
Subject Focus on Energy Evaluation

**Targeted Home Performance with ENERGY STAR®
Participant Survey Results**

To Oscar Bloch,
Public Service Commission of Wisconsin
cc Suzanne Harmelink,
Wisconsin Energy Conservation Corporation

From Sandra Duerst, Steven Drake, and Lark Lee,
PA Consulting Group

Acknowledgement: Ralph Prahl, Prahl & Associates,
contributed critical review and analysis

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Introduction

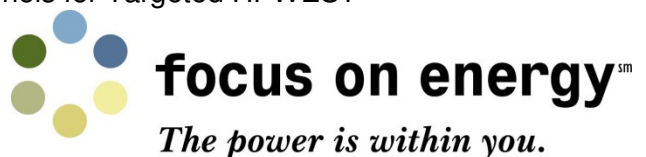
This memo summarizes the results of a customer survey with 2009 Targeted Home Performance with ENERGY STAR® (Targeted HPWES) participants. Interviews were completed with 200 participants.¹

Targeted HPWES, implemented by the Wisconsin Energy Conservation Corporation (WECC), provides weatherization services to eligible households served by participating natural gas and electricity providers. The objective of the Targeted HPWES program is to provide Wisconsin residents who have limited resources and income an effective opportunity to increase the energy efficiency, affordability, safety, durability, and comfort level of their homes.

Eligible households for Targeted HPWES have incomes that exceed the minimum eligibility requirements for the state Weatherization Assistance Program (WAP). As of 2009, the Targeted HPWES income eligibility increased to 200 to 250 percent of the federal poverty level; prior to this, it ranged from 150 to 200 percent. In addition, income eligibility is now defined as 60 to 80 percent of the state median income, effective June 2009. These changes in the program's income requirements were in response to adjustments made to the WAP's income eligibility. From January 25 to February 12, 2010, PA Consulting Group (PA) conducted telephone interviews with 2009 program participants.

The participant survey addressed the following key researchable questions:

- What are the demographic and household characteristics of the Targeted HPWES population? How do these characteristics compare to nonparticipants?
- What are the most effective outreach channels for Targeted HPWES?



¹ The "Sampling Methodology and Response Rate" section at the end of this memorandum provides detailed information on respondents.

- What are the primary motivating factors for participating in Targeted HPWES?
- What barriers have customers faced in trying to participate in the program? How have participants overcome these barriers?
- To what extent would customers have done the same home improvements on their own without the program?
- What are the most important benefits participants received from the program?
- Has participating in the program helped to increase customer's awareness of energy use and energy efficiency in their homes?
- How satisfied are customers with different aspects of the program? In what ways do participants feel the program could be improved?
- Are participants aware of other home energy programs? If so, have they participated in any of these programs?

In addition to the participant survey, a participant characterization database analysis of all 2009 participants was completed in January 2010.² PA conducted a nonparticipant survey in the fourth quarter of 2009.³ While this memo does include comparisons with the nonparticipant survey, the characterizations and comparisons should be viewed qualitatively because of the limited number of surveys we were able to complete from the available nonparticipant sample.

Key Findings and Recommendations

First, we present key findings and recommendations (*italicized*) from the Targeted HPWES participant survey. Detailed survey results are presented in the next section.

A variety of program marketing efforts have proved to be effective in generating awareness among those who decide to participate in the program. Newspaper ads, bill inserts, and the program website are commonly mentioned ways in which respondents first heard about the program; however, the most frequently cited introduction was word-of-mouth from friends, neighbors, or family members (25 percent). *We recommend the program continue its mixed-marketing efforts, as they have been effective. At the same time, the program may want to consider ways to expand local outreach efforts that can build word-of-mouth referrals to the program. These could include promotions for past participants to refer other households to the program, program presence in local and community events, and continuing to work with local agencies to promote the program.*

The three most frequent reasons respondents chose to participate in the program were needing improvements to the home (40 percent), wanting to reduce their energy bills (25 percent), and wanting to learn how to save energy (15 percent). These reasons were also the top three reasons for interest in the program among the surveyed nonparticipants who were

² Sandra Duerst, Laura Schauer, and Lark Lee, PA Consulting Group. *Targeted Home Performance with ENERGY STAR Participant Characterization*. January 22, 2010.

³ Steven Drake and Lark Lee, PA Consulting Group. *Targeted Home Performance with ENERGY STAR Nonparticipant Survey Results*. November 20, 2009.

interested in the program. *We recommend the program continues marketing messages about the program that emphasize the primary motivators for program participation—getting needed improvements done to the home, and reducing energy bills.*

The participant characterization showed that customers in the 60 to 80 percent state median income range are receiving less help toward the contribution from beyond their own household resources than households in lower income groups. The participant characterization also showed that We Energies is a major contributor for the customer contribution, accounting for 38 percent of the total amount of 2009 customer contributions.⁴ Of those surveyed, 31 percent received some contribution payment from We Energies. Meeting the required co-payment was an identified barrier to participating for several respondents. Thirty percent of participants found it difficult to meet their required co-payment for the program. Twelve percent (seven of these sixty respondents) who found it difficult to meet their co-payment received We Energies contributions—a much smaller percentage than all survey respondents (31 percent as reported above).

Over half of these respondents said that setting up a payment plan would have made it easier to meet their co-payment, while nearly half said setting up a low-interest or short-term loan would have made it easier to meet their contribution. *If meeting participation numbers becomes an issue in 2010, especially given the economic recession or if We Energies were to discontinue their payment of the customer contribution, the program may need to explore ways to alleviate the upfront cost of the customer contribution. The participant survey indicates that both a payment plan option and a low-interest loan could be effective strategies*

The program has played a significant role in getting customers to make energy efficiency improvements and implementing improvements they either would not have made on their own or sooner than they would have on their own, suggesting program attribution is very high. At the same time, the participant survey results indicate that a net-to-gross adjustment may be appropriate if the program continues to serve a higher income group. Over half of respondents (56 percent) reported that they would not have made any of the improvements they received through the program without participating in the program while 42 percent (85 respondents) said they would have. Eleven percent (22 respondents) said they would have made some of the improvements they received on their own and at the same time as the program. This eleven percent could be viewed as “free-riders” although it is important to note the survey did not include a rigorous net-to-gross battery but only a few qualitative questions to collect preliminary information on program attribution.⁵ This preliminary qualitative information is not to quantify a net-to-gross factor to be used for program attribution, but instead to inform future evaluation activities of the need for a program attribution study. Currently, the claimed program savings do not have any net-to-gross adjustments based on the hypothesis that participating households’ limited financial resources result in close to zero free-ridership. *Because there is*

⁴ We Energies pays the contribution for gas saving measures for customers in Milwaukee, Racine, and Kenosha counties.

⁵ To assess if this preliminary look at program attribution varied by income group, we analyzed the percent of respondents reporting they would have made some of the improvements by two income groups: those with incomes at or below 200 percent of the federal poverty level and those with incomes above 200 percent of the federal poverty level. Interestingly enough, there is not evidence that program attribution decreases as income rises. Forty percent (34 of 85) of respondents who reported they would have made some of the improvements without the program were in the higher income group whereas 60 percent (51 of 85) were in the lower income group.

evidence that participating households served through the program may implement some of the program measures on their own, additional program attribution research should be done to further assess if a net-to-gross factor should be applied to program savings and what an appropriate net-to-gross would be for the program in the next evaluation cycle (2011).

The participant survey indicates that the program is resulting in both energy and non-energy benefits for participants. The program has greatly increased customers' perception of the energy efficiency of their home and the amount of control they have over their home's energy use. Sixty-five percent of respondents felt they had more control of their homes' energy use as a result of participating in the program. Half of respondents (51 percent) believe their home is now "very efficient" compared to only four percent before participating. Increased home comfort was the most frequently mentioned benefit participants received through participating in the program. Fifty-eight percent of respondents said their home is now "very comfortable," whereas only four percent said the same about the condition of their home prior to participating in the program. *We suggest considering the inclusion of the demonstrated non-energy benefits such as improved home comfort as well as the program's energy benefits in program outreach.*

Customer satisfaction is high. Overall, respondents were very satisfied with the program (average rating of 4.7 on a 5-point scale where 5 = "very satisfied"). The in-home audit, types of improvements made, and initial contact by program staff were the highest rated elements of the program in satisfaction. The most prevalent recommendations for improvement were better service follow-ups and more professionalism from subcontractors. *We recommend WECC track service follow-up and professionalism of staff in the on-going customer satisfaction surveys with customers to identify problem areas that may need to be addressed with the program's service providers.* WECC reports that all program participants are sent a customer satisfaction survey, which addresses the professionalism of the subcontractors, auditors, and weatherization crews that perform work for the programs. WECC reports that they do address questions related to communication, clean-up, respect, and information sharing.

