

COMMUNITY ENERGY-EFFICIENCY RETROFIT PROGRAMS: A NATIONAL SURVEY

BY ALEXIS ROURK REYES AND ANN D. SOLOMON

With many thanks to the organizations described herein, which contributed their time and materials to this report and lead the way by their example:

Cambridge Energy Alliance, Cambridge, MA

Energy Efficiency and Conservation Options, Huntington, NY

Home Energy Efficiency Team, Cambridge, MA

Long Island Green Homes, Babylon, NY

Marshfield Energy Challenge, Marshfield, MA

Racine Energy Efficiency Program, Racine, WI

SustainableWorks, Seattle, WA

WeatherizeDC, Washington, D.C.

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INTRODUCTION

This report provides a snapshot of lessons learned from projects around the United States that seek to ramp up energy efficiency building upgrades — retrofits — at the neighborhood scale. The report was undertaken to inform outreach and management models of the Pratt Center for Community Development's Retrofit NYC Block by Block program. With support from the Brooklyn Community Foundation and New York City Council, the Pratt Center is partnering with community-based organizations in six New York City neighborhoods to contact approximately 10,000 homeowners, businesses and religious congregations to encourage them to retrofit their buildings and participate in a community-based retrofit campaign while generating jobs for local residents. Retrofit NYC builds on a pilot project in Bedford-Stuyvesant, Brooklyn, launched by the Pratt Center and Bedford Stuyvesant Restoration Corporation in 2009. Retrofit Bedford Stuyvesant is documented in a separate report, *Retrofit Bedford Stuyvesant, Block by Block*, and can be found at www.prattcenter.net/report/retrofit-bedford-stuyvesant.

Given the incredibly rapid pace of expansion and evolution in energy efficiency retrofitting, this report does not attempt to provide a comprehensive analysis of the current state of the field. Instead, we selected a handful of programs from the growing number of residential retrofit programs in the U.S. that have a community focus and strengths in our areas of interest. Specifically, we aimed to explore effective strategies for targeting program audiences, engaging individuals and community groups, marketing retrofit programs, supporting green job development, and packaging financing and incentives to promote program uptake. We identified eight leading initiatives around the U.S. and documented their methods, accomplishments and lessons. The case studies presented here are based on our review of publicly available program descriptions, insights garnered from organizations' internal materials, and interviews with program staff.

THE CURRENT CLIMATE SURROUNDING RETROFIT NYC BLOCK BY BLOCK

While residential retrofits have been reliably used to reduce energy use and costs since the 1970s, primarily through the federal Weatherization Assistance Program for low-income households, retrofitting has yet to achieve wide-scale interest or adoption by homeowners in the U.S. Now, in the face of increasingly alarming evidence of climate change and upward trends in energy prices, federal, state, and local governments, alongside community-based organizations and private-sector entrepreneurs, have taken measures to more aggressively promote retrofits of existing residential, commercial and institutional buildings.

Meanwhile, community-based organizations as well as increasingly influential national nonprofit networks — including Green for All, Efficiency Cities, and Policy Link — have made important strides in advancing implementation such initiatives, providing venues for collaboration, testing potential solutions on shared challenges, and rapidly disseminating promising new strategies.

In New York City, Retrofit Block by Block connects residents, businesses and religious and civic organizations in predominantly low- and moderate-income neighborhoods with the full range of existing public and private financing and incentive programs that facilitate energy-efficiency retrofits. Owners of one- to four-family homes — representing the most common building type in New York City, with more than 600,000 structures citywide — are the primary target of Retrofit NYC, and are eligible for one or more of a half-dozen public and private financial incentive programs.

Major new sources of financial assistance for property owners seeking retrofits are now on the horizon. The New York State Energy and Research Development Authority (NYSERDA) is launching Green Jobs, Green New York (GJGNY), which will make low-cost loans for retrofits and includes funding for local constituency-based organizations to conduct outreach and consumer education on residential retrofits. Meanwhile, the New York state legislature is considering a measure to permit on-bill recovery, which enables building owners to finance retrofits on their utility bills. And New York State has been awarded \$40 million of federal energy efficiency block grant funds to launch PACE programs to finance retrofits via property tax bills. About half of that funding will be devoted to establishing a program for New York City.

Within the emergent retrofit movement is the ideal of establishing an “energy democracy” — to empower low-income communities and communities of color to take control of local energy consumption as well as production and distribution via distributed energy. This strategy can help move low-income neighborhoods toward

social and economic justice. By contrast, tax incentives and programs requiring significant up-front investment by property owners tend to favor property owners who have the funds to make the investments and benefit from the reduction in taxes.

The ambitious goal of energy democracy is the ultimate challenge of community-based environmental efforts, including Retrofit NYC, and it should stand at the forefront of such efforts in the midst of the frenetic evolution of this field and the many challenges of program implementation.

¹ “Energy Democracy: Community-Scale Green Energy Solutions.” Center for Social Inclusion. 2010. <http://www.centerforsocialinclusion.org/publications/?url=energy-democracy-community-scale-green-energy-solutions>

INTRODUCTION TO CASE STUDIES

The following chart presents an overview of the basic characteristics of the eight retrofit programs included in this report. The analysis section below details and compares each program’s approach to the various aspects of a retrofit campaign. Further details on each case are included in the Appendix A case studies.

NAME	LOCATION	PARTNERS	PROGRAM DESCRIPTION	PARTICIPANTS	HIGHLIGHTS
Cambridge Energy Alliance (CEA)	Cambridge, MA	City of Cambridge, NSTAR	Facilitates audits, retrofits, and financing within Cambridge	Homeowners, businesses, and institutions in Cambridge	One-stop shop for multiple programs with full-time energy advisors available for energy counseling
Energy Efficiency and Conservation Options (EECO Homes)	Huntington, NY	Town of Huntington, Long Island Green, EnerPath	Federally funded program offering “tiered” energy efficiency measures	Homeowners in Huntington	Emphasis on public education and providing free preliminary energy assessments that generate efficiency measure recommendations costing <\$1,000
Home Energy Efficiency Team (HEET)	Cambridge, MA	Cambridge residents	Volunteer-run retrofit program. Organizes monthly “barn-raising”-style retrofits	Homeowners, tenants, and nonprofits in Cambridge	Trains hundreds to implement simple retrofit measures; makes retrofitting a community-building experience
Long Island Green Homes (LIGH)	Babylon, NY	Town of Babylon	Municipally supported program to promote and provide residential retrofits with no up-front cost to homeowners	Homeowners in the Town of Babylon	Program covers up-front costs, which are repaid over time as benefit assessment fees to Town
Marshfield Energy Challenge (MEC)	Marshfield, MA	NSTAR, CSG	Utility-sponsored effort to promote retrofitting, solar PV, and direct load control devices in entire town.	Homeowners (targeting those with central AC and pools) and small businesses in Marshfield	Advanced program and energy use tracking and data collection. Aggressive town-wide marketing
Racine Energy Efficiency Program (REEP)	Racine, WI	City of Racine, COWS	Audits and retrofitting for homeowners financed through special assessments.	Homeowners in Racine	Local press has yielded a huge response; the program now has a waiting list of homeowner applicants
SustainableWorks	Seattle, WA	Spokane and Sound Alliance	Facilitates audits, retrofitting, and financing in pilot neighborhoods	Homeowners in Spokane, Northeast Seattle, and Federal Way	Connects effective organizing, promoting local jobs, and accessing low-cost loans via credit unions
WeatherizeDC	Washington, DC	LIUNA	Outreach and organizing campaign to generate retrofit demand	Homeowners in Northwest Washington, D.C.	Brokered Community Workforce Agreement between local union and BPI contractor to ensure sustainable local hiring

CASE STUDY ANALYSIS

This section draws out unique features of the eight case studies as well as overarching commonalities between the programs. It is organized into six subject areas of particular interest to the Pratt Center in the development of Retrofit NYC Block by Block: targeting buildings, community engagement, messaging and marketing, labor policies and workforce development, retrofit measures and financing, and program logistics.

