

State of Wisconsin Public Service Commission of Wisconsin

Focus on Energy Evaluation

*Together We Save: Process Evaluation
Report*

April 22, 2010

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State of Wisconsin Public Service Commission of Wisconsin

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Together We Save program, a pilot program in the city of Milwaukee, is designed with the objective of providing deep energy savings to households with moderate to low income. Per the Program Implementation Plan¹, the objectives of the program are to:

- Utilize the community by forming partnerships with neighborhood leaders, neighborhood groups, and city/utility/government agencies
- Test various outreach, marketing, and ongoing communication techniques to maximize participation and inform homeowners
- Deliver optimal building science practices and products based on experience with weatherization and home performance programs to assure energy efficiency standards are met
- Guide and redirect home energy efficiency attitudes and behaviors toward sustainability.

The program consists of four main components that are designed to work in concert to achieve long-lasting energy savings in the targeted neighborhoods. These components include community-based Energy Advocates, technical assessments, incentives and payment-plan options for recommended energy efficient equipment, and pre-selected contractors that implement recommendations.

This report presents the results of PA Consulting Group's process evaluation of the Together We Save program pilot. Our findings are based on interviews with program staff and contractors, database analysis, and interviews with 74 program participants.

1.2 KEY FINDINGS

The program has conducted audits in 137 Milwaukee homes. As of February 2010, 118 remained in the program. Due to various constraints discussed within this report, not all jobs are completed at the time of this reporting. However, should all 118 homes be completed the program will have surpassed the goal of serving 100 homes.

Overall, this program was well received by all parties interviewed. Respondents spoke favorably of the program, their interaction with WECC and other staff, and the community-based program design.

The program is intended to serve low to moderate-income households. The program is achieving this goal with approximately half of participants having poverty levels at or below 200 percent of the Federal Poverty Level. This proportion of very low-income households is higher than the program had initially anticipated and planned for.

¹ The Milwaukee Neighborhood Efficiency Project Program Implementation Plan dated February 2009.

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Serving this income classification, while from a social perspective is beneficial to the community and program, increases the cost to the program. In planning the direction of the program in the future, these additional costs will need to be considered.

The Energy Advocate and turnkey services are differentiating aspects of this program. The Advocate was identified in the process evaluation as a component that is particularly beneficial for the program; however, the turnkey approach is not viewed as an exceptionally effective programmatic component.

The most significant process issue identified in this evaluation relates to the amount of time between the pre-assessment and recommendations reporting, an area of dissatisfaction reported by both program staff and participants. The responsibility for reviewing and approving Consultant reports are left to one project coordinator, a program member who is time constrained. Additionally, there is an identified need for additional program training for the Consultants and the coordinator.

To put the wait time in context, the Together We Save Pilot is providing services to customers sooner than the other programs for which they could participate, most notably the Weatherization Assistance Program and Targeted Home Performance with ENERGY STAR (Targeted HPWES). Database analysis and communications with program managers indicate that, on average, the wait time in the Together We Save Pilot is a third of these other programs. This is a unique and beneficial outcome of the Together We Save Pilot compared with both the Weatherization Assistance Program and Targeted HPWES. In considering the expansion beyond the targeted Milwaukee neighborhoods, program managers will need to ensure the management infrastructure is sufficient to continue to provide this differentiating outcome of accelerated installation time.

The remainder of this key findings section summarizes the key findings of the researchable questions that were established with WECC and Commission staff at the onset of the program evaluation. The researchable issues fall into four categories: program operations, outreach and marketing, target market and participants, and program design and delivery.

It should be noted that the findings are based on the demographics and characteristics of two neighborhoods in Milwaukee. If the program we're to be expanding outside of these communities, these findings may not be replicable. Other communities may have different housing stock and income characteristics that may change the way they interface with the program. This statement should not be interpreted as a recommendation that program only service Milwaukee; only as a caveat regarding the scope of this report's findings.

1.2.1 Program operations

1. How efficiently and effectively is the program operating amongst the key program players? How can the program operate more effectively?

Currently, the program is experiencing delays in implementing the installation of the recommended equipment. This delay is preventing many of the customers from completing the program and is causing frustration to program staff and with customers. As of the end of February 2010, only 34 percent of the customers completed the program.

There is some evidence that early in the program process, the Consultants and project coordinator were not communicating effectively or completing technical audit forms to

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program specifications. Interviews with program staff indicate that as the program progressed these issues resolved themselves to an extent.

One potential area to reduce cost and potentially improve service time is the turnkey program component. About half of participants stated they may not have been as likely to participate in the program had the turnkey offering not been provided; however, it was not as critical of an element as other program pieces. If this step were eliminated, WECC staff and contractors would no longer have to act as “general contractors” for the homeowner’s project and would have greater flexibility in approving recommendations.

2. Are there sufficient staff and financial resources to administer the program?

Interviews with program staff do not reveal any issues with financial resources. However, a significant portion of households (approximately 50 percent) with cost estimates reported are in the lowest income category and are receiving 100 percent of their projects paid for. These jobs are also about twice as expensive as jobs completed for higher income households. Additionally, Energy Advocates are spending more time per home than anticipated which could also put financial constraints on the program.

Staff constraints were raised through in-depth interviews with program staff. These interviews suggest that additional resources for reviewing and approving the recommendations and written report for the customer would reduce overall program delays.

3. Will the program reach and/or exceed their targets?

The program is projected to exceed the target of serving 100. The program currently has 118 active participants. If all of these participants complete the recommendations, the program will have achieved its participation goals. However, it is unlikely that all of these customers will have work completed by the end of Q1; only 34 percent of those interviewed had work completed.

4. How is the program different from other residential programs offered in WI (e.g., low-income weatherization, Home Performance with ENERGY STAR (HPWES))?

Four programs overlap service territory and services with the Together We Save pilot: Home Performance with ENERGY STAR (HPWES), Targeted Home Performance with ENERGY STAR (Targeted HPWES), Wisconsin’s Weatherization Assistance Program (WAP), and the We Energies Low Income Pilot. The Together We Save program differs from these programs in several aspects. First, the Together We Save program is community-based and uses an Energy Advocate as a service representative that closely interacts with customers. Second, the program is distinct from HPWES in that it uses a turnkey approach to contractors in which customers do not select their own contractor but instead use pre-selected contractors for all recommended work. Third, the percentage of projects paid for varies by program, with Together We Save paying a percentage ranging from 50 percent to 100 percent of project cost depending on Federal Poverty Level classification of the household. Last, the income and location qualifications differ from each other.

Ideally, we would identify not just how these programs differ in design but also in outcomes. The data available within the scope of this evaluation limited our ability to review the range of participants’ experiences and outcomes, including energy savings, resulting from each of these programs. However, we did identify the following three differentiating outcomes from

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the Together We Save pilot compared to other select residential energy efficiency programs. Specifically, the program is (1) potentially providing deeper energy savings for households when compared with benefits offered through HPWES, as the program includes a wider range of measures; (2) accelerating the installation of measures for lower income households that may have alternatively participated in WAP or Targeted HPWES which has significant waiting lists; and (3) converting a larger percent of projects from audit to completion stage than HPWES audit, possibly due to either the increased incentive provided through the program, the Energy Advocate role, the program's "now or never" approach, or some combination of these three factors.

5. What are the effective elements of the Milwaukee Pilot, particularly compared with similar home programs?

According to the participant interviews, the most effective element in their decision to participate and in convincing participants to follow through with the program recommendations is the program incentives. When compared with programs such as HPWES, the incentive value is significantly higher and the program has a high audit to project conversion rate. Eighty-six percent of participants that received the walk-through audit are projected to complete project work.

Both program staff and participants also reported that the Energy Advocate, a component not found in other programs, is effective and provides a high level of customer service through the program stages.

The energy assessment was also reported to be influential in convincing customers to install the recommended equipment and is a critical component of the program design. However, the energy assessment is not a unique component of the Together We Save program.

The least influential element of the pilot is the turnkey contractor service, with only 11 percent of participants saying it was the most influential component of the program. With that said, 50 percent of program participants said they would not have been as likely to participate without this element.

6. Is the target market doing more than they would have done without this program? In other words, if they would have installed the new boiler anyway, are they now also installing insulation and doing air sealing?

The program is having a strong influence on the customers' decision-making process. There is evidence that customers would not install the equipment in absence of the program. Only one customer would have installed *some* of the equipment at the same time and at the same efficiency level.

7. Does this program provide benefits not experienced through other similar Focus on Energy programs? If so, what and why? If not, why not?

The high level of customer service provided by the Energy Advocate is a benefit not found in other Focus on Energy programs. The Energy Advocates not only reduced some of the program entry barriers (aiding with paperwork, providing translation services, and explaining benefits and expectations early on), but provided continuity for program participants. They also provide a high level of hands-on direction and service throughout the entire program

process that is not experienced by other programs; in fact, the program reports that the Energy Advocates spend between six to eight hours on average per household.

There is also an energy education element provided by the Energy Advocates. While there is some concern that the education provided to customers via the Energy Advocate may not be provided consistently, any training provided may result in indirect impacts resulting from behavioral changes.

1.2.2 Outreach and marketing researchable issues

8. What motivates customers to participate? Is it based on a near-term need (replace on failure or near failure) or is the program influencing early replacement?

The program's incentives are the strongest factor in customers' decision to participate followed by the Energy Advocate. The program is also encouraging early replacement of equipment; only 11 percent (5 out of 44 respondents) of the customers that either had installed or were planning to install the program-recommended measures reported that they would be replacing this equipment without the program at the same time. Of these 11 percent, program incentives, the Energy Advocate, and the technical assessment were reported as the most influential reasons to participate in the program.

9. How important is it to customers to have the community Energy Advocate? Does the community advocate have an impact on program uptake and, if so, how?

Program staff views the Energy Advocate position positively. When asked what was working well about this program, all program staff interviewed noted the Energy Advocate. They noted that their role in facilitating the process and serving as a bridge between the customers and technical processes is important in helping customers move from the assessment to accepting the recommendations. Customers also report that the Energy Advocate is influential both in the decision to participate in the program and install the recommended equipment. As the Energy Advocate is present when the customer reviews the recommendation, they are able to provide explanation of the scope of work and extol the benefits of continuing with the program.

10. What information did the Energy Advocate provide to the customer? The consultant? The installation contractor?

At the onset, the Energy Advocates inform the customer about program requirements and benefits. Also, the Energy Advocate acts as an informal energy advisor, providing the customers with information regarding ways that they could reduce energy use in their homes (e.g., adjust thermostats, reduce plug-load). The Energy Advocate also routinely acts as a facilitator between the Consultant and the customer. They are often present at the technical assessment, either to provide translation services or act as a "friendly face" explaining the work being done around their home. The Energy Advocates had little to no contact with the installation contractors. According to staff interviews, neither the consultants nor the installation contractors provided in-depth information to participants consistently or systematically. Both consultants and contractors would respond to participants' questions and provide reports and required paperwork.

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11. How much of a factor is the incentive in participants' decision to install the equipment?

The incentives are a large factor in the customer's decision to install the equipment. When asked which program components were influential in the decision to install the equipment, the program incentive was most frequently reported as the most influential component.

1.2.3 Target market and participants

12. What are the demographic characteristics of program participants? Is the population the program is serving the population the program wants to serve? Is the program serving the appropriate targeted population?

By design, all participants are homeowners. The average customer household has three members.

A significant portion of households served through the program is low-income; 47 percent fall below the 200 percent Federal Poverty Level. The program was initially designed to target households with low to moderate-income levels. And while the program is serving this population as intended, the percentage of very low income households is higher than initially anticipated. In fact, the earlier program design documents did not include incentive values for households at or below 200 percent of Federal Poverty Level. WECC and state weatherization staff mutually agreed that it would be advantageous for the Together We Save pilot to serve these customers provided WAP's significant waitlist.

13. Of those that are low-income and deemed financially eligible to participate in the state program, why is it they are choosing the Milwaukee pilot and not the state program? Reasons may include citizenship barriers, unawareness of the state program, waiting list in Milwaukee, inability to get served for other reasons, etc.

Those customers that were eligible but did not apply for the state weatherization program reported that they were unfamiliar with the program, did not meet program requirements, or were deterred by the application process. In some respects, the Together We Save Pilot model has the opportunity to provide services to these eligible households by overcoming perceived barriers through its community approach and Energy Advocates. Even if the measures provided through the Together We Save Pilot program may not be as extensive as those provided through WAP, customers that otherwise might not have participated in any program are achieving some level of increased energy efficiency. Of those eligible, 36 percent mention the Energy Advocate as being the most influential reason to participate in the program (incentives are still the most frequently mentioned reason for participation). Eighteen percent of those not eligible mentioned the Energy Advocate when asked the same question.

1.2.4 Program design and delivery

14. How significant of a barrier is the participant contribution value to customers moving forward with projects?

The participant contribution value is not often a barrier for customers moving forward with the program. Likewise, of the six customers that received the walk-through audit and declined to move forward, only three mentioned cost as their reason for not continuing with the program.

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15. Is the level of incentive appropriate—meaning, is it too much or not enough? Would customers do the work if the incentive were not so high?

Participant interviews suggest that the incentive could be reduced for some groups of households. Across all income levels, a majority of the customers said they would still complete the work if their incentive was reduced to the next incentive tier. However, please note that this analysis was completed on a small sample size (between one and 15 respondents per income classification) and therefore should be reviewed with some caution.

16. Is there an interest in payment options, and what are the barriers for customers to take advantage of loan and/or payment options?

While there is some interest in these options (51 percent of those that paid a portion of the cost expressed interest), few customers list them as a primary factor for participating in the program or installing the recommended equipment and 26 percent reported considering the options available. Not all participants that paid a portion of their cost were aware of the financing options; only 58 percent reported that program staff talked with them about the available financing options. Customers did not consider the payment options for several reasons including having available cash on hand, not wanting to delay the recommended work, and interest rates that they believed were too high. Those customers that did consider the options available were most often interested in the option of paying their portion of the cost in four to five installments over time.

17. Why do customers decide not to complete projects after the initial audit?

Of the six customers interviewed who decided not to complete projects after the initial audit, three mentioned costs. One customer reported that timing issues prevented them from going forward. Another customer was not interested in the equipment offered. The last customer did not know what had prevented completion of the project.

18. The program requires participants to go through assigned contractors. Would customers prefer a less turnkey approach and be able to find their own contractor?

