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# ***SMALL TOWN ENERGY PROGRAM – STEP: LITERATURE REVIEW AND BENCHMARKING TASK REPORT***

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## ORGANIZATION OF THE REPORT

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# 1. EXECUTIVE SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

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The STEP program is interested in learning about possible strategies that can improve the program's delivery, customer satisfaction, effectiveness, and cost-effectiveness. Evaluation contractor staff (SERA) were asked to assist in this effort, but to spend a very limited amount of time (because of the limited budget), largely bringing in information that might be already assembled or known to the contractor. The focus was on improved program strategies, on evaluation methods and results to date, and on benchmarking STEP's efforts to date against other programs with a generally-similar "concierge / coach" or Better Buildings program models.

The work consisted of four main efforts:

- Review of existing social marketing literature;
- Review of evaluations of other programs;
- Interviews / surveys / outreach to other better buildings tasks; and
- Review of websites and tools used by other programs.

The main benchmarks and recommendations for STEP follow. The report that follows then provides background information on the detailed information collected that helped drive these conclusions.

## 1.1 Characteristics, Goals, and Budgets

We identified perhaps four dozen programs that were either Better Buildings or concierge / coach models around the country and were able to interview or examine 18 programs. The programs we contacted had budgets from \$10K to more than \$50 million (see Figure 1.1). Our research finds that a quarter of these programs addressed only the residential sector; another one-third covered both residential and commercial buildings. Most (three-quarters or more) included five key services: coaches, discounted audits, measure rebates, financing / loans, and approved contractor lists. Most also stated their goals in terms of a target number (or percent) of homes to receive audits, and to implement measures. A few stated GHG goals, or incorporated specific job-creation goals.

The largest shares of the budgets are allocated to rebates, outreach, and staff (with sizes not that different from each other, on average). Evaluation budget are about 3% of the program funds (See Figure 1.2).

We conducted some very simple benchmarking on the programs. We estimated the goals for retrofitted homes, as a share of eligible homes, and computed the budget per retrofitted home. The budget per retrofitted home is simplistic, because it omits the costs assigned to audits for homes that never get that far. However, since energy savings are the ultimate goal of most of these programs, we felt the computation was a fair assessment of the expected cost to get homes to the "goal". We found:

- Most of the programs (with information available) seem to target getting between 2.5-3.5% of the eligible homes retrofitted. One program's goal is higher (stated as 8% in one place, and 16% in

another, which may reflect a variation in how “eligible” is defined). This implies the STEP program’s 20% goal is considerably more aggressive than most. (See Figure 1.3)

- The cost per retrofitted home (using the simple metric of budget divided by **goal** number of homes) averages about \$2,500-\$3,500 each. A few programs are outliers, including MAESTRO (\$8K), Chicago (\$10K), and KC, MO (\$12K). These variations may reflect additional services, and the inclusion / exclusion of the commercial / industrial sector. (See Figure 1.3)

**Figure 1.1: Interviewed Programs and Locations**

Program	Location	Budget (if provided)
Clean Energy Works Oregon	Select counties in Oregon	-
Missouri Agricultural Energy Saving Team - A Revolutionary Opportunity (MAESTRO)	Missouri - Statewide for Livestock Farmers	\$800K
Partnership for Innovative Financing	New York State	\$58 million
EnergySmart	Boulder County, CO	\$12 million
BetterBuildings for Greensboro	Greensboro, NC	\$5 million
Southeast Communities Retrofit Ramp-Up Consortium	Atlanta, GA; Carrboro, NC; Chapel Hill, NC; Charleston, SC; Charlotte, NC; Charlottesville, VA; Decatur, GA; Hampton Roads, VA; Huntsville, AL; Jacksonville, FL; Nashville, TN; New Orleans, LA; US Virgin Islands	-
Seattle Energy Benchmarking and Reporting	City of Seattle	\$540K
Energy Impact Illinois	7-county metropolitan Chicago, IL	\$25 million
EnergyWorks KC	Kansas City, MO	\$20 million
Be SMART	State of Maryland	-
The WISE Home Energy Program (Worthwhile Investments Save Energy)	Birmingham, Huntsville, and surrounding areas	\$3 million
Better Buildings Neighborhood Program	Cincinnati Metro, OH	\$8 million
Energize New York	Westchester County and Other Mid-Hudson Valley Counties, NY	\$2.5 million
Residential Home Energy Rebate Program	City of Gillette, WY	\$10K
The Denver Energy Challenge	Denver, CO	-
Better Buildings Northwest Ohio	Toledo Ohio and 27 Counties in NW Ohio	\$4.5 million
BetterBuildings Lowell	Lowell, MA	-
Power Pittsfield	Pittsfield, MA	-

**Figure 1.2: Program Budgets and Shares**

	Total Budget	Rebate budget	Staff / Admin Budget	Outreach	Evaluation
Average <sup>1</sup>	\$ 11,100,000	24%	15%	20%	3%
Median	\$ 5,000,000	0%	15%	20%	3%
Max	\$ 58,000,000	70%	28%	37%	5%
Min	\$ 10,000	0%	1%	4%	0%

<sup>1</sup> Does not add to 100% because these are averages of shares.

**Figure 1.3: Goal Retrofit Percentages, and Budget per Participant**

Over program lifetime...	Goal Retrofitted Homes as Percent of Eligible	Budget / Goal Retrofitted Homes
Average	3.3%	\$4,945
Median	2.7%	\$2,667
Min	0.7%	\$1,657
Max	8.3%	\$12,500
Number of observations	9	9

## 1.2 Coach Responsibilities

Alternatives for the “flow” of the program are presented in the body of this document. We also reviewed the elements of the coach responsibilities for the various programs. The range of assignments is listed in Figure 1.4.

**Table 1.4: Responsibilities of Energy Coach / Concierge in Interviewed Programs**

<ul style="list-style-type: none"> <li>Public face of Program</li> <li>Drives citywide marketing / outreach / drives demand</li> <li>Presentations to groups of homeowners</li> <li>Refers people to videos about the program</li> <li>Assigned a focus area of neighborhoods</li> <li>Liaison with residents to understand benefits of EE and program steps</li> <li>Discuss objectives with customers</li> <li>Walk through home</li> <li>Assists customers in connections with energy analysts, lenders, contractors.</li> <li>Offer select list of pre-qualified contractors</li> <li>Conducts audit</li> </ul>	<ul style="list-style-type: none"> <li>Install quick energy-saving items (CFLs, Showerhead, pipe insulation)</li> <li>Answer (email or phone) questions about energy, rebates, suppliers, contractors</li> <li>Help get / evaluate bids</li> <li>Review &amp; approve all contractor documents including audit and bid/scope of work</li> <li>Review contractor/audit recommendations and help make plan to reach comfort or energy-saving goals.</li> <li>Connect participants with all government and utility rebates and financing options.</li> <li>Will fill out rebate and financing paperwork.</li> <li>Nudge customers if progress slows.</li> <li>Perform conflict resolution between homeowner &amp; contractor; support homeowners in getting second bid / new contractor if issues cannot be resolved.</li> <li>Conduct post-implementation certification visits</li> </ul>
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Some programs feel certain elements are important; for example, Boulder County noted improvements in uptake with the addition of a “nudge” responsibility. Fewer households stalled after the audit.

The STEP program coach performs many of these functions. The time available to consistently conduct each of these efforts may be a key. Focusing on the “nudge” and translation / walk-through of the audit and bid responses may represent the key intervention points for conversion. It is unlikely STEP will need to take a role, for instance, in contractor dispute resolution.

## 1.3 Outreach / Social Marketing

Relatively few of the programs highlighted specific traditional social marketing efforts they had incorporated into the program. Some identified neighborhood challenges and commitment cards / pledge approaches. Leadership pledges (Mayors, in particular), and close integration with churches

were also included as outreach methods used. Social media (distinct from social *marketing*) were also mentioned, including Twitter, and facebook(tm). A few programs have set aside funds for contractor advertising, meetings, and/or training. Of course, the core approaches (brochures, bill inserts, flyers at stores, canvassing, newsletters, press releases, event tabling, radio, t-shirts, and websites) were mentioned repeatedly. Outreach and social marketing approaches that STEP may want to consider adding, especially as it moves beyond University Park, include:

- Contests: contests between cities or neighborhoods have been very strong motivators in other social marketing and energy programs.<sup>2</sup> This may or may not be appropriate between the four communities that will be part of STEP, but a neighborhood challenge (sign-ups, conversions, or other stages) within communities may be palatable and successful. Some communities have run ‘biggest loser-type’ challenges. Selected local homeowners are followed on camera as they install measures, practice energy saving tips, etc. The show is aired for a number of weeks on the local access channel, and the biggest loser gets a prize.
- Refined social marketing options: A number of specific strategy suggestions are provided in Figure 3.1 of Section 3.1 of the report, including bounties to participants for getting neighbors to sign up, introducing program deadlines for enrollment (to boost participation), engaging trusted message deliverers, and other strategies.
- Maps of participants and savings: This puts a local and “real world” face on the savings and improvements, and makes potential participants realize that the program can work, even for homes that match many of their challenges. Section 3.3 of this report on web information shows examples of these types of web tools.
- Door-to-door canvassing: This can be very effective, and research indicates the recall, conversions, and retention of the message are all strong.<sup>3</sup> However, the focus group research conducted for this project indicates that the households would be much more receptive to these groups if they are pre-notified in the Town newsletter or other means.
- Yard signs: STEP’s work on this outreach method in the past showed great program recognition, and provided a textbook example of the social marketing recommendation for prompts, feedback (with the noted progress), and norms. These should be continued, but kept “un-busy” in their wording.
- Neighborhood communication: Special parties to spread the word about programs has been used by many programs, but more and more programs managers we speak to say this is very time consuming and not particularly effective. Instead, we suggest possibly engaging previous participants to talk to neighbors, setting up a list serve that will allow interested residents – or those with specific questions, barriers, concerns – to gather feedback and suggestions from residents that had previously gone through the programs. Case studies that highlight savings and the household characteristics, are another element that should help participation.
- Partnerships: Partnerships with the actors that are contacted at meaningful intervention points would be most productive. Realtors, appraisers, lenders, contractors, and others are generally the “gold standard”, but we find few programs have set up strong and productive associations that work in channeling new participants.
- We found very strong examples of web-based tools used by programs, and we draw the reader’s attention specifically to Section 3.3.