TARGETING BUILDINGS

Selecting a Target Audience

Creating demand for weatherization work is central to **Weatherize DC's** efforts to create good green jobs. Weatherize DC chose to launch its efforts in the relatively affluent Northwest quadrant of Washington, DC, conducting outreach to single-family homeowners who are likely to be financially prepared to borrow or to pay retrofit costs up front. The project piloted a canvassing model that builds community interest and mobilization around home weatherization, generating demand at the neighborhood level. This allowed outreach workers to begin creating the demand that would result in retrofitting construction jobs for residents of less affluent Southeast neighborhoods. This strategy has enabled Weatherize DC to recruit 200 homes to enter the "weatherization pathway," creating sufficient demand to hire four to seven unemployed D.C. residents within the project's first year. As their program becomes more established, Weatherize DC plans to expand into additional, less affluent neighborhoods with wider ranges of building types.

SustainableWorks targets low- to moderate-income families in neighborhoods throughout Washington State, specifically households earning between 60 and 80 percent of median income, given this income bracket's significant financial need and exclusion from federal Weatherization benefits. The SustainableWorks pilot projects aim to serve a high percentage of homes in small geographic areas to achieve significant energy savings and economies of scale in installation. SustainableWorks targets neighborhoods with a high percentage of owner-occupied homes, as owners are expected to have a direct incentive to invest in retrofits that save both energy and money. The organization launched its pilots in several neighborhoods it defines as "community-oriented" and offers each selected neighborhood its own page on the SustainableWorks web site, each providing tailored progress updates and information.

Building Age and Energy Use

The **Racine Energy Efficiency Program (REEP)** is also a citywide program, but targets homes thought to be most in need of retrofits. More specifically, the program is only available to homes built prior to 1975 with energy bills higher than \$1,700 a year. It is further restricted to owner-occupied, one- to four-family homes; however, the vast majority of homes in Racine fall into this category.

Citywide Programs

The Town of Huntington's **EECO Homes** program is open to the entire town of Huntington, however, because the town is largely comprised of single-family homes, the program is, in-effect, tailored for that audience.

Cambridge Energy Alliance (CEA) is also a citywide program, but aims to cater to all residence types, businesses, and institutions in the City of Cambridge. As in the Pratt Retrofit NYC project, CEA essentially serves as a liaison between Cambridge residents or business owners and the various efficiency programs for which they're eligible. The program has specialized outreach strategies for each segment of property in Cambridge, conducting door-to-door canvassing for homeowners, contacting executive administration of large businesses and institutions, and networking with local business associations. In addition, CEA's website has pages dedicated to each segment, directing one- to four-family homeowners, multifamily owners, small businesses, and so on to their respective next steps toward energy efficiency.

COMMUNITY ENGAGEMENT

Organizers for Retrofitting

WeatherizeDC recruits and trains volunteers from local universities, faith-based groups, and neighborhood organizations to educate and mobilize their networks in support of home weatherization, local green jobs, and sustainable community. This organizing model, along with a suite of data and new media tools, is based on the model employed by the Obama for America campaign. Volunteers are trained in outreach tactics and learn to apply customized messaging strategies across a range of social networks including workplaces, faith communities, youth groups, and neighborhood associations. Volunteers also receive training in conducting home energy assessments, coordinating community energy meetings, and having one-on-one conversations with homeowners. All of these efforts come together to provide homeowners with deeper interest and knowledge of weatherization and to create positive reinforcement from peers, thus increasing homeowners' likelihood of completing the weatherization process.

SustainableWorks partners with organizations and individuals to conduct the essential work of outreach to targeted neighborhoods. At the county level, the organization works with the Industrial Areas Foundation Northwest and two state affiliates, the Spokane and Sound Alliances. These Alliances are comprised of nearly 100 member institutions representing over 100,000 households and have a strong track record in mobilizing moderate-income neighborhoods. Utilizing these networks, SustainableWorks engages neighborhoods through local religious institutions, education associations, labor unions, community groups, and other volunteers. With these individual and community-based partners, SustainableWorks develops tailored community-based energy education and apprentice recruitment programs. SustainableWorks' pilots offer further evidence of the effectiveness of organizing communities through volunteer support, local institutions, public events, house meetings and neighbor-to-neighbor education in achieving desired program participation rates and energy savings. Their program includes training for block organizers, or "Block Captains," who are empowered to share their new knowledge of residential retrofits with their neighbors through meetings in their homes.

Tapping Into Existing Networks

Many of the sample cases affirm the importance of connecting to a variety of local groups to successfully promote energy efficiency improvements. In Cambridge, both the **CEA** and **Home Energy Efficiency Team (HEET)** emphasized their networking not only with other "green" groups, but also with other community associations in order to spread the word, rather than simply "preaching to the choir." Both groups challenge themselves to contact new, unreached organizations and inform them about energy efficiency.

Empowering a City's Residents to Do it Themselves

HEET provides an amazing example of how much a community can do with very little funding. The entirely volunteer-run program has retrofitted 60 buildings in Cambridge at monthly retrofit "barn-raising" that often include food and music. In doing so, HEET has provided some basic do-it-yourself retrofit training to more than 500 volunteers. The enthusiasm about the HEET model is spreading; HEET has provided technical assistance to more than 20 other communities planning to launch a similar programs.

Energy Assessment and Conversation

EECO Homes has made homeowner education and basic, low-cost energy efficiency measures the center of its program. The focus of the EECO energy assessment is to walk the homeowner through key energy efficiency concerns, provide him or her with a handbook to further educate themselves on energy, and finally to present a list of low-cost elements to buy and implement immediately. Each energy assessor spends

time with homeowners and provides them with specific advice about small steps they can take immediately and more energy-conscious behaviors at home. The ultimate goal is for homeowners, after receiving energy efficiency education and experiencing the benefits of simple efficiency measures, to move on to “Tier 2,” comprehensive audits and deeper retrofit measures, and eventually to “Tier 3,” installing renewable energy equipment in their home.

MESSAGING AND MARKETING

Studying Your Audience

WeatherizeDC takes advantage of staff experience as organizers of the Obama for America campaign by applying its methods not only to outreach, but also to research. The group uses sophisticated voter canvassing software packages such as Aristotle’s VoterListsOnline and Catalyst to collect an extensive set of data about households in the neighborhoods they canvass. The software is costly, but organizers say the advantage of up-to-date information on individual household demographics is a worthy investment. This data analysis, along with efforts to scan the local area for reputable, BPI-certified contractors, are part of the overall “ecosystem analysis” WeatherizeDC conducts before launching a program.

