

# Mining for Community-Based Gold: Striking it Rich in California

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## ABSTRACT

The belief that community influence can improve the outcomes of energy efficiency programs is being increasingly promoted by program planners and is affecting the portfolios of traditional energy efficiency program administrators. In 2010, Los Angeles County and its grant partners received \$30 million from the U.S. Department of Energy as part of the Better Buildings Neighborhood Program. The grantees used these funds to develop a variety of pilot programs, including three that sought to leverage the credibility of community-based organizations to promote Energy Upgrade California, a relatively new whole-house retrofit program. These pilots were loosely organized around the principles associated with Community-Based Social Marketing (CBSM), and experienced a range of success. One of the pilots targeted schools, another focused on the military community, while a third engaged a diverse set of community organizations. One of these CBSM pilots “struck gold,” by partnering with a local organization already engaged in promoting sustainability. This pilot was able to leverage existing relationships within a progressive community and tapped into an influential hub in the network. In other areas, pilots had to adapt or cease when their approaches failed to garner the results they sought.

This paper describes the findings from a three-year evaluation research project that supported these pilots and describes the unique conditions that contributed to the success of the pilot that struck “gold” in California. We present a network diagram to illustrate how that pilot engaged a hub that reached influential individuals in a specific community.

## Introduction

In the past decade, the energy-efficiency community has paid increasing attention to the application of social science-based concepts toward “fostering sustainable behaviors” (Vigen and Mazur-Stommen, 2012). More specifically, Community-Based Social Marketing (CBSM) or Community-Based Outreach (CBO) approaches have been theorized as a way to drive awareness and participation in residential efficiency programs across the U.S. (McEwen, 2012). In a 2012 review of six upgrade programs utilizing CBO, McEwen found “CBO mechanisms are not the sole, or even the most prominent, means of recruiting participants in the programs reviewed.” Nonetheless, McEwen also concludes “certain CBO strategies have the potential to tap into pre-existing networks,” and lend credibility to upgrade programs. In this paper, we discuss three CBO pilots funded through the American Reinvestment and Recovery Act (ARRA):

- Energize for the Prize (Alameda County)
- Hero Alliance (San Diego County)
- Energy Champions (Los Angeles County)

These pilots were part of a portfolio of 23 experimental pilots implemented by Los Angeles County (LA County) and its Better Buildings Neighborhood Program (BBNP) grant partners from 2011 to 2013 and evaluated by Research Into Action and Cadmus.

All three pilots promoted uptake of Energy Upgrade California<sup>1</sup> (EUC) home performance retrofits by seeking to leverage the existing social networks and communication channels of various community organizations, and by incorporating CBSM concepts to varying degrees. All three pilots also fell short of their original retrofit goals, largely because EUC retrofits did not align well with the mission, interests, and capabilities of most of the community groups or their target audiences. In this paper, we describe reasons why the pilots did not meet their goals, and highlight a success story showing that when the pilot aligns with a community organization's interests, a goldmine of opportunity is unearthed.

## **CBSM- and CBO-Driven Program Design**

Program designers who leverage CBSM and CBO networks can create similar program designs, but each approach is based on a distinct underlying conceptual framework. According to McKenzie-Mohr, CBSM involves a five-step program design process that includes:

1. Selecting behavior(s) to promote to achieve program goals.
2. Identifying barriers to and benefits from engaging in the desired activity, often through market research with the local community.
3. Developing strategies to overcome barriers, which often include direct personal contact. Other strategies include social norming, prompts, and gradually larger commitments.
4. Piloting the strategies to demonstrate effectiveness.
5. Broad-scale implementation and evaluation.

In this framework, CBO is one strategy that can be deployed within a CBSM approach. CBO uses community networks to promote products and services by leveraging existing connections and trusted messengers.