About half (56 percent) of customers would not prefer to hire their own contractors. A small majority would not have been as likely to participate in the program if they had to select their own contractors. However, the turnkey approach is not reported as a primary factor in participation or follow-through.

19. Are customers changing their behaviors as a result of the information they received through the walk-through audit? If so, how? If not, why not?

Customers report changing some behaviors because of the information they received through the walk-through audit. Installing CFLs was the most frequently mentioned activity (41 percent), although it is unclear whether they purchased the CFLs in addition to the bulbs received through the program. Other frequently mentioned behavior changes were unplugging electronics, reducing the thermostat setting during the heating season, turning off lights when not in use, and installing weather-stripping.

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20. What are customers' perspectives on the program processes?

When asked what changes they would make to the program to improve it, reducing delays was most frequently mentioned. Several customers indicated they wished the program included additional equipment and services such as new windows, doors, exterior awnings, and the replacement of old appliances.

21. What are customers' satisfaction with specific program elements, such as the multi-step audit approach, the application process, the community energy advocate involvement, the length of time between the initial audit and equipment installation, the rebate process, etc.

Overall, customers are very satisfied with all of the program components (at least 87 percent) and the program overall (80 percent). Interestingly, the customers were less satisfied with the program overall than any of the individual components. One hypothesis is that customers are dissatisfied with the delays the program has experienced in moving households through the various stages. When asked what aspect of the program they would change, 43 percent of the customers mentioned reducing delays. The overall program satisfaction is, on average, lower than for those customers that had significant delays (longer than two weeks) in receiving their report.

1.3 RECOMMENDATIONS

The following are the Evaluators' recommendations. Further detail can be found in the *Recommendations* section of the report.

Continue to include the role of an Energy Advocate in future program designs.

Interviews with both program staff and customers strongly suggest that the Energy Advocate is a key role in the program, providing a high level of customer service throughout the entire process.

Consider providing more staffing resources to the project coordinator position.

Increasing the level of effort from the program coordinator role or adding additional staff to this role could allow the coordinators to address Consultant reports in a timelier manner and reducing the delay in project work.

Consider the indirect program costs of including the turnkey contractor program offering in future program designs balanced against the benefits realized by customers.

As about half of customers said they may not have participated in the program without the turnkey offering, this component is not significantly influential in their decision to participate in the program when compared with other programmatic elements. Additionally, it is an administrative cost to program staff that need to manage the process. This may be one programmatic element the program could consider revising by including a list of pre-selected contractors or program allies. It may be worthwhile to compare this program's progress to the community pilot offered in Brillion, the iCanConserve Community Pilot, as that program's design is similar to the Together We Save pilot but offers participants the option of either a do it yourself approach or a turnkey contractor approach to equipment installation.

Revisit incentive structure as there is some evidence that incentives may be too high.

A majority of customers across all income levels said they would have participated in the program if they had been asked to pay a larger percent of the total project cost. Reducing the

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incentive values could increase the cost-effectiveness of the programs. Please note, however, that this recommendation is based on few observations and further research with the full population of program participants once work is complete may provide more substantive data on this topic.

Consider the cost-effectiveness and program overlap of including the lowest income category and/or targeted neighborhoods in future program design. Nearly half of participants are within the lowest income category and eligible for the Weatherization Assistance Program and incur the highest project costs for the program. The positive outcomes of the Together We Save pilot compared with the weatherization program is that it is able to serve customers more quickly than the state program; however, there is some evidence that the savings potential may not be as deep. The program should consider whether it is cost-effective to continue to serve this population. Additionally, because the program was initially intended to reach moderate income households that are not eligible for low income programs, this program should identify whether the served population is optimal for this program. There may be other neighborhoods for program targeting that have a higher incidence of moderate-income households, a group initially targeted for the program.

Include site visits in future program evaluations. Including site visits as part of evaluation activities would allow evaluators a better understanding of the role of the Energy Advocate and the walk-through audit.

Encourage Energy Advocates to install low-cost measures during all audits. If feasible, have the Energy Advocate direct install CFLs and low-flow water devices for all homes they visit to minimize lost opportunities.

Reinforce the need for leave-behind materials to be a larger part of the walk-through audit experience. Per conversations with WECC, the program currently provides a triplex audit form for the Energy Advocate's completion, a copy of which can be left with the program participant after the walk-through audit.

Continue to provide formal training for the Energy Advocates, consultants, and project coordinator. While training is provided to program staff, the evaluation indicated a need for additional training or reinforcement of the issues covered in the training. The training should be completed with the objective of providing customers with consistent services and moving projects through the program more efficiently and effectively. Current Energy Advocate training includes more direct training on how to demonstrate certain energy saving behaviors to homeowners, such as programming a thermostat and changing television and computer settings.

1.4 ORGANIZATION OF THIS REPORT

The remainder of this report summarizes the program background and delivery, the study methodology and researchable issues, key findings, comparison with other programs, and recommendations. The survey instrument for participants can be found in Appendix A, the Energy Advocate IDI protocol can be found in Appendix B, and the Consultant IDI protocol can be found in Appendix C.

2. INTRODUCTION

2.1 PROGRAM BACKGROUND

In 2008, the Center on Wisconsin Strategy (COWS) received a Joyce Foundation Grant to promote and improve energy efficiency to residents in the City of Milwaukee. One strategy identified by COWS was to provide residents with loan options to fund energy efficiency projects. This program design evolved into an energy efficiency retrofit program and, between 2008 and 2009, COWS, along with program stakeholders (the City of Milwaukee, We Energies, and the Wisconsin Department of Administration) and through ongoing discussions with WECC designed a program to offer to Milwaukee residents.

The resulting program is the Together We Save program, a pilot program with the objective of providing deep energy savings to households with moderate to low income. Per the Program Implementation Plan², the objectives of the program are to:

- Utilize the community by forming partnerships with neighborhood leaders, neighborhood groups, and city/utility/government agencies
- Test various outreach, marketing, and ongoing communication techniques to maximize participation and inform homeowners
- Deliver optimal building science practices and products based on experience with weatherization and home performance programs to assure energy efficiency standards are met
- Guide and redirect home energy efficiency attitudes and behaviors toward sustainability.

Through various secondary research, COWS, in consultation with the City of Milwaukee identified two Milwaukee neighborhoods to participate in the pilot program: a south-side neighborhood and north-side neighborhood.³ COWS selected these neighborhoods as they met criteria of having at least 50 percent home ownership and moderate to low household income. These neighborhoods are:

- South side: Lincoln Avenue (south) to Pierce Street (north; 43rd & 38th Streets (west) to Layton Blvd (east)
- North side: Capital Drive (south) to Villard Avenue (north); 84th St. (west) to 50th St. (east).

While WECC is not required to verify energy savings and cost-effectiveness of this program (as it is in a pilot phase), the implementation plan included budgetary, participation, and savings goals. The program had the goal of completing energy efficiency projects for 100 households. The energy savings values per home served was 0.19 kW, 1,192 kWh, 295

² The Milwaukee Neighborhood Efficiency Project Program Implementation Plan dated February 2009.

³ South side: Lincoln Avenue (south) to Pierce St. (north); 43rd and 38th Streets (west to Layton Blvd (east). North side: Capitol Drive (south) to Villard Ave (north); 84th St. (west) to 60th St. (east).

therms with a pilot savings goal of 19 kW, 119,200 kWh, and 29,500 therms for all completed homes.

The program conducted audits in 137 Milwaukee homes. As of February 2010, 118 remained in the program. Due to various constraints discussed within this report, not all jobs are completed at the time of this reporting. However, should all 118 homes be completed the program will have surpassed the goal of serving 100 homes.

2.2 PROGRAM STAFFING

WECC serves as the program implementation contractor for this pilot program. Their responsibility is oversight of the program and management of staff hired to provide services through the program.

WECC employs five individual community Energy Advocates. These Energy Advocates conduct initial assessments of the participants' homes; act as points of contact; and offer assistance to participants throughout program participation. WECC provided a one-day training to these Energy Advocates prior to their working with participating homeowners through the program. According to the program database, each Energy Advocate worked with an average of 23.6 households, ranging from 18 to 27 households⁴.

The program also subcontracts with two consultants that conduct the technical assessments of participants' homes. These consultants make recommendations about which energy efficiency improvements should be made in the home. Homeowners review these recommendations, their costs, and the financial incentives offered through the program (which range from 50 to 100 percent of the total job cost based on income qualifications, discussed further below). Once approved by the homeowners, pre-selected contractors schedule and complete the recommended work. After completion, the consultant returns to the home and reviews whether the equipment was installed correctly.

Last, the program subcontracts with a coordinator that reviews the consultants' recommendations before they are sent to the participant. As part of this review, the project coordinator determines whether the recommendations are appropriate for that participant. The coordinator then assigns a pre-defined cost (initially established through the bid process by the contractors) to the various recommended improvements based on submitted costs by the pre-selected contractors.

2.3 PROGRAM PROCESSES AND SERVICES

The program consists of four main components that are designed to work in concert to achieve long-lasting energy savings in the targeted neighborhoods. These components include community-based Energy Advocates, technical assessments, incentives and payment-plan options for recommended energy efficient equipment, and pre-selected contractors that can perform turnkey recommendations.

⁴ The database was missing advocate information for nine households.

The program is designed as a multi-stage offering. Each of these stages are designed to build upon each other with a community-based Energy Advocate as a common thread throughout the program experience. These stages are described below.

Application process. The potential participant submits a completed program application to WECC via mail, email, or by directly calling the Focus on Energy Information Center. WECC then verifies the applicant is eligible to participate in the program. The applicant must own a building within the target neighborhood.

Walk-through audit. WECC assigns an Energy Advocate to the homeowner once the application is approved and the homeowner is notified that they are eligible to participate. The Energy Advocate sets up an appointment with the homeowner to complete the audit. A review of the documentation shows that, for each home, the Energy Advocate should record prior efficiency improvements made, lighting present in the home at the time of the walk-through audit, and an appliance and electronics inventory. The Energy Advocate may also provide recommendations for energy savings. The Energy Advocate then promotes the next phase of the project and provides as-needed assistance throughout the next steps, including translations services as necessary (Spanish is the most prevalent language other than English).

Pre-assessment. A consultant hired through the program next provides a technical walk-through of the home. Throughout this more in-depth energy assessment, the consultant provides a variety of services including blower door testing, combustion safety testing, and technical analysis of the equipment in the home. The assessment results in written recommendations and estimated costs overall as well as those costs covered by the pilot program (determined based on income qualifications). The Energy Advocate relays the recommendations to the homeowner.

Participant sign off. After receiving the recommendations and cost information, the participant needs to determine whether he or she will proceed with the installation of equipment. The participant is presented with the estimated cost of the completed work for their consideration

One of the objectives of the program is to reduce the cost barrier associated with energy efficiency. The program subsidizes a portion of the equipment cost. The percentage subsidized is determined by the participant's Federal Poverty Level. Prior to implementing the program, WECC worked with the Energy Center of Wisconsin (ECW) to document household identified barriers to implementing energy efficiency projects. Households' inability to pay for improvements was identified as the primary barrier⁵. To overcome this financial barrier, the program provides incentives on a sliding scale based on income (Table 2-1).

⁵ Bensch, Ingo and Karen Koski, "Me2 Market Research Results – Owner Occupied" Memorandum to Sara Van de Grift dated December 2, 2008.

Table 2-1. Percentage of Project Cost Paid by Income

Income	Percentage of Total Cost Paid by Program
At or below 200% Federal Poverty Level	100% or referred to state Weatherization Assistance Program
201%–250% Federal Poverty Level	90%
251%–300% Federal Poverty Level	75%
Over 300% Federal Poverty Level	50%

The participant is required to complete all recommended work and use a pre-selected contractor. The participant is provided with financing options should they not be able to pay their portion of the co-payment in one installment. Should the participant initially decide to move forward with the project, and reconsider and cancel the work, the participant will be assessed a \$150 fee to help cover the costs of the pre assessment. Once the homeowner has paid at least 75 percent of their share of the cost, the recommended work may begin.

Installation of efficiency improvements. Next, pre-selected contractors make all the energy efficiency improvements included in the work order. Energy efficiency improvements vary by household, but include attic and wall insulation, air sealing, and equipment such as furnaces, exhaust fans, boilers, water heaters, and central air conditioning systems. Building envelope improvements were the most common recommendations followed by new exhaust fans and replacing hot water heaters.

Table 2-2 details the frequency of each recommendation for households where this information is available in the database. The most prevalent recommendations are shell measures (insulation and air sealing). Equipment recommendations are less frequently cited although furnaces were recommended for about 20 percent of program participants.

Table 2-2. Equipment Recommended after Technical Assessment (N=99 Households)

Recommended Equipment	Frequency	Percent Received
Insulation (includes attic, sidewall, sillbox, etc.)	76	77%
Air sealing	69	70%
Exhaust fan	53	54%
Pipe wrap	46	46%
Hot water heater	34	34%
Furnace	20	20%
Boiler	13	13%
Central air conditioner	9	9%

Post-installation assessment. Once the work is completed by contractor, the Consultant does a final inspection of the home to ensure the recommended improvements were made. This is separate from a quality assurance check, which is completed by WECC on 5 percent of the homes.

2.4 RESEARCH METHODOLOGY

The evaluation plan to address these researchable questions included two sets of data collection activities. First, PA conducted nine in-depth interviews with program staff involved with the program between December 18, 2009, and January 21, 2010. The staff interviewed included six WECC employees (four of which were employed as Energy Advocates), two

technical consultants, and one coordinator. These interviews were qualitative in nature and detailed findings were reported in *Key Findings from In-Depth Interviews with Together We Save Program Staff and Database Analysis (Final)*. Findings from those interviews are also incorporated into this report.

As part of the second phase of data collection, PA conducted telephone interviews with 74 program participants between January 26 and February 8, 2010. WECC provided data for 119 customers that had completed the walk-through audit on January 6, 2010. We included a census of these customers in the telephone survey. Files provided by WECC as part of later analysis detailed additional customers that were not included in the phone sample. These customers were excluded unintentionally and at random and their absence from the telephone survey introduces minimal bias into our results. Table 2-3 details the telephone survey response rate and the breakdown of the customers involved in the program.