WeatherizeDC also carried out initial message testing with representative target audiences in Northwest D.C., which led to the development of the page on its website that addresses a set of “myths” about weatherization, a unique take on information more often presented as Frequently Asked Questions. During door-knocking message testing, they found that “energy savings” and “increased comfort” were the most popular motivations among homeowner respondents, yet found “environment” to be more heavily favored when homeowners were engaged as part of a group of neighbors.

The **Marshfield Energy Challenge (MEC)** and **Cambridge Energy Alliance** took a different approach to understanding their respective communities. Rather than doing extensive demographic analysis up front, each group hired third-party researchers to conduct in-depth participant surveys after their programs were underway. They used these studies to better understand which marketing tactics and elements of their programs were effective and which were not.

Both MEC and CEA’s studies yielded informative results about messaging. MEC found that ease of program participation, lowering monthly bills, and financial incentives were the highest-ranking motivators for homeowners to participate in the program. These factors consistently ranked higher than the perceived benefits to the community.

CEA has adapted its program in response to two lessons that emerged from their participant studies. First, it presents homeowners with the monthly loan payment amount for retrofitting, which is more understandable than a total loan amount and interest rate. Second, it learned that matching grants are perceived as more valuable than a subsidized interest rate, even if the interest rate is actually a larger subsidy. CEA will be offering a matching grant option to homeowners later this year.

Offering Insights From Peers

WeatherizeDC's community-driven approach builds upon marketing research that demonstrates that most people will listen to trusted friends and neighbors more than well-meaning strangers to help them make decisions. For this reason, it offers online and in-person testimonials as a core marketing tool.

SustainableWorks provides various online “case studies” from small businesses and churches to neighborhood residential pilot participants. Case studies offer details on project costs, jobs created, and estimated energy savings in both dollars and carbon emissions.

Establish a Program “Personality”

SustainableWorks employed a marketing and communications firm that specializes in public benefit projects to develop messaging, promotional materials, a web site and public relations strategies that blend traditional marketing with community engagement and community organizing. With assistance from this firm, SustainableWorks developed a key message platform that would reveal the SustainableWorks “personality” of being a “Responsive; Sincere; Neighborly; Smart; Professional; and Perfectionist...community-based nonprofit that helps you save energy, money and the environment; and creates quality jobs.”

Making the Most of the Press

REEP, CEA, and HEET all benefitted greatly from free marketing: press. CEA and REEP had such extensive coverage of their launch that they were flooded with audit requests before their programs were fully operational. In fact, REEP has not had to conduct any additional marketing to date. HEET has received ongoing positive press coverage thanks to their retrofitting of various nonprofit institutions, collaboration with Harvard University, and a Boston Bruins player who has volunteered with the organization.

LABOR POLICIES AND WORKFORCE DEVELOPMENT

Partnerships With Unions

In order to ensure the demand their efforts generated led to good green jobs for Washington, D.C. residents, **Weatherize DC** negotiated a Cooperative Workforce Agreement between a leading national labor union and a local home performance business. This agreement ensures that jobs generated by Weatherize DC are filled by local residents from communities of high unemployment and that all workers receive certification-based training, support to encourage career mobility, and a living wage. Weatherization training of new hires is offered through a relationship with LIUNA local affiliate, an established provider of this seven-day certification training.

SustainableWorks published a set of “Contractor Requirements,” which establishes mandates related to hiring, training, wages, certification to perform retrofit work, and support for prices quoted. It works only with unionized contractors that pay prevailing wages, and requires that at least 20 percent of staff on every retrofit job consist of apprentices.

In order to ensure quality jobs and opportunities for disadvantaged constituencies, SustainableWorks has partnered with skilled trades organizations and experienced contractors to develop training programs that upgrade workers’ skills to take advantage of new energy-efficiency technologies and deliver high-quality service. As of early 2010, their program had graduated 100 workers from its 44-hour Energy Systems training program, and nearly half of trainees received additional hours of specialized auditor training. SustainableWorks also provides direct entry opportunities into apprenticeship programs in skilled trade unions through relationships with pre-apprenticeship programs serving targeted constituencies.

Small-city Labor Standards

In Racine, the **REEP** program has incorporated more moderate contractor requirements. Because Racine is a small city of around 200,000 people, there are a limited number of contractors available to do this work. COWS and the City of Racine did not want to impose requirements that would limit homeowners’ options too significantly. As such, REEP requires that contractors have offices within 20 miles of downtown Racine and pay workers a minimum of \$12 an hour. These qualifications

satisfy a desire to produce good, local jobs and are relatively simple for contractors to comply with and for the city to monitor.

RETROFIT MEASURES AND FINANCING

Pace Programs

The Town of **Babylon** and **REEP** programs rely on PACE financing for their retrofits, which enabled the city to pay for the up-front costs of retrofitting and then bill homeowners over an eight- to ten-year period on their property tax bills or via municipal benefit assessments for the work completed. In this way, homeowners are able to obtain lower risk “loans” to finance more extensive retrofits, which stay with the property in the case of a sale. In Babylon homeowners are eligible for up to \$12,000 in retrofit work, and in Racine there is no official loan limit—each loan is evaluated by the city on a case-by-case basis. It is unclear how these programs will move forward take in light of the current road block imposed by the Federal Housing Finance Agency (FHFA).

Low-interest Loans

SustainableWorks offers program participants energy audits subsidized by Federal and local utility funding. Audits cost \$95 (refundable if no improvements are recommended) and include installation of CFL light bulbs, shower heads, and faucet aerators. The organization cooperates with local banks, credit unions, municipal governments, and utilities to identify loan products with low interest rates, a 10- to 15-year loan period, low fees, and without early payment penalties. Local credit unions serve as the primary providers of these low-interest loans, and participants can download loan applications on the SustainableWorks web site.

All Massachusetts one- to four-family homeowners are eligible for 0 percent financing up to \$15,000 through the state-regulated, utility-sponsored MassSAVE loan program. The **Cambridge Energy Alliance** works with residents to connect them to lenders who offer the 0 percent loan product. However, as a result of homeowners’ apprehensions about debt and focus group feedback, the alliance is now working with funders to provide a matching grant to homeowners in lieu of the financing, in the hopes it will be a more appealing incentive.

Low-cost Measures

Huntington’s **EECO Homes** program focuses on homeowner education and promotion of the town’s Tier 1 energy assessment, which evaluates a home and provides “low-cost, high impact” measures, including weather stripping, caulking, pipe

insulation and the like. Recommended measures cost between \$400 and \$1,000, and homeowners are expected to purchase them on their own or can order them through EECO Homes.

HEET also relies on homeowners covering the cost of materials for small-scale retrofit measures, which usually run \$200 to \$500 total. Homeowners also benefit from the volunteer labor of 50 to 60 people at the HEET barn-raising.

The **Marshfield Energy Challenge** focused on offering homeowners a range of free measures, including air conditioning tune-ups, CFLs, and direct-control thermostats and pool pumps. The MEC also offered substantial rebates for insulation, air sealing, and new heating and hot water systems. Though the 0 percent financing was also available to Marshfield residents, not surprisingly, the measures that were free or had significant rebates were more widely adopted.