## **Energy Upgrade California, ARRA, and Diffusion**

Through BBNP, ARRA funding supported a number of community energy programs across the U.S., including multiple projects in California. Given the goals of the grant funding, which were to encourage job growth, support economic growth, and complete energy-efficiency upgrade projects within a limited timeframe. The California grant recipients largely aligned their programmatic efforts with what was then a fledgling EUC program—a statewide effort to promote comprehensive home-performance upgrades in California homes. Promotion of comprehensive residential retrofits was relatively new to the California market when the ARRA grants were awarded, so many of the organizations involved in promoting EUC spent substantial

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<sup>1</sup> EUC is a statewide collaboration between the California Public Utilities Commission, utility companies, local government agencies, and the California Energy Commission. Funding for EUC comes from several sources, including ARRA, utility company demand side management budgets, and grants. The EUC program connects Californians with local programs that offer technical assistance, rebates, and other services to help them complete energy-saving improvements. Incentives and services vary by region. <https://energyupgradeca.org/overview>.

time and effort educating homeowners and building awareness of this new approach and its benefits (SBW 2012).

The spread of a new product or concept throughout a population can be understood through the diffusion of innovations theory, which describes the level of innovation, communication channels, and social system required for widespread adoption of a particular innovation (Rogers 2003). Products or services poised for diffusion typically have five key qualities: relative advantage, compatibility with existing values and practices, simplicity and ease of use, trial-ability, and observable results. Another key component of the model is the need for peer-to-peer communication sufficient to overcome perceived risks in adopting new products or behaviors.

Applying this framework indicates that the diffusion of EUC into the population of California homeowners will require a special effort, particularly to communicate the relative advantages of EUC and its compatibility with California homeowners' basic values. Gladwell's "law of the few"<sup>2</sup> aligns with the peer-to-peer communication so important in Rogers' work and is increasingly applied as a programmatic framework for creating an effective communication strategy to diffuse new ideas into a community. Using this framework, a pilot can take advantage of trusted subject matter experts ("mavens"), link them to those with connections to others in the community ("connectors"), and identify the early adopters needed to understand, embrace, and support the relative advantages of potential innovations.<sup>3</sup>

## Our Study

Research Into Action and Cadmus teamed to provide evaluation services to the diverse set of ARRA pilots being tested throughout California. For each pilot, the evaluation team worked with the sponsors and implementers to understand the pilot design, track changes in the design, and help ensure that the pilot eventually could be evaluated. Our evaluation activities included many typical process and pilot assessment techniques, including:

- Interviews with implementation contractors.
- Reviews of program documents, including monthly status reports.
- Surveys or interviews with CBOs and program participants.

In the next section, we briefly describe two pilots that ran into obstacles leveraging two communities—schools (Energize for the Prize) and the military (Hero Alliance)—to promote EUC. Then we describe and analyze the characteristics of the most successful CBO of the Energy Champions Pilots: Sustainable Claremont. Our analysis of this project revealed a web of interconnections that appeared to directly affect the success of The Energy Champions pilot in Claremont.

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<sup>2</sup> Malcolm Gladwell's book *The Tipping Point: How Little Things Can Make a Big Difference*, describes the "Law of the Few" as "the success of any kind of social epidemic is heavily dependent on the involvement of people with a particular and rare set of social gifts."

<sup>3</sup> *Mavens* have a wide knowledge of a particular subject; they are trusted and can change minds. *Connectors* have highly connected social networks; they can spread ideas widely and quickly.

## **Energize for the Prize (School Organizations, known as Energy Ambassadors)**

The Energize for the Prize pilot sought to use the “trusted messenger” status of school organizations with their members to promote energy upgrades to homeowners in their school communities. Representatives of these organizations were called “Energy Ambassadors.” The pilot design was based on the assumption that the potential to earn incentives for their schools, when members of their communities completed EUC upgrades, would motivate school organizations to promote EUC and refer community members to EUC events for homeowners.

Twenty-seven school organizations participated in the pilot over the two -year pilot period. The pilot team encountered two key challenges in its efforts to recruit and work with school organizations: the pace and timing of school organization activities, and the capacity of school organizations to promote complex energy upgrade programs.

- ***Timing of school organization activities:*** Establishing contacts at school organizations and generating interest took longer than expected. In some cases, an interested representative of a school organization asked pilot staff to speak to the full organization at the group’s next meeting before committing the organization to participate. As a result, many school organizations did not enroll until November and December, when their activity typically drops off substantially due to school holidays. Pilot staff also found that by September, many school organizations already had set their agendas for the school year and volunteers had little capacity to work on additional projects.
- ***Capacity to promote EUC:*** Promoting energy upgrades required Energy Ambassadors to develop a level of background knowledge that most did not have the time and energy to obtain. According to pilot staff, in order to participate in the pilot and earn incentives, Energy Ambassadors had to navigate both a complex program and the relatively complicated EUC. In addition, some school contacts did not see a connection between the pilot’s goal of promoting energy upgrades and the organization’s primary mission of facilitating involvement in schools.