While participants do have some awareness of other home energy programs, there is limited overlap between program participants and other programs they could participate in such as Home Performance with ENERGY STAR or the Milwaukee Together We Save pilot. About one-quarter of respondents (22 percent) were familiar with other home energy programs besides Targeted HPWES. Of these respondents, 16 applied for another program and 11 reported they participated in another program (6 percent) of survey respondents. *There is not significant overlapping between Targeted HPWES program offerings and other available residential home energy offerings, which indicates Targeted HPWES has a unique place in the Focus portfolio and has been effective in appropriate program referrals.* The program works with other programs to facilitate customers participating in the appropriate program for them. For example, WECC works with Home Performance with ENERGY STAR consultants to refer Targeted HPWES eligible participants to the program.

Sampling Methodology and Response Rate

WECC⁶ supplied PA a list of customers who participated in Targeted HPWES from January 1 through December 31, 2009. The original data set we received from WECC included 435

⁶ WECC provided "THPESEvaluation01052010.mdb" on January 5, 2010, that contained information on the participants of the program for the 2009 program year.

customers. We matched these records with the WECC customer table and were able to match 79 percent of the contact names and numbers to the sample. PA performed web-based telephone number look-ups for the records still missing contact information and was able to find phone numbers for 59 percent of these records, leaving an adjusted starting sample of 398 customers.

PA attempted to contact all 398 customers for which we had contact information. From this sample, PA completed 200 participant interviews from January 25 through February 12, 2010. Once we contacted a participating household, we first asked to complete the interview with person listed in the participant data file. We were able to complete 196 of the 200 completed surveys with the named contact person. In a small number of cases (4 out of 200), the named contact person was not available, so we asked to complete the survey with someone knowledgeable about the household's participation in the program. Table 1 summarizes the key outcomes and response rate of the data collection effort.

Table 1. Key Outcomes and Response Rate

Outcome	Count
Starting sample	398
Bad numbers	87
Partial	3
Refused	14
Language barrier	2
Ineligible - other	3
Attempted but not reached	89
Completed interview	200
Response rate	50%
Response rate (excluding bad numbers)	64%

Source: Targeted HPWES Participant Survey (2010).

Detailed Participant Survey Results

Below, we present detailed survey results from the Targeted HPWES participant survey in the following categories:

- Program awareness and interest
- Program experience and satisfaction
- Program attribution
- Home energy efficiency and use
- Household characteristics.

Program Awareness and Interest

One of the primary objectives of the survey was to explore effective outreach channels. Respondents first heard about Targeted HPWES from a variety of sources. As shown in Table 2, newspaper/radio ads, bill inserts, and the program website are common ways in which respondents first heard about the program; however, the most frequently cited introduction was word-of-mouth from friends, neighbors, or family members (25 percent). Fourteen respondents mentioned hearing about the program through some type of community action agency or program, including Project Home, ADVOCAP, and local social services. Some “other” sources mentioned included utility websites, contractors, and other assistance and local government representatives.

These results show that marketing efforts through newspaper and radio ads, utility bill inserts, and the program website have generated awareness among those who decide to participate in the program. Also, this data show some evidence of the indirect impacts of program outreach efforts through “word of mouth.”

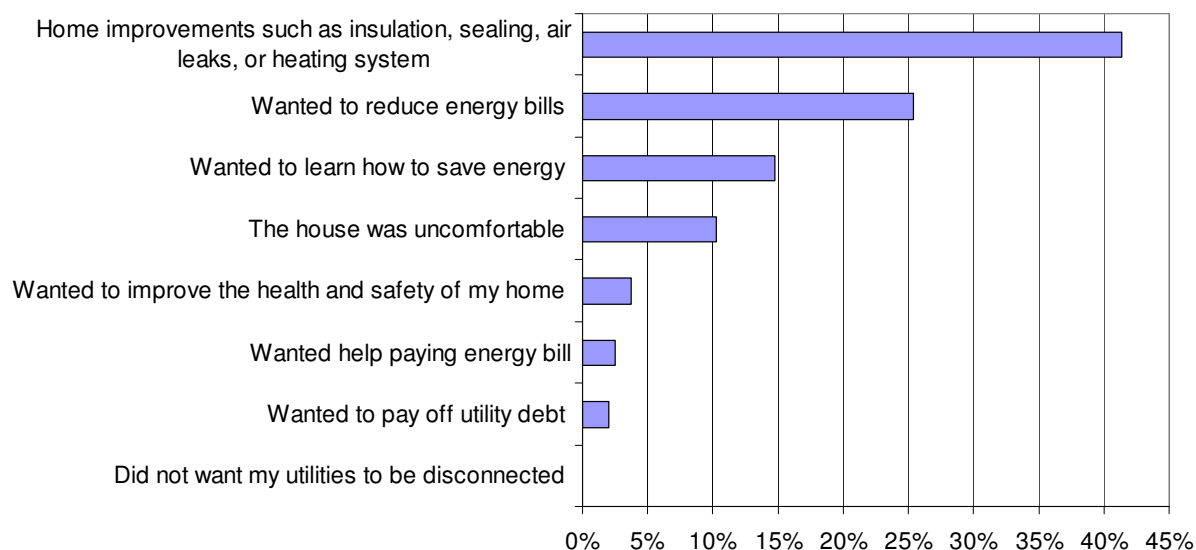
Table 2. How Respondents First Heard of the Targeted HPWES Program (n=200)

How First Heard of Program	Percentage of Respondents
A friend, neighbor, or relative (word of mouth)	25%
Newspaper media	14%
Bill insert	10%
Program/Focus on Energy website	9%
WHEAP program staff	8%
Community/agency/social services	7%
A direct mailing/letter/brochure from Focus	6%
Utility representative	5%
Press releases	3%
Other	8%

Source: Targeted HPWES Participant Survey (2010) question T1.

Percentages based on 200 completed interviews.

The three most frequently mentioned reasons that respondents chose to participate in Targeted HPWES were needing improvements to the home (40 percent), wanting to reduce their energy bills (25 percent), and learning how to save energy (15 percent). These motivations were also the top three reasons why interested nonparticipants said they would be interested in the program. Only the highest proportion of nonparticipants mentioned wanting to reduce their energy bills.

Figure 1. Reasons for Participating in the Targeted HPWES Program

Source: Targeted HPWES Participant Survey (2010) question T2.
Percentages based on 200 completed interviews.

Another primary objective of the survey was to assess what types of barriers to participating in the program this population is facing and how participants have overcome these barriers. The program requires participants to pay a minimum of a 10 percent co-payment toward the cost of the improvements provided through the program. Ninety-one percent of respondents verified that the amount we had on record was the amount they contributed to the improvements they received through the program. On a scale of 1 to 5 with 1 being “not at all difficult” and 5 being “very difficult,” approximately 40 percent of respondents felt that meeting the co-payment amount was not at all difficult, while 15 percent of the respondents felt it was very difficult.

Of the thirty percent (59 respondents) that felt the co-payment was difficult (a rating of greater than 3), 35 respondents reported that having the option to set up a payment plan would have made it easier to meet their co-payment (including six respondents who received a We Energies contribution). In addition, 28 respondents said that setting up a low-interest or short-term loan to pay for the contribution requirements would have made it easier to meet the co-payment (including five who received We Energies funding).

Respondents experienced several barriers that caused delays to their participation. The most prevalent barrier mentioned (six respondents) was that they had to wait on the program’s waiting list before they were able to participate. Other barriers that were mentioned included their income being over the limit, needing time to come up with the co-payment amount, having to make necessary repairs before program improvements were feasible, experiencing health problems, and contractor availability⁷. A shortened waiting period, help or information from

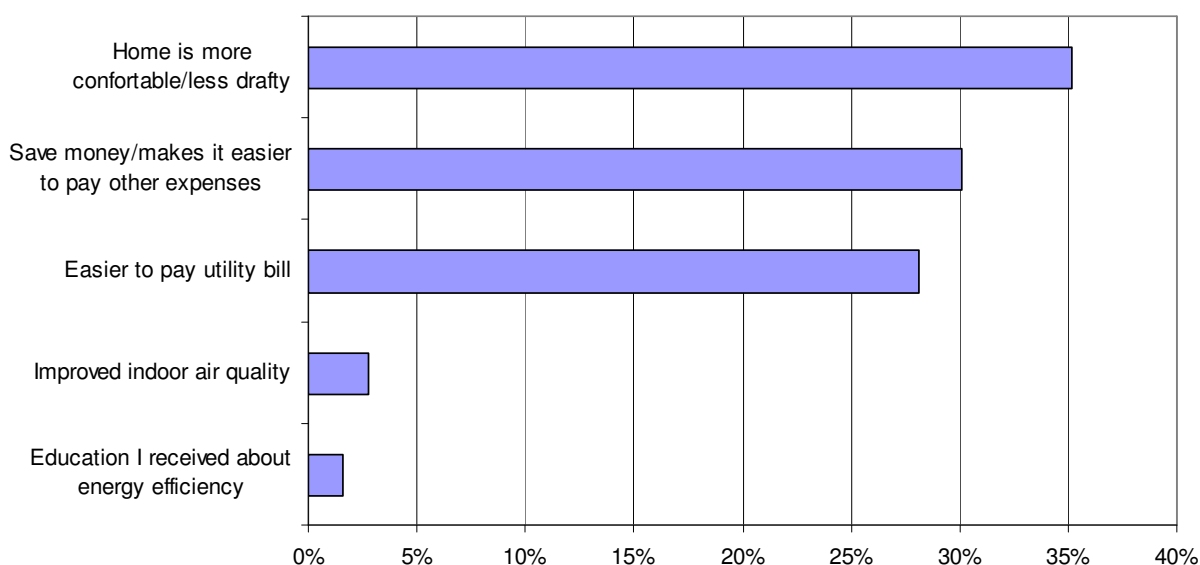
⁷ Only three respondents mentioned issues with contractor availability—two from the Green Bay region and one from the South Central region.

program staff, assistance from government agencies, and having time to save money or improve their health helped them to overcome these delays.⁸

Program Experience and Satisfaction

Respondents reported receiving multiple benefits from participating in Targeted HPWES. As Figure 2 shows, the most frequently mentioned benefit of participating in the program was improved home comfort (35 percent of respondents). The next most frequently mentioned benefits were saving money (30 percent of respondents) and making it easier to pay their utility bill (28 percent of respondents).