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<sup>2</sup> Some especially strong examples include the “RecycleMania” program between colleges.

<sup>3</sup> Voting canvassing is done in person for a reason. And for energy / recycling lessons and results on this topic, see Skumatz and Freeman, IEPEC, 2012.

## 1.4 Evaluation Efforts

One of the STEP program concerns was that their program implementation had, by timing and other necessity, taken the form “ready, fire, aim”. That left some gaps for the evaluation consultant to deal with – particularly the lack of an unaffected “baseline” for household behaviors and retrofits to allow proper accounting of program impacts and especially, attributable net program impacts.

The evaluation consultants were therefore, particularly interested in identifying whether and how other programs had addressed that problem – not that it is necessarily a new or unique issue in program evaluation! We asked the programs about the evaluation efforts they planned, what they had found so far, and other topics.

Unfortunately, the interviews and feedback did not identify any silver bullets. We found only a quarter of the programs had measured baseline energy use prior to the program, and only a third had conducted an impact evaluation (many programs are still on-going, so that is not surprising). Three programs had conducted large-size statistical phone surveys to identify baseline conditions. None of the programs that had omitted baseline work had any untraditional suggestions for how to address the issue. Regarding the evaluation work, we were not surprised to find that one of the largest barriers had turned out to be actually getting billing data from the utilities in any timely fashion. The programs plan, or are conducting, focus groups, statistical KABB surveys, baseline energy and impact evaluations; and a smaller share plan to track behaviors. The evaluation plan, as described in the scope of work for STEP, remains suitable, compared against efforts planned elsewhere.

## 1.5 Actionable Recommendations for STEP to Consider

Based on our review of the literature, other evaluations of coach programs, interviews / contacts with Better Buildings and coach programs, and the social marketing literature, we suggest the following as recommendations that STEP might consider in refining its program. Note that suggestions on outreach were provided in Section 1.3.

- Compared to the STEP program’s current coach duties, the main additional responsibilities the program might consider include:
  - Track progress of projects over time - Increase post-visit engagement to nudge through decision-making related to contractors and measures; allowing nudging if the “next step” lags, and if only a few of the potential recommended measures have been implemented. This is a feature that has helped distinguish really high-performing programs in other evaluation work SERA has conducted.<sup>4</sup> The new tracking software STEP is purchasing should help facilitate this.<sup>5</sup>
  - Post-bid assistance can help uncertain customers compare bids in apples-to-apples fashion with a neutral and knowledgeable party.
  - One program even provides mediation services if there are disputes with the contractor. This is likely to be rare in a program as small as STEP’s, so may not be important.

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<sup>4</sup> Skumatz, Freeman, et. al., “2010-2011 Energy Trust of Oregon Home Energy Solutions / Existing Homes Program Process Evaluation”, draft report prepared for ETO, June 2012.

<sup>5</sup> Getting more out of committed / participating households may be easier and more cost-effective for the program than a focus on getting more customers – within limits, of course!

- Some programs are implementing or considering “sales training” for the contractors, to help “up-sell” measures (measures per home), and help them focus on addressing key barriers for would-be participants.
- Contractor reports (either after the audit, or as part of bids) that show all incentives for a measure, how financing interacts with the measures in terms of expected cash flow, might help improve measure uptake.
- Data management tool improvements can help – especially if the program “goes viral”. Duplicate entry of data is a major loss of time and efficiency (name / contact, etc.). Silo-focused software limits the ability to efficiently manage, track (and nudge), and evaluate the program. It may be that improved software can help identify missing data and forms, which would streamline program management, reimbursement and other steps.
- Consider whether it is important to include multi-family, renters, or small commercial, or other sectors, as some of the other programs do. Consider outreach to specific sub-sectors like senior citizens, etc.
- Some of the web tools are outstanding, and provide real-time information for potential participants. Some provide maps with previous participants, and as the cursor rolls over the site, key information comes up about savings, measures, characteristics, etc. These kinds of *local* comparisons are powerful participation motivators.
- Work to develop web-based / paperless forms. Everyone benefits.



## 2. COMPARISONS WITH OTHER PROGRAMS

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STEP-UP is interested in information on “similar” programs around the country. SERA conducted a review of Better Buildings Programs and the literature on Better Buildings Programs and social marketing to provide actionable advice to STEP-UP on refinements to the program design, the expansion to new communities, and the evaluation work for STEP-UP and the expansion communities. To accomplish the work, Skumatz Economic Research Associates staff completed four main activities:

- Detailed surveys (phone and web) of 18 energy efficiency programs in the US with attributes similar to the Step-Up program, asking questions about program design, goals, budgets, program “flow”, concierge responsibilities, evaluation, and other topics.
- Review of SERA’s in-house social marketing and energy evaluation library and data base
- Web search of energy efficiency social marketing programs and evaluation including conference proceedings<sup>6</sup>, and
- Review of websites for “similar” programs.

We interviewed programs around the nation, gathering information on:

- Program Outreach / Design: We asked about program design, outreach, program “flow”, concierge responsibilities, and other topics. We assessed the social marketing and other tools that programs similar to STEP-UP have been using to encourage participation.
- Evaluation and Performance: We reviewed the program goals, budgets, measurement, and evaluation techniques applied to the programs.
- Advice: We provide a summary of advice on successful program features and activities.

### 2.1 Program Goals, Design, and Budget

SERA staff contacted the program managers, implementers, directors, and staff involved with 52 different energy efficiency programs in the US. All of the targeted programs had attributes similar to those in the Step-Up program including the possible use of energy coaches, rebates, incentives, home energy assessments, social marketing, or financing options. The surveys and interviews focused on residential programs and included those supported by the Department of Energy Better Buildings Neighborhood Program, although non-Better-Buildings programs were also contacted. The surveys and interviews were designed to gather data about the tools used to encourage participation, the evaluation techniques, the social marketing aspects of the program, goals, measurement, and advice on what works and what does not. A total of 21 surveys and interviews were completed covering 18 different programs. The programs, their locations, and their budgets (where available are displayed in Figure 2.1.

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<sup>6</sup> Conference proceedings included an archival review the American Council for Energy Efficient Economy (ACEEE) Summer Studies, Behavior Energy and Climate Change (BECC) Conferences, Association of Energy Service Professionals (AESP) National Conferences, International Energy Program Evaluation Conferences (IEPEC) and several other local and regional conferences.

**Figure 2.1: Interviewed Programs and Locations**

Program	Location	Budget (if provided)
Clean Energy Works Oregon	Select counties in Oregon	-
Missouri Agricultural Energy Saving Team - A Revolutionary Opportunity (MAESTRO)	Missouri - Statewide for Livestock Farmers	\$800K
Partnership for Innovative Financing	New York State	\$58 million
EnergySmart	Boulder County, CO	\$12 million
BetterBuildings for Greensboro	Greensboro, NC	\$5 million
Southeast Communities Retrofit Ramp-Up Consortium	Atlanta, GA; Carrboro, NC; Chapel Hill, NC; Charleston, SC; Charlotte, NC; Charlottesville, VA; Decatur, GA; Hampton Roads, VA; Huntsville, AL; Jacksonville, FL; Nashville, TN; New Orleans, LA; US Virgin Islands	-
Seattle Energy Benchmarking and Reporting	City of Seattle	\$540K
Energy Impact Illinois	7-county metropolitan Chicago, IL	\$25 million
EnergyWorks KC	Kansas City, MO	\$20 million
Be SMART	State of Maryland	-
The WISE Home Energy Program (Worthwhile Investments Save Energy)	Birmingham, Huntsville, and surrounding areas	\$3 million
Better Buildings Neighborhood Program	Cincinnati Metro, OH	\$8 million
Energize New York	Westchester County and Other Mid-Hudson Valley Counties, NY	\$2.5 million
Residential Home Energy Rebate Program	City of Gillette, WY	\$10K
The Denver Energy Challenge	Denver, CO	-
Better Buildings Northwest Ohio	Toledo Ohio and 27 Counties in NW Ohio	\$4.5 million
BetterBuildings Lowell	Lowell, MA	-
Power Pittsfield	Pittsfield, MA	-

**The interviewed programs included many Better Buildings, and community or government-based programs.** The majority of the programs (63%) are administered by government staff (City, County, or State), 19% were administered by non-profit organizations (e.g. the Energy Trust of Oregon), and the remaining 19% were administered by a third-party organization (e.g. the Greater Cincinnati Energy Alliance). Programs were most commonly funded by the Department of Energy Better Buildings Neighborhood program or American Recovery and Reinvestment Act funds. A few were funded by states (such as NYSERDA), EPA grants, and local funding sources. Continuing funding ideas are being explored (see next bullet).

**The programs began in 2009 or later, and expect to cease in 2013.** The majority of programs (73%) began in 2010 with 6% reporting they started in 2009 and 22% reporting they started in 2011. All of the programs are still operating and almost all reported they predict they program will stop in 2013. One program hopes to sustain funding and operations through 2015 by potentially implementing a tax to fund the program; the tax would need to be approved by the citizens in the community in order to be implemented. Some of the programs reported they have set up revolving loan funds for improvements that do not have an end-date, however the rebates, discounted or free assessments, and social marketing end dates are tied to the funding sources.

**More than half the programs are residential only, or residential plus commercial.** About a quarter of the programs interviewed covered only residential, and another third covered residential and commercial (See Figure 2.2). Almost all of the programs targeted the residential sector (89%), two-thirds targeted the commercial sector, and 28% reported that they targeted the industrial sector. The

majority of programs target more than one sector (i.e. residential and commercial). *The remainder of this memorandum focuses on the residential programs.*

**Figure 2.2: Targeted Sectors for the Programs Interviewed**

Sector(s)	Number	Percent	Sector(s)	Number	Percent
Res only	5	26%	Res & Other	2	11%
Com'l only	0	0%	Com'l & Other	1	5%
Industrial only	0	0%	Res & Com'l & Indust	1	5%
Other only	0	0%	Com'l & Industrial & Other	1	5%
Res & Com'l	6	32%	All four sectors	3	16%
			Total	19	100%

**Most of the programs had specific targets – rather than broadly all households in a town.** One of the ideas behind social marketing is that, unlike a traditional marketing campaign, the campaign focuses on a specific target audience and the messaging, marketing channels, and program process are designed to address the targeted audience. The respondents were asked to provide details on the targeted sectors. While some programs were county or city wide and available to all households in the jurisdictional boundaries, it was more common for the program to target a specific audience. One program targeted a few hundred households in specific neighborhoods, others targeted only households in certain income ranges (low income, moderate income, and upper income were all reported as targeted income ranges) or housing stocks (for example single family or duplex homes built before 2004 with a value of \$100K or more). Other targets include historically underserved sectors in urban areas, areas with high unemployment, or farms houses and agricultural areas.