## **Hero Alliance (Military Community)**

The Hero Alliance pilot sought to leverage the presence and norms of the military community in San Diego. The pilot emphasized the military’s leadership on energy efficiency, as well as patriotism, to encourage homeowners within the military community to take action. The pilot tested a four-stage process to build commitment progressively: signing a commitment form, completing a home energy use survey, having an energy assessment, and completing an upgrade. The pilot staff found it more difficult than expected to build the relationships necessary to access the military community, but found that, once they had established relationships with veteran and military organizations, these groups became more receptive to promoting energy upgrades through the pilot.

Pilot staff also noted that veterans’ organizations placed a lower priority on promoting energy upgrades than on helping to meet the basic needs of their constituents, including finding them jobs and reducing homelessness. The implementer originally anticipated that the military community might respond to patriotic messaging promoting energy upgrades. However, market

research revealed that this audience was more responsive to commonly promoted benefits of energy upgrade: comfort, health, and safety.

### **Energy Champions (Various Nonprofits, Schools, Faith-Based Organizations)**

The Energy Champions pilot was designed to tap trusted and connected individuals within established communities such as churches, schools, and environmental groups, and have these “Energy Champions” spread the word about the benefits of EUC participation.

The underlying theory for how Energy Champions organizations would influence EUC retrofits was:

- Community organizations are trusted messengers that can effectively persuade homeowners to participate in EUC.
- Homeowners will be motivated to participate in EUC because they know an organization they value could benefit from their actions (by receiving a referral incentive).
- Community organizations will be motivated to take action for EUC in order to earn incentives for their organizations, using the pilot as a fund-raising opportunity.

Program designers offered the “Energy Champions” the opportunity to receive \$500 for each homeowner they referred who completed an EUC Advanced Path<sup>4</sup> project and \$100 for each homeowner who completed a smaller-scale Basic Path or Flex Path<sup>5</sup> project. For an Energy Champions organization to receive an incentive, homeowners were required to submit a HAF that indicated a homeowner’s intention to complete an EUC project.

While the theoretical benefits of upgrading one’s home through EUC were relatively straightforward (energy savings, comfort, and better home performance), the processes and costs involved in carrying out an upgrade were not trivial. In order to qualify for EUC incentives, contractors with specific credentials were required to conduct a diagnostic audit, model expected energy savings, submit paperwork, and facilitate inspection of customer homes. With both mean and median cost of Advanced Path upgrade projects at greater than \$10,000 (SBW, 2012) the cost of projects had to be overcome by promoting the advantages of the upgrade.

LA County’s Energy Champions pilot began recruiting partner organizations in early 2011. The first group of Energy Champions organizations completed training in May 2011 and the pilot officially launched to the public on July 13, 2011. The pilot initially recruited 103 Energy Champions organizations to participate. Table 1 shows that the original Energy Champions organizations included a diverse set of CBOs, including a substantial number of groups that work primarily with low-income populations.

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<sup>4</sup> Advanced Path projects use energy modeling software to provide customized upgrade recommendations, while Basic Path projects provides a bundle of prescriptive measures for the homeowner, including air sealing, attic insulation, and duct sealing.

<sup>5</sup> Flex Path was a program offered by LA County that sought to simplify the EUC upgrade process. It was also funded through a variety of ARRA grants.

Table 1. Type of Energy Champion Organizations

<b>Organization Type</b>	<b>Count</b>
Low-income	62
Minority and/or immigrant	16
Faith-based	16
Environmental	13
K-12 school	8
Youth	7
Health	6
Community development	5
Housing	5
Education	5
Chamber of Commerce	3
Arts and culture	2
Elderly	2
Service organization	2
Homeowner association	1
Other	12
<b>Total</b>	<b>103</b>

In July 2012, pilot program staff culled the nearly 100 organizations enrolled and decided to limit participation in the pilot to include only the Energy Champions organizations that had successfully engaged at least one homeowner to submit a HAF. This reduced the number of organizations participating from 94 to 19.

