efficiency upgrades you installed in 2010, what percentage reduced energy usage by 15% or more? (n=288)

STATISTIC	VALUE
Mean	64.5
Median	82.5
Mode	100.0
Std. Deviation	40.2

IN1515_11. Of the energy efficiency upgrades you installed in 2011, what percentage reduced energy usage by 15% or more? (n=290)

STATISTIC	VALUE
Mean	64.2
Median	80.0
Mode	100.0
Std. Deviation	39.2

IN1515_12. Of the energy efficiency upgrades you installed in 2012, what percentage reduced energy usage by 15% or more? (n=291)

STATISTIC	VALUE
Mean	67.2
Median	90.0
Mode	100.0
Std. Deviation	37.8

IN17. What do you think is the one greatest barrier that might prevent customers from implementing, or pursuing to a greater degree, energy efficiency improvements? (n=340)

RESPONSE	PERCENT
Don't Know	1%
Do Not Own Building/Landlord Makes Decision	0%
Lack Of Awareness	4%
Lack Of Financing	11%
Cost/Payback/Capital	61%
Lack Of Knowledge/Understanding Of Benefits	9%
Too Much Work/Hassle	1%
Economy In General	4%
Other1	8%
None	0%

IN18_1. What are the other barriers? #1 (n=336)

RESPONSE	PERCENT
Don't Know	2%
Do Not Own Building/Landlord Makes Decision	1%
Lack Of Awareness	11%
Lack Of Interest	2%
Lack Of Financing	8%
Cost/Payback/Capital	13%
Lack Of Knowledge/Understanding Of Benefits	17%
Lack Of Time	1%
Too Much Work/Hassle	1%
Decisions [About Improvements] Made Elsewhere In The Company	0%
Economy In General	3%
Uncertainty About Performance Of Energy Efficient Equipment	2%
Other1	18%
None	18%

IN18_2. What are the other barriers? #2 (n=102)

RESPONSE	PERCENT
Lack Of Interest	2%
Lack Of Financing	7%

Continued…

RESPONSE	PERCENT
Cost/Payback/Capital	5%
Lack Of Knowledge/Understanding Of Benefits	24%
Lack Of Time	2%
Too Much Work/Hassle	5%
Economy In General	7%
Uncertainty About Performance Of Energy Efficient Equipment	12%
Other1	26%
Other2	11%

IN18_3. What are the other barriers? #3 (n=26)

RESPONSE	PERCENT
Lack Of Knowledge/Understanding Of Benefits	8%
Lack Of Time	4%
Too Much Work/Hassle	4%
Economy In General	8%
Uncertainty About Performance Of Energy Efficient Equipment	15%
Other1	27%
Other2	27%
Other3	8%

IN18_4. What are the other barriers? #4 (n=8)

RESPONSE	PERCENT
Uncertainty About Performance Of Energy Efficient Equipment	13%
Other1	38%
Other2	25%
Other3	25%

CBE1_1. Which of the following types of building envelope services and materials does your company install in commercial energy efficiency projects? #1 (n=6)

RESPONSE	PERCENT
Don't Know	33%
Insulation	67%

CBE1_2. Which of the following types of building envelope services and materials does your company install in commercial energy efficiency projects? #2 (n=4)

RESPONSE	PERCENT
Windows	50%
Air sealing	50%

CBE1_3. Which of the following types of building envelope services and materials does your company install in commercial energy efficiency projects? #3 (n=2)

RESPONSE	PERCENT
Doors	50%
Air sealing	50%

CBE2_10. Approximately what percentage of the commercial energy efficiency upgrades during 2010 included upgrading attic or ceiling insulation? (n=3)

STATISTIC	VALUE
Mean	61.7
Median	60.0
Mode	25.0
Std. Deviation	37.5

CBE2_11. Approximately what percentage of the commercial energy efficiency upgrades during 2011 included upgrading attic or ceiling insulation? (n=3)

STATISTIC	VALUE
Mean	38.3
Median	30.0
Mode	25.0
Std. Deviation	18.9

CBE2_12. Approximately what percentage of the commercial energy efficiency upgrades during 2012 included upgrading attic or ceiling insulation? (n=4)

STATISTIC	VALUE
Mean	26.3
Median	22.5
Mode	0.0
Std. Deviation	25.0

CBE10_10. In approximately how many commercial buildings did you perform air sealing in 2010? (n=3)

STATISTIC	VALUE
Mean	6.7
Median	0.0
Mode	0.0
Std. Deviation	11.5

CBE10_11. In approximately how many commercial buildings did you perform air sealing in 2011? (n=3)

STATISTIC	VALUE
Mean	10.0
Median	0.0
Mode	0.0
Std. Deviation	17.3

CBE10_12. In approximately how many commercial buildings did you perform air sealing in 2012? (n=3)

STATISTIC	VALUE
Mean	10.7
Median	2.0
Mode	0.0
Std. Deviation	16.8

CBE12_1. How much influence would you say the Grantee Program has had on the efficiency levels of the building envelope services and materials your company installed between 2010 and 2012? Insulation (n=3)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Don't Know	33%
0	33%
4	33%

CBE12_4. How much influence would you say the Grantee Program has had on the efficiency levels of the building envelope services and materials your company installed between 2010 and 2012? Air sealing (n=3)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Don't Know	33%
4	33%
10	33%

CH1_1. Which of the following types of equipment does your company install or service? #1 (n=20)

RESPONSE	PERCENT
Refused	5%
Don't Know	5%
Air-cooled HVAC systems	60%
Natural gas furnaces	10%
Natural gas boilers	20%

CH1_2. Which of the following types of equipment does your company install or service? #2 (n=14)

RESPONSE	PERCENT
Natural gas furnaces	79%
Natural gas boilers	14%
Economizers	7%

CH1_3. Which of the following types of equipment does your company install or service? #3 (n=13)

RESPONSE	PERCENT
Natural gas boilers	69%
Demand control ventilation	15%
Economizers	8%
Programmable thermostats	8%

CH1_4. Which of the following types of equipment does your company install or service? #4 (n=13)

RESPONSE	PERCENT
Demand control ventilation	62%
Economizers	23%
Programmable thermostats	8%
ECM fan motors	8%

CH1_5. Which of the following types of equipment does your company install or service? #5 (n=11)

RESPONSE	PERCENT
Economizers	64%
Programmable thermostats	36%

CH1_6. Which of the following types of equipment does your company install or service? #6 (n=9)

RESPONSE	PERCENT
Programmable thermostats	78%
Oil furnaces	11%
ECM fan motors	11%

CH1_7. Which of the following types of equipment does your company install or service? #7 (n=8)

RESPONSE	PERCENT
Oil furnaces	63%
ECM fan motors	38%

CH1_8. Which of the following types of equipment does your company install or service? #8 (n=5)

RESPONSE	PERCENT
Oil boilers	60%
ECM fan motors	40%

CH1_9. Which of the following types of equipment does your company install or service? #9 (n=3)

RESPONSE	PERCENT
ECM fan motors	100%

CH21_10. Approximately what percentage of the Natural gas furnaces had AFUE of 94% or greater in 2010? (n=12)

STATISTIC	VALUE
Mean	63.3
Median	82.5
Mode	90.0
Std. Deviation	39.2

CH21_11. Approximately what percentage of the Natural gas furnaces had AFUE of 94% or greater in 2011? (n=12)

STATISTIC	VALUE
Mean	64.8
Median	90.0
Mode	90.0
Std. Deviation	40.2

CH21_12. Approximately what percentage of the Natural gas furnaces had AFUE of 94% or greater in 2012? (n=12)

STATISTIC	VALUE
Mean	72.8
Median	92.5
Mode	100.0
Std. Deviation	37.6

CH22_10. Approximately what percentage of the Natural gas boilers had AFUE of 90% or greater in 2010? (n=14)

STATISTIC	VALUE
Mean	64.9
Median	85.0
Mode	100.0
Std. Deviation	41.7

CH22_11. Approximately what percentage of the Natural gas boilers had AFUE of 90% or greater in 2011? (n=14)

STATISTIC	VALUE
Mean	63.5
Median	87.5
Mode	100.0
Std. Deviation	42.5

CH22_12. Approximately what percentage of the Natural gas boilers had AFUE of 90% or greater in 2012? (n=14)

STATISTIC	VALUE
Mean	65.3
Median	90.0
Mode	100.0
Std. Deviation	42.3

CH23_10. Approximately what percentage of the Oil furnaces had AFUE of 85% or greater in 2010? (n=5)

STATISTIC	VALUE
Mean	64.0
Median	100.0
Mode	100.0
Std. Deviation	49.3

CH23_11. Approximately what percentage of the Oil furnaces had AFUE of 85% or greater in 2011? (n=5)

STATISTIC	VALUE
Mean	64.0
Median	100.0
Mode	100.0
Std. Deviation	49.3

CH23_12. Approximately what percentage of the Oil furnaces had AFUE of 85% or greater in 2012? (n=5)

STATISTIC	VALUE
Mean	44.0
Median	10.0
Mode	10.0
Std. Deviation	51.3

CH24_10. Approximately what percentage of the Oil boilers had AFUE of 85% or greater in 2010? (n=3)

STATISTIC	VALUE
Mean	3.3
Median	0.0
Mode	0.0
Std. Deviation	5.8

CH24_11. Approximately what percentage of the Oil boilers had AFUE of 85% or greater in 2011? (n=3)

STATISTIC	VALUE
Mean	3.3
Median	0.0
Mode	0.0
Std. Deviation	5.8

CH24_12. Approximately what percentage of the Oil boilers had AFUE of 85% or greater in 2012? (n=3)

STATISTIC	VALUE
Mean	3.3
Median	0.0
Mode	0.0
Std. Deviation	5.8

CH25_10. Approximately what percentage of the Air-cooled unitary or split systems less than 5.4 tons had 12.0 EER in 2010? (n=10)

STATISTIC	VALUE
Mean	72.0
Median	85.0
Mode	100.0
Std. Deviation	33.6

CH25_11. Approximately what percentage of the Air-cooled unitary or split systems less than 5.4 tons had 12.0 EER in 2011? (n=10)