Table 2-3. Survey Response Rate

Sample Description	Number of Records
Total	159
Opt-out before audit	22
Received audit	137
Not provided with initial data release but received an audit	18
<i>Audit received, waiting for assessment</i>	2
<i>Audit received, opt-out</i>	8
<i>Audit received, does not qualify</i>	1
<i>Assessment received, waiting for work</i>	7
<i>Work completed</i>	0
Starting sample	119
<i>Does not recall program</i>	3
Adjusted sample	116
<i>Refusal</i>	9
<i>Unable to contact</i>	9
<i>Language barrier</i>	6
<i>Active sample</i>	18
Completed interviews	74
Response rate	64%

In total, 159 customers have been involved with the program. Twenty-two of those customers (14 percent) declined to continue with the program before receiving the walk-through audit and were not included in the participant survey. Of the 137 that received walk-through audits, 19 customers chose not to continue with the program (14 percent). Of those 19 customers that opted-out, 14 decided to not continue after receiving the audit and another five decided not to continue after receiving the technical assessment. Interviewers attempted to speak with these 19 customers to identify reasons for their not continuing with the program.

The survey covered a representative sample of customers in different stages of the program. Table 2-4 details the survey's coverage by program stage as reported in the WECC database.

Table 2-4. Respondents' Program Stage Compared with Population

Program Stage in Database	Total Interviewed	Percent of Interviewed	Total in Sample	Percent in Sample	Total in Population	Percent in Population
Audit ⁶	16	22%	22	18%	31	23%
Audit, waiting assessment	11	15%	22	18%	24	18%
Assessment complete	45	61%	72	61%	79	58%
Work complete	2	3%	3	3%	3	2%
Total	74	100%	119	100%	137	100%

To ensure the information captured in the program database was an accurate assessment of the stage the participants were within the program, each participant was asked to confirm which program stage they most recently completed. Table 2-5 shows the difference between the sampled program stage and that reported by the customer. The change reported by the customer shows that they continue to move through the program; an additional 23 customers report that they have had the recommended work completed in their home.

Table 2-5. Respondents' Program Stage in Database Compared with Reported

Program Stage	Reported in Database	Percent	Reported by Customer	Percent
Audit	16	22%	6	8%
Audit, waiting assessment	11	15%	8	11%
Assessment complete	45	61%	35	47%
Work complete	2	3%	25	34%
Total	74	100%	74	100%

As described in the Evaluation Plan, WECC program staff reviewed and commented on both the in-depth interview guide for the Energy Advocates and the technical consultants and also the telephone questionnaire for the participants. The final version of these documents are included as appendices.

⁶ This category includes customers that both opted-out of the program and those that had received the audit but not yet agreed to the technical assessment.

3. KEY FINDINGS

This section highlights key findings resulting process evaluation efforts. As with the researchable issues, this chapter is organized by program operations, outreach and marketing, and participant experiences.

3.1 PROGRAM OPERATIONS

3.1.1 Program progress and timeline of services

Overall, the program is on track to meet the target goal of serving 100 households. The program currently has 118 active participants. However, delays in the assessment recommendation process will prevent the program from achieving this goal by the end of the Q1 2010. Only 34 percent (n=25) of the customers reported that the recommended work had been completed in their homes.

Interviews with program staff and program participants indicated that program activity is hindered by delays and break downs in processes. Specifically, all parties interviewed recognized that it is taking longer for participants to receive the technical assessment report after the assessment is completed than is optimal for this program.

This delay is a major source of frustration with program staff. Program staff discussed that there were a number of times when the project coordinator questioned the report and either sent the consultant back to the home to address questions or visited the home himself to verify or complete the paperwork. This process created significant delay in participants receiving their recommendations and moving forward to the next stage of the program.

The customers also reported dissatisfaction with the time it took to receive the report; when asked about what one thing they would change to improve the program, 43 percent (n=32) of the customers stated reducing program delays. Likewise, the customers, on average, reported receiving the written report on average 26 days after the technical assessment with responses ranging from one day to over five months. As the initial program design called for the reports to be submitted to the homeowner two days after the assessment, this time frame is consistent with the frustrations reported by both program staff and customers.

It was not possible from the in-depth interviews or the participant surveys to discern whether the issue was mostly a result of the need for more training for the consultants or the level of rigor required of the project coordinator, although program staff identified both of these issues as impediments in the program. One interviewee addressed this issue head on and said they believed the “training was a little loose with the [project coordinator]” and that requirements were not effectively communicated to the consultants at the onset of the program.

Other interviewees agreed with this perspective, which suggests that the initial training of the consultants did not contain enough detail. Even though the consultants were involved in Home Performance assessments before their involvement with the Together We Save pilot, the differences between the reporting requirements of the two programs resulted in delays early on in the program cycle. Often, program staff would require clarification or additional information from the consultants in order to properly price and approve the recommended work.

Regardless of where the lack of communication or training stems from, the technical assessment and reporting process is clearly one element of the program that will need to be

addressed should the program continue beyond the first year. The delays reportedly frustrate the participants and based on analysis of reported program satisfaction, may be decreasing the participants' overall satisfaction with the program.

Over time, consultants and program staff both developed improved reporting and as of this report program staff believe that the problems have largely been eliminated. If the program were to involve additional consultants as part of the technical assessment process, we would suggest a formalized, program-specific training.

3.1.2 The Energy Advocate

One of the unique features of the Together We Save program is the Energy Advocates' close involvement with the homeowners throughout the program. During the in-depth interviews, all parties interviewed unanimously mentioned the Energy Advocate role as not only a key differentiator, but also an important component to this program that enhanced its effectiveness. Interviews with the customers confirm this assertion (program component influence is discussed later in this report).

The Energy Advocates are involved with the customers at several critical junctions throughout the program. They are the initial point of contact for program participants, lowering the customers' participation burden by explaining and helping with paperwork, extolling program benefits, and in some cases, providing translation services.

During the walk-through audit, Energy Advocates have an opportunity to affect that household's energy efficiency both directly and indirectly. They provide low-cost energy saving measures (CFLs, low-flow showerheads, and faucet aerators) in many of the customers' households, either leaving the equipment with the customer or installing it directly. As part of this process, they are able to speak directly with the customer about the benefits of the provided equipment, which increases the likelihood that the equipment will remain installed after the audit. Though this research covers a limited timeframe, interviews suggest that this process is working; almost all of the customers that received equipment from the Energy Advocate report that it is currently installed.

Table 3-1 details the equipment given to the customers and the percentage that said they removed the equipment. Customers reported that they removed the equipment due to failure, incorrect sizing, or because they already had energy-efficient equipment that they wished to use instead of the program-provided equipment.

Table 3-1. Equipment Provided by Energy Advocates

Percentage of Households that Received...	CFLs (n=74)	Low-flow Showerheads (n=74)	Faucet Aerators (n=74)
...at least one measure	65%	54%	46%
...measure(s) and have since removed it/them	4%	5%	3%

The walk-through audit is also an opportunity for untracked energy savings. During the audit, the Energy Advocate provides energy conservation and efficiency information in a manner that is not as technical as an assessment but can resonate with program participants. During training, Energy Advocates receive information regarding the use and benefits of CFLs, adjusting thermostat settings for heating and cooling seasons, and reducing plug-load with household electronics such as televisions, game systems, cell phones, and computers.

However, as part of the program design, the training provided to the Energy Advocate did not include in-depth technical training. This training was not included, as program staff did not want the Energy Advocates to provide technical information to the homeowners and leave that information dissemination to the more technical assessors. With that said, in-depth interviews with the Energy Advocates suggested that the training should have included some additional technical detail and that the program was missing opportunities to discuss energy efficiency with customer in a one-on-one setting. However, nearly all of the respondents reported that the Energy Advocates discussed ways that they can save energy (93 percent). The most common topics discussed were the replacement of inefficient household appliances with newer models, use CFLs instead of incandescent bulbs, and turning off lights and other electronics when not in use. Participants also reported that this information was new to them; almost three quarters of participants (74 percent) said they know more about saving energy because of their interactions with the Energy Advocate.

Though customers reported talking with the Energy Advocates regarding ways to save energy in the home, the survey did not ask if the Energy Advocate directly demonstrated any of the behaviors. The in-depth interviews with the Advocates suggested that they do not routinely demonstrate these tips to the customers. For example, they may suggest that the customer reduce the thermostat setting in the winter but they do not walk the customer through the process step-by-step. Two of four Energy Advocates interviewed reported that while they advise customers about behaviors that they could change in order to save energy, they do not demonstrate those methods during the audit. Current Energy Advocate training contains additional detail regarding these behaviors and how to demonstrate them to homeowners.

In addition to the walk-through audit, the Energy Advocates also presented recommendations from the technical assessment and costs the household will incur for completing the work. Program participants interviewed recognized the importance of the Energy Advocate role. Ninety percent of these participants said that the Energy Advocate played an important role in their decision to install the recommended equipment, although not necessarily the most influential component as discussed later in this report.

3.1.3 The turnkey approach

In addition to the Energy Advocates, the other unique feature present in the Together We Save program is the turnkey relationship with contractors. The participant does not select the consultant or contractor to perform services; rather, these individuals are selected by a competitive bidding process and assigned to projects through the program. Other community-based pilots do not provide this turnkey approach exclusively and allow customers to either select their own contractors or proceed with one of the contractors affiliated with the program.

While the customers show some interest in this approach, its effect on the equipment up-take and participation is not as high as other programmatic components. Only 11 percent of participants listed the turnkey approach as the most influential factor in their decision to participate in the program. With that said, half of the participants said they would not have been as likely to participate in the program if they were required to hire their own contractor (50%, Figure 3-1). Similarly, 56 percent of participants said they prefer the program hire the contractor, even if it was from a pre-selected list (Figure 3-2). This interest is similar to the

results presented in ECW’s initial market research⁷ where 56 percent of survey respondents said they would have preferred that the program select and arrange the contractor work.

Figure 3-1. As Likely to Participate if Had to Hire Own Contractor (n=60)

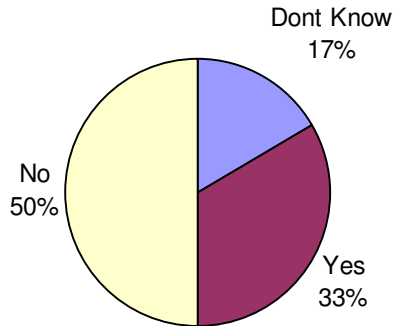
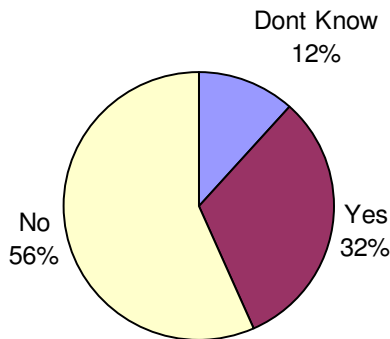


Figure 3-2. Preferred to Hire Own Contractor (n=60)



This turnkey approach has also created administrative burdens on program staff. WECC is responsible for managing all components of the program, including contractor selection and work completion. As such, they oftentimes find themselves in the position of being a general contractor in a sense, ensuring that all pieces are operating as intended and, if they are not, identifying a resolution to the situation. Thinking into the future, the program needs to evaluate the benefit realized against the cost of providing this approach. The administrative burden, coupled with the participants’ perspectives, need to be taken into account.

3.1.4 Energy Advocate training and program materials

As earlier discussed, the Energy Advocates are in a unique position of being the first point of contacts for participants. When completing the initial walk-through audit, they have the opportunity to provide energy conservation and efficiency information in a manner that is not as technical as an assessment but can resonate with program participants. Interviews with the Advocates revealed that they are not consistent in the level or type of information they provide to customers. For example, one Energy Advocate may discuss with participants the

⁷ Ingo Bensch and Karen Koski, Energy Center of Wisconsin. *Me2 Market Research Results – Owner-Occupants*. December 2, 2008.

benefits of reducing their heating temperature in the winter and in the process show them how to do it, whereas another Advocate may discuss the general benefits of turning down the temperature but is not comfortable with directly changing with the thermostat itself. Two of four Energy Advocates interviewed reported that while they advise customers about behaviors that they could change in order to save energy, they do not demonstrate those methods during the audit. As mentioned above, current training includes more detail regarding demonstrating these behaviors.

Nearly all interviewees mentioned that Energy Advocates are lacking in technical training. This lack of training may limit their ability to address some of the more basic energy efficiency issues when walking through the home. On the other hand, one interviewee stated that Energy Advocates believe they have enough knowledge to discuss issues that are more technical but fear their assessment may be inaccurate or inappropriate. This misdiagnosis can cause them to “stir the pot” in a manner that is counter-productive to the latter recommendations of the consultants. The result is that customers have heightened expectations of what the consultants will be able to provide or recommend as part of the technical assessment. Several interviewees said they encouraged Energy Advocates to consult supervisor or program coordinators before attempting to solve or advise on technical problems on their own.

WECC provided a one-day training to Energy Advocates that covered a multitude of issues such as ways to reduce the plug load of computers, televisions, and other home electronics and proper thermostat settings. However, it is our understanding that a more detailed, two-day training has since been developed for Energy Advocates providing services in other communities. It would be worthwhile to have Energy Advocates attend this expanded training to reinforce the message received during the one-day training and receive clarity on what should be shared with the homeowner and additional guidance as to what type of information or demonstrations should only be provided through the technical assessment.

Conversations with all the Energy Advocates confirmed that they did not have enough leave behind materials to distribute to customers. The Energy Advocates recognized that they received education materials through the program. Though not specifically asked about educational materials or handouts, one customer mentioned that a folder was left behind during the walk-through (it was not clear if this folder contained educational materials or program paperwork).

Based on interviews with the Energy Advocates and program staff, it seems it would be useful for WECC to provide more robust packets of materials with basic energy saving tips that they could leave behind with participants. Going a step further, evaluators believe that providing leave-behind materials that document the specific energy saving recommendations made by the Energy Advocate for that participant would be an even more effective given it is customized for the participant and reinforces the information imparted through the audit. Follow-up conversations with WECC staff and the Energy Advocates indicate that some of these materials have been created for other community pilot programs (e.g., Brillion Community Pilot) and could be employed in future pilots.

According to conversations with program managers at WECC, the limited development time during the program’s launch prevented program staff from providing the Energy Advocates with adequate educational materials for distribution after the walk-through audit. They did provide Energy Advocates with the Together We Save Participation Agreement and a Home Performance DVD. Program staff acknowledged the oversight and that, like in other Energy

Advocate pilots, they need to also provide the Energy Advocates additional leave-behind materials to distribute to participants.