The expectations for the Energy Champions pilot evolved during implementation as lessons learned adjusted outreach and communication approaches. One of the pilot’s early findings was that is difficult to convert staff and stakeholders of CBOs into expert advocates for comprehensive energy upgrade projects. In response, the program shifted from expecting Energy Champions to promote EUC directly to their constituents, to providing opportunities, through events and forums, at which constituents could access the in-depth expertise of participating EUC contractors and pilot implementation staff. These paths are illustrated in Figure 1.

Key Pilot Activity: Identify and recruit organizations that serve as trusted messengers in the community.

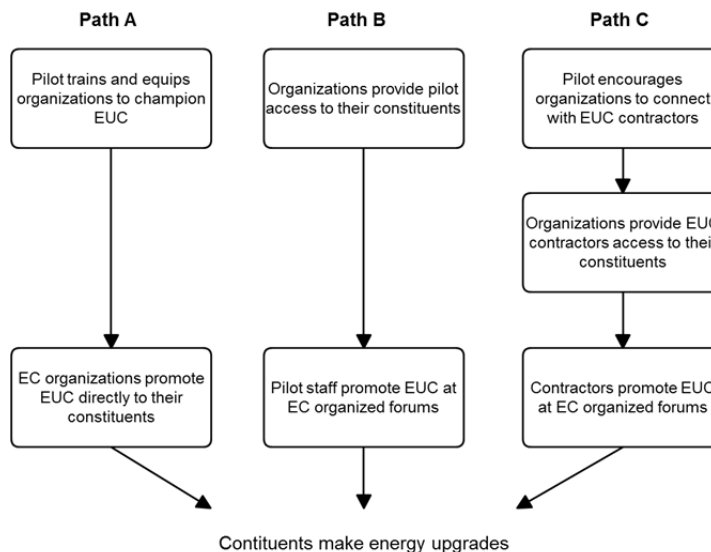


Figure 1. Energy Champions Marketing Paths.

- **Path A** represents the original pilot design. Under Path A, the pilot program provided Energy Champions program information and resources, and expected Energy Champions to promote EUC to their constituents. In this model, success likely would depend on several factors, including natural or potential mission alignment between the organization and EUC; the capacity of the staff to understand and communicate the benefits of complex whole-house energy upgrades; and the number of opportunities an organization has to promote whole-house upgrades.
- **Path B** represents the design under which the pilot operated through spring 2012. Energy Champions played a relatively small role in directly promoting EUC. Instead, organizations were expected to provide a forum through which pilot staff could promote EUC to the organizations' constituents. This design required Energy Champions to have relatively little technical knowledge, but required substantial pilot staff time and resources.
- **Path C** represents an alternative to the expectation that Energy Champions would promote EUC to their constituents (Path A) or that there are sufficient pilot staff to promote EUC on behalf of Energy Champions (Path B). In Path C, contractors became greater partners in explaining and marketing EUC to the constituents of Energy Champions organizations, because they are the market actors that best understand the program and what homeowners should expect from participation.

The pilot ended in February 2013 having received 231 HAFs and did not meet its goals. The participating community organizations had difficulty motivating homeowners to participate in EUC for two primary reasons:

- 1) Many organizations were unable or unwilling to devote the resources required to effectively promote EUC.

- 2) The complexity of EUC-qualified Advanced Path projects meant that the organization could not sell EUC directly; a contractor often needed to be available to answer questions about typical measures and costs.

Nevertheless, the Energy Champions pilot revealed some findings to guide future programs:

- 1) The most effective organizations had existing outreach and fundraising capacity.
- 2) Active outreach methods—those that allowed in-person communication with a knowledgeable contact, particularly a contractor—were associated with more HAF submittals.
- 3) The most successful Energy Champions organization was engaged in promoting EUC projects prior to the start of the Energy Champions pilot. This organization—Sustainable Claremont—worked with several other community organizations and contractors in the Claremont area, and was responsible for 60 percent of all HAFs submitted during the Energy Champions pilot period.
- 4) A single individual – a connected maven – can have significant program impacts.