STATISTIC	VALUE
Mean	73.0
Median	80.0
Mode	100.0
Std. Deviation	32.3

CH25_12. Approximately what percentage of the Air-cooled unitary or split systems less than 5.4 tons had 12.0 EER in 2012? (n=9)

STATISTIC	VALUE
Mean	75.0
Median	80.0
Mode	100.0
Std. Deviation	32.8

CH26_10. Approximately what percentage of the Air-cooled unitary or split systems greater than or equal to 5.4 to less than 20 tons had 11.5 EER in 2010? (n=10)

STATISTIC	VALUE
Mean	41.5
Median	40.0
Mode	0.0
Std. Deviation	36.7

CH26_11. Approximately what percentage of the Air-cooled unitary or split systems greater than or equal to 5.4 to less than 20 tons had 11.5 EER in 2011? (n=10)

STATISTIC	VALUE
Mean	38.5
Median	37.5
Mode	0.0
Std. Deviation	38.9

CH26_12. Approximately what percentage of the Air-cooled unitary or split systems greater than or equal to 5.4 to less than 20 tons had 11.5 EER in 2012? (n=10)

STATISTIC	VALUE
Mean	38.5
Median	32.5
Mode	0.0
Std. Deviation	38.4

CH27_10. Approximately what percentage of the Air-cooled unitary or split systems less than 20 tons had 10.5 EER in 2010? (n=9)

STATISTIC	VALUE
Mean	27.8
Median	10.0
Mode	0.0
Std. Deviation	41.8

CH27_11. Approximately what percentage of the Air-cooled unitary or split systems less than 20 tons had 10.5 EER in 2011? (n=9)

STATISTIC	VALUE
Mean	27.8
Median	10.0
Mode	0.0
Std. Deviation	41.8

CH27_12. Approximately what percentage of the Air-cooled unitary or split systems less than 20 tons had 10.5 EER in 2012? (n=9)

STATISTIC	VALUE
Mean	37.2
Median	10.0
Mode	0.0
Std. Deviation	46.3

CH41_10. In 2010, how many Demand Control Ventilation did your company install? (n=8)

RESPONSE	PERCENT
0	13%
2	13%
5	38%
10	13%
30	13%
50	13%

CH41_11. In 2011, how many Demand Control Ventilation did your company install? (n=8)

RESPONSE	PERCENT
0	25%
5	38%
10	13%
40	13%
50	13%

CH41_12. In 2012, how many Demand Control Ventilation did your company install? (n=8)

RESPONSE	PERCENT
0	25%
4	13%
5	13%
8	13%
10	13%
25	13%
40	13%

CH42_10. In 2010, how many Dual Enthalpy (EN-THAWL-PEE) Economizers did your company install? (n=11)

RESPONSE	PERCENT
0	55%
1	9%
3	9%
5	9%
50	9%
100	9%

CH42_11. In 2011, how many Dual Enthalpy (EN-THAWL-PEE) Economizers did your company install? (n=11)

RESPONSE	PERCENT
0	55%
1	9%
2	9%
10	9%
50	9%
100	9%

CH42_12. In 2012, how many Dual Enthalpy (EN-THAWL-PEE) Economizers did your company install? (n=11)

RESPONSE	PERCENT
0	55%
1	9%
8	9%
20	9%
50	9%
100	9%

CH43_10. In 2010, how many ECM Fan Motors did your company install? (n=9)

RESPONSE	PERCENT
5	11%
7	11%
20	11%

Continued…

RESPONSE	PERCENT
30	11%
40	11%
100	33%
600	11%

CH43_11. In 2011, how many ECM Fan Motors did your company install? (n=9)

RESPONSE	PERCENT
0	11%
7	11%
30	22%
40	11%
100	33%
500	11%

CH43_12. In 2012, how many ECM Fan Motors did your company install? (n=9)

RESPONSE	PERCENT
0	22%
30	11%
40	11%
60	11%
100	22%
125	11%
800	11%

CH44_10. In 2010, how many ENERGY STAR or 7-day Programmable Thermostats did your company install? (n=12)

RESPONSE	PERCENT
0	17%
4	8%
5	8%
30	17%
50	8%
100	17%
1000	17%
1200	8%

CH44_11. In 2011, how many ENERGY STAR or 7-day Programmable Thermostats did your company install? (n=12)

RESPONSE	PERCENT
0	17%
4	8%
5	8%
25	8%
50	17%
100	8%
120	8%
1000	8%
1200	8%
1500	8%

CH44_12. In 2012, how many ENERGY STAR or 7-day Programmable Thermostats did your company install? (n=12)

RESPONSE	PERCENT
0	8%
2	8%
4	8%
5	8%
10	8%
50	17%
70	8%
140	8%
1000	17%
1600	8%

CH6_1. How much influence did the program have on Air-cooled HVAC systems? (n=7)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	14%
2	14%
5	14%
7	29%
9	14%
10	14%

CH6_2. How much influence did the program have on Natural gas furnaces? (n=9)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
No influence at all	33%
2	22%
7	22%
8	11%
9	11%

CH6_3. How much influence did the program have on Natural gas boilers? (n=10)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	50%
2	10%
7	20%
9	10%
10	10%

CH6_4. How much influence did the program have on Demand control ventilation? (n=7)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
DON'T KNOW	14%
0	43%
1	14%
7	29%

CH6_5. How much influence did the program have on Economizers? (n=8)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	25%
3	25%
5	13%
7	13%
10	25%

CH6_6. How much influence did the program have on Programmable thermostats? (n=8)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	25%
4	13%
5	13%
7	13%
8	13%
10	25%

CH6_7. How much influence did the program have on Oil furnaces? (n=5)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Don't Know	20%
0	60%
5	20%

CH6_8. How much influence did the program have on Oil boilers? (n=3)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	100%

CH6_9. How much influence did the program have on ECM fan motors? (n=6)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	50%
1	17%
7	33%

CL1_1. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #1 (n=13)

RESPONSE	PERCENT
Don't Know	8%
High performance T5 or T8 fluorescent lamps	85%
LED lamps or luminaries (LOOM-IN-AIR-EES) not including exit signs	8%

CL1_2. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #2 (n=12)

RESPONSE	PERCENT
High bay fluorescent fixtures	67%
Hardwired CFL fixtures	17%
Exit signs	8%
Refrigerated LED case lighting	8%

CL1_3. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #3 (n=11)

RESPONSE	PERCENT
Hardwired CFL fixtures	55%
Metal halide (HAL-EYED) fixtures	27%
LED lamps or luminaries (LOOM-IN-AIR-EES) not including exit signs	9%
Lighting controls including: occupancy sensors, and day lighting controls	9%

CL1_4. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #4 (n=9)

RESPONSE	PERCENT
Metal halide (HAL-EYED) fixtures	67%
Exit signs	33%

CL1_5. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #5 (n=9)

RESPONSE	PERCENT
Exit signs	67%
LED lamps or luminaries (LOOM-IN-AIR-EES) not including exit signs	33%

CL1_6. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #6 (n=8)

RESPONSE	PERCENT
LED lamps or luminaries (LOOM-IN-AIR-EES) not including exit signs	75%
Refrigerated LED case lighting	13%
Lighting controls including: occupancy sensors, and day lighting controls	13%

CL1_7. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #7 (n=7)

RESPONSE	PERCENT
Refrigerated LED case lighting	29%
Lighting controls including: occupancy sensors, and day lighting controls	71%

CL1_8. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #8 (n=3)

RESPONSE	PERCENT
Lighting controls including: occupancy sensors, and day lighting controls	67%
Other1	33%

CL1_9. Which of the following types of lighting services and equipment did your company install between 2010 and 2012? #9 (n=1)

RESPONSE	PERCENT
Other1	100%

CL2_10. In 2010, what percentage of your lighting projects achieved savings of at least 15% compared to the pre-existing lighting? (n=10)

STATISTIC	VALUE
Mean	67.5
Median	100.0
Mode	100.0
Std. Deviation	43.9

CL2_11. In 2011, what percentage of your lighting projects achieved savings of at least 15% compared to the pre-existing lighting? (n=10)

STATISTIC	VALUE
Mean	65.5
Median	90.0
Mode	100.0
Std. Deviation	42.7

CL2_12. In 2012, what percentage of your lighting projects achieved savings of at least 15% compared to the pre-existing lighting? (n=11)

STATISTIC	VALUE
Mean	66.4
Median	100.0
Mode	100.0
Std. Deviation	43.6

CL5. How much influence would you say the Grantee Program has had on the amount of high efficiency lighting your company installed between 2010 and 2012? (n=5)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	40%
3	20%
8	20%
10	20%

RBE1_1. Which of the following types of building envelope services and materials does your company install in residential energy efficiency upgrades? #1 (n=196)

RESPONSE	PERCENT
Don't Know	4%
Insulation	88%
Air sealing (if needed – to eliminate air leakage and infiltration)	5%
Other building envelope services	3%

RBE1_2. Which of the following types of building envelope services and materials does your company install in residential energy efficiency upgrades? #2 (n=169)

RESPONSE	PERCENT
Air sealing (if needed – to eliminate air leakage and infiltration)	93%
Other building envelope services	7%

RBE1_3. Which of the following types of building envelope services and materials does your company install in residential energy efficiency upgrades? #3 (n=92)

RESPONSE	PERCENT
Other building envelope services	100%

RBE1_4. Which of the following types of building envelope services and materials does your company install in residential energy efficiency upgrades? #4 (n=87)

RESPONSE	PERCENT
Insulation	7%
Air sealing (if needed – to eliminate air leakage and infiltration)	17%
Windows and doors	61%
Siding and roofing	15%

RBE1_5. Which of the following types of building envelope services and materials does your company install in residential energy efficiency upgrades? #5 (n=22)

RESPONSE	PERCENT
Insulation	9%
Air sealing (if needed – to eliminate air leakage and infiltration)	27%
Windows and doors	59%
Siding and roofing	5%

RBE1_6. Which of the following types of building envelope services and materials does your company install in residential energy efficiency upgrades? #6 (n=3)

RESPONSE	PERCENT
Air sealing (if needed – to eliminate air leakage and infiltration)	67%
Windows and doors	33%