Including a customized walk-through audit report may also provide another opportunity for the program to follow up with participants and reiterate the message. Participants are touched by the program multiple times through the process, which creates the opportunity for the program to build repetition of information into the program design. Literature on this topic shows that repetition is a key element to increase the effectiveness of energy education.⁸

For example, Energy Advocates said they oftentimes will continue communication with participants throughout the program process. The Energy Advocate receives a copy of the recommendations made through the technical assessment, which the Energy Advocate will communicate to the participant. These points of contact are opportunities for the Advocates to reinforce the messages relayed through the walk-through audit. However, this process is made difficult if the Energy Advocate does not have per-household documentation of recommendations made during their audit.

3.1.5 Moving customers from recommendations to agreements

For the program to realize the greatest benefit from its services, it needs to convert the assessment to a completed project. The survey asked customers what program components were most influential in their decision to follow program recommendations. The program financial incentives and the technical assessment are most frequently reported as most influential in the decision to follow the program's recommendations. Forty-six percent of the customers rate the incentives as either the most influential factor or the second most influential factor in their decision to follow the recommendations. Thirty-one percent of the customers rate the technical assessment as the most or second most influential factor. Energy Advocates rank as the third most influential factor with 28 percent (Table 3-2).

Table 3-2. Influential Program Components in Following Recommendations

Program Component	Number of Times Mentioned as Influential	Percent of Total Respondents (n=67)
Financial incentives	31	46%
Technical assessment	21	31%
Energy Advocate	19	28%
Turnkey contractor approach	11	16%
Financing/payment plan options	5	7%

Note that information services, such as those provided through the energy assessment and Energy Advocate, are frequently mentioned as strong influencers as are financial incentives. This analysis shows the importance of providing services to overcome the information barriers as well as the financial barriers to move projects from recommendation to completion.

⁸ PA completed an energy education best practices report as part of the evaluation of the Weatherization Assistance Program evaluation in 2004. This report was based on expert interviews and literature reviews. See Lark Lee, Laura Schauer, and Pamela Rathbun, PA Government Services Inc. *Low-income Public Benefits Evaluation, A Multi-state Study of Low-income Weatherization Programs' Energy Education and Baseload Measures*. February 24, 2004.

3. Key Findings

The turnkey contractor approach is not recognized as a critical component in the program design. Only 16 percent of respondents said it was influential in their decision to move forward with program recommendations although a portion of those who said it was not influential may not have come into the program without it (as approximately half said they may not have been as likely to participate had it not been for the turnkey offering).

3.2 MARKETING AND OUTREACH

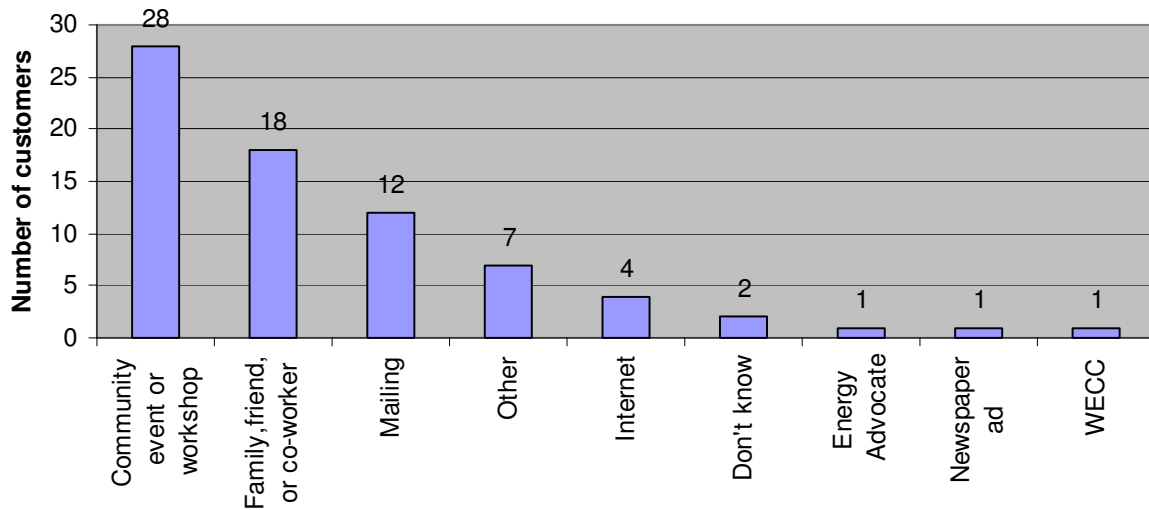
3.2.1 Source of program information

Designed as a community-driven program, the program plan included a discussion of the pilot's ability to test various marketing and messaging methods. Examples of strategies cited are:

- Using signage that homeowners will see when driving/walking through the neighborhood and/or visiting local establishments
- Counting on “buzz” created by homeowners through their daily interactions (backyard, school or church conversations) based on information that was provided
- Leveraging events and communications from neighborhood leaders (block watch captains and association heads)
- Arming Energy Advocates with proper training and information to help make lasting impression on homeowners, thereby creating sustainable impacts.

To assess which marketing methods were most effective to reach out to homeowners, the participant survey asked participants how they first heard about the program. Interviews with the participants suggest that the community-based strategies identified in the implementation plan were effective in gaining program participation. The most commonly mentioned means of initially hearing about the program was a community event or workshop mentioned by 28 out of the 74 respondents (39 percent). It also appears that the program created a “buzz” sufficient enough to engage initial participation; word of mouth was the second most commonly noted source of program awareness, mentioned by 18 of the 74 surveyed respondents (24 percent).

Figure 3-3. Method by Which Customer First Heard of Program



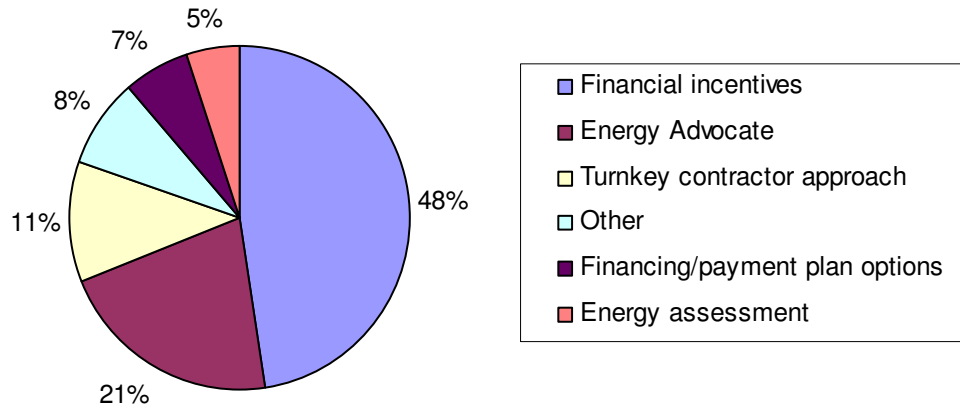
3.2.2 Points of influence for program participation

The program's financial incentives are consistently shown to be a highly influential aspect of the program. The incentives not only strongly affect the customers' decision to participate in the program but also to follow through with the recommended equipment thereby minimizing first costs as a barrier to proceeding with the recommended work.

When asked which part of the program was the most influential in their decision to participate, customers most frequently reported the financial incentives (48 percent). The level of influence provided by participants does not vary when reviewed by percentage of work paid. For example, there is no significant difference in level of influence for those participants who had 100 percent of work paid by the program compared with those that had 50 percent of work paid by the program.

The fact that nearly half of participants cited financial incentives as a most influential reason for program participation is consistent with ECW's finding that one of the primary up-front barriers to completing energy efficiency projects is project funding. The ECW market research found that 51 percent of households surveyed listed cost as the primary barrier to purchasing energy-saving measures.

Figure 3-4. Most Influential Reason to Participate in Program (n=68)



Program incentives and rebates are not unique for a homes program such as Together We Save. However, the services provided by the Energy Advocate are a different—and more costly component—of the program.

In-depth interviews with program staff and implementers mentioned they that believe the Energy Advocate is one of the more effective components of the program. And the Energy Advocate is the second most commonly mentioned point of influence reported by a fifth of program participants. Other program specific offerings, as the turnkey offerings and financing options, do not hold the same level of influence for participants.

3.3 PARTICIPANT EXPERIENCES

3.3.1 Program satisfaction

Overall, customers are satisfied with the program and its various components. Customers were asked to rank their satisfaction on a scale of 0 to 10 with 0 being “not at all satisfied” and 10 being “very satisfied”. For all program components, at least 87 percent of the customers ranked their satisfaction as a seven or higher.

Table 3-3 lists the percent of customers that rated key components of the program a seven or above. The technical assessment and equipment installed received the highest rankings followed by the contractors that provided the equipment and the Energy Advocate.

Table 3-3. Satisfaction with Program Components

Program Component	Percent Satisfied
Equipment installed (n=25)	100%
Technical Assessment (n=55)	100%
Contractors (n=24)	92%
Energy Advocate (n=67)	90%
Walk-through Audit (n=66)	90%
Application Process (n=62)	87%
Financial Incentive (n=44)	87%
Program Overall (n=68)	80%

As previously noted, customers were less satisfied with the program overall than any of the individual components. One hypothesis is that customers are dissatisfied with the delays the program has experienced in moving households through the various stages. As discussed previously, when asked what aspect of the program they would change, 43 percent of the customers mentioned reducing delays. Table 3-4 shows the average satisfaction ranking of the overall program by the amount of time it took the written report to get to the customers.

Table 3-4. Average Overall Program Satisfaction by Report Delays

Timeframe in Which Customer Received Report	Average Satisfaction with Overall Program (0–10 Scale)	N
Two weeks or less	9.57	14
Greater than two weeks	8.69	16

The survey asked respondents how the program could improve its services. Almost a third (31 percent) of respondents said they would change nothing about the program. Aside from providing more expedited services, respondents that did suggest that the program offer larger incentives (for those households that were not already 100% covered) and rebate additional pieces of equipment such as windows.

3.3.2 Participant attrition

Almost a quarter of participants in the program database had completed the walk-through audit but had not scheduled the assessment (31). The survey spoke with 12 of these households and confirmed they still had not yet scheduled the assessment. Of these 12 customers, six were not intending to move forward with the program.

Several reasons were mentioned for not moving forward with the assessment. These reasons included not having the time or not being able to agree on a time to schedule the assessment (four respondents), not willing to pay the participation contribution (three respondents), and not interested in the equipment covered by the program (three respondents).

Interviews with the Energy Advocates discussed whether they experienced program attrition with their customers. All the Advocates said they believed the attrition was low. One Advocate in particular commented that she strongly encouraged households to, at a minimum, receive the technical assessment. She explained that, beyond the \$150 assessment fee that is waived if they continue with the program, there is no obligation on the part of the participant to receive the services. If they decided not to continue with the program after the assessment, they will have information about their home's needs that they can consider for future improvements.

Of the customers that had reviewed the recommendations from the technical assessments, only two customers had declined to move forward with the recommended work. Cost was not the barrier for one of these respondents; rather, the timing of the work was the main reason the customer did not move forward. The other customer refused to specify why he or she did not move forward with the recommended work.

3.3.3 Contribution by income level

The program pays a specified portion of the total project costs. The portion required of program participants varies by income level, where households that fall within the lowest income category (200 percent Federal Poverty Level or below) receive the greatest benefit (100 percent of project costs paid for). The most any participant has to pay in terms of percentage of costs is 50 percent of total project costs.

Table 3-5 documents the percentage of customers that fit into each income and co-payment category. Based on database analysis, nearly half of participants (47 percent) are having their project fully funded. An additional 25 percent of participants are paying ten percent of the project cost. Only a quarter of participants are within the highest co-payment classification, contributing 50 percent of the project costs. Survey responses confirmed that an additional 11 customers are between 60 to 80 percent of the State Median Income and therefore fall somewhere at the 201 percent to 300 percent of the Federal Poverty Level.

Table 3-5. Percentage of Project Cost Paid by Income Category (N=51 Participants)⁹

Income Level	Percentage of Total Cost Paid by Program	Number of Participating Households	Percentage of Total with Co-payment Data	Average Contribution Amount by the Program	Average Contribution Amount by the Customer
At or below 200% FPL	100%	24	47%	\$8,679	\$0
201% – 250% FPL	90%	13	25%	\$4,721	\$525
251% – 300% FPL	75%	1	2%	\$3,596	\$1,199
Over 300% FPL	50%	13	26%	\$2,310	\$2,310

The database analysis shows that lower income customers' projects are higher in total project cost on average than those in the higher income category. In fact, total project costs households below 200 percent of Federal Poverty Level are nearly double than that for the highest income category (\$8,679 total project value compared with \$4,620, respectively).

These participants may also be eligible to participate in other energy efficiency programs such as WAP and Targeted HPWES. Chapter 4 provides comparative analysis between the Together We Save Pilot and other program designs. The chapter also discusses the distinctions in services provided through these programs and reasons why customers may be enlisting in the Together We Save Pilot rather than the other programs for which they may be eligible.

3.3.4 Behavioral changes resulting from program education

Interviews with program participants suggest that this information provided by the program is resulting in changed behaviors that have the potential of yielding indirect impacts. To identify what type of behavior changes, if any, were occurring in the household because of interactions with the Energy Advocate and other program staff, customers were asked close-ended questions about what specific actions they have taken in their homes since

⁹ Costs paid by program data were provided by WECC on January 21, 2010.

participating in the program that would result in energy savings. As follow-up, they were asked if this action was a result of something they learned through the program.

Installing CFLs was the most frequently mentioned activity (41 percent) though it is unclear whether these CFLs are in addition to the ones provided by the Energy Advocates. Also, frequently mentioned were unplugging electronics, reducing the thermostat setting during the heating season, turning off lights when not in use, and installing weather-stripping. Again, it is unclear if this weather-stripping is in addition to any stripping provided directly through the program.

Table 3-6. Household Changes as a Result of Program Participation (n=74)

Changes as a Result of the Program	Number of Households	Percent of Total
Installed CFLs	31	42%
Unplugged electronics	28	38%
Turned down thermostat in winter	26	36%
Turned off lights	23	31%
Installed weather-stripping	22	30%
Lowered water heater temperature	18	25%
Washed laundry in cold water	17	24%
Changed furnace filter	13	19%
Insulated water heater and pipes	11	15%

3.3.5 Willingness to pay for equipment

One researchable issue is whether the incentives are set appropriately, or if the program could engage customer participation should the incentive values be reduced. Participant surveys suggest that the financial incentives are possibly set too high for some of the customers.