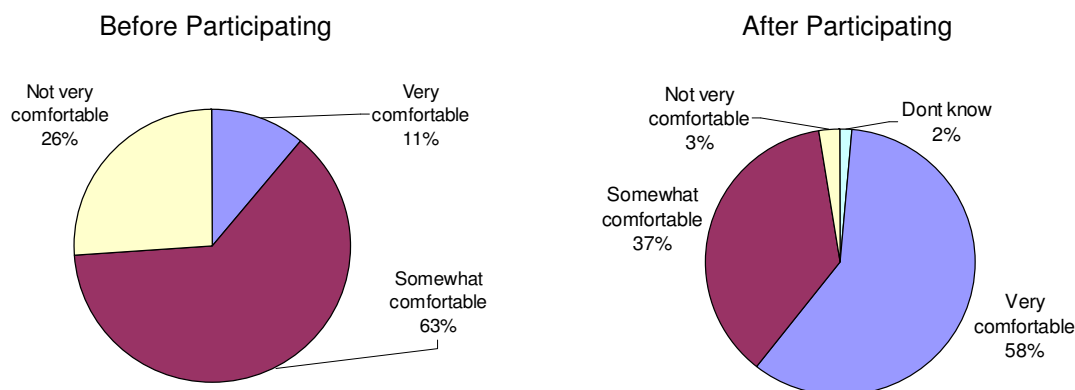
Figure 2. Most Important Benefits of the Targeted HPWES Program



Source: Targeted HPWES Participant Survey (2010) question T18.
Percentages based on 200 completed interviews.

As improving home comfort is one of the goals of Targeted HPWES, we asked respondents specifically about the comfort of their home before and after participating in the program. Figure 3 shows that over one-fourth of the respondents (26 percent) felt their homes were not very comfortable prior to program participation, while 63 percent felt their homes were only somewhat comfortable. Since participating in the program, 37 percent of respondents feel somewhat comfortable and 58 percent of respondents feel very comfortable in their homes. These findings show the impact of the program on improving the comfort of customers' homes.

⁸ These represent verbatim comments received for question T10 as seen on the survey at the end of this memorandum.

Figure 3. Comfort Before and After Participating in Targeted HPWES

Source: Targeted HPWES Participant Survey (2010), question E6 and E7
Percentages based on 200 completed interviews.

We asked respondents a series of questions about their satisfaction with various areas of the program on a 1 to 5 scale with 1 being “not at all satisfied” and 5 being “very satisfied.” Overall, satisfaction with the program was very high. As Table 3 shows, the average response to the satisfaction questions, the energy assessment/audit conducted prior to installation of any measures, types of improvements made, initial contact by Focus Staff members, and the application process were among the program elements with which participants were most satisfied. Participants rated their satisfaction in the change in their energy bill and information they received from the program on how to maintain and install measures the lowest of the program elements about which we asked, however, each of these still rated over 3.5 out of 5.

Table 3. Satisfaction Levels of Elements of the Targeted HPWES Program

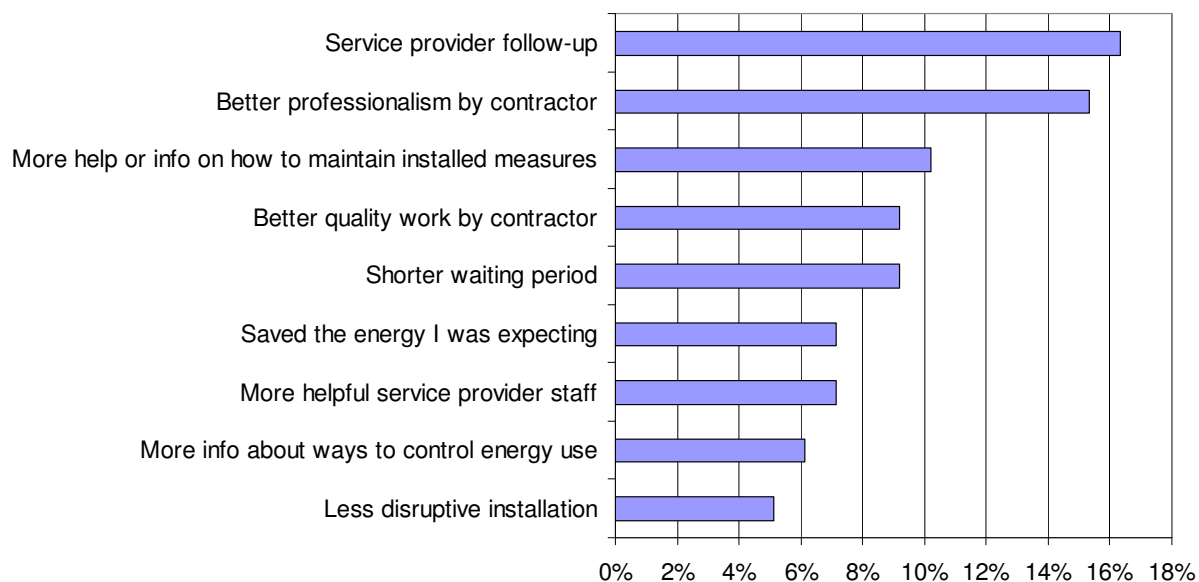
Program Element	Average Rating
Overall program	4.65
Energy assessment/audit conducted of your home prior to the installation of any measures	4.63
Types of improvements made	4.62
Initial contact by Focus staff	4.57
Application process	4.53
Value of improvements made for amount contributed	4.49
Time it took to complete work after paid contribution	4.47
Value of amount contributed	4.46
Initial contact by program provider staff	4.44
Quality of work done	4.43
Crew or subcontractors that did work on home	4.36
Info provided by program staff to help identify things to save energy	4.35

Program Element	Average Rating
Time it took to receive audit/assessment services	4.26
Comfort level of home since completion of work	4.20
Info provided by program on how to use installed measures	4.15
Crews or subcontractors explanation of how to use new equipment/measures installed	4.12
Crew or subcontractors explanation of how to maintain new equipment/measures installed	3.96
Info provided by program on how to maintain installed measures	3.93
Change if any in energy bill since completion of work ⁹	3.68

Source: Targeted HPWES Participant Survey (2010) question T16_1 to T16_19.
Based on 200 completed interviews.

Figure 4 shows that the largest number of respondents recommended better service follow-ups (16 percent), more professionalism from crew and/or subcontractors (15 percent), more help or information about how to maintain installed measures (ten percent), and better quality work by contractor and a shorter wait period is needed (9 percent). Based on feedback, the crew and subcontractors could benefit from seeking to improve in its operations, specifically in the previously mentioned areas. In addition, it appears that the Targeted HPWES staff is meeting or exceeding respondent expectations.

Figure 4. Possible Improvements that Could Be Made by the Targeted HPWES Program¹⁰



Source: Targeted HPWES Participant Survey (2010) question T17.
Percentages based on 200 completed interviews.

⁹ Over half of the respondents have projects completed as of June 2009 or earlier and therefore should have had sufficient time to recognize savings. About three-quarters of the respondents have project completion dates of September 2009 or earlier. Respondents were allowed to answer "don't know".

¹⁰ The figure represents both the category of responses listed in the survey instrument as well as the verbatim responses to T17.

We also asked respondents how they felt the program could be improved in order to make it more beneficial to households. We also asked if there were any other needs that were not met by the program during the program process. The responses from the respondents varied but can be summarized by the following:

"I would look at expanding it into broadening the category of applicants that could get into the program. I would look at square footage as a qualifying aspect of the program."

"I don't know if there is anyway they can improve it because as far as I'm concerned it's top-notch now."

"With the amount you pay I am very satisfied. I think it is a wonderful program for people like me"

"Make a special point of getting dates scheduled to complete work."

"Response time from the start of application and [to] getting the contractors to come out."

"Maybe including windows in the program."

"We would like to have had replaced our windows."

"Inspector did not come back for second viewing of house to see if we were happy. Some items were supposed to be done but were not."

"Make sure the guys do the job properly, have them follow-up with the homeowner after work is done."

"I am very appreciative of what I received. The customer service part for the follow up after the work was done was the only improvement."

"A lot people I talked to didn't even know about it [more advertising might help with this]."

"Advertise more so people would be more aware of the program."