**Goals were most commonly expressed in terms of the number of completed upgrades (76%), and/or energy savings goals (41%). On average, goal retrofits were between 2.5 and 3.5% of eligible buildings, or 15% energy usage reduction per household.** Several programs reported ancillary goals including spurring job creation, addressing underserved populations, and market transformation. Retrofit goals are shown in Figure 2.3. A number of indicators were reportedly being tracked, as shown in Figure 2.3.

**Figure 2.3. Program Retrofit Goals and Budget per Retrofit**

Over program lifetime...	Goal Retrofitted Homes as Percent of Eligible	Budget / Goal Retrofitted Homes
Average	3.3%	\$4,945
Median	2.7%	\$2,667
Min	0.7%	\$1,657
Max	8.3%	\$12,500
Number of observations	9	9

**Figure 2.4: Program Progress / Tracking Indicators**

Ways Programs are Measuring Progress	
<ul style="list-style-type: none"> <li>• Number of completed audits</li> <li>• Number of contractor referrals</li> <li>• Number of completed upgrades</li> <li>• Number of installed measures</li> <li>• The DOE reporting template</li> <li>• Deemed savings estimates based on installed measures</li> <li>• Actual savings estimates based on utility billing data</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring contractors</li> <li>• Tracking job creation with the state bureau of labor statistics</li> <li>• Participant surveys</li> <li>• Detailed measurement and verification of a select number of homes</li> <li>• Site visits</li> </ul>

Performance thus far is strong, with 5% having completed assessments, and 3% completing upgrades. Figure 2.5 displays the percentage of eligible homes signing up for assessments and completing upgrades as well as the conversion rate.

**Figure 2.5: Assessments, Completed Projects, and Conversion Rates**

	% Completing an assessment	% Completing an upgrade	Conversion rate
Avg.	4.5%	3.1%	55.6%
Median	2.5%	1.9%	66.7%
Max	17.0%	13.0%	84.0%
Min	0.5%	0.2%	8.0%

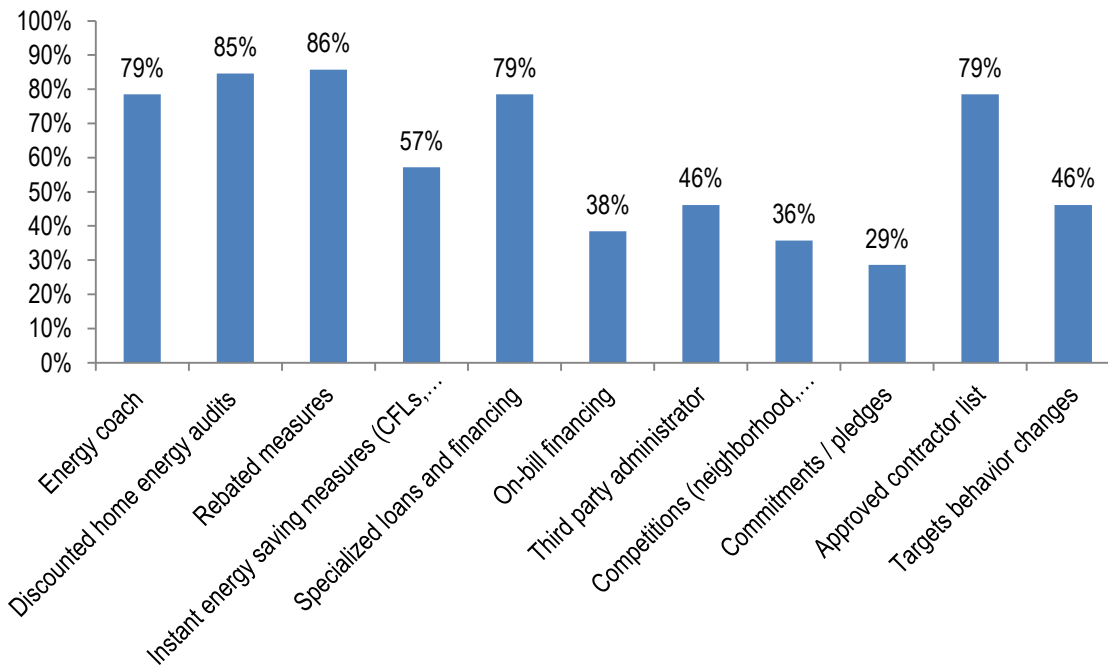
Budgets varied from \$10K to \$58 million; budget allocations were highest for rebates, staff, and outreach. The average budget was \$11 million. The \$10K project covered a small city with audits, coaching, and no rebates. The \$58 million budget covered a state-wide project in one of the most populous US states. Figure 2.6 displays the total budgets and the broad program budget breakdown.

**Figure 2.6: Program Budgets**

	Total Budget	Rebate budget	Staff / Admin Budget	Outreach	Evaluation
Average	\$ 11,100,000	24%	15%	20%	3%
Median	\$ 5,000,000	0%	15%	20%	3%
Max	\$ 58,000,000	70%	28%	37%	5%
Min	\$ 10,000	0%	1%	4%	0%

Most of the programs had four common features – a coach, discounted audits, rebates, loans, and an approved contractor list. Many of the strong features of the Step-UP program are included in other programs under the Better Buildings or coach models in order to drive energy savings. The frequency of various features is shown in Figure 2.7. Note that some of the social marketing elements (competitions, commitments, etc.) were less commonly adopted by the programs. The common program features are shown in Figure 2.7.

**Figure 2.7: Common Program Features**



## 2.2 Basic Program Flow and Program Elements

**The flow of all the programs is fairly similar, and not very different from STEP’s program.** The general program flow of all of the programs is similar; the home owner initiates the process, completes an assessment, chooses upgrades and considers financing options, completes upgrades, verifies upgrades with program staff, and secures rebates or incentives. There are, however, a significant number of variations in the details of the program flow for each of the programs. In some cases the flow reflects the planning involved in the program prior to implementation and in others it appears to have risen more organically as the result of experience and the program process. Some of the variations in the program flow are discussed below.

**Audit / Assessment Stage - Almost all programs offer audits that are deeply discounted or free.** In addition, all of the programs have the audit as one of the first major participant steps in the process (not including baseline measurement, outreach / education, and how the homeowner hears of and first contacts the program to participate). There are several variations in the audit process including:

- **Pre-audit assessment.** One program requires that households undertake a pre-audit assessment to ensure that the home is in good enough condition to complete an upgrade (no physical barriers that would make the upgrade too costly or impossible to complete) and that there is initially the potential for the home to meet the energy reduction requirements of the program.
- **Contractors:** There are two common audit options for identifying / selecting the contractor **1)** Program staff assigns a contractor for the audit and sets up the time/ date for the audit and **2)** There is a list of qualified contractors and the participant chooses the auditor and contacts them directly to set up the audit. Both options have advantages (and disadvantages), the first option helps streamline the process and remove a potential scheduling barrier, the second gives the participant more control over the process and removes some of the administrative burden.

- Paying for the audit: Most programs rebate the contractor directly for the audit and the auditor charges a discounted rate or provides 'no cost' assessments, less common are programs that provide a rebate to the homeowner as opposed to the contractor for paying for the audit. Some of the program managers reported that having a fee for the audit (\$50- \$150) helps residents 'buy-in' to the program and may encourage them to take further steps, others like the free energy audit option to limit as many barriers to participation as possible.
- Who is at the audit: Depending on the program, only the auditor and the homeowner attends the audit or the auditor is accompanied by the program 'energy coach' during the audit to walk the homeowner through the process and explain the next steps.

**Selecting a Contractor – half allow the auditors to conduct the retrofit work and half don't; and most provide an approved contractor list.**

- Same as Auditor or not: The programs were nearly evenly split with whether or not the auditor is the same one to undertake the home improvement upgrades or not. The advantage of having the auditor complete the upgrade work is that it removes steps in the process (contractor selection, scheduling, integration with program managers, etc.). The disadvantage is that the homeowners may not view the audit as an independent review and could believe that the contractor is suggesting upgrades based on an audit that makes them the most money, not necessarily saves the homeowner the most energy.
- Assigned or Selected Contractor: As with the auditor contractor selection, the programs vary on whether or not the contractor for the upgrades is selected by the homeowner or through the program. The most common process is for the program to have a list of approved contractors and the participants choose one or several contractors to provide estimates for completing the upgrades.

**Financing – The majority of the programs offer financing or discounted loans.** As with the energy coach and audit, almost all of the programs provide some type of option for financing the upgrades to the home. The financing is typically provided by a third-party (but not always) and the timing of the financing options varies.

- Timing: Financing options are typically discussed and considered after the assessment and prior to the start of the improvements. One program has the participants consider and apply for financing (if they choose to do so) prior to the selection of a contractor and the measures and another has the participants apply for financing (if they choose to do so) after the assessment but prior to selecting the actual measures they wish to install.
- Approval: Typically, the financing option is through a partner financial institution and the program works to secure a discounted loan option. A revolving loan fund provided by the jurisdiction (City / County) is not uncommon and one program worked with a specific lender to provide pre-approved loan options that can be easily attained by the participants. Options to keep the loan with the house, not the lender, were gaining popularity but have been halted recently due to Fannie Mae / Freddie Mac efforts.

**Approved Measures**

- Options for Selection: There were three major variations in approving the measures **1)** The measures selected must increase the efficiency by a threshold level (15% was the threshold in two programs) in order to be approved for rebates **2)** There is a pre-approved list of potential measures and as long as the measures selected were included on the assessment and the pre-approved list they are eligible for rebates **3)** The contractor submits the selected improvements to the program administrator prior to starting work to make sure they are approved.

**Verification – Verification is usually performed by program staff, but the level of rigor varies considerably between programs.** There was very little variation in the measure verification process. The program staff verifies that the installation was made and signs off on it. The level of rigor varied from only requiring receipts to measure testing and savings verification for some or all of the installations. One program requires that each of the participating homes receive a post upgrade energy assessment in order to secure Energy Performance Score (EPS).