Customers that had already had contribution percentages determined (n=33) and documented in the program database were asked if they would have still gone forward with the project if they were expected to pay a larger amount of the overall project. These questions used specific dollar amounts that represented the percentage of the project cost they are currently paying and what they would pay at the next incentive tier level. The questions were asked incrementally.

Of the customers that have no contribution amount, 53 percent would have continued to participate in the program if they were expected to pay the minimal amount (10 percent of the project cost) and sharply declines when they reach 25 percent of the total cost. Likewise, of those paying 10 percent of the project cost, 82 percent would have participated if they were expected to pay a larger percentage of the overall cost, which declines again when they reach 50 percent of the cost (Table 3-7).

Those customers with zero co-pay amounts are also the customers least likely to participate at a lower incentive. In addition, database analysis shows that these customers also have the highest total project costs. Therefore, any adjustments to the incentive levels would likely have a larger effect on this group than the other income tiers.

Please note that this analysis is based on a relatively small number of participants that are within each co-payment category. Therefore, these results should be reviewed with some

level of caution. However, they do provide a limited picture of participants' willingness to potentially contribute more funds to the project, which would reduce the costs incurred by program.

Table 3-7¹⁰. Likelihood of Participation at Lower Incentives Levels by Incentive Category

		100% covered by program (n=15)		90% covered by program (n=9)		75% covered by program (n=1)		50% covered by program (n=8)	
		Count	Percent	Count	Percent	Count	Percent	Count	Percent
Would have participated if had to pay 10%	Yes	8	53%	NA	NA	NA	NA	NA	NA
	No	6	40%	NA	NA	NA	NA	NA	NA
	Don't know	1	7%	NA	NA	NA	NA	NA	NA
	Refused	0	0%	NA	NA	NA	NA	NA	NA
Would have participated if had to pay 25%	Yes	2	13%	9	82%	NA	NA	NA	NA
	No	12	80%	2	18%	NA	NA	NA	NA
	Don't know	1	7%	0	0%	NA	NA	NA	NA
	Refused	0	0%	0	0%	NA	NA	NA	NA
Would have participated if had to pay 50%	Yes	1	7%	2	18%	1	100%	NA	NA
	No	14	93%	5	46%	0	0%	NA	NA
	Don't know	0	0%	2	18%	0	0%	NA	NA
	Refused	0	0%	2	18%	0	0%	NA	NA
Would have participated if had to pay 75%	Yes	0	0%	1	11%	0	0%	5	63%
	No	15	100%	8	89%	1	100%	2	25%
	Don't know	0	0%	0	0%	0	0%	1	13%
	Refused	0	0%	0	0%	0	0%	0	0%
Would have participated if had to pay 100%	Yes	0	0%	0	0%	0	0%	4	50%
	No	15	100%	9	100%	1	100%	4	50%
	Don't know	0	0%	0	0%	0	0%	0	0%
	Refused	0	0%	0	0%	0	0%	0	0%

The program also offers financing and payment plan options to customers that are unable or unwilling to pay their portion of the total project cost. Participant interviews suggest that while there is some interest in these options (51 percent expressed an interest), they are not an influential factor in the customers' decision to go forward with the recommended work (31 percent ranked it the least influential) or participate in the program (only five percent, or four respondents, said financing and payment plans were the most influential reason for program participation).

3.3.6 Installation of equipment without the program

The participant survey contained several questions about the decision making process and what equipment, if any, the customer would have installed without the program. Analysis of these responses strongly suggests that the program's customers would not have installed the

¹⁰ If customers answered "No," they were not asked further questions. However, for the purposes of this table, the values have been filtered down through the entire series.

3. Key Findings

recommended equipment on their own in the absence of the program. Given the high percentage of low-income households and the size of the incentives offered, it is not surprising that there are few participants who said they would have done the project regardless of the program.

Of the customers that either have had the recommended work completed or were planning to have it completed (n=44), none of the respondents said would have installed all of the equipment at the same time and at the same efficiency. Half reported that they would have installed either all (14 percent) or some (36 percent) of the equipment or insulation. Of those, five customers stated they would have done it at the same time and six stated that they would have installed the same level of efficiency (though the customer interview did not explore the customers' understanding of efficiency levels). Combined, only one customer reported that he or she would have installed part of the equipment at the same time and at the same efficiency (the program influenced this customer to install the attic insulation). Table 3-8 lists the responses to this battery of questions.

Table 3-8. Responses to Decision-making Battery

Question	Number of Customers	Percent
Have had or planning to have work completed	44	100%
Would have installed all or part of the equipment?	22	50%
Would have installed at the same time?	5	11%
Would have installed at the same efficiency?	6	14%
Would have installed some of the equipment at the same and same efficiency?	1	2%
Would have installed all of the equipment at the same and same efficiency?	0	0%

4. COMPARISON WITH OTHER RESIDENTIAL PROGRAMS

One of the researchable questions of particular interest in this evaluation is how the Together We Save Pilot is differentiated from other programs offered to residential customers in Wisconsin. To address this question, the evaluation team attempted to identify differentiation in services and benefits received by participants of these programs. Ideally we would be able to say something beyond the database analysis and the difference in customer experiences and energy impacts by program; unfortunately, of this evaluation's scope did not include activities that would allow this level of comparative analysis.

We identified five programs offered to residential customers in Southeastern Wisconsin for this comparative analysis.

1. Wisconsin State Weatherization Assistance Program (WAP)
2. Targeted Home Performance with ENERGY STAR (Targeted HPWES)
3. Home Performance with ENERGY STAR (HPWES)
4. iCanConserve Community Pilot
5. We Energies Low Income Pilot.

With the exception of one program (the iCanConserve pilot), the programs are available to residential customers within the targeted Together We Save neighborhoods. Two of the programs are bill payment and/or financial assistance programs (Me2 and We Energies Low Income Pilot).

There are four programs that specifically have energy efficiency and savings targets: WAP, Targeted HPWES, HPWES, and the iCanConserve Community Pilot. All have the objective of increasing households' energy efficiency through the installation of energy efficient equipment. At minimum, these programs (along with Together We Save) provide shell measures, but also may include equipment and/or appliance measures as well. A more detailed analysis of measures included in each program is provided further within this chapter.

Table 4-1 outlines the program design components of each of the programs. There are a variety of notable differentiations in the Together We Save program design compared with the other programs. The first is the role of the Community Advocate and walk-through audit services. Only the Together We Save Pilot program and the iCanConserve Pilot in Brillion, Wisconsin include Energy Advocates in their program design. WAP is administered through community agencies; however, the level of interaction of these agency representatives with participants is generally limited to the intake of the application and potentially minimal case management.

Another differentiator in the Together We Save with the four energy efficiency programs detailed in the table is the eligibility requirements for participation (e.g., income, neighborhood, homeownership). However, all Together We Save Pilot program participants are eligible to participate in at least one of the other residential efficiency programs detailed with the exception of the iCanConserve Community Pilot, which is offered only to customers within a specified community.

The Together We Save Pilot provides a similar level of financial and turnkey benefit as the WAP program to those households at or below 200 percent of the Federal Poverty Level.

4. Comparison with Other Residential Programs

Both programs will pay 100 percent of program benefits to customers, and both offer turnkey options. The distinctions between the two programs are the types of measures included and the community advocate.

The Together We Save Pilot provides significantly higher incentive values to participants that are not eligible for the low-income programs. Higher income households that may participate in HPWES, for example, receive incentives that are rebated and relatively low compared to the 50 percent of total project costs paid by the Together We Save Pilot. It may be for this reason that the Together We Save Pilot is expecting a higher conversion rate (audit to project completion) than Home Performance with ENERGY STAR experiences (approximately 86 percent compared with 61 percent, respectively).

4. Comparison with Other Residential Programs



Table 4-1. Residential Program Design Comparison

Program	Organization	Criteria	Community Advocate	Incentives	Technical Assessment	Equipment Covered	Turnkey Offering
Together We Save	Focus on Energy	Homeowner in participating neighborhood	Yes	Tiered based on income. Coverage from 100% to 50%.	Yes - no cost	Heating, cooling, insulation, air sealing, hot water, direct install. Required to install all recommended measures.	Yes
Wisconsin's Weatherization Assistance Program (WAP)	State of Wisconsin	Received WHEAP funds or equal to or less than 60 percent of Wisconsin's state median income.	No	100% coverage	Yes - no cost	Weatherization services including insulation and air sealing. Required to install all recommended measures.	No
Targeted Home Performance with ENERGY STAR (Targeted HPWES)	Focus on Energy	Homeowner and fall within income range.	No	Tiered based on income. Coverage from 100% to 50%.	Yes - no cost	Heating, cooling, insulation, air sealing, hot water, direct install. Required to install all recommended measures.	No
Home Performance with ENERGY STAR (HPWES)	Focus on Energy	Homeowner	No	Cash-back Rewards	Yes - at cost	Heating, cooling, insulation, air sealing, hot water. Assessor receives a completion reward if top three recommended shell/insulation measures are completed in addition to air sealing (if applicable).	No
iCanConserve Community Pilot	WPS, Focus on Energy	Live in Brillion, Wisconsin.	Yes	Tiered based on income. Coverage from 90% to 50%	Yes	Heating, cooling, insulation, air sealing, hot water, direct install. Required to install all recommended measures.	Available but not required
We Energies Low Income Pilot	We Energies	Participating in the Wisconsin Home Energy Assistance Program and payment troubled	No	Bill payment assistance; referral only to WAP	No	This program provides a referral mechanism to a low income weatherization program provided through We Energies. The program focuses on high energy.	N/A

We next characterized the benefits and services participants receive under each of these programs. Table 4-2 compares the four programs in terms of their wait time from application to services, cost per unit for providing services to the home, and percentage of households receiving specific measures.

Although the amount of time between application to measure installation was not ideal for Together We Save (as discussed in Chapter 3), it is generally much shorter than the wait time for WAP or Targeted HPWES. Both WAP and Targeted HPWES wait times average about three times longer than the Together We Save pilot. The WAP program process can be as long as years, particularly given the influx of ARRA funds that are increasing the case load for the program. Targeted HPWES also has a long wait list, as long as three years long. Note that the Together We Save database only includes dates for the initial audit and technical assessment report; however, based on interviews and customer surveys we identified that the wait time from application to services ranges from one to nine months and averages about 90 days.

The program was initially designed to direct low-income households to WAP if they were determined to be income eligible. However, given these extensive waiting lists, WECC and WAP staff, with the approval of the Public Service Commission of Wisconsin (PSCW), decided that the Together We Save program should provide services to low-income homes identified by the pilot to ensure they are serviced.

A majority of program participants surveyed said they are aware of the other programs available to them (85 percent). Fifteen customers (20 percent) mentioned that the Energy Advocate talked with them about participating in one of the other programs. However, only 19 percent of participants interviewed attempted to contact another program regarding participation. Several of these customers mentioned that participating in the Together We Save program was just easier. A review of the wait time between the programs provides support of why these lower income customers' participation in the Together We Save may be more advantageous to them than waiting to receive services through the statewide program.

The average cost per home for WAP is consistent with the Together We Save Pilot (\$8,679 compared with \$8,103, respectively). However, WAP is a more comprehensive program than Together We Save in terms of the measures provided, not all of which are included in this table. The cost per home served through Together We Save also includes the community advocate time as well, though, which increases costs.

Targeted HPWES also appears to provide potentially deeper energy savings to participants than Together We Save Pilot, although to a lesser extent than WAP. The Targeted HPWES program is more likely to provide air sealing and infiltration measures and heating system replacements than the Together We Save Pilot.

Where it does appear that the Together We Save Pilot is providing deeper savings to residential customers is for those higher income households that are only eligible to participate in HPWES. An analysis of the HPWES database shows that the measures rebated through that program are primarily shell-based improvements (e.g., air sealing and insulation). The Together We Save Pilot goes beyond these shell measures for these higher income customers and provides incentives for heating system, cooling system, and lighting measures. Per unit cost data was not available for HPWES but, based on a review of the program database, appears it is lower than the Together We Save Pilot.

Table 4-2. Wait Time and Benefits by Program

	Together We Save	WAP (Milwaukee)	Targeted HPWES	HPWES
Wait time from application to service¹¹				
Range of time for services	1 to 9 months	6 months to 2 years	1 month to 3 years	1 month to 1 year
Average amount of time for services	90 days from audit to report	210 days	273 days	202 days ¹²
Cost data¹³				
Average cost per unit weatherized: <=200% FPL	\$8,679	\$8,103	NA	NA
Average cost per unit weatherized: 200%–250% FPL ¹⁴	\$4,721	NA	\$7,441	NA
Average cost per unit weatherized: 251%–300% FPL	\$3,596	NA	NA	Not available
Over 300% FPL	\$2,310	NA	NA	NA
Measure data (percentage of households received)¹⁵				
Air sealing	70%	100%	99%	79%
Chimney liner	0%	57%	20%	1%
Exhaust fan	54%	43%	46%	28%
Insulation (wall, attic, etc.)	77%	96%	92%	93%
Water heater (fuel conversion only for HPWES)	34%	10%	37%	1%
Central air conditioner	9%	0%	14%	0%
Heating system (boiler/furnace)	33%	62%	58%	4%
Pipe wrap	46%	97%	0%	0%
Low-flow showerhead	54%	59%	26%	0%
Faucet aerators	46%	86%	35%	0%
Lighting	65%	99%	95%	0%
Population size	99	265	435	908

¹¹ Sources of wait time statistics for WAP are personal communications with the Wisconsin Department of Administration on March 10, 2010, and the WisWAP database *Weatherized Unit Duration* report taking average days from application create date to job completion date for La Casa de Esperanza and Social Development Commission as of March 12, 2010 (2010 participants). Wait time statistics for THPWES are obtained through database analysis of program participants in 2009.

¹² Source of HPWES wait time data is communications with WECC staff March 21, 2010.

¹³ Source of cost data for WAP is the WisWAP Database *Average Invoice Costs per Unit* report for Social Development Commission as of March 12, 2010 (2010 participants). THPWES cost data obtained through program database analysis of program participants in 2009.

¹⁴ We recognize that WAP and THPWES changed their eligibility requirements to include state median income, which may fall outside the income categories detailed within this table. As this table is for characterization purposes only, we retain the income classifications that correspond to Together We Save.

¹⁵ Source of WAP measure data is the WisWAP Database *1-4 unit Measure Frequency and Average Job Cost* report for single family households as of March 12, 2010 (2010 participants). THPWES measure data is obtained through program database analysis of program participants in 2009 and HPWES data is through the database analysis of CY09 participants. Number of furnaces/boilers obtained by comparing program and EHCI data.