"I was very satisfied, for those who would have to contribute, a monthly payment would be a good thing."

"Administrators gave more information on how to maintain and use the equipment."

The above comments show that participants would have liked to see shorter wait times between the start of the application and when contractors set their initial visits. Twelve percent of respondents mentioned wanting windows as one of the possible measures allowed through the program. Even though the program requires a final inspection by the contractor or provider once the work is complete, a few respondents mentioned that they would like a better explanation of what was done by contractors or more detailed follow-up. Two respondents even recommended that the program require the contractor to follow-up to make sure the

equipment was installed properly and operating correctly, even though it is already a program requirement.

In addition, respondents discussed wanting to see more advertising of the program to help get the word out there for those that could really benefit from participating in the program. WECC recognizes this, but has done minimal advertising because of the limited program funding available and they do not want the program to become oversubscribed. The program has a waiting list in a third of the state. The ability to work with a payment plan would make it easier for the respondents to participate in the program and help to shorten the wait time for when the program is able to start once the proposal has been accepted. Finally, a notable proportion of respondents (10 percent) said that they would like better information on how to maintain installed equipment.

Program Attribution

The participant survey contained several questions about the decision-making process and what improvements, if any, the customer would have installed without the program. More than half (56 percent) of the respondents would not have made any improvements without the help of the program. Of the respondents that said they would have done all or part of the improvements that they received through the program, only 26 percent said they would have made these improvements at the same time. However, more than half of these respondents (56 percent) reported that they would have installed the same efficiency level of equipment as what Targeted HPWES program installed. These results suggest that the program may have had a greater impact on the timing of installing energy efficient equipment than the efficiency level of the equipment. However, this was not an in-depth program attribution analysis and therefore did not include screeners to ensure these customers understood the different efficiency ranges available. It is important to understand if customers really grasp the different levels available before asking them if they would have installed the same efficiency. Also for this audience, explaining the price difference between efficiency levels would be critical.

Table 4. Activities that Would Have Been Performed without Program Assistance

Question	Number of Respondents	Percentage
Would have implemented all or some of the improvements with in next two years?	85	43%
Would have implemented improvements at the same time in the absence of the program?	22	26%
Would have installed at the same efficiency?	48	56%

Source: Targeted HPWES Participant Survey (2010) question T12, T14, and T15.

Insulation and furnaces were the two measures that the highest number of respondents said they would have installed on their own had they not participated in the program. As shown in Table 5, 18 percent of participants mentioned that they would have installed insulation. This proportion is consistent to the nonparticipant survey, where 20 percent of respondents reported having installed insulation within the past two years. Also, 11 percent of participants said they would have installed high efficiency furnaces without the program. Again, this proportion is consistent with reported actions taken by nonparticipants, where 15 percent of the nonparticipants surveyed reported recently installing a high efficiency furnace. Water heaters, refrigerators, air conditioning systems, and CFLs were also mentioned by some respondents as measures they would have installed without participating in the program.

Table 5. Specific Measures Respondents Would Have Installed without the Program

Measure	Percentage of Those Who Would Have Made Some Improvement without the Program*	Percentage of All Respondents**
Insulation	42%	18%
Furnace	27%	11%
Water heater	14%	6%
Refrigerator	11%	5%
CFLs	4%	2%
Air conditioning	2%	1%

Source: Targeted HPWES Participant Survey (2010) question T13.

*Based on 83 completes.

**Based on 200 completes.

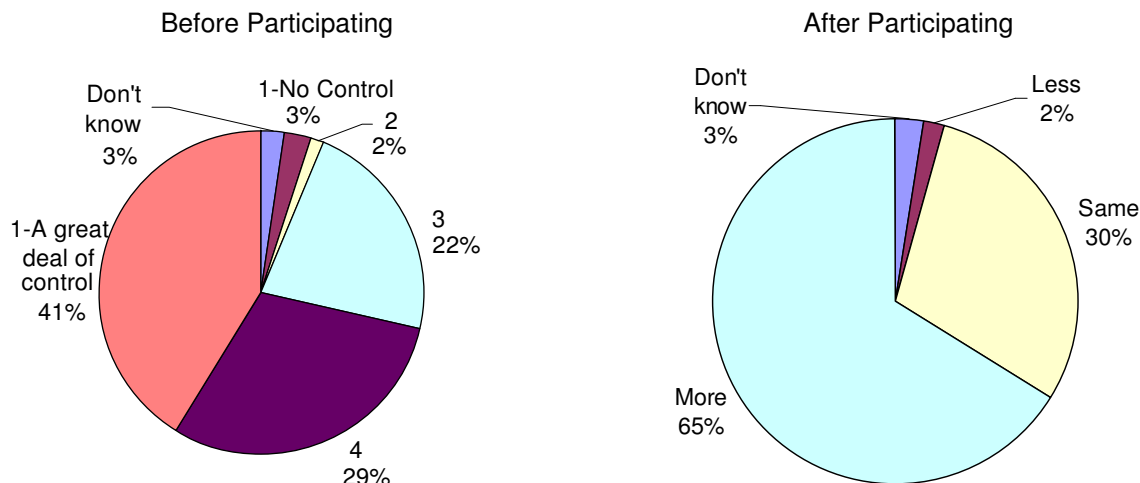
There does appear to be a correlation between assistance provided by We Energies toward the co-payment and the likelihood of respondents making improvements on their own. Thirty-four percent of those who received We Energies contributions said they would have made an improvement on their own, compared to 46 percent of those who did not receive We Energy assistance with their co-payment. This difference suggests the We Energies assistance may be helping to move toward making energy efficiency improvements, however, other factors such as geographic differences and demographics may also be contributing to this difference.

Home Energy Efficiency and Use

Another goal of the survey was to explore participant's attitudes toward their energy use and what impact, if any, the program has had on these attitudes. Almost all respondents (95 percent) feel that it is very important to lower their homes' energy costs. We asked participants how much control they feel they have over their home's energy use and how energy efficient they feel their home is and if these attitudes have changed since participating in Targeted HPWES. Also, we asked participants how they prefer to receive information on how to reduce energy use in their homes.

We asked respondents how much control they feel they have over their home's energy use as well as how much control they felt they had before participating in the program. As shown in Figure 5, the majority of respondents reported feeling they had a significant amount of control over their home's energy use before they participated in the program. On a 1 to 5 scale, where 1 is "no control" and 5 is "a great deal of control," 70 percent of respondents rated their level of control as a 4 or a 5. Yet, as a result of participating in the program, 65 percent felt they have more control over their home's energy use now than before participating. This indicates that the program is doing an effective job of improving the respondents' confidence in how much control they have over their homes energy usage.

Figure 5. Control Over Energy Use in Residence (N=200)



Source: Targeted HPWES Participant Survey (2010), question E2 and E3. Percentages based on 200 completed interviews.

To probe further into whether certain measures installed enhanced perceptions by participants that they were more efficient and therefore had more control over energy costs than before program services, we analyzed the percent of respondents reporting having more control by the measures installed through the program (Table 6). The percentage of respondents reporting greater control over their energy is fairly consistent (plus or minus five percent) with the overall percentage of those reporting greater control (65 percent). Water heater temperature reduction and central air conditioners are the two measures with the highest percentage of respondents that feel they have more control over energy use, but the number of respondents is small and the differences are not statistically significant.

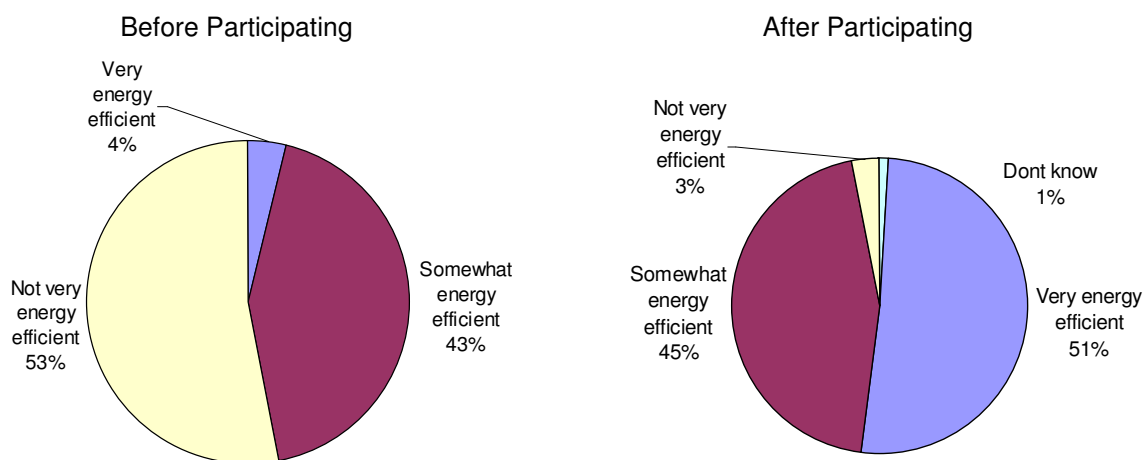
Table 6. Proportion of Those Who Feel They Have More Control Over Household's Energy Use as a Result of the Program by Measure Installed (n=200)

Program Measure Installed	Number of Respondents Who Installed Measure	Percentage Who Feel They Have More Control Over Energy Use
Water heater temp reduction	29	82.8%
Central AC	29	75.9%
Chimney liner	40	70.0%
Duct sealing	133	69.2%
Infiltration reduction	198	66.2%
Heating equipment	112	66.1%
Insulation	197	66.0%
Low-flow showerhead	55	65.5%
Faucet aerator	79	63.3%
Water Heater	72	62.5%
Refrigerator	69	60.9%
Flue exhaust venting	5	60.0%

Source: Targeted HPWES Participant Survey (2010), question E3.