**Rebate – Most programs rebate the homeowners, but several elect to rebate the contractors. The degree of incentives for measures varies.** Some of the programs have money in the budget to provide at least some rebates for measures, however, others only provide rebates for the assessment and rely on utility or state programs to provide the rebates for the measures themselves. All of the programs rely on multiple sources for potential rebate measures although they tend not to assist participants in securing tax credits / rebates due to questions about liability<sup>7</sup>.

### 2.3 Energy Coach Responsibilities

Almost all of the (residential) programs have an energy coach or advisor to guide the participant through the process.

- **Level of Involvement:** The energy coach’s level of involvement varies greatly between the programs as well as even within a program depending on the participant’s requirements. In some cases the energy coach is not very involved and is only an added resource that is available if the participant chooses to use them. In others, the energy coach is highly involved, attending the audit, providing the approved contractor list, helping to select the upgrades, and helping to secure financing and the rebates.

Because of STEP’s use of – and thus, interest in – the Coach / concierge model, we asked follow up questions on this topic. The results are based on transcription of interviews or case studies; therefore, additional programs likely include responsibilities for the concierge that are not reflected in the Figure. However, Figure 2.8 provides a representation of key responsibilities for the coach in each program.

**Figure 2.8: Stated Responsibilities of the Concierge / Coach**

Program	STEP -UP, MD	Energy Works KC	Cambridge Energy Alliance, MA	Energy Smart, CO	Energize NY	MAESTRO, MO	Gillette, WY	Clean Energy Works, OR	Energize Northern Westchester, NY	# of Programs with feature (Including STEP-UP)	Percent
Public face of Program	1	1								1	3%
Drives citywide marketing / outreach / drives demand	1	1								1	3%
Presentations to groups of homeowners	1								1	1	3%

<sup>7</sup> Although they do not assist in the securing tax credits, it was not uncommon for the program to tell people about the existence of a tax rebate and refer them to somewhere else to learn more about it.

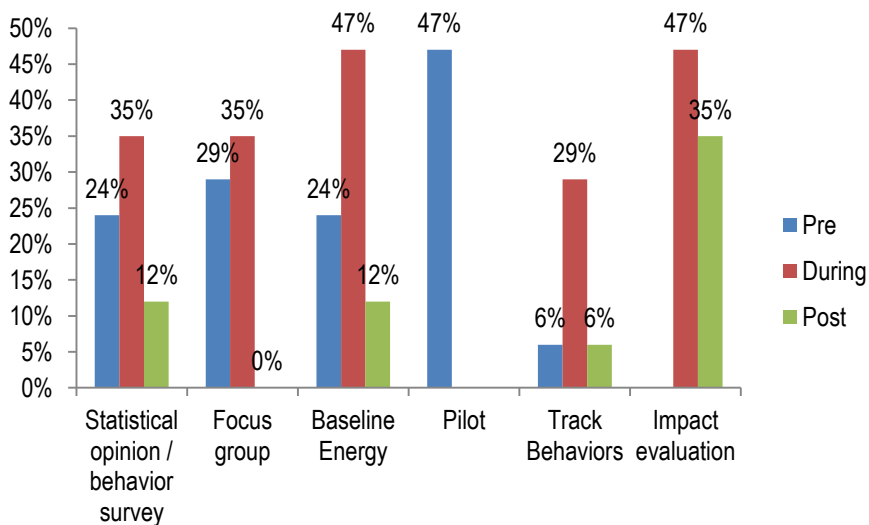
Program	STEP -UP, MD	Energy Works KC	Cambridge Energy Alliance, MA	Energy Smart, CO	Energize NY	MAESTRO, MO	Gillette, WY	Clean Energy Works, OR	Energize Northern Westchester, NY	# of Programs with feature (Including STEP-UP)	Percent
Refers people to videos about the program									1	1	3%
Assigned a focus area of neighborhoods		1								1	3%
Liaison with residents to understand benefits of EE and program steps	1	1				1		1		3	10%
Discuss objectives with customers				?	1					1	3%
Walk through home					1					1	3%
Assists customers in connections with energy analysts, lenders, contractors.	1	1								1	3%
Offer select list of pre-qualified contractors	1			1		1				2	6%
Conducts audit							1			1	3%
Install quick energy-saving items (CFLs, Showerhead, pipe insulation)				1						1	3%
Answer (email or phone) questions about energy, rebates, suppliers, contractors	1		1		1			1		3	10%
Help get / evaluate bids	1			1						1	3%
Review & approve all contractor documents including audit and bid/scope of work								1		1	3%
Review contractor/audit recommendations and help make plan to reach comfort or energy-saving goals.	1			1	1	1	1		1	5	16%
Connect participants with all government and utility rebates and financing options.	1			1						1	3%
Will fill out rebate and financing paperwork.	1			1						1	3%
Nudge customers if progress slows.				?					1	1	3%
Perform conflict resolution between homeowner & contractor; support homeowners in getting second bid / new contractor if issues cannot be resolved.								1		1	3%
Conduct post-implementation certification visits						1		1		2	6%
Total	11	5	1	6	4	4	2	5	4	31	



## 2.4 Evaluation Efforts by the Programs

**About half the programs ran pilots, and about a quarter conducted pre-surveys, pre-focus groups, and pre-energy tracking.** This means three quarters will need to develop indirect estimates of baseline. The evaluation activities pre, during, and post, are shown in Figure 2.9 below. Although only 35% reported they had done an impact evaluation after the program was done, this is most likely due to the fact that all of the programs were on-going and had not yet done an impact evaluation. Three of the programs reported they undertook extensive baseline measurement efforts including a statistically valid phone survey of over 1,600 randomly selected addresses. Gathering accurate and timely energy use data from utility companies was a common barrier, particularly when trying to assess impacts over the base case scenario. Using a generalized baseline (such as from state-wide surveys or previous EM&V studies) was not uncommon and in some cases the statewide averages were used as a comparison of progress.

**Figure 2.9: Evaluation Methods / Efforts Employed**



**Utility Data has been problematic for the vast majority of programs.** Utility data is necessary for impact evaluations. All of the programs reported that they require participants to sign a disclosure sharing their utility billing and use data for measuring the impacts. However, the vast majority of programs reported that it is difficult to get this data and about 20% reported that they are still waiting to get the data but have not yet been able to do so.

### 3. OUTREACH TOOLS AND SOCIAL MARKETING ELEMENTS

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We assembled information on outreach strategies, tools, and social marketing opportunities associated with, and suitable for, STEP-type programs.

#### 3.1 Suggestions for Outreach and Design from Social Marketing Literature Review

As part of its practice in developing and evaluating social marketing programs, SERA has conducted extensive reviews of published reports, case studies, “how-to” documents, white papers, journal articles, conference proceedings, and web reviews regarding community-based social marketing (CBSM). Our research covers fields beyond energy efficiency, and we assessed the research to identify techniques used to measure impacts, identify effective outreach and design strategies, and identify tools that could enhance STEP-UP’s performance as it grows to other communities. The case studies and research identified the following common success strategies in social marketing. Most of these tips have likely been implemented by STEP program designers, but are included here as reminders.

##### Reminders / Tips from the CBSM Literature

- **Local barriers / motivators:** Target the outreach to local customers’ barriers, not what program officials *think* are customer barriers. Similarly, capitalize on the local customers’ winning motivations. Focus groups can provide feedback on those *customer-perceived* barriers and motivations.
- **Subgroups, not Broad-based:** Target a specific sector, not a broad community. Conduct the research on this sector, design materials for this sector (and its motivations and barriers), and use outreach targeted to this sector. To reach this sector, use networking and connections that suit that subsector. If a broad community is the ultimate goal, consider breaking the sector into smaller, more homogeneous groups. And address outreach to the decision-makers and influencers within those groups.
- **Recall the key social marketing tools** to increase target audience likelihood of participation and adoption.
  - Prompts are reminders to complete an action. Visible, well-placed prompts are more effective, and STEP’s yard waste signs were a strong example of this tool.
  - Commitment cards (written and public) increase behavior change; public can mean websites, local papers, window stickers, lawn signs, pins, buttons, decals, and other tools.
  - Norms – Establishing a revised social norm around energy efficiency leads to a spread of energy efficiency. Norms may include Mayoral challenges, the Step-UP lawn sign, on-line maps, local publications, local celebrity spokesperson, and stickers / clothing.
  - Door to Door (DTD) outreach approaches, although more expensive to conduct, appear to lead to stronger participation and better retention of behavior change. When compared with other approaches, the cost per impact from CBSM including DTD was less expensive than the same materials delivered without a DTD component<sup>8</sup>.

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<sup>8</sup> Skumatz and Freeman, IEPEC, 2012.

We assembled a number of social marketing tools and marketing suggestions from the surveys, interviews, case studies, literature, and other sources, and collected them into the list in Figure 3.1. The program may identify several suggestions to be integrated into -- or tested as part of -- the STEP program.