RBE2_10. Approximately what percentage of the residential energy efficiency upgrades during 2010 included upgrading attic or ceiling insulation to an ENERGY STAR recommended R-value? (n=170)

STATISTIC	VALUE
Mean	52.3
Median	60.0
Mode	0.0
Std. Deviation	40.1

RBE2_11. Approximately what percentage of the residential energy efficiency upgrades during 2011 included upgrading attic or ceiling insulation to an ENERGY STAR recommended R-value? (n=171)

STATISTIC	VALUE
Mean	55.4

Continued…

STATISTIC	VALUE
Median	70.0
Mode	100.0
Std. Deviation	38.6

RBE2_12. Approximately what percentage of the residential energy efficiency upgrades during 2012 included upgrading attic or ceiling insulation to an ENERGY STAR recommended R-value? (n=170)

STATISTIC	VALUE
Mean	56.2
Median	75.0
Mode	100.0
Std. Deviation	39.9

RBE4_10. In approximately how many homes did you perform air sealing in 2010? (n=162)

STATISTIC	VALUE
Mean	66.6
Median	16.5
Mode	0.0
Std. Deviation	152.2

RBE4_11. In approximately how many homes did you perform air sealing in 2011? (n=164)

STATISTIC	VALUE
Mean	90.7
Median	30.0
Mode	100.0
Std. Deviation	193.8

RBE4_12. In approximately how many homes did you perform air sealing in 2012? (n=164)

STATISTIC	VALUE
Mean	122.9
Median	40.0
Mode	0.0
Std. Deviation	290.0

RBE6A. How much influence would you say the Grantee Program has had on the efficiency levels of insulation your company installed between 2010 and 2012? (n=140)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Refused	1%
Don't Know	1%
0	34%
1	3%
2	1%
3	6%
4	4%
5	14%
6	2%
7	9%
8	12%
9	4%
10	9%

RBE6B. How much influence would you say the Grantee Program has had on the efficiency levels of air sealing your company installed between 2010 and 2012? (n=136)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Don't Know	1%
0	29%
1	3%
2	4%
3	5%
4	4%
5	15%
6	4%
7	4%
8	14%
9	5%
10	12%

RH1_1. Which of the following types of equipment does your company install or service? #1 (n=158)

RESPONSE	PERCENT
Refused	3%
Don't Know	8%
Residential HVAC equipment	80%
Duct systems	2%
Residential water heating equipment	6%

RH1_2. Which of the following types of equipment does your company install or service? #2 (n=126)

RESPONSE	PERCENT
Duct systems	85%
Residential water heating equipment	15%

RH1_3. Which of the following types of equipment does your company install or service? #3 (n=95)

RESPONSE	PERCENT
Residential water heating equipment	100%

RH2A_10. Approximately what percentage of the Natural Gas Furnaces were AFUE of 94% or greater in 2010? (n=106)

STATISTIC	VALUE
Mean	58.7
Median	77.5
Mode	100.0
Std. Deviation	41.2

RH2A_11. Approximately what percentage of the Natural Gas Furnaces were AFUE of 94% or greater in 2011? (n=108)

STATISTIC	VALUE
Mean	62.2
Median	75.0
Mode	100.0
Std. Deviation	39.6

RH2A_12. Approximately what percentage of the Natural Gas Furnaces were AFUE of 94% or greater in 2012? (n=111)

STATISTIC	VALUE
Mean	67.3
Median	85.0
Mode	100.0
Std. Deviation	38.0

RH2B_10. Approximately what percentage of the Natural Gas Boilers were AFUE of 90% or greater in 2010? (n=82)

STATISTIC	VALUE
Mean	44.8
Median	40.0
Mode	0.0
Std. Deviation	43.3

RH2B_11. Approximately what percentage of the Natural Gas Boilers were AFUE of 90% or greater in 2011? (n=85)

STATISTIC	VALUE
Mean	51.4
Median	50.0
Mode	100.0
Std. Deviation	43.2

RH2B_12. Approximately what percentage of the Natural Gas Boilers were AFUE of 90% or greater in 2012? (n=88)

STATISTIC	VALUE
Mean	53.1
Median	50.0
Mode	100.0
Std. Deviation	42.3

RH2C_10. Approximately what percentage of the Oil Furnaces were AFUE of 85% or greater in 2010? (n=68)

STATISTIC	VALUE
Mean	36.7
Median	0.0
Mode	0.0
Std. Deviation	44.5

RH2C_11. Approximately what percentage of the Oil Furnaces were AFUE of 85% or greater in 2011? (n=65)

STATISTIC	VALUE
Mean	39.2
Median	1.0
Mode	0.0
Std. Deviation	44.8

RH2C_12. Approximately what percentage of the Oil Furnaces were AFUE of 85% or greater in 2012? (n=68)

STATISTIC	VALUE
Mean	42.0
Median	7.0
Mode	0.0
Std. Deviation	45.3

RH2D_10. Approximately what percentage of the Oil Boilers were AFUE of 85% or greater in 2010? (n=64)

STATISTIC	VALUE
Mean	33.7
Median	0.0
Mode	0.0
Std. Deviation	44.0

RH2D_11. Approximately what percentage of the Oil Boilers were AFUE of 85% or greater in 2011? (n=62)

STATISTIC	VALUE
Mean	35.5
Median	0.0
Mode	0.0
Std. Deviation	44.0

RH2D_12. Approximately what percentage of the Oil Boilers were AFUE of 85% or greater in 2012? (n=66)

STATISTIC	VALUE
Mean	33.6
Median	2.5
Mode	0.0
Std. Deviation	42.6

RH2E_10. Approximately what percentage of the Central Air Conditioners were 15 SEER or greater in 2010? (n=106)

STATISTIC	VALUE
Mean	44.2
Median	40.0
Mode	0.0
Std. Deviation	41.0

RH2E_11. Approximately what percentage of the Central Air Conditioners were 15 SEER or greater in 2011? (n=108)

STATISTIC	VALUE
Mean	50.6
Median	50.0
Mode	100.0
Std. Deviation	41.5

RH2E_12. Approximately what percentage of the Central Air Conditioners were 15 SEER or greater in 2012? (n=115)

STATISTIC	VALUE
Mean	53.0
Median	50.0
Mode	100.0
Std. Deviation	41.4

RH4_10. In what percentage of your projects did you insulate the existing ductwork to R-6 or higher in 2010? (n=109)

STATISTIC	VALUE
Mean	29.4
Median	10.0
Mode	0.0
Std. Deviation	36.4

RH4_11. In what percentage of your projects did you insulate the existing ductwork to R-6 or higher in 2011? (n=109)

STATISTIC	VALUE
Mean	33.6
Median	10.0
Mode	0.0
Std. Deviation	37.7

RH4_12. In what percentage of your projects did you insulate the existing ductwork to R-6 or higher in 2012? (n=109)

STATISTIC	VALUE
Mean	36.0
Median	20.0
Mode	0.0
Std. Deviation	38.5

RH6_10. In what percentage of your projects did you seal existing ductwork in 2010? (n=108)

STATISTIC	VALUE
Mean	40.5
Median	25.0
Mode	0.0
Std. Deviation	41.0

RH6_11. In what percentage of your projects did you seal existing ductwork in 2011? (n=109)

STATISTIC	VALUE
Mean	42.8
Median	25.0
Mode	0.0
Std. Deviation	40.5

RH6_12. In what percentage of your projects did you seal existing ductwork in 2012? (n=108)

STATISTIC	VALUE
Mean	49.0
Median	50.0
Mode	100.0
Std. Deviation	41.6

RH9A. How much influence would you say the Grantee Program has had on the efficiency levels and practices of the Furnaces and boilers your company installed between 2010 and 2012? (n=91)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Don't Know	3%
0	31%
1	4%
2	4%
3	4%
4	7%
5	14%
6	4%
7	2%
8	10%
9	3%
10	12%

RH9B. How much influence would you say the Grantee Program has had on the efficiency levels and practices of the Central air conditioners your company installed between 2010 and 2012? (n=84)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	38%
1	5%
2	10%
3	1%
4	6%
5	11%
6	5%
7	4%
8	7%
9	5%
10	10%

RH9C. How much influence would you say the Grantee Program has had on the efficiency levels and practices of the Duct insulation your company installed between 2010 and 2012? (n=73)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	37%
2	4%
3	8%
4	5%
5	16%
6	3%
7	3%
8	10%
9	3%
10	11%

RH9D. How much influence would you say the Grantee Program has had on the efficiency levels and practices of the Duct sealing your company installed between 2010 and 2012? (n=78)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	37%
2	5%
3	8%
4	5%
5	9%
6	3%
7	3%
8	9%
9	4%
10	18%

RH9E. How much influence would you say the Grantee Program has had on the efficiency levels and practices of the Water heaters your company installed between 2010 and 2012? (n=25)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
DON'T KNOW	4%
0	44%
2	8%
3	4%
5	12%
7	12%
8	8%
9	4%
10	4%

RL1. Do you replace incandescent light bulbs with CFL or other energy efficient light bulbs in your energy efficiency upgrade projects? (n=57)

RESPONSE	PERCENT
Yes	86%
No	14%

RL2_10. In 2010, in your typical energy efficiency upgrade project, what percentage of the bulbs did you replace with CFL or other high efficiency bulbs? (n=48)

STATISTIC	VALUE
Mean	50.7
Median	50.0
Mode	100.0
Std. Deviation	37.9

RL2_11. In 2011, in your typical energy efficiency upgrade project, what percentage of the bulbs did you replace with CFL or other high efficiency bulbs? (n=49)

STATISTIC	VALUE
Mean	54.8
Median	55.0
Mode	100.0
Std. Deviation	35.1

RL2_12. In 2012, in your typical energy efficiency upgrade project, what percentage of the bulbs did you replace with CFL or other high efficiency bulbs? (n=49)

STATISTIC	VALUE
Mean	58.9
Median	60.0
Mode	100.0
Std. Deviation	32.2

RL4. Do you install CFL or other high efficiency interior lighting fixtures? (n=57)

RESPONSE	PERCENT
Yes	86%
No	14%

RL5_10. In 2010, in your typical energy efficiency upgrade project, what percentage of the total interior fixtures you installed were high efficiency fixtures? (n=47)