PROGRAM LOGISTICS

Obtaining and Tracking Energy Usage Data

Securing access to utility account and energy-use information is critical to assessing energy savings. To achieve increased compliance from homeowners, most programs, including **EECO Homes**, **REEP** and **SustainableWorks**, are incorporating utility release requests at the outset of program participation. This practice, also used by federal Weatherization Assistance Program providers in a number of states, minimizes the perceived risk of releasing this information by incorporating it into a process in which homeowners are understandably being asked to provide information on their building and consumption behaviors as part of the assessment and registration process.

At this point in time, few programs, including LIGH and HEET, are actively tracking utility usage post-retrofit, and even these programs have found the task of interpreting their data to be a challenge. Rather than tracking actual use, most programs, including **EECO Homes** and **CEA**, are tracking outcomes using projected savings of efficiency measures installed. While this is not ideal, it is the industry norm at present.

A Dynamic Web Presence

Almost every program has created step-by-step guides to the retrofit process on their websites. In addition, many sites include the ability to sign-up to schedule an audit online and even apply for financing. Some websites, including those of **SustainableWorks** and **REEP**, provide information for contractors on the benefits and requirements for participation; the sites also offer an online sign-up option for

interested contractors. Provision of an online sign-up tool for key program audiences (homeowners, volunteers, and contractors) serves as an efficient mechanism for data collection, including solicitation of audiences' responses to key messages.

Many programs also utilize social networking, blogs, and online chat features as additional means to spread the word about their efforts and as another way for interested community members to interact with the retrofit organizations. Groups are on Facebook and Twitter, and some have added more distinctive elements including blogging about retrofitting and sustainable practices, e-newsletters, green event calendars, and an online "chat with an energy advisor" function for homeowners with questions.

Diverse Staff and Required Competencies

The staff of **SustainableWorks** has developed expertise in each of the core competencies required to implement neighborhood pilots: community organizing; workforce training; energy-auditor training; utility coordination; and contractor recruitment, coordination, and quality control. An "energy consultant" reviews audits and presents all audit results to homeowners, relieving contractors of that responsibility and ensuring that results are interpreted and explained as persuasively as possible to the homeowners.

WeatherizeDC's staff is comprised of people with a range of expertise, including extensive organizing experience, energy-efficiency market development, and working with public utilities. Although it does not have weatherization contractors on staff, the organization maintains a formal relationship with local BPI contractors. It has also organized an advisory council with representatives from both local grassroots and national leadership in the weatherization arena.

Cambridge Energy Alliance has divided its outreach and energy-advice services between two staff people, with one specializing in each area. In this way, there is a person constantly working on spreading the word about CEA and another who is available to guide individual homeowners through the energy assessment and retrofit process. In addition, CEA's executive staff has deep experience in energy issues and is able to work with utility providers and local institutions to facilitate their cooperation in CEA's efforts.

LESSONS LEARNED & RECOMMENDATIONS

Know Your Audience

Successful programs have made researching the communities they're working in before and during program implementation intrinsic to their work. All retrofit programs should consider how best to obtain necessary information about each community's targeted audience and the most effective ways to understand how those participants perceive the program once it is underway. Purchasing one of the data sets used by groups like WeatherizeDC to obtain accurate contact information on homeowners, and potentially to cater marketing to particular demographics or further refine targeting, may well be a worthwhile investment.

In addition to accessing social and economic data from market research firms, retrofit programs should consider assessing their audiences in terms of their relevant behaviors. Asking a homeowner to participate in a retrofit program is asking him/her to perform a behavior, and each step in the retrofit process might be considered a separate behavior. For example, scheduling an audit is one behavior and agreeing to have retrofit work completed is another. Thinking of individual program steps this way drives research towards successful identification of each audience's barriers and motivators for each step of the process and can help in the design of a program that will keep participants moving until they complete a retrofit. Focus groups and surveys are two ways of obtaining more qualitative feedback on each step of the retrofit process.

Be a One-stop-shop Energy Resource

Cambridge Energy Alliance and the Marshfield Energy Challenge created centralized entities where homeowners could get information about all existing energy programs. In doing this, they facilitated access to programs for interested residents and increased uptake in their respective towns. Marshfield found that the ability to bundle programs together for residents' maximum benefit was a big factor in convincing owners to retrofit. CEA has also worked to establish itself as an ongoing resource for homeowners, so that when an owner is ready to make an investment, he or she knows CEA is there to advise. Emerging retrofit programs should strive to make retrofitting as easy as possible for homeowners and to be an "energy advisor" to their target communities. This includes providing step-by-step guides so participants clearly understand the processes for different programs, offering numerous ways for interested residents to obtain information, and ensuring there is sufficient staffing to provide hands-on assistance to participants as they progress with different efficiency programs.

Low-cost Measures Enable Broader Reach, but at a Cost

Though it seems obvious, programs that have promoted smaller scale, low-cost measures are able to reach far more people than programs promoting more extensive retrofitting. Some suggest that small energy steps lead to the installation of more extensive efficiency measures later on, but it is unclear if this will prove true. In addition, because smaller-scale retrofitting represents less investment, it also represents fewer jobs. Programs that have focused on job creation, like SustainableWorks, have also focused on deeper retrofits in order to generate those job opportunities. This poses a critical challenge for new retrofit programs: how can a program focus on whole-building retrofitting, while simultaneously providing customized or “tiered” retrofit options to enable homeowners to make the level of investment that they’re comfortable with? This tension will impact expected uptake rates and efficiency outcomes, as well as job opportunities created.

Make Labor Standards a Priority

The retrofit programs with the most robust job-development elements, SustainableWorks and WeatherizeDC, have prioritized jobs in their program design and have entered into contractual agreements with local unions or contractors. They include training programs, union placements, and specific wage and benefits requirements for workers. Other groups, including REEP and Long Island Green Homes, have included more moderate, but still significant labor standards. All of these groups have focused on larger-scale (upwards of \$2,000) retrofits. Efficiency programs in Massachusetts, including CEA and MEC, have not included labor standards or workforce development because they are working within existing programs that have not mandated such requirements and because green jobs were not within the programs’ established goals. For initiatives similarly constrained by an existing energy efficiency system, creating job opportunities for unemployed community members will require innovative agreements with the retrofit contractors carrying out the energy measures. New programs will also have to generate sufficient larger-scale retrofits, not just caulking and pipe insulation, to create demand for these jobs.

Bring Diverse Advisors And Skills to the Program Team

The complex nature of developing, marketing, implementing and evaluating neighborhood retrofit programs requires a staff with strong skills and advisors in diverse areas. Successful programs highlighted here maintain staff or consultants with a range of skills including organizing, marketing, workforce training, energy-auditor training, utility coordination, contractor relations, and retrofit quality control. In addition, many programs have assembled an advisory body, comprised of policymakers, community leaders, and weatherization and utility industry representatives; these advisory groups can aid emerging retrofit programs in engaging

a range of stakeholders and lend additional credibility to their program.

Highlight the Importance of Behavior Change

Energy retrofits are only truly successful when accompanied by personal awareness of and behavior changes in energy consumption. In addition to understanding how to encourage completion of the retrofit process, it is important to help homeowners make the connection between their behaviors and their savings. Program examples highlighted here, such as ECCO Homes, solicit information on energy consumption behaviors as part of their intake process and include a caveat to their proposed energy savings that reminds the homeowners of the importance of their energy consumption to ultimate savings. Future retrofit programs must ensure that promoting energy-conscious behaviors in day-to-day life is consistently included in outreach to homeowners.