**Figure 3.1: Social Marketing Tools / Suggestions**

<b>Contractor neighbor outreach</b>	After completing a home audit or upgrade the contractor knocks on the neighbor's doors to inform them of their neighbor's participation and encourage them to participate as well.
<b>Interactive map on web-site</b>	This type of map allows users to see what homes have completed an upgrade, can show progress of a neighborhood challenge, or can show dots of completed local projects with links to all the details.
<b>Neighborhood rewards</b>	Homes completing an upgrade earn points for the neighborhood that can be redeemed for collective rewards such as solar powered LED street lights.
<b>Neighborhood challenge</b>	This can be set up as a competition among blocks, or between neighborhoods. Those with the highest percentage of participating homes get a small incentive (in one community it was a \$5 Starbucks gift card per home). Participants could also report energy savings over so many months and the collectively lowest usage wins a prize.
<b>Town Challenge</b>	Town with the highest percentage of completed home energy improvements wins \$XXK dollars - an alternative is the town with the highest average energy savings per household wins the prize
<b>Larger rebates for more participating neighbors</b>	If one home participates they are eligible for \$X in rebates, if they get one of their neighbors to sign-up too they get \$X+\$Y in rebates, if they get 2 or more they get \$X+\$Y+\$Z rebates, etc.
<b>Energy Performance Scores</b>	Each house is given an EPS that ranks the home's performance and allows for comparison throughout the community.
<b>Leveraging past participants</b>	Past participants are asked to host either an energy party inviting their neighbors to hear about the program, or to host an upgrade home tour showing what energy upgrades they completed.
<b>Mayoral/ Public Personality Challenge</b>	Popular public personality (Mayor, local celebrities. Etc.) Make a public pledge to complete an energy upgrade by a certain date and encourage others to participate.
<b>Program deadlines</b>	Many of the programs reported that once they set an enrolment and rebate deadline they saw significant boosts in the participation rates
<b>Trusted message deliverers</b>	One community used Boy Scouts to complete the door to door outreach and reported that the Boy Scouts were viewed as a trusted information source and that it was hard for a household not to open the door to a Boy Scout.
<b>Instant Savings Measure on the Door Step</b>	Go door to door with CFLs and offer to change out the household's incandescent light with energy efficiency CFL on the spot. This program was very effective in low income areas in achieving actual savings and helping outreach teams get their 'foot in the door'.
<b>"Biggest Loser" style challenge</b>	Selected local homeowners are followed on camera as they install energy saving measures and practice energy saving tips. The shows are aired for a select number of weeks on a local public access TV channel and the household who 'loses' the most energy wins.
<b>School Involvement</b>	Children have been found to be one of the largest influencers on parental decisions. Outreach programs have chosen to leverage this idea by setting up school programs where children learn about energy saving activities / upgrade / measures and are encouraged to promote those at home. The programs include individual competition, class project, and school to school competition.

## 3.2 Strategies Used / Suggested by the Program Interviewees

The program managers were asked to share what tools (including social marketing elements) they felt were effective. The tools mentioned include:

- Ads on City busses
- Advertising a deadline
- Attending conferences / presentations / booths
- Bill inserts
- Billboards
- Block parties
- Brochures and handouts
- Commitment cards
- Contests between cities
- Contests between homes
- Contests between neighborhoods
- Contractor advertising fund
- Contractor trainings / webinars
- Door to door outreach / canvassing
- Facebook site / posting
- Feedback sign in neighborhood
- Flyers at grocery stores, hardware stores, libraries, coffee shops, and rec. centers
- Helpline (phone)
- Home Owners Association newsletters
- Home Owners Association partnerships
- House parties - residential energy parties
- Leadership pledge (Mayor XX pledges to have an audit by XX)
- Leveraging past participants to reach out to neighbors
- Local blogs
- Logo and slogan
- Maps of participants and savings
- Meet monthly with contractors
- Partnerships with non-profits (Sierra Club)
- Past participants hosting tours of their homes
- Press releases in paper
- Radio spots
- Tabling at community events
- T-shirts, other clothing
- TV spots
- Twitter
- Websites (sometimes more than 1)
- Word of mouth through stores, contractors, neighbors
- Working closely with churches
- Yard signs for participants
- Youtube videos (ads and audit walk through)

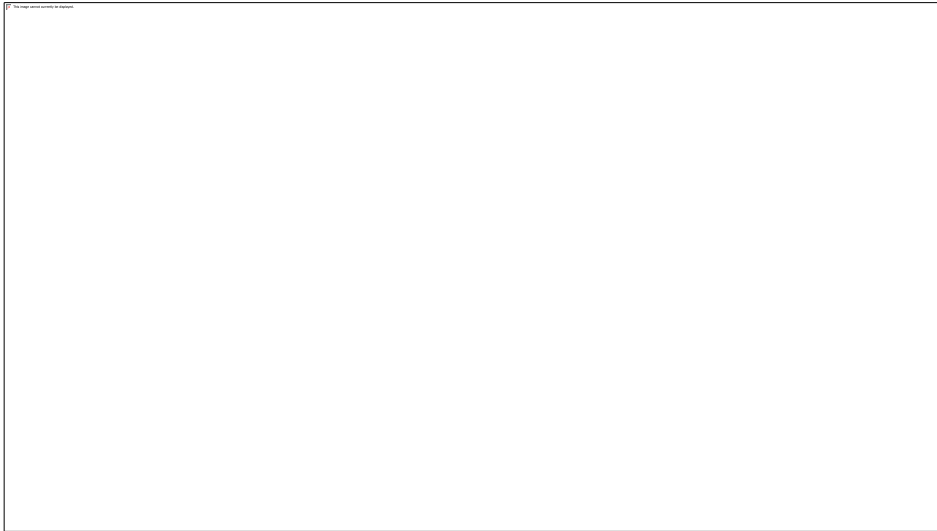
## 3.3 Examples of Strong Social Marketing Resources – Web Resources for “Similar” Programs

We reviewed the websites and web-based information available from the programs we interviewed, as well as other known sites and programs. We highlight a number of our findings – and some outstanding examples -- below.

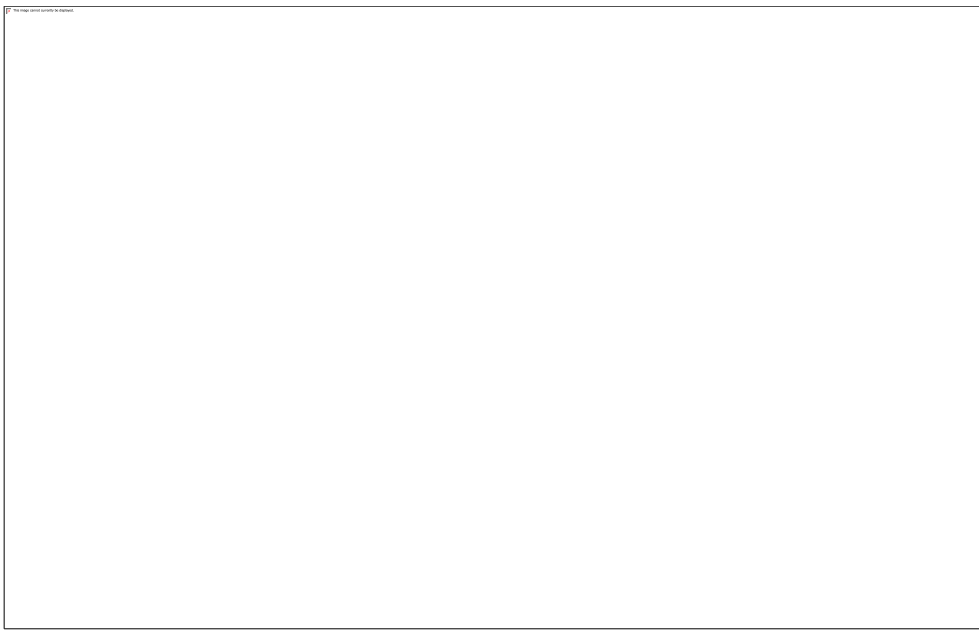
### 3.3.1 Blogs/ Facebook / Social Media

Our review indicates that blogs and facebook pages are common, as are Twitter and youtube links that walk through audits or retrofits. Facebook page examples follow.

**Figure 3.2 A Facebook Page Example**



**Figure 3.3 A Facebook Page Example**



### 3.3.2 Partners

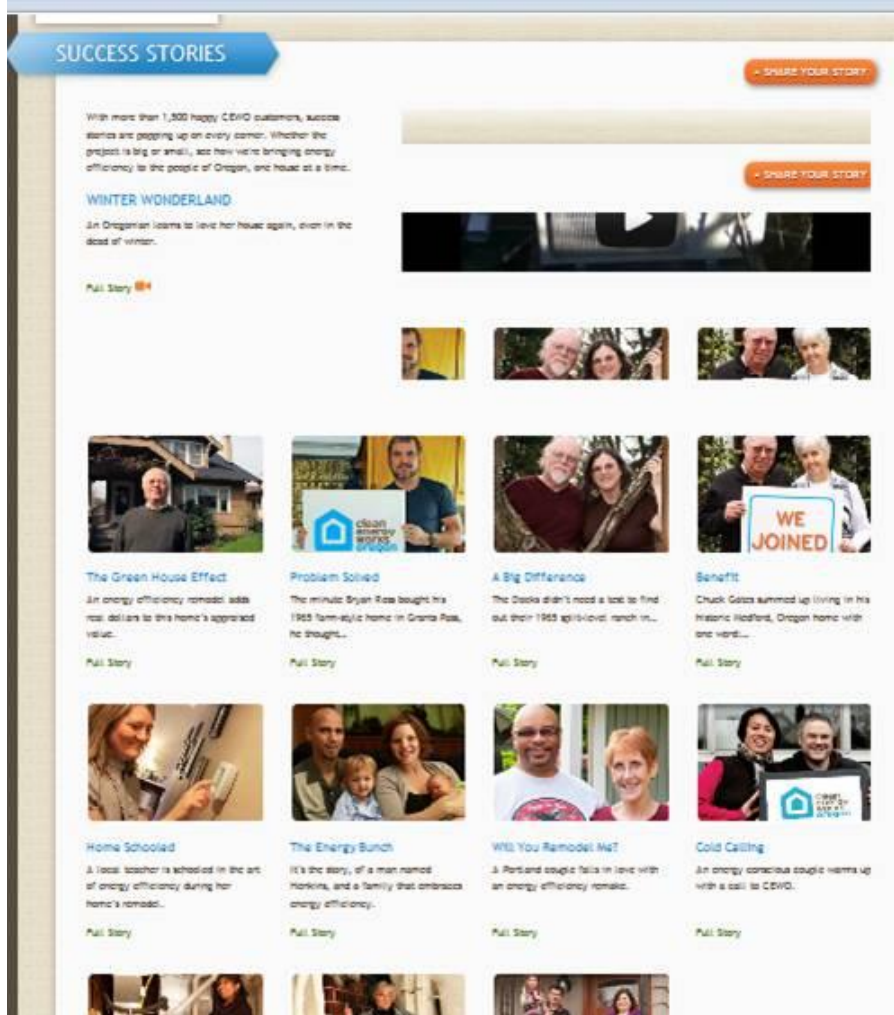
Partners are evident for almost all programs. These include community partners, financial institutions, governmental agencies, and a few professional organizations as well. Partners from one program example include:

- [New Hampshire Office of Energy and Planning](#)
- [Community Development Finance Authority](#)
- [The Jordan Institute](#)
- [The City of Berlin](#)
- [The City of Nashua](#)
- [The Town of Plymouth](#)
- [New Hampshire Charitable Foundation](#)
- [New Hampshire Community Loan Fund](#)
- [New Hampshire Division of Economic Development](#)
- [New Hampshire Electric Coop](#)
- [New Hampshire Homebuilders and Remodelers Association](#)
- [Public Service Company of New Hampshire](#)

### 3.3.3 Case Studies & Testimonials

Another tool that is contained on the website is case studies, / testimonials / examples of savings. These are fairly common. Local examples of households that have actually gone through the program have been suggested as tools that help make the program real and achievable. Examples of several are included in the screen prints below.