STATISTIC	VALUE
Mean	44.6
Median	30.0
Mode	100.0
Std. Deviation	38.8

RL5_11. In 2011, in your typical energy efficiency upgrade project, what percentage of the total interior fixtures you installed were high efficiency fixtures? (n=48)

STATISTIC	VALUE
Mean	48.8
Median	45.0
Mode	100.0
Std. Deviation	36.5

RL5_12. In 2012, in your typical energy efficiency upgrade project, what percentage of the total interior fixtures you installed were high efficiency fixtures? (n=48)

STATISTIC	VALUE
Mean	53.9
Median	55.0
Mode	100.0
Std. Deviation	35.9

RL6. How much influence would you say the Grantee Program has had on the efficiency levels of the residential lighting your company installed between 2010 and 2012? (n=34)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
DON'T KNOW	3%
0	26%
1	6%
2	18%
3	6%
4	9%
5	9%
6	6%
7	6%
8	6%
10	6%

TR1. Have you or any of your staff received any training in energy efficient building practices or technologies? (n=340)

RESPONSE	PERCENT
Don't Know	1%
Yes	80%
No	19%

TR2. Have you or any of your staff attended any trainings sponsored by the Grantee Program? (n=256)

RESPONSE	PERCENT
Don't Know	1%
Yes	50%
No	49%

TR3. Between 2010 and 2012, do you think the number of contractors trained in energy efficient building practices or technologies has increased? (n=340)

RESPONSE	PERCENT
Don't Know	8%
Yes	80%
No	12%

TR4. How much influence would you say the Grantee Program has had on the increased number of contractors trained in energy efficient building practices or technologies between 2010 and 2012? (n=213)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
DON'T KNOW	11%
0	5%
1	1%
2	5%
3	7%
4	4%
5	13%
6	8%
7	15%
8	20%
9	4%
10	9%

MT1. Would you say the amount you market energy efficiency and energy efficient features has increased a lot, increased a little, decreased a lot, decreased a little, or stayed the same since 2010? (n=340)

RESPONSE	PERCENT
Don't Know	1%
Increased a lot	30%
Increased a little	29%
Decreased a lot	4%
Decreased a little	2%
Stayed the same	35%

MT2. How much influence would you say the Grantee Program has had on the increase in the amount you market energy efficiency upgrade projects between 2010 and 2012? (n=160)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
Don't Know	4%
0	23%
1	4%
2	4%
3	7%
4	5%
5	11%
6	3%
7	12%
8	12%
9	6%
10	11%

MT3. Have the changes you made, if any, to marketing made a difference in the number of energy efficient upgrades you have worked on? (n=218)

RESPONSE	PERCENT
Don't Know	2%
Yes	65%
No	33%

MT3A. Would you say the number of projects you have worked on has increased a lot, increased a little, decreased a lot, decreased a little, or stayed the same due to the changes you made to marketing? (n=141)

RESPONSE	PERCENT
Increased a lot	36%
Increased a little	46%
Decreased a lot	4%
Decreased a little	2%
Stayed the same	12%

AT1_1. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #1 (n=154)

RESPONSE	PERCENT
Don't Know	7%
Nothing/None	65%
Use More Efficient Materials	15%
In General, Talk About Energy Efficiency More With Customers	8%
Compare Efficiency Levels Of Different Equipment	1%
Explain How The High Efficiency Equipment/Materials Works And Why It Is More Efficient Than Standard Equipment	3%
Explain Payback Period And Savings Over Time	1%

AT1_2. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #2 (n=17)

RESPONSE	PERCENT
In General, Talk About Energy Efficiency More With Customers	53%
Compare Efficiency Levels Of Different Equipment	18%
Explain How The High Efficiency Equipment/Materials Works And Why It Is More Efficient Than Standard Equipment	18%
Explain Payback Period And Savings Over Time	12%

AT1_3. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #3 (n=7)

RESPONSE	PERCENT
Compare Efficiency Levels Of Different Equipment	43%
Explain How The High Efficiency Equipment/Materials Works And Why It Is More Efficient Than Standard Equipment	43%
Explain Payback Period And Savings Over Time	14%

AT1_4. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #4 (n=4)

RESPONSE	PERCENT
Explain How The High Efficiency Equipment/Materials Works And Why It Is More Efficient Than Standard Equipment	50%
Explain Payback Period And Savings Over Time	50%

AT1_5. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #5 (n=1)

RESPONSE	PERCENT
Explain Payback Period And Savings Over Time	100%

AT1_6. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #6 (n=46)

RESPONSE	PERCENT
IN GENERAL, TALK ABOUT ENERGY EFFICIENCY MORE WITH CUSTOMERS	2%
Changed marketing/promotion practices	13%
More focus on/aware of energy efficient services	17%
More thorough/improved skill level/better quality work	17%
Bigger staff/more training/more jobs	7%
Offer more services/changed some processes	28%
New other	15%

AT1_7. What changes, if any, have you made to your standard practices for projects outside of the Grantee Program since participating in the program? #7 (n=4)

RESPONSE	PERCENT
Changed marketing/promotion practices	25%
Bigger staff/more training/more jobs	50%
Offer more services/changed some processes	25%

GENDER. Gender (n=340)

RESPONSE	PERCENT
Male	91%
Female	9%

IN7A. Which of the following best describes how long your firm has participated in Grantee Program (n=170)

RESPONSE	PERCENT
Don't Know	5%
Actively from the beginning	48%
Actively but only after the program was underway	24%
From the beginning but not actively	11%
After the program was underway but not actively	13%

IN7B. How satisfied are you with your experience in the program so far? (n=170)

RESPONSE (0 = NOT AT ALL SATISFIED, 10 = VERY SATISFIED)	PERCENT
Refused	1%
Don't Know	3%
0	8%
1	6%
2	4%
3	4%
4	6%
5	13%
6	11%
7	11%
8	14%
9	7%
10	14%

IN7C_1. What is your reason for your rating? #1 (n=69)

RESPONSE	PERCENT
Too Complicated (Complex, Difficult)	36%
Too Much Paperwork Or Reporting	7%
Too Few Jobs, Not Enough Work, Not Worth The Effort	13%
Not Profitable, Too Few Leads	6%
Other	38%

IN7C_2. What is your reason for your rating? #2 (n=20)

RESPONSE	PERCENT
Too Complicated (Complex, Difficult)	10%
Too Much Paperwork Or Reporting	20%
Not Profitable, Too Few Leads	10%
Other	60%

IN7C_3. What is your reason for your rating? #3 (n=2)

RESPONSE	PERCENT
OTHER	100%

IN7C_4. What is your reason for your rating? #4 (n=40)

RESPONSE	PERCENT
Too Complicated (Complex, Difficult)	5%
Lack of consumer awareness/education/participation/trust	13%
Problems with program design	43%
Problems with contractors or auditors	15%
Program is politically driven/dishonest/uneven playing field	13%
New Other	13%

IN7C_5. What is your reason for your rating? #5 (n=6)

RESPONSE	PERCENT
Too Much Paperwork Or Reporting	17%
Lack of consumer awareness/education/participation/trust	33%
Problems with program design	33%
Problems with contractors or auditors	17%

IN7D_1. What made your experience satisfying? #1 (n=95)

RESPONSE	PERCENT
Easy To Do Work Through The Program	31%
Staff Very Helpful	16%
Expanded My Business	19%
New Line Of Work	1%
Good Leads	8%
Other	25%

IN7D_2. What made your experience satisfying? #2 (n=29)

RESPONSE	PERCENT
Staff Very Helpful	24%
Expanded My Business	17%
New Line Of Work	7%
Good Leads	21%
Other	31%

IN7D_3. What made your experience satisfying? #3 (n=8)

RESPONSE	PERCENT
New Line Of Work	13%
Good Leads	50%
Other	38%

IN7D_4. What made your experience satisfying? #4 (n=1)

RESPONSE	PERCENT
Good Leads	100%

IN7D_5. What made your experience satisfying? #5 (n=36)

RESPONSE	PERCENT
Easy To Do Work Through The Program	3%
Staff Very Helpful	11%
Good Leads	3%
Program design/quality/professionalism/organization	14%
Access to financing/funding/incentives	17%
Improved quality of the home/benefits to homeowner/environment	25%
Improved marketing/consumer awareness	19%
Helpful training and resources	6%
New other	3%

IN7D_6. What made your experience satisfying? #6 (n=5)

RESPONSE	PERCENT
Easy To Do Work Through The Program	20%
Program design/quality/professionalism/organization	40%
Access to financing/funding/incentives	40%

DISTRIBUTOR SURVEY

GRANTEE. GRANTEE (*n* = 164)

RESPONSE	PERCENT
Austin	5%
Bainbridge	5%
Boulder County	4%
Connecticut	2%
Eagle County	3%
Greensboro	4%
Kansas City	9%
Lowell	2%
Maine	8%
Michigan	9%
New Hampshire	2%
NYSERDA	6%
Philadelphia	7%
Phoenix	6%
Portland	7%
Rutland	2%
San Antonio	2%
Seattle	8%
St. Lucie	1%
Toledo	5%
University Park	2%

COMM_FLAG. Commercial/Residential Flag (*n* = 164)

RESPONSE	PERCENT
Residential	83%
Commercial	17%

SC1aa. Does your company sell - Building envelope products including: insulation, windows, and air sealing? (*n* = 164)

RESPONSE	PERCENT
Yes - Offered	16%
No - Not Offered	84%

SC1ab. Does your company sell - HVAC and water heating systems? (*n* = 164)

RESPONSE	PERCENT
Yes - Offered	90%
No - Not Offered	10%

SC1ac. Does your company sell - Lighting? (*n* = 164)

RESPONSE	PERCENT
Yes - Offered	13%
No - Not Offered	87%

SC1ad. Does your company sell - Motors? (*n* = 164)

RESPONSE	PERCENT
Don't Know	1%
Yes - Offered	58%
No - Not Offered	41%

SC1ae. Does your company sell - Building automation and/or controls? (*n* = 164)

RESPONSE	PERCENT
Yes - Offered	38%
No - Not Offered	62%

SC1af. Does your company sell - Commercial refrigeration equipment? (*n* = 164)