CAMBRIDGE ENERGY ALLIANCE (CEA)

Location: Cambridge, MA

Organizations involved in implementation: Sponsored by the City of Cambridge and NSTAR, but CEA has its own office and staff.

Contacts: Garrett Anderson, Director of Efficiency Projects, CEA

Program Start/End Dates: City announced in 2007, program began in March 2008, currently ongoing

Program Description

Objectives: Promote energy efficiency retrofit, technology and behavior with Cambridge residents, businesses, and institutions. Goals: “reduce electricity demand by 50MW; reach a 15% peak load reduction; reduce annual electricity and water consumption by 10% city-wide; achieve a participation rate of 50% in each sector (e.g. municipal, commercial, residential); and reduce annual GHG emissions from the city by 150,000 tons (10%).”

Primary Program Activities: CEA serves as Cambridge’s “one-stop-shop” for energy audits, retrofits, and financing. CEA does not run its own energy services, but instead promotes and facilitates access and understanding existing programs. CEA also works with local financial institutions to facilitate financing process.

Marketing: CEA received a lot of interest from initial press. They have an extensive and user-friendly website; publish a blog and monthly e-newsletter; host and attend community workshops; are referenced in official City of Cambridge mailings.

Financing Model: Utilizes existing Massachusetts programs and facilitates access to private loans: free, whole-building audits for 1-4 homes through NSTAR, but CEA also offers an enhanced audit for \$170 with thermal imaging. MassSAVE Heat loans offer 0% financing for retrofits and a few unsecured and secured loan options with competitive interest rates. In 2010, CEA will roll out new matching grant program for retrofit work.

Funding Sources: City of Cambridge, NSTAR, and private foundations.

Target Audience: Cambridge residents, businesses, and institutions.

Eligible Properties: All properties are eligible, but only 1-4 family residences get free audits, and only low-income residents get free retrofits.

Labor Standards/Workforce Training: CEA is working within existing NStar program and contractors, so there are no program-specific labor standards or relationships with contractors.

Program Outcomes

Tracking/Evaluation Methods: CEA is using RT Tracker, an open source software to track client contacts, audit dates, measures installed. Previously, they had tracked utility use, but ultimately decided it was not worth the time and effort.

Interest Generated: As of mid-2009, 750 people had called to schedule audits.

Outcomes: As of mid-2009: 90 small business audits; 25 businesses completed retrofit work; approx. 450 residential audits have been conducted or are scheduled. CEA had a successful door-knocking campaign in summer 2009: they knocked on 2,716 doors, collected 512 contacts, had 175 audit requests and installed 217 CFLs.

Major Takeaways

Successful Elements:

- Press coverage yielded substantial interest.
- Community events and door-to-door canvassing have generated many audit appointments.
- Partnering with a variety of organizations, not just environmental groups, to ensure that they're not "preaching to the choir" and are reaching new audiences.
- Making sure that people know who to call when they are ready to talk about audit/retrofit, and that they have that resource (the CEA Energy Advisor). Also available to "chat" online through website.

Challenges:

- Being prepared for initial rush of interest.
- Communication between partners (CSG, NSTAR).
- Learning to present financing in terms of a monthly breakdown, rather than total amount.
- While 0% loans (which are available in Massachusetts) are appealing, matching grants are a more compelling financial incentive.

Online Resources

CEA Website: <http://cambridgeenergyalliance.org/>

CEA Webinar: http://www.icleiusa.org/action-center/financing-staffing/Cambridge%20Energy%20Alliance_7%2020%2009.pdf

CEA's "Smarter Cambridge" website (has calculator of what different actions will save residents: <http://smartercambridge.org/>

NSTAR's Website on CEA: http://www.nstar.com/about_nstar/green/cambridge.asp

Energy Efficiency and Conservation Options (EECO Homes)

Location: Huntington, NY

Organizations involved in implementation: Town of Huntington is implementing along with Long Island Green (LIG) under contract as technical energy services provider and EnerPath, energy audit and tracking technology software provider, as subcontractor

Contacts: Terese M. Kinsley, Chief Sustainability Officer, Town of Huntington; Chuck Schwartz, Long Island Green; Dean D'Amore, EnerPath

Program Start/End Dates: EECO Homes began in-home energy surveys on June 30, 2010 and will complete 2,000 home visits by the fall of 2012. LI Green conducted a self-funded pilot program with the LI Oil Heat Institute in 2009 that surveyed 700 homes, using a similar model.

Program Description

Objectives: During three-year grant period Huntington plans to conduct home energy surveys in 2,000 single-family homes, carry out Tier 1 work in 600 homes (30%), and BPI home energy audits and Tier 2 retrofits in 200 homes (10%). EECO Homes, strategy is to provide instruction and education in home energy efficiency and conservation and install basic low-cost retrofits in a broad section of the community, rather than conduct deep retrofits in a few homes.

Primary Program Activities: Tier 1 includes home educational visit and energy survey using EnerPath's PDA system to generate a list of recommendations of "low cost, high impact" measures such as CFLs, programmable thermostats, reduced-flow showerheads and faucets, weather-stripping, window caulking, attic insulation, pipe insulation, duct sealing, and HVAC equipment tune-ups. Homeowners can choose to buy and install materials (from provided list) themselves and EECO will check on installation, have the measures installed by LIG, or have the measures installed by another licensed contractor. Tier 2 is a referral to a Long Island Power Authority-approved (LIPA) BPI contractor for comprehensive energy audit and retrofitting. Tier 3 is a referral to a licensed engineer for the design and installation of a renewable energy generation system (wind, solar, geo-thermal.)

Marketing: EECO Homes is utilizing internet marketing, social networking, presentations to local community groups and events. In addition, EECO is working with area businesses to promote the programs.

Financing Model: Energy surveys are free, but homeowners are asked to commit to investing at least \$100 in Tier 1 home energy efficiency and conservation retrofits following the home energy survey work plan. Homeowners are expected to pay for retrofit materials and, if not doing it themselves, the installation of these measures. Homeowners interested in Tier 2 will be referred to a LIPA approved BPI contractor. Huntington, which is also a member of the LI Green Homes Consortium, plans to refer candidates for Tier 2 retrofits to NYSERDA under Green Jobs/Green New York when the program becomes operational.

Funding Sources: Energy Efficiency and Conservation Block Grant (EECBG) and the American Recovery and Reinvestment Act of 2009 (ARRA).

Target Audience: Homeowners in the Town of Huntington

Eligible Properties: Single-family homes.

Labor Standards/Workforce Training: LI Green has a sub-contract with Stony Brook University for on-the-job training of home energy services employees.

Program Outcomes

Tracking/Evaluation Methods: Huntington will be using a combination of Sales Metric and EnerPath software to track contacts, surveys, and recommendations. The program will collect one year of utility use history in order to conduct energy survey. They do not have a utility use tracking method set-up at this time, but will instead use projected savings of measures installed.

Interest Generated: Huntington EECO Homes began conducting home energy surveys in June 2010. Approximately 50 surveys completed to date. Approximately 150 homes in the survey queue with full marketing deployment expected by fall 2010.