Respondents have noticed a great deal of improvement in their homes energy efficiency since participating in the program. As shown in Figure 6, more than half of the respondents (53 percent) felt that their homes were not very energy efficient before the program and 43 percent feel they had somewhat energy efficient homes. Since participating in the program 45 percent felt that they now have somewhat energy efficient homes and 51 percent feel they have very energy efficient homes.

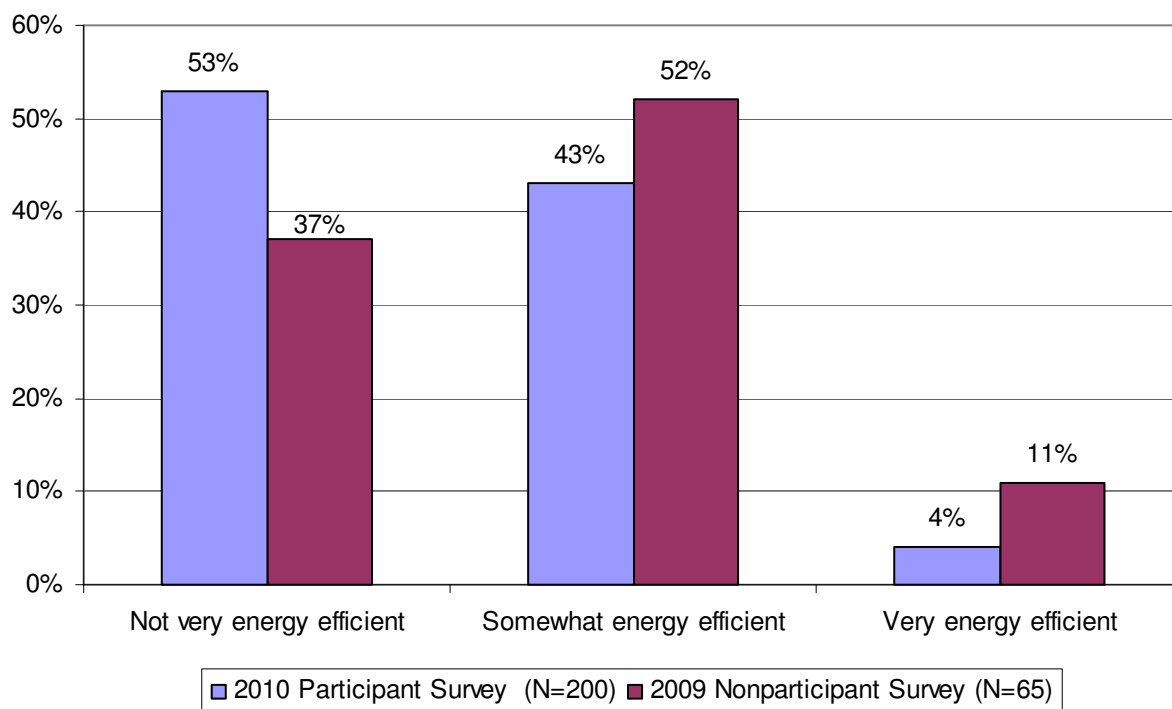
Figure 6. Energy Efficiency of Participating Residence (N=200)



Source: Targeted HPWES Participant Survey (2010), question E4 and E5.
Percentages based on 200 completed interviews.

PA also asked nonparticipant respondents about their perception of the energy efficiency of their home. As shown in Figure 7, 11 percent of respondents thought their home was very energy efficient. Just over half thought their home was somewhat energy efficient and 37 percent who thought their home was not very energy efficient.

On average, nonparticipants felt that their homes were performing at a slightly higher efficiency level than participants of the Targeted HPWES program prior to participating. This may, in fact, help explain why nonparticipants have not yet participated in the program. Yet, considering only 11 percent of nonparticipants believed that their home is very energy efficient and the substantial impact of the program reported by participants, there appears to be ample opportunity for the program to assist these customers.

Figure 7. Perception of Energy Efficiency of Homes

Source: Targeted HPWES Participant Survey (2010), question E4 and Targeted HPWES Nonparticipant Survey (2009), question E2.

Awareness and Participation in Other Assistance Programs

As part of the questions that were asked of respondents we tried to get a sense of how many had applied to participate in the past and if there were any other home assistance programs that they were aware of and/or participated in besides Targeted HPWES.

Out of the 200 completed interviews, nine respondents had actually tried to apply to Targeted HPWES in the past. These respondents did not participate either due to not meeting the income requirements at the time or other similar programs were more attractive to them. Others applied while they were living at a different residence.

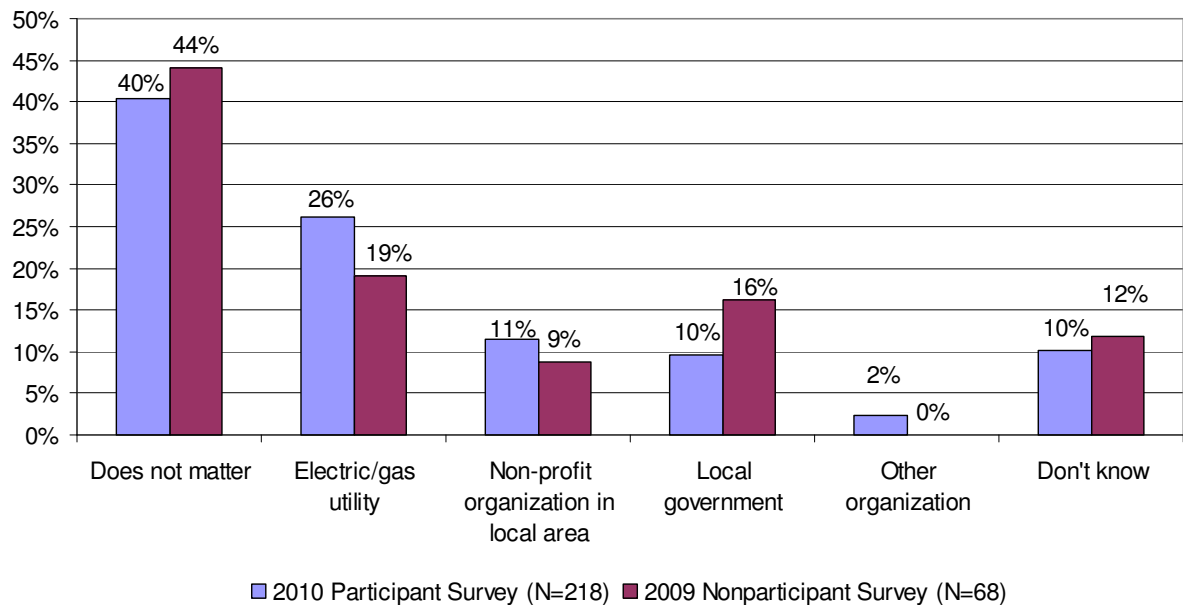
Twenty-two percent of respondents (44 out of 200) stated that they were aware of other home energy improvement programs. However, only a quarter of those aware of other programs, and five percent of all respondents, had participated in another energy improvement program. While this is limited evidence, it may suggest that Targeted HPWES is reaching eligible households that would not be as likely to participate in other home energy improvement programs.

We asked both participant and nonparticipant survey respondents how they would prefer to receive information regarding services to help with saving energy for their homes. Forty percent of the respondents said that it did not matter to them how they received information on saving energy while one-quarter of the respondents would prefer getting information from their local utilities (26 percent), followed by their local non-profit organizations (11 percent), and local governments (10 percent). The high proportion of a lack of preference is similar to

nonparticipants, where forty-four percent of respondents said that it did not matter to them how they received energy saving information.

Figure 8 shows a comparison of participants' and nonparticipants' preferred methods of receiving information on how to save energy. After having no preference, respondents' electric or gas utility was the next most frequent preferred source of information for both participants and nonparticipants (26 percent and 19 percent, respectively). A few respondents suggested marketing the program through bill inserts from the utility companies.

Figure 8. Preferred Organizations from Which to Receive Information on How to Save Energy (N=218)



Source: Targeted HPWES Participant Survey (2010) and Nonparticipant Survey (2009)

Several participants stated that the utility companies know and/or should know about energy usage for their area; they are the experts and the individuals already receive a monthly mailing from them. Some respondents also reported feeling safe and believing their local government and non-profit organizations know their communities needs better than outside companies do and that since they pay taxes to the local government, they have an obligation to help them with this type of service. Below are a few quotes from respondents on why they prefer receiving information from a particular source:

- Reasons for preferring electric or gas utility:

"We deal with them all the time, they're the ones that provide us energy."