Figure 3.4. Success examples of energy saving (CEWO includes videos)



Examples of testimonials listed on websites are provided below.

"I immediately noticed a difference after the insulation was done and our furnace cycle kicked on 50 percent less," he said. "It was hearing about the Denver Energy Challenge program that was the catalyst in getting us to improve the insulation in the attic... we said we have to do this now."- *Testimony from a Denver resident participating in the program*

*"It is solely because of Jason's (our energy advisor) follow-through, after the initial visit, and help coordinating with contractors for bids, that we followed-through and made the suggested upgrades. Without Jason, I would have completely dropped the ball and we would not have made the changes. Jason's approach and interactions were helpful and appropriately responsive; he was never pushy, but supportive at all times."*

### 3.3.4 Special Events Notices

House parties are used in many of the programs. For example, Santa Barbara is doing BBQ in a number of different locations throughout the community. The announcement is provided below.

**Figure 3.5. Example of Neighborhood Party Announcements for a Program**

*Free Homeowner BBQ and Workshop in Lompoc! 6/28/12*



*Enjoy a BBQ with your fellow community members while learning how you can be more comfortable in your home AND save money with home energy improvements!*

### 3.3.5 Feedback

Updates and feedback on KW saved, participants, GHG, goals, home performance, and other indicators were provided on-line by many programs. The following provides an example of an Interactive way to provide some feedback on home performance and a way to get people interested in the program. The program, from Illinois, asks customers to put in their address, and responds with a tailored home ranking, estimate of savings, sign up, for the program, etc. The tables below are based on the responses from entering a “fake” address.

**Figure 3.6. Example of a Website Providing Energy Scores, Savings, and other Feedback**





### 123 N Main St, La Grange MO 63448

Home Type: Bungalow | Size: 2,000 sq ft | Year Built: 1950 | # of Occupants: N/A  
[more](#)

**FOR BETTER RECOMMENDATIONS**

[Update Home Details](#)

---

**YOUR HOME EQ SCORE**

**EQ SCORE**  
COMPARE YOUR SCORE TO AVERAGES FOR:

↑  
INDEPENDENT

↓  
EFFICIENT

1%

This is how much more energy efficient your home is when compared to similar homes.

**Similar homes**

EQ 109

similar 110 homes

**La Grange, MO**

The Energy Quotient (EQ) is a snapshot of your home's energy efficiency, measured by gas & electricity use per square foot

A low EQ Score is better because it means lower energy use and less spent

**IMPROVEMENTS TO USE LESS ENERGY, SAVE MORE MONEY**

**\$2,260** Potential Annual Energy Savings

	Annual Savings	Approx. Cost
Adjust Your Thermostat Based on Outside Temperatures	\$137	\$0
Use and Turn Off Power Strips	\$68	\$75
Air Seal and Insulate Your Attic	\$579	\$2,100
Air-Seal around Windows, Doors, and other penetrations	\$220	\$1,500
Replace Your Furnace	\$405	\$4,500
Air-Seal and Insulate Above Ground Walls	\$262	\$4,000
Replace Your Boiler	\$419	\$6,250
Test & Repair Leaky Ducts	\$170	\$5,000

[Review more improvements that can reduce your energy costs](#)

---

**DETAILS ABOUT YOUR ENERGY USE**

**Annual Gas Use**

GAS USE (THERMS)

Estimate for Your Home = 1,891

Similar homes = 1,332

Your home uses

**Annual Electricity Use**

ELECTRICITY USE (KWH)

Estimate for Your Home = 8,545

Similar homes = 10,319

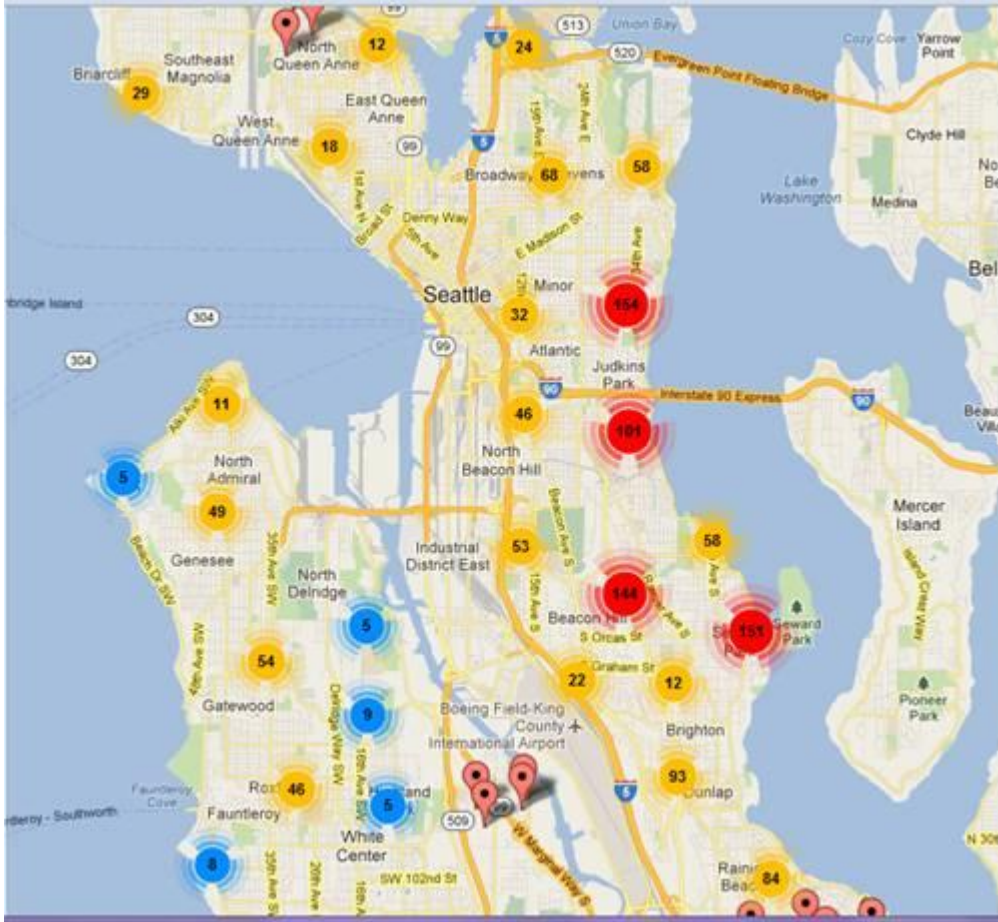
Your home uses

Actual electricity usage can make our recommendations for your home more accurate. Please provide your ComEd account number here.

[Go](#)

Another program's website includes a map showing "winning" neighborhoods in the City. The map shows how many homes have had upgrades in each neighborhood:

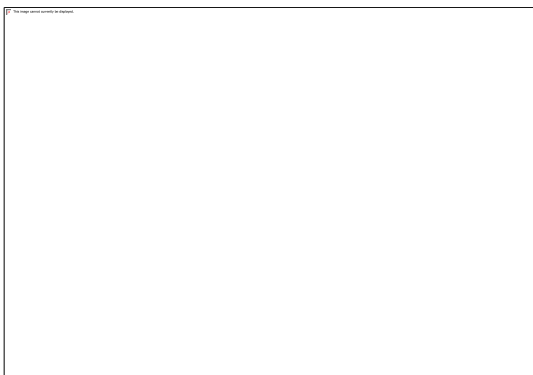
**Figure 3.7. Example of a Website Showing Number of Participants by Neighborhood**



### 3.3.6 Customer Profiles

Web-based profiles, or case studies are also included on some program sites. The example below is from a Seattle program.

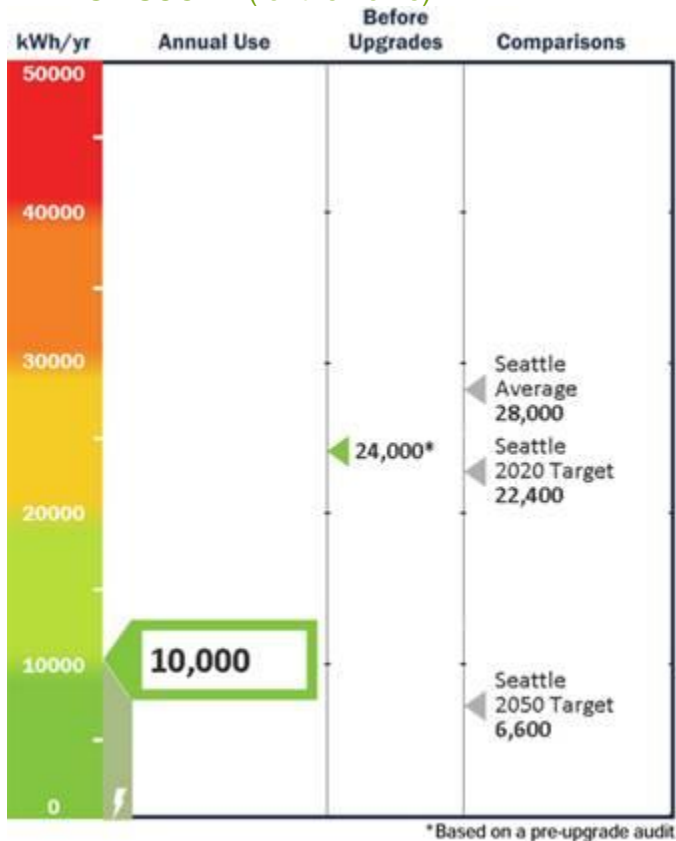
**Figure 3.8. Example of a Website Showing Customer Profiles**