4. Comparison with Other Residential Programs

As this analysis shows, there are similarities in the residential offerings provided in Wisconsin. However, as detailed throughout this report there are also distinct differences in program design and service delivery between the Together We Save pilot and other residential programs available in the Southeastern Wisconsin area. Most notably, these differences are the role of the Energy Advocate, the sliding scale co-payment levels based on income, compared with HPWES the turnkey contractor approach and increased types of measures included in the program.

It is not enough to identify the distinctions in design, however. We need to go further and identify whether there are distinctions in program outcomes. To summarize the information above, we see the following distinctions in program outcomes compared with these other programs:

- **Deeper energy savings.** One indicator of program outcomes consistent with the Together We Save Pilot objective is deeper energy savings than is otherwise provided to customers. We can identify via the measure analysis that the pilot has the potential for providing deeper energy savings compared with HPWES; however, more sophisticated analysis on this topic is not possible provide this process evaluation's scope of work. Compared with WAP and Targeted HPWES, both of which are comprehensive whole-house programs, we would expect Together We Save to result in the similar level of savings as these two programs provided the comprehensiveness of the measures installed through Together We Save.
- **Accelerated installation of measures.** The Together We Save Pilot is generally getting efficiency measures into the homes earlier than if customers had participated in WAP or Targeted HPWES. The average wait time is a third of these two programs. No data exists for HPWES to add to the comparison.
- **Increased audit to project conversion rate.** The Energy Advocate role serves a variety of functions, one of which is to facilitate the process from the initial audit to project completion. Additionally, the Together We Save pilot pays a significantly higher portion of the project costs compared with HPWES. The Together We Save database analysis indicates a higher conversion audit to program conversion rate compared with HPWES, indicating an outcome distinction potentially resulting from the energy advocate role and/or the incentive values. Program dropout rates for the WAP and Targeted HPWES programs were not readily available for this analysis.

Even with these outcome distinctions, it is unclear whether it would be possible to maintain these outcomes should the program expand into other areas of the state. The high incidence of low-income customers in the program increases the cost per completed unit and it is unclear whether the program would experience the same reduced wait time should the program begin to serve more than the 100 customers targeted in this pilot. Certainly the program will need a significant program management infrastructure across the territories served to be able to maintain the performance should it expand beyond 100 households for these lower income households.

5. SUMMARY AND CONCLUSIONS

5.1 SUMMARY

The Together We Save Pilot provides a community-based residential offering to select Milwaukee residents. Both program staff and program participants spoke favorably of the program, their interaction with WECC and other staff, and the community-based program design.

The localities chosen by COWS and the City of Milwaukee for program services were selected based on a perceived financial need as they were determined to be low to moderate-income areas. The distribution of households within specified federal poverty levels confirm that the residents within these neighborhoods that participate in the program are within the low to moderate income levels.

However, while the program is serving an intended lower income population, a significantly higher percentage of households than initially anticipated have a low enough income to participate in other social service programs, including the Weatherization Assistance Program. Although it was not initially the intention of the program to serve this group of households, WECC and weatherization staff, with approval from the PSCW, jointly agreed that it would be beneficial for the program to serve these customers to ensure they receive energy efficiency services in a timelier manner than the weatherization program expected they could provide. And the comparative analysis shows that this is the case; Together We Save pilot participants are receiving services quicker than those that apply for WAP.

Serving this income classification, while from a social perspective is beneficial to the community and program, increases the cost to the program. The homes are more costly to provide services to and the participants do not contribute toward the project value. In considering the direction of the program in the future, these additional costs will need to be considered.

Additionally, devoting resources to the lower income households means the program is not serving the number of moderate-income households it could be. These moderate-income households may be financially constrained as well but without the social service infrastructure to support energy efficiency efforts. It may be that the ability to promote deeper efficiency services to these customers are overshadowed by program's expansion into the low income pool.

All program staff interviewed identified the Energy Advocate as a differentiating program element that is particularly beneficial for the program. Another differentiating programmatic component—the turnkey service offering—received less enthusiastic response. It is not that the turnkey approach is not viewed favorably; rather, it is not identified as the most effective programmatic component. The participant surveys validate this perspective.

The most significant process issue identified in this evaluation relates to the amount of time between the pre-assessment and recommendations reporting, an area of dissatisfaction reported by both program staff and participants. There are various areas where breakdowns could be occurring. The first is the fact that one individual is responsible for reviewing and approving all reports compiled by program consultants. This single individual is time constrained as he works with multiple programs. Program managers may need to consider

working with a project coordinator who can devote more time to this program or including another coordinator to facilitate the flow of project reporting.

Another potential reason for delays is the need for additional program training. A number of program staff interviewed commented that there was a need for the coordinator to personally visit households and spend additional time confirming the recommendations made by the consultants. These activities indicate a need for additional training of either the project coordinator or the consultants.

In considering expanding the pilot, the program needs to consider the program management infrastructure and whether it will be able to maintain the positive, unique outcomes resulting from this program as outlined in Chapter 4. For example, the positive outcome of being able to service customers time-effectively when compared with other programs may be limited by the resources available to continue moving projects forward effectively should the pilot continue to serve higher need households such as those with lower incomes.

5.2 RECOMMENDATIONS

This section details recommendations for WECC consideration based on the key process evaluation findings documented in this report.

Continue to include the role of an Energy Advocate should this program continue.

Interviews with both program staff and customers strongly suggest that the Energy Advocate is a key role in the program, providing a high level of customer service throughout the entire process. The Energy Advocates spent six to eight hours with each household. Evidence suggests that they were influential in program participation and provide some level of direct and indirect energy savings.

Although a key element for this program, the cost implications of providing this role may not make it feasible to include this role in other programs, especially those targeting a higher number of households. We would recommend the Energy Advocate role be reserved for harder-to-reach households (such as lower to moderate incomes not served by other programs) rather than long-standing programs that do not experience significant participation barriers.

Consider providing more staffing resources to the project coordinator position.

Interviews with program staff suggest that many of the delays experienced by the program were a result of a backlog of work between the consultants and the program coordinator. Increasing the level of effort from the program coordinator role or adding additional staff to this role could allow the coordinators to address consultant reports in a timelier manner, therefore getting them back to the customers in a more consistent timeframe.

Consider the indirect program costs of including the turnkey contractor program offering in future program designs balanced against the benefits realized by customers.

Allowing customers to select contractors from a list of pre-approved firms instead of operating turnkey might increase overall program efficiency. While there is some customer interest in using turnkey, pre-selected contractors, this component is having little influence on the customers' decision to install the recommended equipment and is over-shadowed by the financial incentives and technical assessment. If eliminated as a program component, several steps in the assessment review and approval process could be more flexible and therefore, reduce some of the delays seen at this stage. This increase in efficiency should offset any

increased burden on the customer by having to choose the contractor. In addition, this change would also reduce the amount effort required from WECC program staff to act as “general contractors,” solving problems and coordinating efforts between installation contractors and customers. This contractor design would be similar to the offerings in the Brillion and Home Performance programs.

For future implementations of similar programs, revisit the incentive structure, as there is some evidence that incentives may be too high. In future program designs, program staff should revisit the Together We Save tiered incentive structure and consider reducing the top incentive tier for each income level. A majority of customers across all income levels would have participated in the program if they had been asked to pay a larger percent of the total project cost. Please note, however, that this recommendation is based on few observations per each income category and further research with the full population of program participants once work is complete may provide more substantive data on this topic.

Consider the cost-effectiveness and program overlap of including the lowest income category and/or targeted neighborhoods in future program design. As a significant portion of current participants fall below the 200 percent Federal Poverty Level, this program is serving a population that is currently being served by the state Weatherization Assistance Program. These households, on average, incur the highest overall project costs (nearly twice as much as the lowest income level) and the program subsidizes the full value of these costs. Although the evaluators acknowledge that social benefits may outweigh cost-effectiveness in this program design, which may be a consideration for WECC and the PSCW, there is a question of whether the limited program funds are effectively reaching a population that may not have otherwise been served. Furthermore, the fact that the program is serving these lowest income households means the moderate-income households, who may also have significant needs (and who can contribute to the cost of the project) are not being served.

The program will need to consider whether it is both cost-effective to continue to serve this population and whether it meets the program’s goals to provide deeper energy savings to households with moderate as well as low incomes. The potential to provide deeper savings to moderate income households that would only be eligible for HPWES may outweigh the benefits of serving these lower income households earlier than possible through the low-income programs.

Include site visits in future program evaluations. Including site visits as part of evaluation activities would allow evaluators to better understand the role of the Energy Advocate and the walk-through audit. Though this would increase the overall evaluation budget, given the key role of the Energy Advocate, a better understanding of this program stage would allow for findings that are more concrete.

Encourage Energy Advocates to install low-cost measures during all audits. If feasible, have the Energy Advocate direct install CFLs and low-flow water devices for all homes they visit to minimize lost opportunities. This practice will ensure some level of education and savings even if the participant chooses not to move forward with additional program services.

Reinforce the need for leave-behind materials to be a larger part of the walk-through audit experience. Reintroduce the education materials and folders to the Energy Advocates and reinforce the message that these materials should be distributed to all participants. At minimum, the program should provide Energy Advocates with general materials such as a guide to saving energy, although the program should also consider more customized

5. Summary and Conclusions

materials for program participants that include recommendations made through the walk-through audit. Per conversations with WECC, the program has since developed a triplex audit form for the Energy Advocate's completion, a copy of which can be left with the program participant after the walk-through audit.

Continue to provide formal training for the Energy Advocates, consultants, and project coordinator. The program provides training to the Energy Advocates and other program staff. However, the process evaluation identified the need to reinforce the concepts introduced at this training or expand on the training issues. One Energy Advocate mentioned that the training developed for the Energy Advocates for Brillion was an improvement over the training provided through the Together We Save program as it built off the lessons learned from the initial Together We Save training. The training should be completed with the objective of providing customers with consistent services and moving projects through the program more efficiently and effectively. Current Energy Advocate training includes more direct training on how to demonstrate certain energy saving behaviors to homeowners, such as programming a thermostat and changing television and computer settings.

APPENDIX A: PARTICIPANT INTERVIEW

Sample variables

[participant name]
 [participation date]
 [participation stage]
 1 Audit complete/no assessment (drop-outs)
 2 Waiting for assessment
 3 Assessment complete
 4 Completed
 [income level]
 [recommendations]
 [total cost]
 [incentive]
 [participant cost = total cost – incentive]
 [equipment from audit]
 CFL
 Showerhead
 Faucet aerator
 [equipment recommended replaced]
 Boiler
 Air conditioning
 Furnace
 Heating equipment
 Water heater

Introduction and recall

INTRO Hello. My name is [interviewer name] and I'm calling from PA Consulting Group on behalf of the Together We Save program in Milwaukee. May I please speak with [participant name]?

- 1 Respondent comes to the phone (*SKIP TO A0*)
- 2 Respondent unavailable (*SCHEDULE CALLBACK*)
- R (Refused) (*THANK & TERMINATE*)

According to our records, you participated in the Together We Save program on **[date]**. I'm with PA Consulting Group, an independent research firm, and I am calling to learn about your experiences with the program.

I'm not selling anything; I'd just like to ask your opinion about this program. I'd like to assure you that your responses will be kept confidential and your individual responses will not be revealed to anyone.

For quality and training purposes this call will be recorded.

(Who is doing this study: The Public Service Commission of Wisconsin, which oversees the Focus on Energy programs, is overseeing evaluations of the energy efficiency programs being installed through different programs.)

(Why are you conducting this study: Studies like this help the state of Wisconsin better understand residential customers' need for and interest in energy programs and services.)

(Timing: This survey should take less than 10 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 1-800-935-4277)

(Sales concern: I am not selling anything; we would simply like to learn about your experience with Together We Save program in Milwaukee. Your responses will be kept confidential. If you would like to talk with someone from the Public Service Commission about this study, feel free to call Oscar Bloch at 608-264-8267.)

A0 Do you recall participating in the Together We Save program?

- 1 Yes
- 2 No (*THANK & TERMINATE*)
- D (Don't know) (*THANK & TERMINATE*)
- R (Refused) (*THANK & TERMINATE*)

A1 How did you first hear about the Together We Save program?

- 1 Energy Advocate
- 2 Newspaper advertisement
- 3 TV advertisement
- 4 Internet
- 5 Family/Friend/Neighbor/Co-worker
- 6 Community event/workshop
- 7 Utility staff
- 8 Wisconsin Energy Conservation Corporation (WECC)
- 9 Something else (*SPECIFY*)
- 10 Mailing (letter/postcard)
- 11 Door hanger
- 12 Yard sign
- 13 Local community group meeting or newsletter
- D (Don't know)
- R (Refused)

Confirm program stages

B1

Our records show that:

[IF PROGRAM STAGE = 1] you completed a walk-through audit with an energy advocate but decided not to have a technical assessment conducted.

[IF PROGRAM STAGE = 2] you completed a walk-through audit with an energy advocate and are waiting for a technical assessment of your home.

[IF PROGRAM STAGE = 3] you completed a walk-through audit with an energy advocate and a technical assessment of your home with a program consultant.

[IF PROGRAM STAGE = 4] you completed a walk-through audit with an energy advocate, a technical assessment of your home, and have had the recommended work completed.

Is that correct?

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

(IF B1 = Yes)

B1a Has the program provided any further services to you?

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

(IF B1 = No or B1a = Yes)

B1b What was the last stage of the program that you completed? [READ LIST STARTING WITH PROGRAM ELEMENT AFTER LAST STAGE RECORDED]

- 1 Walk-thru audit
- 2 Technical assessment
- 3 Received written report
- 4 Signed off on recommendations
- 5 Contractor work completed
- 6 Something else (*SPECIFY*)
- D (Don't know) (*THANK & TERMINATE*)
- R (Refused) (*THANK & TERMINATE*)

[CATI PROGRAMMING: RECODE PROGRAM STAGE BASED ON RESPONSES]

Energy Advocate

EA0a Our records show that, during a walk-through of your home, the Energy Advocate provided you with:

[LIST EQUIPMENT: CFLs, low-flow showerheads, or faucet aerators]

Is this information correct?