"We did get help from the utility company...If they don't send out the information we don't know about it."

- Reasons for preferring local government:

"I am presently participating in a local government program."

"Local government is familiar with the area."

“Would rather have it come from the community that I pay taxes to.”

- Reasons for preferring a nonprofit organization:

“I think their focus is more direct to the needs of the consumer.”

“[They are] not worried about the money, just helping people.”

These results show that while many customers have no strong preferences regarding the source of information on how to save energy, some customers do differentiate between the reliability and accessibility of this type of information provided by these different organizations.

Household Characteristics

Another primary objective of this study was to characterize the current program participant population in comparison to the corresponding nonparticipant population. Table 7 presents a snapshot of the type of residences occupied by participants and how they compare to those of nonparticipants. The nonparticipants are paying a slightly higher rent/mortgage payment per month than the participants group are. On average, respondents had one and a half stories with 32 percent have living space in their basement. These results are comparable to the nonparticipant survey results. There is a higher proportion of renters in the nonparticipants (34 percent) than in the participants (4 percent). This is not surprising as we speculate that there is little incentive for renters to participate in the program as they will not see the benefit of the improvements in their property values and in many cases are not paying utilities. In addition, a renter can normally not make home improvements without the landlord's permission. If the program would like to increase the percent of renters reached, the program will need to continue marketing and outreach efforts directly to landlords to participate in the Targeted HPWES program.

In addition, the average square footage of participant homes is greater than nonparticipant homes (1,844 sq ft to 1,542 sq ft). This difference is likely due to the higher proportion of homeowners among participants.

Table 7. Housing Characteristics of Residence

Characteristics	2010 Participant Survey		2009 Nonparticipant Survey	
	Count	Statistic	Count	Statistic
Own/rent	200	Own	66	Own
				96%
		Rent		Rent
				34%
Average monthly rent/mortgage	200	\$522	66	\$598
Average square footage of single family residence	168	1,844 ¹¹	22	1,542
Have living space in basement?	200	32%	66	27%

Source: Targeted HPWES Participant Survey(2010), questions H5 and H6 and Targeted HPWES Nonparticipant Survey(2009), questions S4a and H2.

¹¹ This average is from the program database and is based on actual program data as opposed to self-report data.

Table 8 summarizes the demographic questions from the survey and how they compare to nonparticipants demographics. On average, the participant household size is about the same as than the nonparticipants (2.78 versus 2.95). Participant and nonparticipant education levels are similar across all levels. Finally, a higher proportion of participants were married compared to nonparticipants (49 percent versus 36 percent).

Table 8. Demographic Characteristics

Characteristics	2010 Participant Survey		2009 Nonparticipant Survey			
	Count	Statistic	Count	Statistic		
Average household size	200	2.78 persons	66	2.95 persons		
Average number of people per household within different age groups	200	Less than 18	1.04	N/A	N/A	
		18–24 years old	0.16			
		25–34 years old	0.44			
		35–44 years old	0.53			
		45–54 years old	0.28			
		55–64 years old	0.24			
		65 or older	0.35			
Proportion of respondents within each age group	200	18–24 years old	2%	N/A	N/A	
		25–34 years old	20%			
		35–44 years old	19%			
		45–54 years old	13%			
		55–64 years old	15%			
		65 or older	31%			
Highest level of education	200	1 st to 11 th grade	4%	66	1 st to 11 th grade	3%
		12 no diploma	5%		12 no diploma	6%
		HS grad/GED	34%		HS grad/GED	43%
		Some college	27%		Some college	25%
		2-year degree	10%		2-year degree	9%
		Bachelor's	14%		Bachelor's	12%
		Master's	7%		Master's	2%
Marital status	200	Married	49%	66	Married	36%
		Widowed	15%		Widowed	8%
		Divorced	18%		Divorced	27%
		Never married	17%		Never married	23%

Source: Targeted HPWES Participant Survey (2010) and Targeted HPWES Nonparticipant Survey (2009).

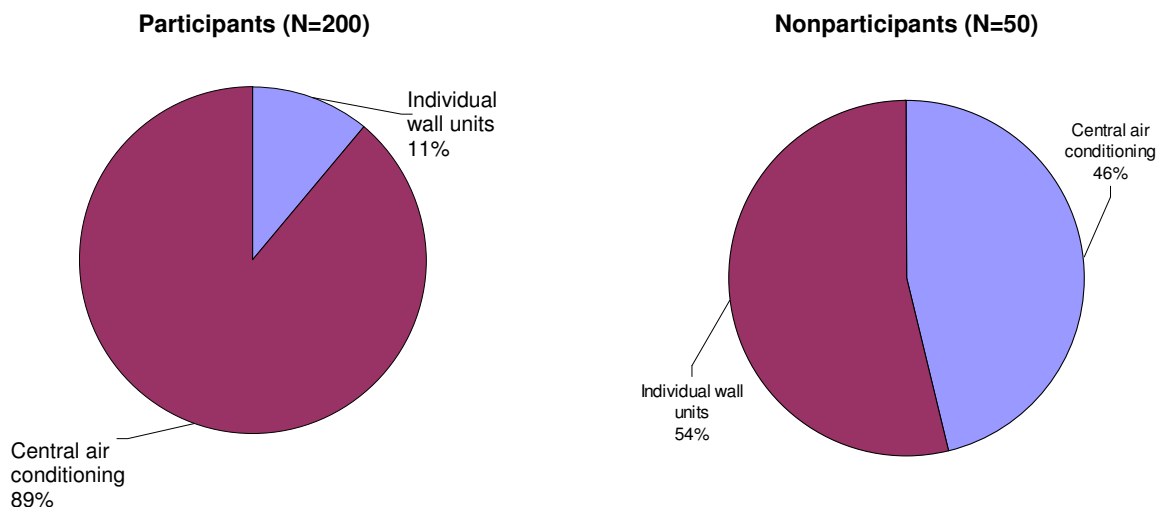
The Targeted HPWES program provided 55 percent of participants with a new heating system. Of the 45 percent who did not receive a new heating system, 43 percent indicated that their heating units were less than five years old. In future evaluation efforts, it would be worth looking at the efficiency of newer systems to see to what extent customers are installing the same efficiency levels as the program installs. Only ten percent of the participants that did not receive a new system had a heating system more than 15 years old. By comparison, 26

percent of nonparticipant respondents reported that their heating system was less than five years old and 27 percent said their heating system was older than 15 years old. These results illustrate the impact of the program in replacing old, inefficient heating systems as well as the potential for extending this service to other potentially eligible customers. The higher proportion of older systems among nonparticipants shows that there is opportunity for additional heating system replacements through Targeted THPWES

Individuals who participated in the program were more likely to have their heating system professionally serviced annually (41 percent) or every couple of years (23 percent) rather than waiting until it needs to be repaired (13 percent). The results of the nonparticipant survey showed a higher proportion of respondents (44 percent) that had their system serviced only when in need of repair.

The majority of respondents (74 percent) reported having some type of air conditioning system in their home. Approximately 89 percent of respondents use central air conditioning to cool their homes, while only 11 percent are using window units. By comparison, 54 percent of nonparticipant survey respondents are using individual wall units, while 46 percent use central air conditioning to cool their homes. Twenty-one percent of respondents received a new cooling system from the Targeted HPWES program, but respondents only receive a new cooling system if there is already an existing system in place, so this does not explain the difference between participants and nonparticipants. It may be a result of socio-economic differences as the participant households appear somewhat more affluent than the surveyed nonparticipant households based on a number of household and demographic indicators discussed above.

Figure 9. Main Air Conditioning Equipment Used in Residence



Source: Targeted HPWES Participant Survey (2010), question H10. Targeted HPWES Nonparticipant Survey (2009), question H11.

Of the 79 percent who did not receive a new cooling system, 44 percent had systems that were greater than or equal to ten years old. The remainder of these respondents had systems that were less than ten years old. As with their heating systems, those surveyed who participated in the program are more likely to have the cooling system professionally serviced more often than the nonparticipants we surveyed. Forty-eight percent of respondents reported having their cooling systems either serviced every year or every couple of years. Only twenty-two percent of participants said they wait until their system needs to be repaired, compared to 44 percent of nonparticipants surveyed (22 of 50).

Targeted Home Performance with ENERGY STAR Participant Survey Instrument

Introduction

Intro. Hello, my name is [interviewer name], and I'm calling on behalf of the Wisconsin Focus on Energy Targeted Home Performance with ENERGY STAR. May I speak with [sample name]?

- 1 Yes [GO TO INTRO2]
- 2 No [CONTINUE]

Intro1. Is there another adult in the household that is knowledgeable about your household's experience with Targeted Home Performance with ENERGY STAR that I could speak with?

- 1 Yes [CONTINUE]
- 2 No [ATTEMPT TO CONVERT]

INTRO2

I'm with PA Consulting Group, an independent research firm. We have been hired to assist the State of Wisconsin in evaluating some of the services they are offering to households as part of the Wisconsin Focus on Energy Program. I'm not selling anything; we would like you to help us complete important research about your experience with Targeted Home Performance with ENERGY STAR. I'd like to assure you that your responses will be kept confidential and your name will not be revealed to anyone.