Value: Good, green choices

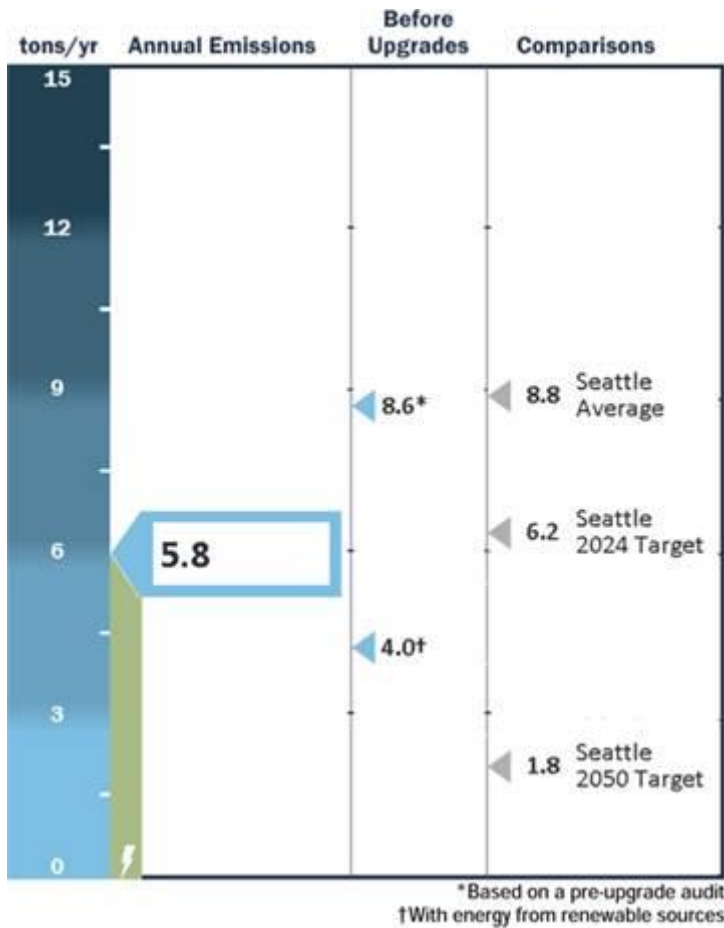
- Customer name: Allyson
- Year home was built & neighborhood: 1910, Washington Park
- Work done:  
Air sealing, insulation, weather stripping, venting, drainage, and installation of a ductless heat pump
- Value addressed through upgrade:  
“We know we’ve added value to the house and made good, green choices in the process.”
- [» Read more about my upgrade in CPW's Blog!](#)
- Before & after EPS scores:
  - CARBON OUTPUT: Before: 8.6 tons/yr | After: 5.8 tons/yr
  - ENERGY USE: Before: 24,000 KWh/yr | After: 10,000 KWh/yr
- ANNUAL SAVINGS AFTER UPGRADE: \$1017!

### ENERGY SCORE (for the home)



*This score measures the estimated total energy use (electricity, natural gas, propane, heating oil) of this home for one year. The lower the score, the less energy required for normal use. Actual consumption and costs may vary. Measured in kilowatt hours per year (KWh/yr).*

CARBON SCORE (for the home)

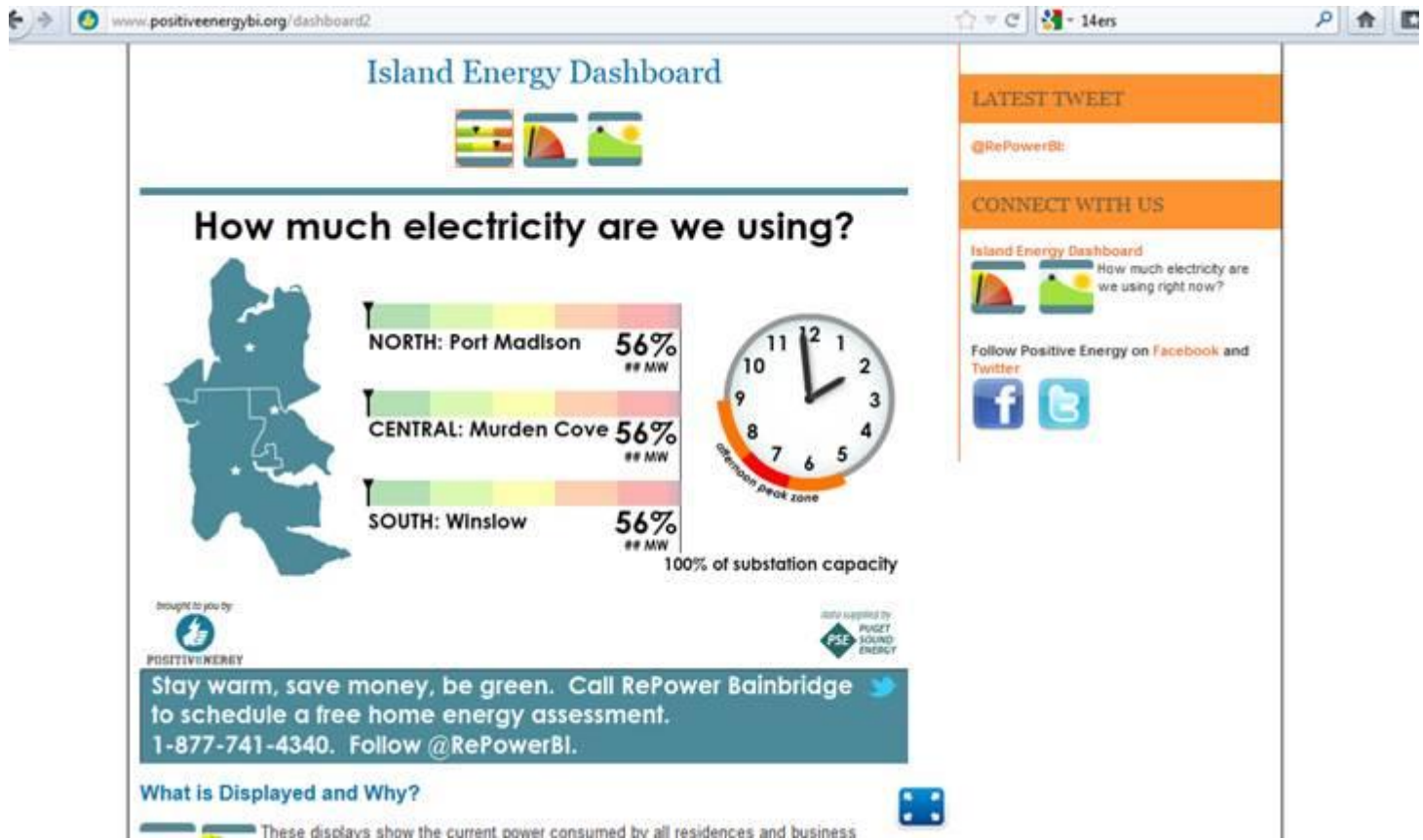


*This score measures the total carbon emissions based on the annual amounts, types, and sources of fuels used in this home. The lower the score, the less carbon is released into the atmosphere to power this home. Measured in metric tons per year (tons/yr).*

**3.3.7 Dashboard Progress Indicators / Feedback**

A website from Bainbridge Island shows energy use throughout the Island on a daily basis, feedback that is mirrored in trackers they put up all over town as a way to provide feedback to residents.

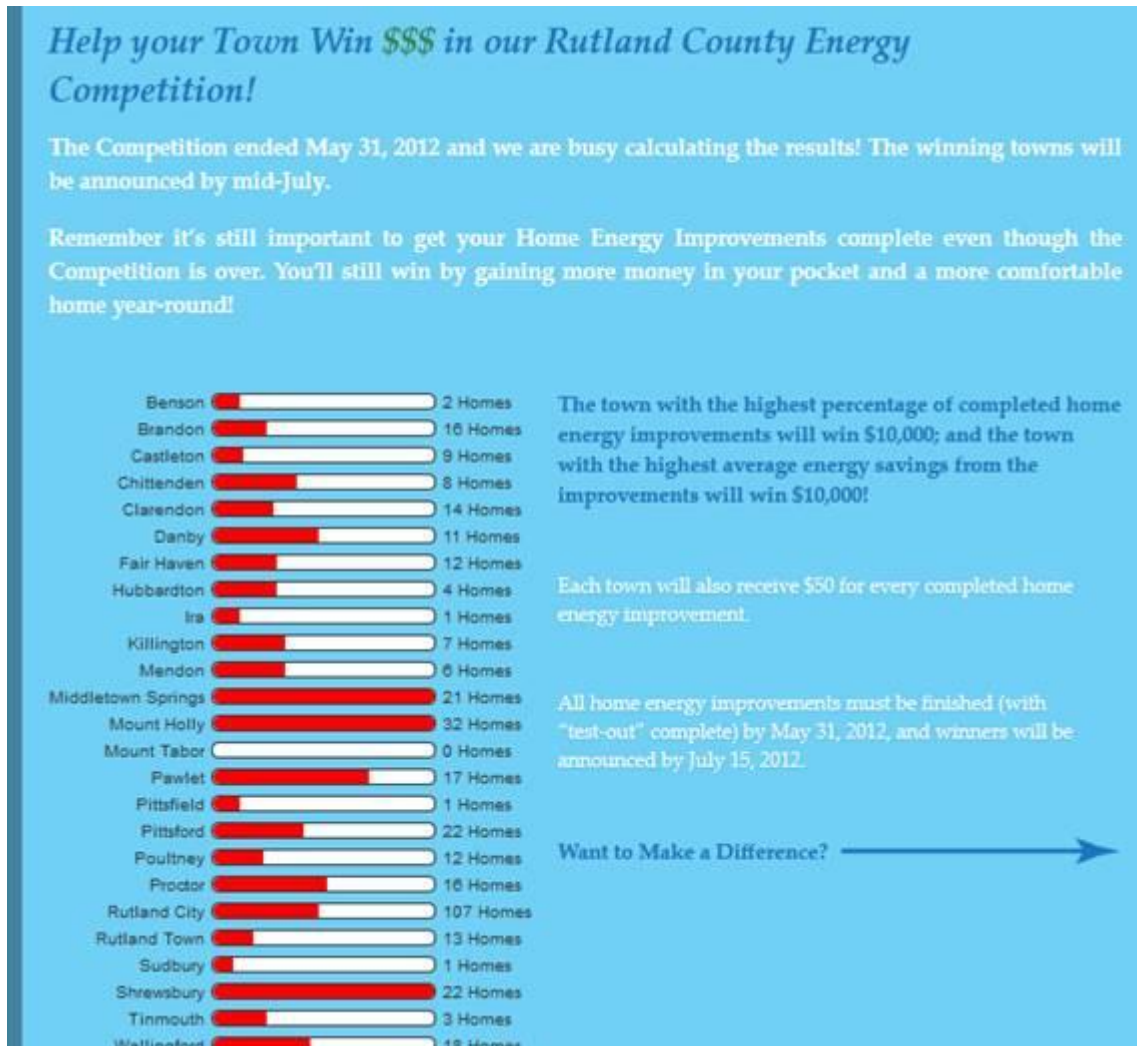
Figure 3.9. Example of a Website Showing Dashboard Feedback



### 3.3.8 Competition

An example of a competition between towns follows.