RESPONSE	PERCENT
Yes - Offered	21%
No - Not Offered	79%

SC1ag. What other energy-related equipment does your company sell, if any? (*n* = 164)

RESPONSE	PERCENT
Yes - Offered	37%
No - Not Offered	63%

SC4_1. Approximately what percentage of your company's business comes from - Residential equipment sales? (*n* = 163)

STATISTIC	VALUE
Mean	66.0
Median	80.0
Mode	90.0
Std. Deviation	31.8

SC4_2. Approximately what percentage of your company's business comes from - Commercial equipment sales? (*n* = 149)

STATISTIC	VALUE
Mean	37.2
Median	25.0
Mode	10.0
Std. Deviation	31.6

SC5. Approximately what percentage of your company's business comes from Grantee Area (*n* = 156)

STATISTIC	VALUE
Mean	53.6
Median	60.0
Mode	100.0
Std. Deviation	36.9

IN3_A. Does your company sell building envelope products? (*n* = 26)

RESPONSE	PERCENT
Don't Know	4%
Yes	81%
No	15%

IN3_B. Does your company sell HVAC and water heating systems? (*n* = 148)

RESPONSE	PERCENT
Don't Know	1%
Yes	86%
No	13%

IN3_C. Does your company sell lighting equipment? (*n* = 21)

RESPONSE	PERCENT
Yes	81%
No	19%

IN3_D. Does your company sell motors? (*n* = 95)

RESPONSE	PERCENT
Yes	87%
No	13%

IN3_E. Does your company sell building automation and/or controls? (*n* = 63)

RESPONSE	PERCENT
Yes	89%
No	11%

IN3_F. Does your company sell commercial refrigeration equipment? (*n* = 34)

RESPONSE	PERCENT
Yes	79%
No	21%

IN3_G. Does your company sell other energy-related equipment? (*n* = 60)

RESPONSE	PERCENT
Yes	92%
No	8%

IN3A_1. What areas, states or regions are you responsible for? #1 (*n* = 164)

RESPONSE	PERCENT
Don't Know	2%
Grantee Area	82%
All of North America	2%
All of United States	2%
North East / New England	4%
Mid-Atlantic	3%
West Coast	4%
Southwest	1%

IN3A_2. What areas, states or regions are you responsible for? #2 (*n* = 39)

RESPONSE	PERCENT
All of North America	28%
All of United States	8%
North East / New England	18%
Mid-Atlantic	5%
Midwest and Plains States	13%
West Coast	23%
Southwest	3%
Southeast	3%

IN3A_3. What areas, states or regions are you responsible for? #3 (*n* = 15)

RESPONSE	PERCENT
All of United States	53%
North East / New England	13%
Mid-Atlantic	7%
Midwest and Plains States	13%
Southwest	7%
Mountain States	7%

IN3A_4. What areas, states or regions are you responsible for? #4 (*n* = 11)

RESPONSE	PERCENT
North East / New England	45%
Mid-Atlantic	18%
West Coast	9%
Southeast	9%
Mountain States	18%

IN3A_5. What areas, states or regions are you responsible for? #5 (*n* = 7)

RESPONSE	PERCENT
Mid-Atlantic	71%
Midwest and Plains States	14%
Southwest	14%

IN3A_6. What areas, states or regions are you responsible for? #6 (*n* = 7)

RESPONSE	PERCENT
Midwest and Plains States	71%
West Coast	14%
Southeast	14%

IN3A_7. What areas, states or regions are you responsible for? #7 (*n* = 7)

RESPONSE	PERCENT
West Coast	71%
Southwest	14%
Mountain States	14%

IN3A_8. What areas, states or regions are you responsible for? #8 (*n* = 6)

RESPONSE	PERCENT
Southwest	83%
Southeast	17%

IN3A_9. What areas, states or regions are you responsible for? #9 (*n* = 6)

RESPONSE	PERCENT
Southeast	83%
Mountain States	17%

IN3A_10. What areas, states or regions are you responsible for? #10 (*n* = 5)

RESPONSE	PERCENT
Mountain States	100%

IN4. About how many full-time equivalent employees work for your company? (*n* = 162)

STATISTIC	VALUE
Mean	50.4
Median	8.5
Mode	1.0
Std. Deviation	172.2

BE1_1. Which of the following types of materials does your company sell? #1 (*n* = 21)

RESPONSE	PERCENT
Don't Know	5%
Insulation	81%
Windows	5%
Other	10%

BE1_2. Which of the following types of materials does your company sell? #2 (*n* = 9)

RESPONSE	PERCENT
Windows	67%
Doors	11%
Other	22%

BE1_3. Which of the following types of materials does your company sell? #3 (*n* = 4)

RESPONSE	PERCENT
Doors	100%

BE1_4. Which of the following types of materials does your company sell? #4 (*n* = 2)

RESPONSE	PERCENT
Other	100%

BE2. Since 2010 have you experienced any increased sales of insulation materials? (*n* = 17)

RESPONSE	PERCENT
Yes	35%
No	65%

BE3_1. By what percent did sales increase between... 2010 and 2011? (*n* = 3)

STATISTIC	VALUE
Mean	43.3
Median	25.0
Mode	5.0
Std. Deviation	50.1

BE3_2. By what percent did sales increase between... 2011 and 2012? (*n* = 4)

STATISTIC	VALUE
Mean	58.8
Median	62.5
Mode	100.0
Std. Deviation	48.0

H1_1. Which of the following types of equipment does your company sell? #1 (*n* = 128)

RESPONSE	PERCENT
Residential HVAC equipment	72%
Commercial HVAC equipment	15%
Residential water heating equipment	11%
Commercial water heating equipment	1%
Neither HVAC nor water heating equipment	2%

H1_2. Which of the following types of equipment does your company sell? #2 (*n* = 82)

RESPONSE	PERCENT
Residential water heating equipment	87%
Commercial water heating equipment	13%

H1_3. Which of the following types of equipment does your company sell? #3 (*n* = -164)

0.0	**0%**

H2A_10. Approximately how many Natural Gas Furnaces did your company sell in 2010? (*n* = 97)

STATISTIC	VALUE
Mean	386.4
Median	45.0
Mode	0.0
Std. Deviation	1025.2

H2A_11. Approximately how many Natural Gas Furnaces did your company sell in 2011? (*n* = 97)

STATISTIC	VALUE
Mean	417.5
Median	50.0
Mode	0.0
Std. Deviation	1039.7

H2A_12. Approximately how many Natural Gas Furnaces does your company expect to sell in 2012? (*n* = 100)

STATISTIC	VALUE
Mean	392.2
Median	45.0
Mode	0.0
Std. Deviation	1019.2

H2B_10. Approximately how many Natural Gas Boilers did your company sell in 2010? (*n* = 105)

STATISTIC	VALUE
Mean	77.8
Median	5.0
Mode	0.0
Std. Deviation	214.1

H2B_11. Approximately how many Natural Gas Boilers did your company sell in 2011? (*n* = 106)

STATISTIC	VALUE
Mean	95.3
Median	4.0
Mode	0.0
Std. Deviation	346.5

H2B_12. Approximately how many Natural Gas Boilers does your company expect to sell in 2012? (*n* = 108)

STATISTIC	VALUE
Mean	91.8
Median	3.5
Mode	0.0
Std. Deviation	338.6

H2C_10. Approximately how many Oil Furnaces did your company sell in 2010? (*n* = 107)

STATISTIC	VALUE
Mean	28.8
Median	0.0
Mode	0.0
Std. Deviation	122.9

H2C_11. Approximately how many Oil Furnaces did your company sell in 2011? (*n* = 107)

STATISTIC	VALUE
Mean	27.6
Median	0.0
Mode	0.0
Std. Deviation	118.8

H2C_12. Approximately how many Oil Furnaces does your company expect to sell in 2012? (*n* = 108)

STATISTIC	VALUE
Mean	24.9
Median	0.0
Mode	0.0
Std. Deviation	110.9

H2D_10. Approximately how many Oil Boilers did your company sell in 2010? (*n* = 107)

STATISTIC	VALUE
Mean	55.4
Median	0.0
Mode	0.0
Std. Deviation	210.5

H2D_11. Approximately how many Oil Boilers did your company sell in 2011? (*n* = 107)

STATISTIC	VALUE
Mean	58.3
Median	0.0
Mode	0.0
Std. Deviation	231.7

H2D_12. Approximately how many Oil Boilers does your company expect to sell in 2012? (*n* = 108)

STATISTIC	VALUE
Mean	41.9
Median	0.0
Mode	0.0
Std. Deviation	152.0

H2E_10. Approximately how many Central Air Conditioners did your company sell in 2010? (*n* = 99)

STATISTIC	VALUE
Mean	455.7
Median	30.0
Mode	0.0
Std. Deviation	1459.7

H2E_11. Approximately how many Central Air Conditioners did your company sell in 2011? (*n* = 99)

STATISTIC	VALUE
Mean	468.6
Median	30.0
Mode	0.0
Std. Deviation	1479.9

H2E_12. Approximately how many Central Air Conditioners does your company expect to sell in 2012? (*n* = 101)

STATISTIC	VALUE
Mean	496.1
Median	38.0
Mode	0.0
Std. Deviation	1510.3

H3A_10. Approximately what percentage of the Natural Gas Furnaces your company sold in 2010 was AFUE of 94% or greater? (*n* = 62)

STATISTIC	VALUE
Mean	55.6
Median	57.5
Mode	50.0
Std. Deviation	33.2

H3A_11. Approximately what percentage of the Natural Gas Furnaces your company sold in 2011 was AFUE of 94% or greater? (*n* = 65)

STATISTIC	VALUE
Mean	54.6
Median	60.0
Mode	90.0
Std. Deviation	32.5

H3A_12. Approximately what percentage of the Natural Gas Furnaces your company expects to sell in 2012 will be AFUE of 94% or greater? (*n* = 66)

STATISTIC	VALUE
Mean	61.4
Median	70.0
Mode	90.0
Std. Deviation	32.6

H3B_10. Approximately what percentage of the Natural Gas Boilers your company sold in 2010 was AFUE of 90% or greater? (*n* = 52)