For quality and training purposes, this call will be recorded.

INTRO3

(Why are you conducting this study: Studies like this help the state better understand household's awareness of, satisfaction with and need for energy programs like this.)

(Timing: This survey should take approximately 15 minutes of your time. Is this a good time for us to speak with you? IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-454-5070.)

(Sales concern: I am not selling anything; we would simply like to learn about your home's comfort, safety, and energy efficiency. This information will help the state best design and deliver energy programs to assist residential customers. Your responses will be kept confidential by our firm. If you would like to talk with someone about this study, feel free to call Lisa Fischer at 888-509-3247 x410.

Screener 1 – Targeted Whole House Jobs Reported as Complete (‘Participant’)

S1 Our records indicate that you received energy efficiency improvements to your residence through Targeted Home Performance with ENERGY STAR around [FinalStatusDate]. Is this correct?

- 1 Yes (skip to T1)
- 2 No

S1_1 As part of your participation you would have received [MEASURES]. Could you confirm that you do not remember receiving services?

- 1 Recalls receiving services
- 2 Does not recall receiving services – [PROBE TO ENSURE SPEAKING WITH CORRECT PERSON, IF NO ONE IS KNOWLEDGEABLE TERMINATE]

Program Information

T1 How did you first hear about Targeted Home Performance with ENERGY STAR? [ALLOW MULTIPLE RESPONSES]

- 1 Utility company representative
- 2 Utility bill insert
- 3 Direct mailing/letter/brochure from Focus on Energy
- 4 Direct mailing/letter from the Targeted Home Performance with ES Program
- 5 Phone contact with the Targeted Home Performance with ES
- 6 Referral from Wisconsin Home Energy Assistance program staff
- 7 Referral from State of Wisconsin Weatherization Assistance program staff or local community action agency
- 8 Friend, neighbor or relative
- 9 Landlord
- 10 Community agency/social service office [SPECIFY]
- 11 Newspaper/radio media
- 12 Press releases
- 13 Program Posters
- 14 Program/Focus on Energy website
- 15 Home Energy Plus Information Center
- 16 Other [SPECIFY]
- D (Don't know)
- R (Refused)

T2 What was the main reason why you participated in Targeted Home Performance with ENERGY STAR? (DO NOT READ. ALLOW MULTIPLE RESPONSES)

- 1 Wanted to reduce energy bill
- 2 Wanted to learn how to save energy
- 3 Wanted to pay off utility debt
- 4 House was uncomfortable
- 5 Didn't want to get disconnected
- 7 House needed improvements (insulation, sealing air leaks, heating system, etc)[DESCRIBE]
- 8 Improve the health and safety of my home
- 9 Other [SPECIFY]
- D (Don't know)
- R (Refused)

T3 As part of the requirements of the program, applicants are required to pay a minimum of 10% co-payment toward the cost of the improvements. Our records indicate that you paid [\$contribution], is this correct?

- 1 Yes
- 2 No (If no who much did they pay?"other")
- D (Don't know)

T4 (IF T3=NO) How much was paid toward the contribution amount? ____

T5 (IF T4=0) Who paid the contribution amount? [DO NOT READ. ALLOW MULTIPLE RESPONSES]

- 1 A parent or friend
- 2 Local Program
- 3 CDBG funds
- 4 Church group
- 5 Charity group
- 6 We Energies
- 7 Other (SPECIFY)
- 8 Landlord (If Rental Unit = true in sample data)
- D (Don't Know)
- R (Refused)

T6 (if T3=1 or T4>0). On a scale of 1 to 5 where 1 is "not at all difficult" and 5 is "very difficult", how difficult was it for you to meet this co-payment? _____

- R (Refused)

T7 (if T4 is >3) Would meeting the co-payment have been easier if the program would have.

For T7_1 and T7_2

- 1 Yes
- 2 No
- D (Don't know)

T7_1 Set up a payment plan.

T7_2 Set up a low-interest, short-term loan to pay costs off

T7_3 Done anything else? [Specify]

[IF YES]

T8 (If T3 answered "Beyond any difficulty in making the copayments,") Did you have any issues that may have delayed your participation in the program?

- 1 Yes
- 2 No
- D (Don't know)

T9 (if T8=1) What did you experience that might have delayed your participation in the program?

- 1 Did not think my home needed the services provided by the program/home already energy efficient
- 2 Other programs out there that considered participating in instead/confusion among the various programs (Specify other programs)
- 3 Did not have time/hassle of participating
- 4 Did not know how to participate/complete application
- 5 I was put on a waiting list for the program
- 6 Didn't want someone in my house
- 7 My income was over the limit
- 8 I was previously weatherized
- 9 The program sounded too good to be true
- 10 I didn't know what amount I would need to pay
- 11 Had bad experience with this type of program in the past (Specify program)
- 12 I rent my home
- 13 House was for sale or sold or foreclosure
- 14 Other (SPECIFY)
- D (Don't know)
- R (Refused)

T10 (if T8=1) What helped you to overcome this/(if t9 count is >1 “these”) experience(s)?

- 1 Program information
- 2 helpful program staff
- 2 Shortened waiting period
- 4 Less difficult application process
- 5 Help or information on how to participate/apply in the program
- 6 Measures/improvements/services available through the program
- 7 Other (SPECIFY)
- D (Don't know)

T11 What Program information was most helpful to you? (Record Verbatim)

T12 (if T12=2) Without the program, would you have done all, part or none of the home improvements that were completed through the program within the next two years?

- 1 All
- 2 Part
- 3 None
- D (Don't know)

T13 (If T12a=all or part) What would you have done? (Record verbatim)?

T14 (If T12=all or part) Would you have done the improvements at the same time?

- 1 Yes
- 2 No
- D (Don't know)

T15 (If T12=all or part) (If T12=part: “For the improvements you would have installed”) without the program, would (If T12=part “they”)/you have (If T12=part “been”)/installed the same level of efficiency or less efficient equipment than what was installed through the program?)

- 1 Same
- 2 Less
- D (Don't know)

T16 On a scale of 1 to 5, where 1 is “not at all satisfied” and 5 is “very satisfied”, how satisfied are you with your experiences in the following areas with Targeted Home Performance with ENERGY STAR

D=DON'T KNOW

- The initial contact by Focus on Energy Staff
- The initial contact by Program Provider Staff
- The energy assessment/audit conducted of your home prior to the installation of any measures
- Information provided to you through the program about how to use the installed measures
- Information provided to you through the program about how to maintain the installed measures
- The amount of time it took to receive audit/assessment services
- The amount of time it took to complete the work after contribution was paid
- The crew and/or subcontractors that did the work on your home
- The crew and/or subcontractors explanation of how to use new equipment and/or measures installed
- The crew and/or subcontractors explanation of how to maintain new equipment and/or measures installed
- The quality of work done
- The types of improvements made
- The comfort level of your home since the completion of the work done
- The change if any in your energy bill since the completion of the work done
- The application process
- Information provided by the program staff to help you identify things you can do to save energy
- The value of amount contributed (if Homeowner=true in sample data)
- The value of the improvements made for the amount of contribution required.
- The overall program

T17 (IF T16<4) What could have made you more satisfied with the services you received?
[DO NOT READ. ALLOW MULTIPLE RESPONSES]

- 1 More helpful service provider staff
- 2 More accessible service provider staff
- 3 Shorter waiting period
- 4 Less difficult application process
- 5 More help or information on how to maintain installed measures
- 6 More measures available (SPECIFY EXACT MEASURES)
- 7 Less disruptive installation
- 8 Less audit process
- 9 More information about ways to control energy use
- 10 More assistance in the application process
- 11 Service provider follow-up
- 12 Did not save the energy I was expecting
- 13 Other (SPECIFY)
- D (Don't know)

T18 What are the most important benefits of Targeted Home Performance with ENERGY STAR for your household? (INDICATE ALL THAT APPLY; PROBE: Anything else?)

- 1 Easier to pay utility bill
- 2 Home is more comfortable/less drafty
- 3 Save money/makes it easier to pay other expenses
- 4 Education I received about energy efficiency
- 5 Avoid getting disconnected
- 6 Increased property value of home
- 7 Improved the appearance of home
- 8 Reduced noise level of home
- 9 Improved indoor air quality
- 10 Avoided having to move
- 11 Other [specify]
- D (Don't know)

T19 How do you feel the program could be improved to make it more beneficial to households like yours? (record verbatim)

T20 Are there any other needs you had that were not met by the program? (record verbatim)

Other Program Information

O1 Had you applied to participate in Targeted Home Performance with ENERGY STAR in previous years?

- 1 Yes
- 2 No
- D (Don't know)
- R (Refused)

O2 [If O1=YES] Why didn't you participate? [Indicate all that apply]

- 1 The wait list was too long
- 2 Did not qualify due to income
- 3 Home was deferred
- 4 Did not qualify due to other reasons (record other reasons)
- 5 Other similar programs were more attractive
- 6 Withdrew application (record reasons)
- 7 Other (record response)
- D (Don't know)
- R (Refused)

O3 Are you familiar with other home energy improvement programs?