Outcomes: Though program has just started, thus far approximately 50% of the Tier 1 home visits have resulted in referrals to BPI contractors for owners interested in comprehensive audits and retrofits.

Major Takeaways

Successful Elements:

- The 1.5-hour home visit and energy survey is being well received. Homeowners are positive about having a trained energy technician look at their home and learn more about energy conservation and home energy efficiency.
- In these early stages, the rate at which homeowners are asking for BPI contractor referrals is higher than expected.

Challenges:

- In Long Island Green's pilot, they did not have an effective way of tracking the number of homeowners who installed the low-cost efficiency recommendations provided. The use of the EnerPath web-based tracking system in the EECO Homes program is intended to allow LI Green to conduct more effective follow up with homeowners to convert the initial interest during the home visit into a Tier 1 or Tier 2 retrofit.
- The Town has yet to find a simple way to work with utilities to track the energy usage of homeowners using the Huntington EECO Homes program.

Online Resources

Long Island Green's website: <http://www.ligreen.com>

EECO Homes website: <http://eecohomes.org/>

Home Energy Efficiency Team (HEET)

Location: Cambridge, MA

Organizations involved in implementation: Run by volunteer community members

Contacts: Matthew Schreiner and Audrey Schulman HEET

Program Start/End Dates: Started August 2008, incorporated March 2010, program ongoing

Program Description

Objectives: Improving energy efficiency in Cambridge for residences and non-profits, while community building. In their words: "HEET is a Cambridge-based energy co-op bringing neighbors together to weatherize homes."

Primary Program Activities: HEET organizes monthly "barn-raising" where teams of volunteers carry out retrofit improvements in local homes and non-profits. Before any work is done, one of three experienced staff conduct an energy efficiency audit and identify the necessary and cost-effective improvements to be done. Then, team leaders, regular volunteers who have received training, lead new volunteers in carrying out the work. They have 50-60 people at any given barn-raising. HEET has food and music at every barn raising.

Marketing: HEET has primarily been promoting their work through constant outreach to like-minded local groups, universities and word of mouth in the City. Recently, they have started using volunteer placement sites to recruit volunteers.

Financing Model: The renter or homeowner receiving the retrofit is responsible for paying for the materials, unless they are identified as low-income, in which case grant funds are used to cover those costs. Homeowners typically spend \$200-\$500 for materials (caulking, insulation, nails, showerheads, lumber, casing for heating system etc.).

Funding Sources: HEET is a volunteer organization, but they have received some grants for materials and to support some of their program work. They have 2-3 people working near full-time as volunteers or with minimum compensation.

Target Audience: Homeowners, renters, and non-profits in Cambridge

Eligible Properties: Buildings in Cambridge

Labor Standards/Workforce Training: HEET is all volunteers so there are no labor standards. Periodically trainings are provided for people to become team leaders, and at each barn-raising event, every volunteer receives brief training in work they will be conducting. Thus far, HEET has enabled 6 people who received training at barn-raising to get green jobs.

Program Outcomes

Tracking/Evaluation Methods: HEET always conduct before and after blower door tests to ensure effectiveness of retrofit work. HEET is tracking ongoing utility usage in weatherized houses to measure reduction in energy use.

Interest Generated: HEET consistently has good attendance at monthly barn raisings. 500-600 people have volunteered since HEET was launched. Press coverage around Massachusetts has sparked other towns' interest in starting similar groups. Won EPA 2009 Environmental Merit Award.

Measures Installed: 52 houses and 9 institutions weatherized as of summer 2010.

Major Takeaways

Successful Elements:

- HEET has found that post-retrofit residences have reduced heat and electricity use by 10% on average.
- An online survey found that 75% of HEET volunteers used the energy efficiency tasks they learned at our events on their own homes. 90% of the residents that have had a barn-raising responded that they changed their behavior afterward to turn off lights and otherwise lower their energy use.

Challenges:

- It took 3 or 4 barn-raisings before they finalized their group retrofitting model, in terms of number of team leaders and timing to complete a project.
- Keeping up constant outreach to ensure that they have a steady volunteer pool
- Fundraising to start to compensate full-time "volunteers."

Online Resources

HEET's website: <http://www.heetma.com/>

Long Island Green Homes

Location: Babylon, Long Island, New York

Organizations involved in implementation: Town of Babylon

Contacts: Dorian Dale, Energy Director, Town of Babylon; Sammy Chu, Project Director, Long Island Green Homes

Program Start/End Dates: August 2008 - present

Program Description

Objectives: Promote and support completion of residential retrofits in single-family residences in the Town of Babylon.

Primary Program Activities: Outreach to homeowners and community groups, recruitment of participating homeowners and contractors, coordination of residential retrofit work and repayment.

Marketing: The Town has marketed the program to all households in Babylon (approximately 65,000). In August 2008, all residents received a free CFL bulb, energy tips booklet, and an announcement of the Green Homes Program. The cost of this promotional event was covered by a public-private partnership. In February 2009, the Green Homes program was featured on the cover of a recycling calendar sent to each home. The Town also markets the program through presentations to community groups, schools, and program stickers attached to parking permits.

Financing Model: Babylon utilizes a PACE model—the town pays the upfront costs of retrofit (up to \$12,000 per home) and the homeowner pays for the improvements through a monthly benefit assessment fee paid back to the Town. The amount of the monthly benefit assessment fee is structured to be less than the monthly savings on a resident's energy bills resulting from the energy-efficient improvements. The Town covers administrative costs through a 3% administrative fee built into the monthly payments.

Funding Sources: Town of Babylon Solid Waste Fund

Target Audience: Homeowners and residents of the Town of Babylon

Eligible Properties: Single-family homes

Labor Standards/Workforce Training: Contractors must be insured, licensed by the Town, and certified by the Building Performance Institute. As of July 2010, there are nine BPI-certified contractors and six plumbing and heating contractors participating in the LIGH program.

Program Outcomes

Tracking/Evaluation Methods: LIGH collects 2 years of historic energy use data for each home as part of audit process. Pre- and post-retrofit blower door tests are

APPENDIX A - CASE STUDY DATA

conducted and one year of post-retrofit energy data is collected to evaluate the retrofit measures' effectiveness. LIGH is utilizing CSG's HomeCheck program for its audit and evaluation process.

Interest Generated: Beyond the interest generated by local marketing to Babylon residents, LIGH has received coverage in the New York Times, Scientific American, Newsday, CNN Money, and other local media.

Outcomes: As of July 2010, more than 500 homeowners have participated in program. 75% of LIGH audits have translated into homeowners carrying out deep retrofits of their homes. LIGH has found that homes that have had deep retrofits have reduced their carbon footprint by 4 tons of CO₂ on average.

Major Takeaways

Successful Elements:

- Babylon offers LIGH participants a Green Certificate of Occupancy indicating how much more efficient the house is after the retrofit work has been done. This makes a new home more attractive and gives prospective buyers and tenants an idea of how much energy they will be saving.
- Identifying and qualifying contractors before launching the LIGH supported a smooth program launch.

Challenges:

- Marketing of programs and recruiting homeowners that are interested in participating in the entire process, through the actual retrofit.
- The recent decision by FHFA not to approve mortgages with PACE financing has disrupted the LIGH program in Babylon. The Town is filed a suit against FHFA, challenging their ruling that has effectively stalled the PACE program.