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

(If EA0a=No)

EA0b What is incorrect? [INDICATE ALL THAT APPLY]

- 1 Did not receive any equipment
- 2 Did not receive CFLs
- 3 Did not receive low-flow showerheads
- 4 Did not receive faucet aerators
- 5 Received other equipment (*SPECIFY*)
- D (Don't know)
- R (Refused)

EA0c1 Did the Energy Advocate give you or install any equipment such as light bulbs faucet aerators, or showerheads during the walk-through audit?

- 1 Yes (*SKIP TO EA1A*)
- 2 No
- D (Don't know)
- R (Refused)

EA0c11 What did the advocate install or give you?

- 1 CFL
- 2 Faucet aerators
- 3 Low-flow showerheads
- 4 Something else (*SPECIFY*)
- 5 (Don't know)

A.: Participant Interview

If EA0a=Yes or EA0b<>1)

EA0c2 Is the equipment still installed?

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

(IF EA0c = 2)

EA0d What has been removed?
[INDICATE ALL THAT APPLY. READ IF NECESSARY.]

- 1 CFLs
- 2 Low-flow showerheads
- 3 Faucet aerators
- D (Don't know)
- R (Refused)

(IF EA0c = 2)

EA0e Why did you remove that equipment?

[ENTER VERBATIM RESPONSE]

EA1a During the walk-through audit, did the energy advocate talk with you about ways you can save energy in your home or the equipment in your home?

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

(IF EA1a = 1)

EA1b What information did the energy advocate provide to you? (DO NOT READ; INDICATE ALL THAT APPLY)

- 1 Replace old equipment with new, higher efficiency equipment
- 2 The benefit of using CFLs instead of incandescent bulbs
- 3 Remove unnecessary appliances (e.g. refrigerator, room air conditioner)
- 4 Turn off lights when not in the room
- 5 Change thermostat setting during the day/evening
- 6 Clean furnace filters
- 7 Put plastic or weather stripping on windows to avoid drafts
- 8 Change other behaviors to save energy (Specify behaviors)
- 9 Financial advice about installation costs and return on investment
- 10 Something else (SPECIFY)
- 11 Use power strip
- 12 Turn off TV and other electronics when not in use
- 13 (Don't know)
- 14 (Refused)
- 15 Insulation measures*
- 16 General information*

EA2 Because of the information you received from the energy advocate, do you feel you now know more about saving energy in your home?

- 1 More
- 2 About the same
- D (Don't know)
- R (Refused)

EA3 Has the Energy Advocate continued contact with you beyond the initial walk-through audit?

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

(If EA3=Yes)

EA4 What other services has the Energy Advocate provided?
[INDICATE ALL THAT APPLY]

- 1 Worked with me to schedule the visit from the consultant to deliver the technical assessment
 - 2 Visited to explain the findings in the technical assessment
 - 3 Visited during the technical assessment
 - 4 Worked with me to schedule contractor visits
 - 5 Translation services
 - 6 Visited to help gather proof of income information
 - 7 Helped with paperwork
 - 8 Other (SPECIFY)
- D (Don't know)
R (Refused)

(IF PROGRAM STAGE = technical assessment completed (3) or work completed (4))

EA5 On a scale of 0 to 10, with 0 being not at all important and 10 being very important, how important do you feel the services provided through the Energy Advocate were in your decision to [INSTALL THE TECHNICAL ASSESSMENT/MOVE FORWARD WITH THE RECOMMENDED PROJECT WORK]?

____ Rating
D (Don't know)
R (Refused)

Technical assessment

(IF PROGRAM STAGE = audit/no assessment (1) or waiting on assessment (2))

EA6 Did you schedule an assessment with one of the program's technical consultants?

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

(IF EA6 = No)

EA7 Why not? [INDICATE ALL THAT APPLY]

- 1 Interested in services or equipment that were not covered by the program
 - 2 Program was unable to assess my home due to technical limitations (SPECIFY LIMITATIONS)
 - 3 Unwilling to provide income verification
 - 4 Unable to provide income verification (WHY?)
 - 5 Some other reason
- D (Don't know)
R (Refused)

EA7b What services or equipment were you interested in that the program did not cover?

[ENTER VERBATIM RESPONSE]

(IF PROGRAM STAGE = audit complete/no assessment, SKIP TO M1)

(IF PROGRAM STAGE = technical assessment completed (3))

TA1 After the walk-thru audit, how long did it take to have the technical assessment conducted at your home?

[INTERVIEWER: IF SCHEDULED BUT NOT YET CONDUCTED, HOW LONG DID IT TAKE TO SCHEDULE IT]

___ Enter number of days (7 days/week, 30 days/month)

D (Don't know)

R (Refused)

(IF PROGRAM STAGE = technical assessment completed (3))

TA2a During the technical assessment of your home, did the consultant talk to you about ways you could save energy in your home?

1 Yes

2 No

D (Don't know)

R (Refused)

(IF TA2a = Yes)

TA2b What kind of information did you receive during the technical assessment?

[ENTER VERBATIM RESPONSE]

(IF PROGRAM STAGE = technical assessment completed (3) OR EA3 = Yes)

TA3a Have you received the written report from the consultant containing his recommendations?

1 Yes

2 No

D (Don't know)

R (Refused)

(IF TA3a = Yes)

TA3b About how long did it take to receive the written report?

___ Days

___ Weeks

___ Months

D (Don't know)

R (Refused)

A.: Participant Interview

(IF TA3a = Yes)

TA3c What kind of recommendations did the report contain?

[ENTER VERBATIM RESPONSE]

(IF TA3a = Yes)

TA3d Was the report easy to understand?

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

(IF PROGRAM STAGE = technical assessment completed (3) or work completed (4))

TA3e If you had questions for the consultant, did they answer them in ways that you could easily understand?

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

(IF PROGRAM STAGE = technical assessment completed (3))

TA4 Do you plan to follow the recommendations made by the consultant?

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

(IF TA4 = No)

TA5 Why not? [DO NOT READ; INDICATE ALL THAT APPLY]

- 1 Cannot afford to have the work completed at this time
- 2 Did not agree with the recommendations made through the technical assessment (What didn't you agree with?)
- 3 Want to only do a part of the work, not all of it as required
- 4 Want to use own contractor
- 5 Unwilling to provide income information to the program
- 6 Other (SPECIFY)
- D (Don't know)
- R (Refused)

(IF TA5 <> 5)

TA6 Has the program requested that you provide information regarding your household income in order to determine how much you would contribute to the project?

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

(IF TA6 = Yes)

TA7 Do you plan to provide that information to the program?

- 1 Yes, plan to provide
- 2 Yes, already provided
- 2 No, do not plan ot provide
- D (Don't know)
- R (Refused)

(IF TA7 = No)

TA8 Why not?

[ENTER VERBATIM RESPONSE]

Contractor

CT3 Would you have been as likely to participate if you had to hire your own contractor?

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

CT4 Would you have preferred to select the contractor yourself, even if it was limited to a few pre-selected contractors?

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

(ONLY ASK SECTION IF PROGRAM STAGE = work completed (4))

CT6a How long after the technical assessment did the contractor begin the work on your house?

- ___ NUMBER OF DAYS
- ___ NUMBER OF WEEKS
- ___ NUMBER OF MONTHS
- D (Don't know)
- R (Refused)

(ONLY ASK SECTION IF PROGRAM STAGE = work completed (4))

CT6b Was this an acceptable time frame for you?

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

(ONLY ASK SECTION IF PROGRAM STAGE = work completed (4))

CT9a If the contractor needed to return to complete the work, did they schedule this time with you?

- 1 Yes
- 2 No
- 3 Did not need to return
- D (Don't know)
- R (Refused)

(IF CT9a = 3, SKIP TO CT10)

CT9b Did they explain why they needed to return?

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

(ONLY ASK SECTION IF PROGRAM STAGE = work completed (4))

CT10 Were the contractor employees respectful and considerate?

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

(ONLY ASK SECTION IF PROGRAM STAGE = work completed (4))

CT11 Did the contractor leave your home in an acceptable condition?

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

(ONLY ASK SECTION IF PROGRAM STAGE = work completed (4))

CT12 Did the contractor complete your job in an acceptable amount of time?

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

Program influence on replacement

(IF TA4 = Yes)

T12 Without this program, would you have installed all, part, or none of the equipment/efficiency improvements that (were/will be) installed through the program?

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

(IF T12= Part)

T13 What wouldn't you have done?

[ENTER VERBATIM RESPONSE]

(IF T12=All or Part)

T14 Would you have done it at the same time??

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

T16a Thinking of the equipment that you (had/will be) installed through the program, are you familiar with the different levels of efficiency available for that equipment?

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

(IF T12=All or Part and T16a = Yes)

T16b *(IF T12 = Part* “For the equipment that you would have installed without the program,”) Would you have installed equipment with the same level of efficiency or would you have installed less efficient equipment?

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

T17 Can you please describe what impact, if any, the Together We Save program had on your decision to install the [measure] at the time you did?

[ENTER VERBATIM RESPONSE]

(ASK F2 FOR EACH MAJOR PIECE OF RECOMMENDED EQUIPMENT EXCEPT INSULATION)

F2 How would you describe the working condition of the old [equipment]? Was it in good, fair, poor working condition or did it not work at all?

- 1 Good
- 2 Fair
- 3 Poor
- 4 Did not work
- D (Don't know)
- R (Refused)

F3 Did any of the recommendations provided come as a surprise to you? Which ones?

[ENTER VERBATIM RESPONSE]

Program financial assistance - incentive

(IF COVERAGE AVAILABLE IN SAMPLE)

FI1a Our records indicate that the program [covered / will cover] [**incentive**] of the total cost of the recommendation. That would mean your cost for the project was [**participant cost**].

If you had to pay [**(total cost - (total cost * .9)) - participant cost**] [if *program did not pay 100%: more*] more of the cost to install the equipment, would you still have gone forward with the project?

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

(IF FI1a = Yes)

FI1b What about [**(total cost - (total cost * .75)) - participant cost**] [if *program did not pay 100%: more*]?

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

(IF FI1b = Yes)

FI1c [**(total cost - (total cost * .5)) - participant cost**] [if *program did not pay 100%: more*]

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

IF FI1c = Yes)

FI1d [**(total cost - (total cost * .25)) - participant cost**] [if *program did not pay 100%: more*]

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

A.: Participant Interview

(IF FI1d = Yes)

FI1e Would you have paid for the entire project ?

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

(IF PROGRAM STAGE = work completed OR TA4 = 1)

FI2 On a 0 to 10 scale, with 0 being not at all influential and 10 being very influential, how influential was the financial incentive provided by the program in your decision to install the recommended equipment?

- __ Enter influence on 0-10 scale
- D (Don't know)
- R (Refused)

Program financial assistance – financing options

(IF CUSTOMER COST > 0)

FO1 As part of the program, were you interested in using any of the financing or payment plan options to pay for your share of the project cost?

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

FO2a Did anyone in the program discuss the financing or any of the payment plan options available through the program?

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

(IF FO2a = Yes)

FO2b Did you consider any of these financing options?

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

(IF FO2b = Yes)

FO2d Which ones?

[ENTER VERBATIM RESPONSE]

(IF FO2b = No)

FO2e Why not?

[ENTER VERBATIM RESPONSE]

Household changes

(ASK SECTION OF EVERYONE)

M1 I am going to read to you a list of activities you could do to save energy in your home. Please tell us if you have done any of these activities since participating in the program.

	Did you...on your own since participating in the program?	[IF YES] Did you ... because of what you learned about through the program?
A. Install compact fluorescent light bulbs	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
B. Wash laundry in cold water	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
C. Lower your water heater temperature	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
D. Change the furnace filter	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
E. Insulate your water heater and pipes	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
F. Seal up leaky windows or doors with caulk, plastic, or other materials to avoid drafts	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
G. Turn off lights when leaving the room?	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
H. Unplug electronics and appliances when not in use	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA
I. Turn down your thermostat in the winter?	1 Yes 2 No D DK N NA	1 Yes 2 No D DK N NA

M2 Did the program teach you about any other ways to save energy in your home that we haven't already mentioned?

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

(IF M2 = Yes)

M3 What were they?

[ENTER VERBATIM RESPONSE]

(IF M2 = Yes)

M4 Are you currently doing any of those activities on your own since participating in the program?

- 1 Yes (*Which ones?*)
- 2 No
- D (Don't know)
- R (Refused)

Program component ranking

(IF PROGRAM STAGE = audit complete/no assessment SKIP TO E1)

S0 I'm going to read a list to you. Please tell me which of them was **MOST** influential in your decision to participate in the program. [READ LIST]

- 1 The neighborhood Energy Advocate
- 2 The energy assessment provided by a technical consultant
- 3 The financial incentive provided by the program (rebates)
- 4 Any financing or payment plan options provided by the program (loans)
- 5 Having the contractor selected for you (turnkey)
- 6 Something else we didn't mention? (SPECIFY)
- D (Don't know)
- R (Refused)

(IF PROGRAM STAGE = work completed or TA4 = 1)

S1 Of those, which was **MOST** influential in your decision to follow recommendations made by the program. [READ LIST AS NEEDED]

- 1 The neighborhood Energy Advocate
- 2 The energy assessment provided by a technical consultant
- 3 The financial incentive provided by the program (rebates)
- 4 Any financing or payment plan options provided by the program (loans)
- 5 Having the contractor selected for you (turnkey)
- 6 Something else we didn't mention? (SPECIFY)
- D (Don't know)
- R (Refused)

(IF PROGRAM STAGE = work completed or TA4 = 1)

S2 Could you tell me the **SECOND** most influential element in your decision to follow recommendations made by the program? [READ LIST AS NEEDED, EXCLUDE A6a ANSWER FROM LIST]

- 1 The neighborhood Energy Advocate
 - 2 The energy assessment provided by a technical consultant
 - 3 The financial incentive provided by the program (rebates)
 - 4 Any financing or payment plan options provided by the program (loans)
 - 5 Having the contractor selected for you (turnkey)
 - 6 Something else we didn't mention? (SPECIFY)
- D (Don't know)
R (Refused)

(IF PROGRAM STAGE = work completed or TA4 = 1)

S3 And could you tell me what the **LEAST** influential element was? (READ LIST AS NEEDED, EXCLUDE A6a & A6b ANSWERS FROM LIST)

- 1 The neighborhood Energy Advocate
 - 2 The energy assessment provided by a technical consultant
 - 3 The financial incentive provided by the program (rebates)
 - 4 Any financing or payment plan options provided by the program (loans)
 - 5 Having the contractor selected for you (turnkey)
 - 6 Something else we didn't mention? (SPECIFY)
- D (Don't know)
R (Refused)

S4 On a 0-10 scale, with 0 being "not at all satisfied" and 10 being "very satisfied", how satisfied are you with the...[ROTATE LIST]

S4a ___ walk-thru audit initially completed by the community energy advocate

S4b ___ [IF PROGRAM STAGE > 1] technical assessment completed by the program's consultant

S4c ___ application process

S4d ___ community energy advocate you worked with

S4e ___ amount of the rebate [you received/you will receive]

S4f ___ [IF EQUIPMENT IS INSTALLED] equipment installed

S4g ___ [IF EQUIPMENT IS INSTALLED] contractors you worked with to install the equipment

S5 On a 0–10 scale, with 0 being "not at all satisfied" and 10 being "very satisfied", how satisfied are you with your experiences with the program overall?