- 1 Yes
- 2 No
- D (Don't know)
- R (Refused)

O4 [If O3=Yes] Have you ever applied to participate in another home energy improvement program for your current residence?

- 1 Yes
- 2 No
- D (Don't know)
- R (Refused)

O5 Did you receive services?

- 1 Yes [skip to E1]
- 2 No
- D (Don't know)
- R (Refused)

O6 [If O5=NO] Why didn't you receive services through another program? [Indicate all that apply]

- 1 The wait list was too long
- 2 Did not qualify due to income
- 3 Did not qualify due to other reasons (record other reasons)
- 4 Other (record response)
- D (Don't know)
- R (Refused)

Energy Use Information

Now, I would like to ask you questions about energy use in your home.

E1 As part of Targeted Home Performance with ENERGY STAR, did someone speak with you about ways to properly maintain your heating, cooling or other equipment?

- 1 Yes
- 2 No
- D (Don't know)

E2 On a scale of 1 to 5, with 1 meaning “no control” and 5 meaning “a great deal of control”, how much control do you feel you have over how your household uses energy? _____ [RECORD D FOR DON'T KNOW]

E3 As a result of the program, do you feel you have less control, more control, or the same amount of control over your household’s energy use?

- 1 Less
- 2 The same
- 3 More
- D Don't know

E4 Prior to participating in the program, would you say that your home was very energy efficient, somewhat energy efficient or not very energy efficient?

- 1 Very energy efficient
- 2 Somewhat energy efficient
- 3 Not very energy efficient
- D Don't know
- R Refused

E5 Since participating in the program, would you say that your home is very energy efficient, somewhat energy efficient or not very energy efficient?

- 1 Very energy efficient
- 2 Somewhat energy efficient
- 3 Not very energy efficient
- D Don't know
- R Refused

E6 Prior to participating in the program, would you say that your home was very comfortable, somewhat comfortable or not very comfortable?

- 1 Very comfortable
- 2 Somewhat comfortable
- 3 Not very comfortable
- D Don't know
- R Refused

E7 Since participating in the program, would you say that your home was very comfortable, somewhat comfortable or not very comfortable?

- 1 Very comfortable
- 2 Somewhat comfortable
- 3 Not very comfortable
- D Don't know
- R Refused

E8 On a scale of 1 to 5, with 1 being not at all important and 5 being very important, how important is lowering the cost of your energy bills to you?

- 1 Not at all important
- 2
- 3
- 4
- 5 Very important
- D Don't know
- R Refused

Perception

PD1 There are various organizations that provide information and services to help you save energy such as local governments, nonprofit groups, and utility companies. From what types of organizations would you prefer to receive this type of information...?

[READ CHOICES. INDICATE ALL THAT APPLY]

For PD1_1 through PD1_7

- 0 Not mentioned
- 1 Mentioned

PD1_1 Your local government such as your city, town or county
 PD1_2 A nonprofit organization that provides services in your local area
 PD1_3 Electric/gas utility
 PD1_4 Other organization → Which organization (RECORD)
 PD1_5 Does not matter *[SKIP TO U_WINT_E]*
 PD1_6 Don't know *[SKIP TO U_WINT_E]*
 PD1_7 Refused *[SKIP TO U_WINT_E]*

PD1_4 Which organization (RECORD)

PD2 Why would you prefer this organization / these organizations? *[RECORD RESPONSE]*

House Characteristics

Next, I would like to ask you some questions about your household.

H1 How long have you lived at your current residence?

H1_1 _____ Years
H1_2 _____ months

H2 (If H1 < 2 Years) How many times have you moved in the past 24 months? _____ -

H3 What was the main reason you moved the last time?
(DO NOT READ. RECORD ALL THAT APPLY)

For H2_1 to H2_11

0 Not mentioned
1 Mentioned

H3_1 Change in family status [marriage, divorce, children]
H3_2 Change in employment situation [lay off, promotion, etc.]
H3_3 Less expensive housing costs
H3_4 Less expensive utility bills
H3_5 Job relocation
H3_6 Landlord problems
H3_7 Home was too cold or hot
H3_8 Home was too noisy
H3_9 Bought or built a home
H3_10 Moved closer to a job, school, or family
H3_11 Foreclosed on home
H3_12 Other (SEE H2_7OTH)

H4 Do you or someone in your household pay for . . . ?

For H4_1 to H4_3

1 Yes
2 No

H4_1 Electricity
H4_2 Heating fuel
H4_3 Water

H5 How many stories does your residence have? Please do not include basement and attic.

- _____ Stories
- D (Don't know)
- R (Refused)

H6 Do you have living space in your basement?

- 1 Yes
- 2 No
- 3 Do not have basement
- D (Don't know)
- R (Refused)

H7 Did you receive a new heating system through the program?

- 1 Yes
- 2 No

H7a [If h7=2] About how old is your home heating system?

- 1 Less than 5 years old
- 2 5 to 9 years old
- 3 10 to 15 years old
- 4 More than 15 years old
- D (Don't know)

H8 Which of the following best describes how often you have your main heating system professionally serviced (tune-up)? [READ]

- 1 At least once a year
- 2 Every couple years
- 3 Rarely
- 4 Only when it needs repaired
- 5 Other (PLEASE DESCRIBE:_____)
- 6 Never had it professionally serviced
- D (Don't know)
- R (Refused)

H9 Do you have air conditioning in your home?

- 1 Yes
- 2 No (SKIP TO D1)

H10 What is the main type of air conditioning equipment you use in your residence?

- 1 A central air conditioning system
- 2 Individual units in the windows or wall→How many? _____
- 3 Other (specify)
- D (Don't know)
- R (Refused)

H11 Did you receive a new main air conditioning system through the program?

- 1 Yes
- 2 No

H11a [if H11=2] Approximately how old is your household's main air conditioning equipment?

- 1 Less than 5 years old
- 2 5 to 9 years old
- 3 10 to 15 years old
- 4 More than 15 years old
- D (Don't know)

H12 Which of the following best describes how often you have your main air conditioning system professionally serviced (tune-up)? [READ]

- 1 At least once a year
- 2 Every couple years
- 3 Rarely
- 4 Only when it needs repaired
- 5 Other (please describe: _____)
- D (Don't know)
- R (Refused)

Demographics

D1 Including yourself, how many people live in your household?

_____ People

D2 (IF D1>1) Including yourself, how many people currently living in your home year-round are in the following age groups? (TOTAL SHOULD EQUAL D5)

- _____ Less than 18 years old
- _____ 18-24 years old
- _____ 25-34 years old
- _____ 35-44 years old
- _____ 45-54 years old
- _____ 55-64 years old
- _____ 65 or older
- R (Refused)

D3 Which of the following best describes your age?

- 1 18-24 years old
- 2 25-34 years old
- 3 35-44 years old
- 4 45-54 years old
- 5 55-64 years old
- 6 65 or older
- D (Don't know)
- R (Refused)

D4 Are you currently. . . ?

- 1 Married
- 2 Widowed
- 3 Divorced
- 4 Separated
- 5 Never married
- R (Refused)

D5 What is the highest level of school you completed or the highest degree you received?

- 1 1 To 11
- 2 12th Grade No Diploma
- 3 High School Graduate Or Equivalent (Ged)
- 4 Some College Or Technical School But No Degree
- 5 Associate/2-Year Degree In College (Includes Technical School)
- 6 Bachelor's Degree (Ba, Ab, Bs)
- 7 Master's Degree (Ma, Ms, Meng, Med, Msw, Mba)
- 8 Professional School (Md, Dds, Dvm, Lib, Jd)
- 9 Doctorate Degree (Phd, Edd)
- D (Don't know)
- R (Refused)

D7 How much does your household pay for monthly rent/(if homeowner=true in sample data "mortgage")?

_____ Dollars
R (Refused)

D8 During the last month, did any adults in your household do any work for pay? (*ADULTS ARE INDIVIDUALS 18 AND OVER*)

1 Yes
2 No [Skip to D13]
3 Retired [Skip to D13]
4 Disabled [Skip to D13]
5 Unable to work [Skip to D13]
R (Refused) [Skip to D13]

D9 How many adults worked during the last month?

_____Adults

(IF D9 >2, SHOW SCRIPT: THE NEXT TWO QUESTIONS ASK ABOUT HOURS WORKED DURING THE LAST MONTH. PLEASE REFER TO THE TWO ADULTS WHO WORKED THE MOST HOURS.)

D10 On average, how many hours per week did the (if D9>1 "first") adult work?

_____Hours

D11 (*ASK IF D9 >1*) On average, how many hours per week did the second adult work?

_____Hours

D12 Including all money earned from wages, salaries, tips, commissions, workers' compensation, unemployment insurance, child support, or other sources, is your income between (Range from THP website based on Household Counts in Sample Data) before taxes in 2009?

1 Yes [Skip to Any_Com]
2 No
R (Refused) [Skip to Any_Com]

D13 (If D12=NO) Was your income higher or lower?

- 1 Higher
- 2 Lower

Comments Those are all the questions I have for you. Do you have any additional comments you would like me to note? *(IF YES, RECORD COMMENTS)*

- 1 Yes
- 2 No