Online Resources

Town of Babylon's program website: <http://www.TheBabylonProject.org>

Long Island Green Homes Web site: <http://www.ligreenhomes.com>

Efficiency Cities Network Conference Call Slides featuring Dorian Dale, Energy

Director, Part 1: June 8, 2010 <http://www.efficiencycities.org/past-calls#June8>

Part 2: June 22, 2010 <http://www.efficiencycities.org/past-calls#June22>

Marshfield Energy Challenge (MEC)

Location: Marshfield, MA

Organizations involved in implementation: NSTAR sponsored the pilot, Conservation Services Group coordinated the residential program, RISE Engineering coordinated the business program, and Gro Solar carried out PV installations

Contacts: Mark Churchill, NSTAR;

Program Start/End Dates: Early 2008 – June 2009

Program Description

Objectives: Marshfield's electricity distribution lines were near capacity, so this pilot aimed to reduce base and peak electricity demand to avoid a costly system upgrade.

Primary Program Activities: MEC included initial audits and site evaluation for PVs, retrofit measures (with a focus on tune-ups for central ACs), PV installation, as well as demand response Smart Thermostats that could increase home temperatures by up to 3 degrees as necessary during peak load hours.

Marketing: The MEC began with significant and early engagement of community political leaders and major stakeholders including a two-day pilot design retreat held in 2007. MEC placed regular radio ads, hosted community events, sponsored school lessons, sent town-wide mailers, and did multiple targeted direct mailings to high-use energy customers.

Financing Model: MEC provided free audits and PV assessment for all households and small businesses. A combination of subsidies were offered for homeowners: rebates for heating system and appliance upgrades, free AC tune-ups for homes with central air, free CFLs, 0% financing through utility program for retrofits, up to 50% off air sealing and insulation. Businesses were offered a 70% cost share on efficiency measures.

Funding Sources: Funded by NStar and Massachusetts Renewable Energy Trust. MEC also received program development funding from the Rocky Mountain Institute and Massachusetts Technology Collaborative.

Target Audience: Residents and small and medium commercial businesses.

Eligible Properties: 1-4 family homes and small businesses (<100kW).

Labor Standards/Workforce Training: MEC did not require special labor standards or have a workforce training component.

Program Outcomes

Tracking/Evaluation Methods: CSG and NSTAR had a detailed tracking system of all electric accounts in Marshfield, response rates to marketing, and energy use for participants and non-participants. In addition, NSTAR contracted a third party, Opinion

Dynamics Corporation, to conduct satisfaction surveys during and after program, and produce overall evaluation of the pilot.

Interest Generated: According to CSG's metrics, they had a 1% response rate to town-wide mailer, 13% response rate to targeted mailing of 1,000 high-use customers. The Opinion Dynamics report found that "35% of Marshfield residents were aware of the Marshfield Energy Challenge. Awareness levels were significantly higher among Marshfield residents with central air conditioning (55%), who were particularly targeted by the program."

Outcomes: The Opinion Dynamics report found that the MEC had close to 1,300 participants. Of these, 90% installed at least one energy efficient light bulb, and between 10% and 20% installed insulation, air sealing, or heating measures, or completed an AC Tune-up. Fewer participants received a rebate for an ENERGY STAR refrigerator (3%) or windows (1%). Thirty-two residential customers installed solar panels." Overall, 10-15% of residential utility accounts received an audit. The MEC exceeded goals for number of audits, PV installations, and direct control measures, but actual energy savings yielded appears to be much smaller than estimated.

Major Takeaways

Successful Elements:

- One-stop-shop approach (audits + PV + financing options).
- MEC found that newspaper and direct mail were the most common ways residents learned about the program.
- Ease of participation and incentives were biggest motivators to action, more so than anticipated reduction in energy bills.

Challenges:

- A significant number of participants were dissatisfied with measures installed, primarily because they did not yield the savings expected, but also because owners felt contractors did not install measures there were supposed to or the homeowners had problems with thermostats and light bulbs.
- Evaluation report found that projected energy savings of many retrofit measures were overestimated

Online Resources

CSG case study: <http://www.csgrp.com/business/casestudies/smark01.html>

NSTAR and Massachusetts Technology Collaborative Pilot Design Report:

http://www.masstech.org/IS/public_policy/dg/resources/2007-12-18-RMI-NSTAR-Marshfield-MA-Pilot-Design.pdf

CSG Presentation on Marshfield: http://www.affordablecomfort.org/images/Events/46/Courses/1637/COMM6_Berkowitz.pdf

Consortium for Energy Efficiency Write-up:

http://www.cee1.org/resrc/news_items/WholeCommunityEfficiency.html

Marshfield Energy Committee Website: <http://www.marshfieldenergy.org/ChronologicalReport.html>

NSTAR Presentation: http://www.neec.org/annual_conference/presentations/2009/Sue-Haselhorst-presentation.pdf

Racine Energy Efficiency Program (REEP)

Location: Racine, WI

Organizations involved in implementation: City of Racine Housing Department and COWS have collaborated to plan and implement this program. The City is the primary contact for homeowners. The Delta Institute has been involved in facilitating access to private financing for the project.

Contacts: James Irwin, Senior Associate, COWS

Program Start/End Dates: March 2010, ongoing

Program Description

Objectives: Improve energy efficiency in Racine homes. REEP is currently funded to retrofit 100 homes. In COWS' words: "REEP seeks to reduce energy costs for homeowners, reduce energy use, create local jobs in energy efficiency work, and maintain and revolve a pool of funds for ongoing work in energy efficiency."

Primary Program Activities: Energy efficiency retrofits for owner-occupied homes.

Marketing: REEP has garnered sufficient interest from press about the project such that they have not had to do any active marketing. The City is currently vetting a waiting list of over 100 people that have expressed interest.

Financing Model: REEP utilizes a financing similar to the PACE model. REEP fronts the cost of audit, which is then rolled into the loan for retrofit work. If no work is done, the owner is still responsible for cost of audit. When audit is complete, City bids out work and selects contractor, homeowner enters into financing agreement with City, City hires and pays contractor, City bills homeowner for work as "special charge" which either has to be paid or declared upon sale. If owner goes into arrears, improvement charges will be added to property tax bill the following year. Owners can utilize PACE financing along side other state/Federal rebates.

Funding Sources: Racine City Development funds, EECBG/ARRA, USDOE/Retrofit Ramp-up, private capital through Delta Institute

Target Audience: Homeowners in Racine

Eligible Properties: REEP criteria: House is owner-occupied; built 1946-1975; had a total energy bill > \$1,700 per year; and homeowner must be current on all city bills without any recent delinquencies.

Labor Standards/Workforce Training: REEP requires contractors to have an office within 20 miles of downtown Racine and a minimum wage of \$12 an hour for REEP work.

Program Outcomes

Tracking/Evaluation Methods: REEP has not finalized tracking system yet, but plan to

track pre- and post-retrofit energy use and are particularly interested in detailed loan info and effects on home prices/sales.

Interest Generated: 100 applications after press release in April 2010.

Outcomes: 10 audits completed as of June 2010. These homes are expected to achieve up to 40% energy savings from retrofitting. Retrofit cost estimates have ranged between \$4,000 and \$8,000.