**Figure 3.10. Example of a Website of a Competition**



### 3.4 Listing of Program Websites

SERA Staff reviewed all of the DOE Better Buildings Program websites along with many other energy efficiency program websites that utilize tools similar to those in the Step-UP program. While nearly all of the websites had some at least some attributes that made them useful, the top 20 websites are highlighted as they were the easiest to navigate, had the most tools for visitors, or had unique attributes, tools, or features. The programs and links to their websites are contained in Figure 3.11.

**Figure 3.11: Websites for Better Buildings and Other Programs**

<b>Top 20 Program Websites</b>	<b>Web Links</b>
Be SMART Maryland	<a href="http://www.dhcd.state.md.us/Website/programs/BeSmart/Home.aspx">http://www.dhcd.state.md.us/Website/programs/BeSmart/Home.aspx</a>
Beacon Communities Project	<a href="http://www.betterbuildingsnh.com/">http://www.betterbuildingsnh.com/</a>
BetterBuildings for Michigan	<a href="http://betterbuildingsformichigan.org/">http://betterbuildingsformichigan.org/</a>
Clean Energy Works	<a href="http://www.cleanenergyworksoregon.org/">http://www.cleanenergyworksoregon.org/</a>
Community Energy Services	<a href="http://mncee.org/Community-Energy-Services-Minneapolis/">http://mncee.org/Community-Energy-Services-Minneapolis/</a>
Community Power Works	<a href="http://www.communitypowerworks.org/">http://www.communitypowerworks.org/</a>
Connecticut Neighbor to Neighbor Energy Challenge	<a href="http://ctenergychallenge.com/">http://ctenergychallenge.com/</a>
CPS Energy Savers	<a href="http://www.cpsenergysavers.com/">http://www.cpsenergysavers.com/</a>
Denver Energy Challenge	<a href="http://www.denverenergy.org/">http://www.denverenergy.org/</a>
Energize NY	<a href="http://energizeny.org/">http://energizeny.org/</a>
Energy Impact Illinois	<a href="http://energyimpactillinois.org/">http://energyimpactillinois.org/</a>
Gillette Home Energy Audit Rebate Program	<a href="http://www.ci.gillette.wy.us/index.aspx?page=937">http://www.ci.gillette.wy.us/index.aspx?page=937</a>
Green Madison	<a href="http://cityofmadison.com/greenMadison/">http://cityofmadison.com/greenMadison/</a>
Marshfield Energy Challenge	<a href="http://www.marshfieldenergy.org/nstar.html">http://www.marshfieldenergy.org/nstar.html</a>
Near Eastside Neighborhood Sweeps Program	<a href="http://www.neareastsidesweeps.com">www.neareastsidesweeps.com</a>
NeighborWorks H.E.A.T. Squad	<a href="http://heatsquad.org/">http://heatsquad.org/</a>
New Jersey Clean Energy Program	<a href="http://www.njcleanenergy.com/residential/home/home">http://www.njcleanenergy.com/residential/home/home</a>
reEnergize Program	<a href="http://reenergizeprogram.org/">http://reenergizeprogram.org/</a>
RePower Bainbridge	<a href="http://www.positiveenergybi.org/repowerbainbridge/community/repower">http://www.positiveenergybi.org/repowerbainbridge/community/repower</a>
Whole House Program	<a href="http://energysavepa-home.com/wholehouse/whole-house-program">http://energysavepa-home.com/wholehouse/whole-house-program</a>
Energize Phoenix	<a href="http://www.energizephx.com/">http://www.energizephx.com/</a>
<b>Other Program Websites</b>	<b>Web Links</b>
Alabama – SEP	<a href="http://www.adeca.alabama.gov/C7/SEP-ARRA/default.aspx">http://www.adeca.alabama.gov/C7/SEP-ARRA/default.aspx</a>
Austin Energy Clean Energy Accelerator - Best Promotion Ever	<a href="http://austinenergy.com/">http://austinenergy.com/</a>
BetterBuildings Greensboro Program	<a href="http://betterbuildingsgreensboro.com/">http://betterbuildingsgreensboro.com/</a>
BetterBuildings Lowell Energy Upgrade (BLEU)	<a href="http://www.lowellma.gov/depts/dpd/projects/better-buildings">http://www.lowellma.gov/depts/dpd/projects/better-buildings</a>
BetterBuildings Northwest Ohio	<a href="http://www.toledoportauthority.org/Programs/BetterBuildingsNWO.aspx">http://www.toledoportauthority.org/Programs/BetterBuildingsNWO.aspx</a>
Camden POWER – A Better Buildings Initiative	<a href="http://camdenpowerresidential.weebly.com/">http://camdenpowerresidential.weebly.com/</a>
Efficiency Maine	<a href="http://www.energysmartyes.com/">http://www.energysmartyes.com/</a>
emPowerSBC (Santa Barbara)	<a href="http://www.empowersbc.org/">http://www.empowersbc.org/</a>
Energy Smart Boulder County	<a href="http://www.energysmartyes.com/">http://www.energysmartyes.com/</a>
Energy Upgrade California	<a href="https://energyupgradeca.org/overview">https://energyupgradeca.org/overview</a>
Energy Works PA	<a href="http://ecasavesenergy.org/">http://ecasavesenergy.org/</a>
EnergyWorks KC	<a href="http://kcenergy.org/energyworks.aspx%C2%A0">http://kcenergy.org/energyworks.aspx%C2%A0</a>
Fayette County Better Buildings Initiative	<a href="http://www.racfa.org/BetterBuildings.html">www.racfa.org/BetterBuildings.html</a>
Garfield County CLEER	<a href="http://garfieldcleanenergy.org/">http://garfieldcleanenergy.org/</a>
Greater Cincinnati Energy Alliance	<a href="http://greatercea.org/residential-energy-efficiency">http://greatercea.org/residential-energy-efficiency</a>
Long Island Green Homes	<a href="http://ligreenhomes.com/">http://ligreenhomes.com/</a>
Massachusetts Department of Energy Resources	<a href="http://www.mass.gov/eea/grants-and-tech-assistance/guidance-technical-assistance/agencies-and-divisions/doer/">http://www.mass.gov/eea/grants-and-tech-assistance/guidance-technical-assistance/agencies-and-divisions/doer/</a>

Missouri Agricultural Energy Saving Team – A Revolutionary Opportunity (MAESTRO)	<a href="http://mda.mo.gov/abd/financial/maestro.php">http://mda.mo.gov/abd/financial/maestro.php</a>
Neighborworks of Western VT	<a href="http://nwwvt.org/">http://nwwvt.org/</a>
Nevada Home Energy Fitness Campaign	<a href="http://energy.state.nv.us/energy-efficiency/nri-initiative.html">energy.state.nv.us/energy-efficiency/nri-initiative.html</a>
New York State Partnership for Innovative Financing of Energy Efficiency Retrofits	<a href="http://www.nyserda.ny.gov">www.nyserda.ny.gov</a>
NYSERDA Home Performance with Energy Star	<a href="http://www.nyserda.ny.gov/home-performance">www.nyserda.ny.gov/home-performance</a>
Solar Energy and Loan Fund	<a href="http://www.stlucieco.gov/ed/empower.htm">www.stlucieco.gov/ed/empower.htm</a>
Southeast Community Consortium	<a href="http://www.seealliance.org/programs/cities.php">www.seealliance.org/programs/cities.php</a>
Sustainable Green Bay	<a href="http://sustainablegreenbay.wordpress.com/">http://sustainablegreenbay.wordpress.com/</a>
Wisconsin Energy Efficiency (WE2)	<a href="http://www.cows.org/collab_projects_detail.asp?id=54">www.cows.org/collab_projects_detail.asp?id=54</a>
Power Pittsfield	<a href="http://www.cetonline.org/">http://www.cetonline.org/</a>



## 4. Advice and Suggestions for University Park from the Interviewees

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The interviewees were asked to provide any tips or recommendations they had for the STEP-UP program based on their experiences. Some of the recommendations have already been implemented by University Park and others may not be appropriate, but all suggestions are included below.

### Contractors / Allies

- *Pre-approve the contractors (both auditors and home upgrade contractors)*
- *Working closely with vendors and contractors was integral to program success*
- *The contractors are one of the main ‘sellers’ of the program and have the most interaction with customers, thus proper contractor training is integral*
- *Have a contractor rating tool so participants can choose the most capable contractors and act as an incentive for contractors to improve their performance*

### Program Design

- *Consider allowing multifamily residents / building to participate*
- *Know the barriers to participation for the target audience and craft your program flow to address those barriers*
- *Multiple financing options are helpful*
- *One program reported that the Energy Performance Score (EPS) was their most successful tool. The EPS gave each house an efficiency score to allow comparison between homes in the neighborhood*
- *Have automatic forms available on-line for participants and contractors*
- *Make the program as turnkey as possible to keep participants moving through the process*

### Measures / Upgrades

- *Have a large budget available for cost-sharing to allow for greater energy improvements per participants (one program gave the example of up to \$8K per household so they could install high efficiency HVAC systems)*
- *Similar to the above recommendations- several reported that deeper savings, not wider, were more effective*
- *Consider providing larger incentives for projects that get larger savings (percentage of energy use)*
- *Instant energy savings measures installed during the audit can result in significant savings*

### Outreach / Marketing

- *Good customer service is integral*
- *Gaining local political support can help the program gain traction*
- *Get the entire community involved in the program and the outreach /education efforts*
- *Leverage past participants to help build the program into the future, use them to host energy parties, showcase their upgrades, provide testimonials, etc.*
- *Cultivate community leaders*
- *Strong program branding*