___ Rating

D (Don't know)

R (Refused)

S6 If there were one thing that you could change about the program to make it better, what would you change?

[ENTER VERBATIM RESPONSE]

Other programs

E1 I'd like to ask you about some other energy efficiency programs in Wisconsin. First, could you tell me if you are familiar with the following programs?

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

E1a1 State Weatherization Assistance Program

E1a2 Targeted Home Performance with ENERGY STAR

E1a3 We Energies Residential Assistance Program

E1a4 Home Performance with ENERGY STAR (Interviewer note: this is NOT an income qualifying program)

E1a5 We Energies Low Income Pilot program

(IF SAY YES TO ANY PROGRAMS IN E1)

E1b Prior to your involvement in the Together We Save program, did you contact any of the programs just mentioned to receive assistance for your home?

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

(IF YES TO E1B)

E1c Which programs did you contact? (INDICATE ALL THAT APPLY. READ LIST IF NECESSARY)

- 1 State Weatherization Assistance Program
- 2 Targeted Home Performance with ENERGY STAR
- 3 We Energies Residential Assistance Program
- 4 Home Performance with ENERGY STAR [INTERVIEWER NOTE: THIS IS NOT AN INCOME QUALIFYING PROGRAM]
- 5 We Energies Low Income Pilot program
- D (Don't know)
- R (Refused)

A.: Participant Interview

E1d Are there other programs you contacted that we did not mention?

- 1 Yes (*Record program name(s)*)
- 2 No
- D (Don't know)
- R (Refused)

E2 Did the energy advocate tell you that you could participate in the [Weatherization Assistance Program/Targeted Home Performance with ENERGY STAR Program] rather than this program?

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

(IF E1a, E1b, or E2 = Yes)

E3 Why did you not participate in the Weatherization Assistance or Targeted Home Performance with ENERGY STAR program in the past?

[ENTER VERBATIM RESPONSE]

House Characteristics

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

H2 How long have you lived at your current residence?

H2_1 _____ Years

H2_2 _____ Months

H4a What is the approximate square footage of your home?

_____ Enter square feet

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

Demographics

D1a We are almost finished. I just have a few additional questions about your household to make sure we are getting a representative sample of participants.

Do you own or rent your home?

- 1 Own
- 2 Rent
- R (Refused)

D1b In what type of building do you live? (READ LIST IF NEEDED)
(PROBE FOR 'Condo': "How many units are in your building?")

- 1 A one-family home detached from any other house
- 2 A one-family home attached to one or more houses
- 3 A building with 2 apartments
- 4 Other (SPECIFY)
- D (Don't know)
- R (Refused)

D3 Including yourself, how many people currently live in your home year-round?

_____ People
D (Don't know)
R (Refused)

(If D3=1)

D4a Which of the following best describes your age?

- 1 Less than 18 years old
- 2 18-24 years old
- 3 25-34 years old
- 4 35-44 years old
- 5 45-54 years old
- 6 55-64 years old
- 7 65 or older
- D (Don't know)
- R (Refused)

(If D3>1)

D4b How many are in the following age groups? (TOTAL SHOULD EQUAL D1)

- 5 years old or younger
- 6 to 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)

D4c 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, LLB, JD)
- 9 Doctorate Degree (PHD, EDD)
- D (Don't know)
- R (Refused)

D8 How much does your household pay for monthly rent/mortgage?

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

(IF INCOME NOT AVAILBLE IN SAMPLE)

D13 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 END*)

2 No

R (Refused) (*Skip to END*)

END Those are all the questions I have for you at this time. Do you have any additional comments you want to make about this program?

[ENTER VERBATIM, THANK, AND END CALL]

APPENDIX B: ENERGY ADVOCATE IN-DEPTH INTERVIEW PROTOCOL

Hello. My name is **[interviewer name]** and I'm calling from PA Consulting Group on behalf of Focus on Energy. May I please speak with **[respondent]**?

I'm with PA Consulting Group and we're conducting an evaluation of the Together We Save pilot in Milwaukee. I'd like to ask your opinions and thoughts about the various program components and how you feel the program is running overall. This interview should take about 20 minutes.

Role in program

- A1. As the energy advocate, what is your role in the program?
- A2. Have you worked with other programs in a similar role? If so, how and when?
- A3. Can you describe your typical interaction with a customer, from start to finish?

Relationship and interaction among program stakeholders

- B1. How did you become involved with the program? Have you worked with Focus on Energy or WECC previously?
- B2. Who do you typically interact with through the program?
- B3. (If not mentioned above) How and when do you interact with the consultants that provide technical assessments? Do you feel you effectively communicate with each other?
- B4. What support do you receive through WECC to administer the program? (Probe for training, outreach materials, responsiveness to questions, etc.). Do you feel the support you receive is sufficient? Why or why not?

Outreach to customers

- C1. How do you recruit customers into the program? Is there a method that you feel is particularly effective?
- C2. What information do you provide to customers when you recruit them into the program?
- C3. Do you refer some customers to other programs such as the Weatherization Assistance Program or the Targeted Home Performance program? If they decide not to participate in those programs, do you know why?
- C4. Are there households that you inform about the program that do not want to participate? **[IF YES]** About what percentage of households you inform about the program do not want to participate in the program? Why did they not want to participate?
- C5. What are the barriers to households' participation in the program in general?

- C6. Are there additional services that the program is not providing that customers have requested? What are they?

Walk-through audit process

- D1. Approximately how long does it take you from program recruitment to schedule a walk-through audit? (If over a week) Why does it typically take that much time? (Probe for inability to reach households, time constraints, etc.)
- D2. What information do you provide to customers when you do the initial walk-through of their home, either verbally or through hand-outs?
- D3. What information do you provide to them in during the audit?
- D4. What information seems to resonate most with households? Does it seem that the information you provide to them is new for them, or are they aware of means to save energy?
- D5. Did WECC provide you with sufficient training to complete the audits? If not, did you gain the knowledge through other experiences and, if so, which ones?

Moving to the next stage

- E1. What is your role in the next step of the program, moving customers to the technical assessment stage? Do you remain engaged beyond the technical assessment?
- E2. Have you worked with participants that do not want to engage in the second stage of the program and have a consultant complete a technical assessment? Why do they not want the consultant to complete the assessment? Are you able to convince them to receive the technical assessment and, if so, how?
- E3. Approximately how long does it take from a referral to the consultant to their scheduling a technical assessment? Are there issues that delay the scheduling? Do you need to follow up to be sure the consultant actually performed the assessment in a timely fashion?
- E4. Do you attend the technical assessment? What percent of the technical assessments would you say you attend?
- E5. Do you find participants responding differently to the two processes (walk-through audit versus technical assessment)? Which process do they seem to find most useful – the walk-thru or the technical?
- E6a. Have you worked with participants who receive the consultant assessment but opt not to follow through with the recommended improvements? If so, do you follow-up with them? What are the barriers for them to performing the recommendations?
- E6b. Do you feel that you are effective in getting participants to follow through with the installation of the recommended measures? What have you found useful in convincing homeowners to follow these recommendations?

- E7. Do you think participants who have completed work would have completed the work they did without the program? Why do you think that?
- E8. Do you feel the consultants provide an adequate level of customer service? Are there any changes that they could make to their assessments that would improve the number of homeowners following their recommendations?

Communications with WECC

- CC1a. How often did you communicate with WECC? Were email and phone calls enough?
- CC1b. How often did you have face-to-face meetings? Were they frequent enough?
- CC2. Did you receive enough support from WECC?
- CC2. Were there any technical issues, such as email or printing information, that hampered their work?
- CC3. Were the forms that you used sufficient? Was the amount of forms reasonable? Were they understandable?

Wrap-up questions

- F1. Do you feel the program has enough resources (staff, budget, materials) to meet the demand? Do you feel that there is anything that will keep the program from reaching its goals?
- F2. What do you think is working well about this program?
- F3. What program component do you feel is most effective in increasing a participant's energy efficiency? What makes that component effective? Are there other components that are particularly effective? Examples:
- Incentives
 - Financing
 - Turnkey approach with contractors
 - Walk-thru audit
 - Technical assessment
 - Community-based Energy Advocates
- F4. What could be changed to make the program more effective? How would you change it if it were offered to a similarly sized audience? If offered to a larger audience?

Conclusion

Thanks. Those are all of my questions. Do you have any comments or feel that there was something that I did not touch on?

APPENDIX C: CONSULTANT IN-DEPTH INTERVIEW PROTOCOL

Introduction

Hello. My name is **[interviewer name]** and I'm calling from PA Consulting Group on behalf of Focus on Energy. May I please speak with **[named consultant]**?

I'm with PA Consulting Group and we're conducting an evaluation of the Together We Save Pilot in Milwaukee. I'd like to talk to you about your involvement in the Together We Save Pilot various program components and how you feel the program is running overall. This interview should take about 20 minutes.

Role in program

- A1. As the energy consultant, what is your role in the program?
- A2. Have you worked with other programs in a similar role? If so, how and when?
- A3. Can you describe your typical interaction with a customer, from start to finish?
- A4. Do you work independently or with others? If with others, do your colleagues also provide energy consulting services? If so, do they offer services through the program?

Relationship and interaction among program stakeholders

- B1. How did you become involved with the program?
- B2. Whom do you typically interact with through the program?
- B3. **(If not mentioned above)** How and when do you interact with the Energy Advocates that work within the community? Do you feel you effectively communicate with each other?
- B4. What support do you receive through Focus on Energy or WECC to administer the program? **(Probe for training, outreach materials, responsiveness to questions, etc.)** Do you feel the support you receive is sufficient? Why or why not?
- B5. Have you worked with Focus on Energy or WECC previously? What other Focus on Energy programs have you worked with? What services did you provide through these programs and to what sectors?
- B6. Did you receive any training as part of your participation in this program? If so, how useful was that training?
- B7. How often do you communicate with WECC? Are communications sufficient?
- B8. What forms or information are required that you provide to WECC and/or participants through the program? Were these requirements communicated effectively?
- B9. Are the requirements and number of forms to be completed reasonable? Are the forms understandable?

- B10. Do you feel the energy advocate provides an adequate level of customer service? Are there any changes that they could make to their interactions with the customer that would increase the customer's overall satisfaction with the program?
- B11. Are Energy Advocates typically present throughout the process? Do you have any comments about the Energy Advocates in terms of their interaction styles, relationship with the participants, or anything else?

Technical assessment process

- C1. Describe the process you go through to provide services to the customers.
- C2. Approximately, how long does it take you to schedule a technical assessment after you receive the referral from the energy advocate? **(If over a week)** Why does it typically take that much time? **(Probe for inability to reach households, time constraints, etc.)**
- C3. What information have customers typically received prior to your first visit with them? Do they communicate anything about what they have learned up to this point? What do they discuss? What service and/or recommendation from the Energy Advocate's audit has the greatest impression on customers?
- C4. What information do you provide to customers when you do the technical assessment of their home **(probe for verbal recommendations, audit reports, etc.)**
- C5. What recommendations do you make most frequently?
- C6. Which of the recommendations identified through the technical assessment resonate most with households? Does it seem that the recommendations you provide to them are new for them, or are they aware they need to make the changes identified? **(Probe for which are new and which they are already familiar with.)**
- C7. **(If earlier they said they interacted with other programs)** What is it about this program that differs from programs offered through Focus on Energy to residential customers? Do you find that one program is more effective in encouraging energy efficiency improvements than others? Which programs are more effective? What about the program makes it more effective? What components are least effective?
- C8. **(If earlier they said they interacted with other programs)** Has the customer's experience with other energy efficiency programs affected their views on the recommendations that you give them? Has it affected their views on the incentives offered by the Together We Save program or the overall cost of work needed?

Interaction with customers

- D1. In your opinion, what are the barriers for households to complete the recommended efficiency improvements? **(Probe for financial barriers, lack of education, working with program-selected contractors, etc.)**
- D2. Are there certain recommendations or services that customers are more hesitant to complete than others? Which ones?

- D3. Are there certain recommendations or services that customers are quick to accept? Which ones?
- D4. Are there additional services that the program is not providing that customers have requested? What are they?
- D5. Do you think participants who have completed work would have completed the work they did without the program? Why do you think that? **(Probe on two things: If they were aware they needed to have the work done or if they had the financial means to have it done.)**

Contractors and post assessment

- E1. (IF ROLE = PROJECT MANAGER) How are contractors selected for the program?
- E2. (IF ROLE = PROJECT MANAGER) What is the process for communicating recommendations to contractors and getting the work done?
- E3. (IF ROLE = PROJECT MANAGER) Once a homeowner has been referred to a contractor how long does it take, on average, for the work to get completed? Are there any contractors that take longer than others? Why is that?
- E4. When you conduct the post-inspection are you finding that the contractors have completed the installations correctly and to a high level of quality?
- E5. Do you see any issues with the work completed?
- E6. What do you see as being the benefits of having pre-selected contractors? What do you see as being the downside of having pre-selected contractors?
- E7. Do you feel that pricing of the work completed by the contractors accurately reflects the cost of those services?

Wrap-up questions

- F1. Do you feel the program has enough resources (staff, budget, materials) to meet the demand? Do you feel that there is anything that will keep the program from reaching its goals?
- F2. What do you think is working well about this program? What do you think is not working well with this program?
- F3. What program component do you feel is most effective in increasing a participant's energy efficiency? What makes that component effective? Are there other components that are particularly effective? Examples:
 - Incentives
 - Financing
 - Turnkey approach with contractors
 - Walk-thru audit

- Technical assessment
- Community-based Energy Advocates

F4. What could be changed to make the program more effective? How would you change it if it were offered to a similarly sized audience? If offered to a larger audience?

Conclusion

Thanks. Those are all of my questions. Do you have any comments or feel that there was something that I did not touch on?