STATISTIC	VALUE
Mean	58.1
Median	70.0
Mode	100.0
Std. Deviation	39.3

H3B_11. Approximately what percentage of the Natural Gas Boilers your company sold in 2011 was AFUE of 90% or greater? (*n* = 54)

STATISTIC	VALUE
Mean	59.4
Median	77.5
Mode	100.0
Std. Deviation	39.8

H3B_12. Approximately what percentage of the Natural Gas Boilers your company expects to sell in 2012 will be AFUE of 90% or greater? (*n* = 55)

STATISTIC	VALUE
Mean	62.7
Median	85.0
Mode	100.0
Std. Deviation	40.4

H3C_10. Approximately what percentage of the Oil Furnaces your company sold in 2010 was AFUE of 85% or greater? (*n* = 29)

STATISTIC	VALUE
Mean	61.9
Median	100.0
Mode	100.0
Std. Deviation	45.7

H3C_11. Approximately what percentage of the Oil Furnaces your company sold in 2011 was AFUE of 85% or greater? (*n* = 30)

STATISTIC	VALUE
Mean	60.3
Median	95.0
Mode	100.0
Std. Deviation	46.5

H3C_12. Approximately what percentage of the Oil Furnaces your company expects to sell in 2012 will be AFUE of 85% or greater? (*n* = 29)

STATISTIC	VALUE
Mean	67.6
Median	100.0
Mode	100.0
Std. Deviation	44.4

H3D_10. Approximately what percentage of the Oil Boilers your company sold in 2010 was AFUE of 85% or greater? (*n* = 30)

STATISTIC	VALUE
Mean	72.3
Median	100.0
Mode	100.0
Std. Deviation	38.7

H3D_11. Approximately what percentage of the Oil Boilers your company sold in 2011 was AFUE of 85% or greater? (*n* = 28)

STATISTIC	VALUE
Mean	78.0
Median	100.0
Mode	100.0
Std. Deviation	33.9

H3D_12. Approximately what percentage of the Oil Boilers your company expects to sell in 2012 will be AFUE of 85% or greater? (*n* = 26)

STATISTIC	VALUE
Mean	80.6
Median	100.0
Mode	100.0
Std. Deviation	30.9

H3E_10. Approximately what percentage of the Central Air Conditioners your company sold in 2010 was 15 SEER or greater? (*n* = 71)

STATISTIC	VALUE
Mean	34.0
Median	20.0
Mode	0.0
Std. Deviation	31.8

H3E_11. Approximately what percentage of the Central Air Conditioners your company sold in 2011 was 15 SEER or greater? (*n* = 73)

STATISTIC	VALUE
Mean	34.8
Median	20.0
Mode	0.0
Std. Deviation	31.8

H3E_12. Approximately what percentage of the Central Air Conditioners your company expects to sell in 2012 will be 15 SEER or greater? (*n* = 75)

STATISTIC	VALUE
Mean	40.5
Median	30.0
Mode	10.0
Std. Deviation	34.3

H3F_10. Approximately what percentage of the Natural gas furnaces your company sold in 2010 was AFUE of 94% or greater? (*n* = 10)

STATISTIC	VALUE
Mean	47.2
Median	50.0
Mode	50.0
Std. Deviation	30.6

H3F_11. Approximately what percentage of the Natural gas furnaces your company sold in 2011 was AFUE of 94% or greater? (*n* = 11)

STATISTIC	VALUE
Mean	44.8
Median	40.0
Mode	30.0
Std. Deviation	30.4

H3F_12. Approximately what percentage of the Natural gas furnaces your company expects to sell in 2012 will be AFUE of 94% or greater? (*n* = 12)

STATISTIC	VALUE
Mean	46.5
Median	50.0
Mode	50.0
Std. Deviation	33.3

H3G_10. Approximately what percentage of the Natural gas boilers your company sold in 2010 was AFUE of 90% or greater? (*n* = 11)

STATISTIC	VALUE
Mean	45.5
Median	50.0
Mode	50.0
Std. Deviation	32.1

H3G_11. Approximately what percentage of the Natural gas boilers your company sold in 2011 was AFUE of 90% or greater? (*n* = 12)

STATISTIC	VALUE
Mean	52.1
Median	55.0
Mode	50.0
Std. Deviation	34.3

H3G_12. Approximately what percentage of the Natural gas boilers your company expects to sell in 2012 will be AFUE of 90% or greater? (*n* = 11)

STATISTIC	VALUE
Mean	51.8
Median	50.0
Mode	25.0
Std. Deviation	25.0

H3H_10. Approximately what percentage of the Oil furnaces your company sold in 2010 was AFUE of 85% or greater? (*n* = 2)

STATISTIC	VALUE
Mean	45.0
Median	45.0
Mode	0.0
Std. Deviation	63.6

H3H_11. Approximately what percentage of the Oil furnaces your company sold in 2011 was AFUE of 85% or greater? (*n* = 2)

STATISTIC	VALUE
Mean	90.0
Median	90.0
Mode	80.0
Std. Deviation	14.1

H3H_12. Approximately what percentage of the Oil furnaces your company expects to sell in 2012 will be AFUE of 85% or greater? (*n* = 2)

STATISTIC	VALUE
Mean	75.0
Median	75.0
Mode	50.0
Std. Deviation	35.4

H3I_10. Approximately what percentage of the Oil boilers your company sold in 2010 was AFUE of 85% or greater? (*n* = 2)

STATISTIC	VALUE
Mean	15.0
Median	15.0
Mode	0.0
Std. Deviation	21.2

H3I_11. Approximately what percentage of the Oil boilers your company sold in 2011 was AFUE of 85% or greater? (*n* = 1)

STATISTIC	VALUE
Mean	20.0
Median	20.0
Mode	20.0

H3I_12. Approximately what percentage of the Oil boilers your company expects to sell in 2012 will be AFUE of 85% or greater? (*n* = 1)

STATISTIC	VALUE
Mean	20.0
Median	20.0
Mode	20.0

H3J_10. Approximately what percentage of the Air-cooled unitary or split systems less than 5.4 tons your company sold in 2010 was 12.0 EER? (*n* = 12)

STATISTIC	VALUE
Mean	54.2
Median	65.0
Mode	100.0
Std. Deviation	43.1

H3J_11. Approximately what percentage of the Air-cooled unitary or split systems less than 5.4 tons your company sold in 2011 was 12.0 EER? (*n* = 12)

STATISTIC	VALUE
Mean	55.0
Median	65.0
Mode	100.0
Std. Deviation	42.3

H3J_12. Approximately what percentage of the Air-cooled unitary or split systems less than 5.4 tons your company expects to sell in 2012 will be 12.0 EER? (*n* = 12)

STATISTIC	VALUE
Mean	56.8
Median	65.0
Mode	100.0
Std. Deviation	41.7

H3K_10. Approximately what percentage of the Air-cooled unitary or split systems greater than or equal to 5.4 to less than 20 tons your company sold in 2010 was 11.5 EER? (*n* = 13)

STATISTIC	VALUE
Mean	30.8
Median	10.0
Mode	0.0
Std. Deviation	39.2

H3K_11. Approximately what percentage of the Air-cooled unitary or split systems greater than or equal to 5.4 to less than 20 tons your company sold in 2011 was 11.5 EER? (*n* = 13)

STATISTIC	VALUE
Mean	31.2
Median	10.0
Mode	0.0
Std. Deviation	38.9

H3K_12. Approximately what percentage of the Air-cooled unitary or split systems greater than or equal to 5.4 to less than 20 tons your company expects to sell in 2012 will be 11.5 EER? (*n* = 13)

STATISTIC	VALUE
Mean	30.8
Median	10.0
Mode	0.0
Std. Deviation	39.0

H3L_10. Approximately what percentage of the Air-cooled unitary or split systems less than 20 tons your company sold in 2010 was 10.5 EER? (*n* = 13)

STATISTIC	VALUE
Mean	38.8
Median	5.0
Mode	0.0
Std. Deviation	45.0

H3L_11. Approximately what percentage of the Air-cooled unitary or split systems less than 20 tons your company sold in 2011 was 10.5 EER? (*n* = 12)

STATISTIC	VALUE
Mean	40.3
Median	27.5
Mode	0.0
Std. Deviation	43.9

H3L_12. Approximately what percentage of the Air-cooled unitary or split systems less than 20 tons your company expects to sell in 2012 will be 10.5 EER? (*n* = 12)

STATISTIC	VALUE
Mean	39.8
Median	26.5
Mode	0.0
Std. Deviation	43.4

L1_1. Since 2010, which of the following types of lighting fixtures have you sold for use? #1 (*n* = 17)

RESPONSE	PERCENT
DON'T KNOW	12%
Pin-Based CFL fixtures	18%
Fluorescent Tube fixtures	18%
Screw-Based fixtures	12%
LED fixtures	12%
T5 lamps and ballasts	6%
Metal halide fixtures	6%
NONE	18%

L1_2. Since 2010, which of the following types of lighting fixtures have you sold for use? #2 (*n* = 9)

RESPONSE	PERCENT
Fluorescent Tube fixtures	33%
Screw-Based fixtures	22%
LED fixtures	22%
T8 lamps and ballasts	11%
LED lamps or luminaries	11%

L1_3. Since 2010, which of the following types of lighting fixtures have you sold for use? #3 (*n* = 6)

RESPONSE	PERCENT
Screw-Based fixtures	50%
LED fixtures	17%
High-bay fluorescent fixtures	17%
Other high-efficiency fixtures	17%

L1_4. Since 2010, which of the following types of lighting fixtures have you sold for use? #4 (*n* = 5)

RESPONSE	PERCENT
LED fixtures	60%
Hardwired CFL fixtures	20%
Other high-efficiency fixtures	20%

L1_5. Since 2010, which of the following types of lighting fixtures have you sold for use? #5 (*n* = 1)

RESPONSE	PERCENT
LED exit signs	100%

L1_6. Since 2010, which of the following types of lighting fixtures have you sold for use? #6 (*n* = 1)

RESPONSE	PERCENT
LED lamps or luminaries	100%

L21_10. Approximately what percentage of your company's lighting sales were Pin-Based CFL fixtures in 2010? (*n* = 3)