Major Takeaways

Successful Elements:

- Press has yielded huge interest.
- So far relationship with contractors has been good, thanks to pre-existing relationships with City. Most have said that they already pay at the required wage level.

Challenges:

- From COWS case study: “hard to include comprehensive labor standards given that the program is so small. Also, City of Racine Housing Dept has a small staff and cannot always prioritize REEP.”
- Currently retrofit work is on-hold, pending resolution of FHFA impediment to use of PACE.

Online Resources

COWS website: http://www.cows.org/collab_projects_detail.asp?id=54

COWS Case Study: <http://www.cows.org/pdf/bp-reep.pdf>

COWS Press Release: http://www.cows.org/about_newsroom_detail.asp?id=1069

REEP Program Manual: <http://www.cows.org/pdf/REEPprogrammanual.pdf>

REEP Website: <http://www.retrofitracine.org/base/>

SustainableWorks

Location: Seattle, Washington

Organizations involved in implementation: Initiated by Spokane Alliance and partnered with Sound Alliance

Contacts: Steve Gelb, Executive Director, SustainableWorks; Joe Chrastil, Lead Organizer, Sound Alliance

Program Start/End Dates: 2006 - present

Program Description

Objectives: SustainableWorks geographically-targeted retrofit program in Seattle neighborhoods to maximize efficiency in organizing, performing retrofit work, and generating energy savings. To do this, SustainableWorks engages contractors, unions, community groups and homeowners to coordinate residential retrofits in pilot neighborhoods. They employ community organizing tactics to generate demand and negotiate requirements with local contractors that provide for good green jobs for residents of underserved communities. SustainableWorks provides combined audits and direct install measures, to be followed up by full retrofits. For participating homeowners, SustainableWorks collaborates with participating municipalities and lenders to preparing financial incentives such as reasonable payback periods and reduced costs of retrofits.

Primary Program Activities: Organizing of pilot neighborhoods with volunteer support, community group participation, public events, house meetings and neighbor-to-neighbor education.

Marketing: SustainableWorks uses traditional organizing tactics such as engaging neighbors and community groups to reach others with their messages. They employed a public relations firm to aid in development of overall program messaging and brand and organize neighborhood pilots under the umbrella of this larger brand.

Financing Model/Program: SustainableWorks provides subsidized energy audits including some energy efficiency measures to all participating homeowners. Homeowners that decide to retrofit are eligible for reduced costs achieved through program efficiency and have access to low-interest loans from local credit unions that are partners of the program.

Funding Sources: SustainableWorks was launched in 2006 with start up funding from the Surdna Foundation. SustainableWorks was recently awarded funding through the ARRA and uses this funding to leverage other contributions from municipalities they serve to reduce or eliminate the costs of retrofits for their participants.

Target Audience: Homeowners with incomes between 60 and 80% of area median income in targeted neighborhoods of Northeast Seattle, Spokane, and Federal Way.

Eligible Properties: Owner-occupied homes built before 1982

Labor Standards/Workforce Training: SustainableWorks has published contractor

requirements that require participating contractors to pay Washington State prevailing wages with benefits to all employees. It requires that participating contractors use at least 20% apprentices and that 25% of these apprentices must be new first-year apprentices. With the support of local unions, SustainableWorks has guaranteed placement of individuals from underserved communities directly into apprentice programs. SustainableWorks also requires contracted employees to receive extensive 44-hour training on retrofits.

Program Outcomes

Interest Generated: SustainableWorks is currently underway in three areas of Seattle, each with several neighborhoods. They have enjoyed success in reaching individuals and community groups in each neighborhood to support their outreach efforts.

Outcomes: Pilot programs conducted or underway in at least five Seattle neighborhoods (target for 200 homes per neighborhood). Graduating over 100 workers from SustainableWorks 44-hour retrofit training program. Recruitment and training of over 90 volunteer block organizers.

Major Takeaways

Successful Elements:

- Engaging and training neighbors as volunteer block organizers
- Negotiating contractor requirements that put trained workers into good green jobs.
- Development of program Web site that offers unique page for each pilot neighborhood, opportunities for homeowner, volunteer and contractor sign up.

Online Resources

SustainableWorks Web site: <http://www.sustainableworks.com>

Green for All Report: <http://www.greenforall.org/resources/driving-demand-for-home-retrofits>

WeatherizeDC

Location: Washington, D.C.

Organizations involved in implementation: The DC Project

Contacts: Will Byrne, Executive Director

Program Start/End Dates: September 2009 - present

Program Description

Objectives: Getting homeowners onto the 'weatherization pathway'; supporting local, living wage weatherization jobs through increased demand for retrofit service; training CBOs, neighborhood groups, and college students to become organizers around weatherization

Primary Program Activities: Coordinating outreach and recruitment of neighborhood groups and individuals to serve as neighborhood leaders for program; coordinating community meetings at local organizations or private homes; brokering relationship between local BPI-certified contractor and local LIUNA affiliate.

Marketing: Campaigns include sharing tested messages through door-to-door and neighborhood outreach.

Financing Model: WeatherizeDC organizers provide homeowners with information on available incentives, but do not offer unique program incentives at this time.

Funding Sources: Administrative costs of WeatherizeDC are supported by the Annie E. Casey Foundation, Living Cities, the Rockefeller Foundation, and the Kendeda Fund, among others.

Target Audience: Given the absence of strong financial incentive programs for residential retrofits in D.C., WeatherizeDC initially targeted neighborhoods in Northwest DC quadrants with high rate of homeownership and relatively high median income.

Eligible Properties: Single family homes

Labor Standards/Workforce Training: Given their major focus on generating demand that would lead to the creation of good green jobs for D.C. residents, WeatherizeDC negotiated a Community Workforce Agreement requiring participating BPI-certified contractor to hire from Wards 7 and 8 and pay a livable wage. All new hires will receive relevant training from partnership with local LIUNA affiliate.

Program Outcomes

Tracking/Evaluation Methods: WeatherizeDC uses software previously employed for tracking grassroots organizing efforts for the Obama for American campaign to track their canvassing efforts. Because the retrofits coordinated by WeatherizeDC are performed by a BPI-certified contractor, the program also has access to estimated

energy and cost savings achieved through each retrofit.

Interest Generated: The DC Project and WeatherizeDC have received coverage in The Washington Post, National Public Radio, ABC World News, the Office of the White House Press Secretary, the U.S. Department of Energy, and various local media.

Outcomes: As of June 2010, WeatherizeDC organizers have reached 2,000 people, garnered interest from nearly 900 homeowners. As of July 2010, 80 homeowners have completed or scheduled an energy audit or weatherization.

Major Takeaways

Successful Elements:

- Community Workforce Agreement with BPI-certified contractor and LIUNA
- Engagement of six local college campuses for canvassing volunteers.
- Use of voter marketing software info to understand local resident base and track canvassing efforts.
- Creation of Advisory Council with representatives from key local and national organizations.
- Offering of free training on conducting preliminary energy assessments.
- Using peer-to-peer organizing to create interest in home weatherization.

Challenges:

- Lack of residential retrofit financial incentive programs available to Washington, D.C. residents.
- Generation of consistent demand to support additional hiring.

Online Resources

WeatherizeDC Web site: <http://www.weatherizedc.org>

Green for All Report: <http://www.greenforall.org/resources/driving-demand-for-home-retrofits>