RESPONSE	PERCENT
5	33%
20	33%
25	33%

L21_11. Approximately what percentage of your company's lighting sales were Pin-Based CFL fixtures in 2011? (*n* = 3)

RESPONSE	PERCENT
5	33%
25	33%
30	33%

L21_12. Approximately what percentage of your company's lighting sales will Pin-Based CFL fixtures be in 2012? (*n* = 3)

RESPONSE	PERCENT
5	33%
25	33%
35	33%

L22_10. Approximately what percentage of your company's lighting sales were Fluorescent Tube fixtures in 2010? (*n* = 4)

RESPONSE	PERCENT
1	50%
25	25%
60	25%

L22_11. Approximately what percentage of your company's lighting sales were Fluorescent Tube fixtures in 2011? (*n* = 4)

RESPONSE	PERCENT
1	50%
25	25%
70	25%

L22_12. Approximately what percentage of your company's lighting sales will Fluorescent Tube fixtures be in 2012? (*n* = 4)

RESPONSE	PERCENT
1	50%
25	25%
75	25%

L23_10. Approximately what percentage of your company's lighting sales were Screw-Based fixtures in 2010? (*n* = 6)

RESPONSE	PERCENT
5	17%
30	17%
40	17%
90	33%
100	17%

L23_11. Approximately what percentage of your company's lighting sales were Screw-Based fixtures in 2011? (*n* = 6)

RESPONSE	PERCENT
5	17%
30	17%
45	17%
90	33%
100	17%

L23_12. Approximately what percentage of your company's lighting sales will Screw-Based fixtures be in 2012? (*n* = 6)

RESPONSE	PERCENT
5	17%
15	17%
55	17%
80	17%
90	33%

L24_10. Approximately what percentage of your company's lighting sales were LED fixtures in 2010? (*n* = 8)

RESPONSE	PERCENT
0	25%
3	13%
30	13%
45	13%
100	38%

L24_11. Approximately what percentage of your company's lighting sales were LED fixtures in 2011? (*n* = 8)

RESPONSE	PERCENT
0	13%
3	13%
10	13%
40	13%
45	13%
100	38%

L24_12. Approximately what percentage of your company's lighting sales will LED fixtures be in 2012? (*n* = 8)

RESPONSE	PERCENT
3	13%
5	13%
35	13%
45	25%
100	38%

L26_10. Approximately what percentage of your company's lighting sales were T5 lamps and ballasts in 2010? (*n* = 1)

RESPONSE	PERCENT
1	100%

L26_11. Approximately what percentage of your company's lighting sales were T5 lamps and ballasts in 2011? (*n* = 1)

RESPONSE	PERCENT
1	100%

L26_12. Approximately what percentage of your company's lighting sales will T5 lamps and ballasts be in 2012? (*n* = 1)

RESPONSE	PERCENT
1	100%

L27_10. Approximately what percentage of your company's lighting sales were T8 lamps and ballasts in 2010? (*n* = 1)

RESPONSE	PERCENT
1	100%

L27_11. Approximately what percentage of your company's lighting sales were T8 lamps and ballasts in 2011? (*n* = 1)

RESPONSE	PERCENT
1	100%

L27_12. Approximately what percentage of your company's lighting sales will T8 lamps and ballasts be in 2012? (*n* = 1)

RESPONSE	PERCENT
1	100%

L29_10. Approximately what percentage of your company's lighting sales were High-bay fluorescent fixtures in 2010? (*n* = 1)

RESPONSE	PERCENT
0	100%

L29_11. Approximately what percentage of your company's lighting sales were High-bay fluorescent fixtures in 2011? (*n* = 1)

RESPONSE	PERCENT
0	100%

L29_12. Approximately what percentage of your company's lighting sales will High-bay fluorescent fixtures be in 2012? (*n* = 1)

RESPONSE	PERCENT
0	100%

L210_10. Approximately what percentage of your company's lighting sales were Hardwired CFL fixtures in 2010? (*n* = 1)

RESPONSE	PERCENT
1	100%

L210_11. Approximately what percentage of your company's lighting sales were Hardwired CFL fixtures in 2011? (*n* = 1)

RESPONSE	PERCENT
1	100%

L210_12. Approximately what percentage of your company's lighting sales will hardwired CFL fixtures be in 2012? (*n* = 1)

RESPONSE	PERCENT
1	100%

L211_10. Approximately what percentage of your company's lighting sales were Metal halide fixtures in 2010? (*n* = 1)

RESPONSE	PERCENT
1	100%

L211_11. Approximately what percentage of your company's lighting sales were Metal halide fixtures in 2011? (*n* = 1)

RESPONSE	PERCENT
1	100%

L211_12. Approximately what percentage of your company's lighting sales will Metal halide fixtures be in 2012? (*n* = 1)

RESPONSE	PERCENT
1	100%

L212_10. Approximately what percentage of your company's lighting sales were LED exit signs in 2010? (*n* = 1)

RESPONSE	PERCENT
0	100%

L212_11. Approximately what percentage of your company's lighting sales were LED exit signs in 2011? (*n* = 1)

RESPONSE	PERCENT
0	100%

L212_12. Approximately what percentage of your company's lighting sales will LED exit signs be in 2012? (*n* = 1)

RESPONSE	PERCENT
0	100%

L214_10. Approximately what percentage of your company's lighting sales were LED lamps or luminaries in 2010? (*n* = 2)

RESPONSE	PERCENT
0	50%
95	50%

L214_11. Approximately what percentage of your company's lighting sales were LED lamps or luminaries in 2011? (*n* = 2)

RESPONSE	PERCENT
0	50%
90	50%

L214_12. Approximately what percentage of your company's lighting sales will LED lamps or luminaries be in 2012? (*n* = 2)

RESPONSE	PERCENT
1	50%
95	50%

L251_10. Approximately what percentage of your company's lighting sales were from other high-efficiency lighting equipment in 2010? (*n* = 3)

RESPONSE	PERCENT
10	33%
60	33%
100	33%

L251_11. Approximately what percentage of your company's lighting sales were from other high-efficiency lighting equipment in 2011? (*n* = 3)

RESPONSE	PERCENT
60	33%
98	33%
100	33%

L251_12. Approximately what percentage of your company's lighting sales will be from other high-efficiency lighting equipment in 2012? (*n* = 3)

RESPONSE	PERCENT
50	33%
90	33%
100	33%

L4_1. Since 2010, which of the following lighting controls have you sold for use? #1 (*n* = 17)

RESPONSE	PERCENT
Don't Know	12%
Dimmers	47%
Occupant Sensors	6%
Photo Controls	6%
Motion Sensors	6%
NONE	24%

L4_2. Since 2010, which of the following lighting controls have you sold for use? #2 (*n* = 8)

RESPONSE	PERCENT
Occupant Sensors	63%
Photo Controls	13%
Motion Sensors	25%

L4_3. Since 2010, which of the following lighting controls have you sold for use? #3 (*n* = 5)

RESPONSE	PERCENT
Photo Controls	80%
Motion Sensors	20%

L4_4. Since 2010, which of the following lighting controls have you sold for use? #4 (*n* = 4)

RESPONSE	PERCENT
Motion Sensors	100%

L5_1. Since 2010, have you experienced a sale increase in Dimmers? (*n* = 8)

RESPONSE	PERCENT
Yes	25%
No	75%

L5_2. Since 2010, have you experienced a sale increase in Occupant Sensors? (*n* = 6)

RESPONSE	PERCENT
Yes	67%
No	33%

L5_3. Since 2010, have you experienced a sale increase in Photo Controls? (*n* = 6)

RESPONSE	PERCENT
Yes	33%
No	67%

L5_4. Since 2010, have you experienced a sale increase in Motion Sensors? (*n* = 8)

RESPONSE	PERCENT
Yes	50%
No	50%

L61_11. By what percent did sales for Dimmers increase between... 2010 and 2011? (*n* = 2)

RESPONSE	PERCENT
15	100%

L61_12. By what percent did sales for Dimmers increase between... 2011 and 2012? (*n* = 2)

RESPONSE	PERCENT
10	100%

L62_11. By what percent did sales for Occupant Sensors increase between... 2010 and 2011? (*n* = 3)

RESPONSE	PERCENT
5	33%
15	33%
20	33%

L62_12. By what percent did sales for Occupant Sensors increase between... 2011 and 2012? (*n* = 3)

RESPONSE	PERCENT
4	33%
5	33%
20	33%

L63_11. By what percent did sales for Photo Controls increase between... 2010 and 2011? (*n* = 3)

RESPONSE	PERCENT
20	100%

L63_12. By what percent did sales for Photo Controls increase between... 2011 and 2012? (*n* = 3)

RESPONSE	PERCENT
20	100%

L64_11. By what percent did sales for Motion Sensors increase between... 2010 and 2011? (*n* = 3)

RESPONSE	PERCENT
5	33%
20	33%
50	33%

L64_12. By what percent did sales for Motion Sensors increase between... 2011 and 2012? (*n* = 3)

RESPONSE	PERCENT
0	33%
5	33%
20	33%

IN17. What do you think is the one greatest barrier that might prevent customers from implementing, or pursuing to a greater degree, energy efficiency improvements? (*n* = 164)

RESPONSE	PERCENT
Lack Of Awareness	1%
Lack Of Interest	1%
Lack Of Financing	3%
Cost / Payback / Capital	85%
Lack Of Knowledge / Understanding Of Benefits	5%
Economy In General	2%
Other1	2%
None	1%

IN18_1. What other barriers exist? #1 (*n* = 163)

RESPONSE	PERCENT
Don't Know	2%
Do Not Own Building / Landlord Makes Decision	1%
Lack Of Awareness	5%
Lack Of Interest	1%
Lack Of Financing	6%
Cost / Payback / Capital	12%
Lack Of Knowledge / Understanding Of Benefits	20%
Lack Of Time	1%
Too Much Work / Hassle	4%
Economy In General	2%
Uncertainty About Performance Of Energy Efficient Equipment	2%
13	2%
Other1	9%
None	32%

IN18_2. What other barriers exist? #2 (*n* = 23)

RESPONSE	PERCENT
Cost / Payback / Capital	22%
Lack Of Knowledge / Understanding Of Benefits	17%
Too Much Work / Hassle	4%
Economy In General	17%
Uncertainty About Performance Of Energy Efficient Equipment	13%
Other1	17%
Other2	9%

IN18_3. What other barriers exist? #3 (*n* = 3)

RESPONSE	PERCENT
Lack Of Interest	33%
Other1	33%
Other2	33%

IN18_4. What other barriers exist? #4 (*n* = 1)

RESPONSE	PERCENT
Lack Of Interest	100%

IN19. Over the past two years, have any barriers become more important-that is, bigger barriers? (*n* = 163)

RESPONSE	PERCENT
Don't Know	2%
Yes	41%
No	56%

IN19B_1. Which ones? #1 (*n* = 67)

RESPONSE	PERCENT
Don't Know	3%
Lack Of Financing	12%
Cost / Payback / Capital	46%
Lack Of Knowledge / Understanding Of Benefits	3%
Economy In General	10%
Uncertainty About Performance Of Energy Efficient Equipment	3%
13	6%
14	6%
Other1	10%

IN19B_2. Which ones? #2 (*n* = 13)

RESPONSE	PERCENT
Cost / Payback / Capital	8%
Lack Of Knowledge / Understanding Of Benefits	15%
Economy In General	31%
13	8%
Other1	31%
Other2	8%

IN19B_3. Which ones? #3 (*n* = 1)

RESPONSE	PERCENT
Other2	100%

IN19B_4. Which ones? #4 (*n* = 1)

RESPONSE	PERCENT
Other3	100%

IN20. Over the past two years, have any barriers become less important? (*n* = 163)

RESPONSE	PERCENT
Don't Know	2%
Yes	10%
No	88%

IN20B_1. Which ones? #1 (*n* = 16)

RESPONSE	PERCENT
Lack Of Awareness	6%
Lack Of Financing	6%
Cost / Payback / Capital	44%
Lack Of Knowledge / Understanding Of Benefits	19%
13	13%
14	13%

IN20B_2. Which ones? #2 (*n* = 1)

RESPONSE	PERCENT
Lack Of Knowledge / Understanding Of Benefits	100%

PA1_1. Have you heard of...Grantee Program? (*n* = 164)

RESPONSE	PERCENT
Yes	45%
No	55%

PA1_2. Have you heard of...Programs funded by Energy Efficiency and Conservation Block Grants (EECBG)? (*n* = 164)

RESPONSE	PERCENT
Don't Know	1%
Yes	30%
No	70%

PA1_3. Have you heard of...Home efficiency programs sponsored by local utilities or other groups? (*n* = 136)

RESPONSE	PERCENT
Don't Know	1%
Yes	85%
No	15%

PA1_4. Have you heard of...Weatherization assistance program? (*n* = 136)

RESPONSE	PERCENT
Yes	73%
No	27%

PA1_5. Have you heard of...Commercial energy efficiency programs sponsored by local utilities or other groups? (*n* = 28)

RESPONSE	PERCENT
Yes	82%
No	18%

PA1_6. Have you heard of...Benchmarking or labeling programs like: LEED or ENERGY STAR Portfolio Manager? (*n* = 28)

RESPONSE	PERCENT
Yes	71%
No	29%

PA1_7. Have you heard of...Federal Tax Credits for energy efficiency improvements? (*n* = 164)

RESPONSE	PERCENT
Yes	95%
No	5%

PA1_8. Have you heard of...State tax credits for energy efficiency improvements? (*n* = 164)

RESPONSE	PERCENT
Don't Know	1%
Yes	77%
No	22%

PA2aa. Think about the building envelope products, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 5)

RESPONSE	PERCENT
Positive	40%
No impact	60%

PA2ab. Think about HVAC and water heating systems, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 56)

RESPONSE	PERCENT
Don't Know	2%
Positive	45%
Negative	2%
No impact	52%

PA2ac. Think about lighting, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 5)

RESPONSE	PERCENT
Positive	40%
No impact	60%

PA2ad. Think about motors, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 5)

RESPONSE	PERCENT
Positive	40%
No impact	60%

PA2ae. Think about building automation and/or controls, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 24)

RESPONSE	PERCENT
Positive	33%
No impact	67%

PA2af. Think about commercial refrigeration equipment, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 2)

RESPONSE	PERCENT
No impact	100%

PA2ag. Think about other energy-related equipment, would you say Grantee Program has had a positive impact, a negative impact, or no impact on your company's energy efficient equipment sales since 2010? (*n* = 23)

RESPONSE	PERCENT
Don't Know	4%
Positive	39%
No impact	57%

PA2ba. How much influence would you say Grantee Program has had on your sales of building envelope products? (*n* = 2)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
7	50%
8	50%

PA2bb. How much influence would you say Grantee Program has had on your sales of HVAC and water heating systems? (*n* = 26)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
1	4%
2	15%
3	12%
4	23%
5	19%
6	4%
7	15%
8	8%

PA2bc. How much influence would you say Grantee Program has had on your sales of lighting? (*n* = 2)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
2	50%
5	50%

PA2bd. How much influence would you say Grantee Program has had on your sales of motors? (*n* = 2)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
2	50%
5	50%

PA2be. How much influence would you say Grantee Program has had on your sales of building automation and/or controls? (*n* = 8)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
1	13%
5	63%
6	13%
8	13%

PA2bg. How much influence would you say Grantee Program has had on your sales of other energy-related equipment? (*n* = 9)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
2	11%
4	44%
5	33%
10	11%

PA3. Is there anything you think would work even more effectively to stimulate the market for the energy efficient products you sell? (*n* = 164)

RESPONSE	PERCENT
Don't Know	2%
Yes	74%
No	24%

AT1_1. What changes, if any, have you made to your business and stocking practices since Grantee Program began? #1 (*n* = 74)

RESPONSE	PERCENT
Don't Know	3%
Stock more efficient materials	28%
In general, talk about energy efficiency more with customers	15%
Compare efficiency levels of different equipment	4%
Explain to customers how the high efficiency equipment/materials works and why more efficient	1%
Other	5%
NOTHING/NONE	43%

AT1_2. What changes, if any, have you made to your business and stocking practices since Grantee Program began? #2 (*n* = 35)

RESPONSE	PERCENT
In general, talk about energy efficiency more with customers	60%
Compare efficiency levels of different equipment	26%
Explain to customers how the high efficiency equipment/materials works and why more efficient	9%
Explain to customers payback period and savings over time	3%
Other	3%

AT1_3. What changes, if any, have you made to your business and stocking practices since Grantee Program began? #3 (*n* = 33)

RESPONSE	PERCENT
Compare efficiency levels of different equipment	61%
Explain to customers how the high efficiency equipment/materials works and why more efficient	30%
Explain to customers payback period and savings over time	9%

AT1_4. What changes, if any, have you made to your business and stocking practices since Grantee Program began? #4 (*n* = 29)

RESPONSE	PERCENT
Explain to customers how the high efficiency equipment/materials works and why more efficient	69%
Explain to customers payback period and savings over time	31%

AT1_5. What changes, if any, have you made to your business and stocking practices since Grantee Program began? #5 (*n* = 21)

RESPONSE	PERCENT
Explain to customers payback period and savings over time	95%
Other	5%

AT1_6. What changes, if any, have you made to your business and stocking practices since Grantee Program began? #6 (*n* = 2)

RESPONSE	PERCENT
Other	100%

AT2. How much influence would you say the Grantee Program has had on the changes you have you made to your business and stocking practices? (*n* = 40)

RESPONSE (0 = NO INFLUENCE AT ALL, 10 = A GREAT DEAL OF INFLUENCE)	PERCENT
0	10%
1	8%
2	18%
3	8%
4	15%
5	13%
6	5%
7	5%
8	10%
10	10%

AT3_1. To date, what affect, if any, do you think the Grantee Program has had on the market for energy efficient equipment? Please tell me if you agree or disagree with each statement, using a scale from 0 to 10, where 0 means "strongly disagree" and 10 means "strongly agree." "There is more business for your company than there would have been without the program." (*n* = 74)

RESPONSE (0 = STRONGLY DISAGREE, 10 = STRONGLY AGREE)	PERCENT
Don't Know	1%
0	26%
1	9%
2	14%
3	5%
4	9%
5	11%
6	8%
7	4%
8	7%
9	1%
10	4%

AT3_2. To date, what affect, if any, do you think the Grantee Program has had on the market for energy efficient equipment? Please tell me if you agree or disagree with each statement, using a scale from 0 to 10, where 0 means "strongly disagree" and 10 means "strongly agree." "There is more business in general in the marketplace than there would have been without the program." (*n* = 74)

RESPONSE (0 = STRONGLY DISAGREE, 10 = STRONGLY AGREE)	PERCENT
0	12%
1	5%
2	15%
3	9%
4	8%
5	16%
6	7%
7	8%
8	9%
10	9%

AT4_1. What affect, if any, do you think the Grantee Program will have on the market for energy efficient equipment in the next two years? Please tell me if you agree or disagree with each statement, using a scale from 0 to 10, where 0 means "strongly disagree" and 10 means "strongly agree." "There will be more business for your company than there would have been without the program." (*n* = 74)

RESPONSE (0 = STRONGLY DISAGREE, 10 = STRONGLY AGREE)	PERCENT
0	20%
1	4%
2	11%
3	7%
4	3%
5	20%
6	11%
7	7%
8	12%
10	5%

AT4_2. What affect, if any, do you think the Grantee Program will have on the market for energy efficient equipment in the next two years? Please tell me if you agree or disagree with each statement, using a scale from 0 to 10, where 0 means "strongly disagree" and 10 means "strongly agree." "There will be more business in general in the marketplace than there would have been without the program." (*n* = 74)

RESPONSE (0 = STRONGLY DISAGREE, 10 = STRONGLY AGREE)	PERCENT
0	15%
1	3%
2	7%
3	5%
4	4%
5	26%
6	8%
7	14%
8	12%
9	1%
10	5%

AT5. Finally, is there anything else you would like to tell me about the energy efficiency upgrade market? (*n* = 164)

RESPONSE	PERCENT
Yes	20%
No	80%

GENDER. Gender (*n* = 164)

RESPONSE	PERCENT
Male	96%
Female	4%