### **Sustainable Claremont: A Profile of Success**

Sustainable Claremont, a citizen group formed by, but operating independently of, the city of Claremont focused on sustainability efforts ranging from energy efficiency, to transportation and water conservation. Through Sustainable Claremont, the city was able to leverage the presence of several interconnected Energy Champions that already were engaged with EUC and were highly motivated to promote the pilot within the Claremont community.

The city of Claremont is a unique college town referred to in an EUC case study as the city of “trees and PhDs.” Prior to the Energy Champions pilot, Sustainable Claremont already had established the Claremont Home Energy Retrofit Project (CHERP). CHERP’s primary goal was to comply with California’s tough energy reduction goals by completing deep energy retrofits in one percent of Claremont’s residential housing stock. In 2013, CHERP met their one percent goal and are working to update 10 percent of the residential housing stock in the city.

### **Energy Champions Survey Findings**

The evaluation team conducted a web-based survey of Energy Champions. The evaluation survey instrument adapted and expanded on a quarterly survey, previously fielded by pilot staff. The evaluation team sought to understand differences between successful and unsuccessful Energy Champions and to capture the experience of organizations that were excluded from the program after July 1, 2012.

Survey findings suggest that active marketing (such as conducting meetings specifically to promote EUC, or doing so through one-on-one contact) was most effective in obtaining HAF submissions, while passive activities (such as promoting EUC through mailings, email blasts, newsletters, and social media, and providing web links) were least effective.

Consistent with participants’ ratings of in-person meetings and events as the most successful outreach strategies, almost three-quarters of those whose outreach efforts had generated leads (16 of 22) reported that meetings and in-person events were the most effective outreach method in generating leads. In all, 24 respondents held events at which speakers



presented information about EUC. About a third of these respondents (7 of 24) had one or more HAF submissions.

For both those with and those without HAF submissions, staff from the Energy Champions organization most often spoke at the event ( Table2). Respondents that reported receiving HAF submissions typically held more in-person events (7 events on average) than respondents with no HAF submissions (3 events on average)<sup>6</sup>, and were more likely to have EUC contractors speak at their events (6 of 7, 86%) than others (6 of 17, 35%).<sup>7</sup>

Table 2. Speakers at Energy Champions Events (multiple responses allowed)

Person who spoke about EUC at event	No HAF Submission (n=17)	1 or More HAF Submissions (n=7)
	Count	Count
A staff member from your organization	12	6
A contractor offering energy upgrades	6	6
An EUC staff member	10	5
No speaker; distributed pamphlets/hard copies instead	1	0

Survey data did not indicate a substantial difference between success of Energy Champions in generating HAF submissions and the number of email or newsletter blasts sent. Additionally, the number of recipients of email blasts or newsletters did not vary between respondents that had projects (median of 500 recipients) and those that did not have projects (median of 250 recipients).<sup>8</sup>

### Community Network Mapping and Analysis

The evaluation team conducted a GIS analysis of homeowners who filled out HAFs, as well as a content analysis of websites and online articles associated with the pilot and selected Energy Champions. The evaluation team reviewed websites from the top five Energy Champions and the top five contracting firms associated with HAF submittals. We then used a snowball sampling technique and followed associated links from the Energy Champions and contractor websites. Our content analysis, combined with our in-depth interviews, uncovered key individuals, organizations, and geographic areas that drove the majority of pilot participation.

### The Geographic Epicenter That Can Spur a Community

Figure 2 maps HAF participant locations for the Energy Champions pilot in LA County. Across the pilot, participants within the city of Claremont comprise almost 60% (103 of 174) of total pilot participants.<sup>9</sup> Over a quarter of total participants, and almost half within Claremont,

<sup>6</sup> Means are marginally different from one another,  $t(24)=-1.85$ ,  $p=.08$ .

<sup>7</sup> Proportions are different from one another,  $z=2.27$ ,  $p=.01$

<sup>8</sup> The data were highly skewed, inflating means. We show median in an effort to give a more accurate measure of the typical number of recipients per email/newsletter blast. A t-test between the two groups was not significant, with a p-value over .05.

<sup>9</sup> All residents of LA County were eligible to submit HAFs.

came from the Pilgrim Place retirement community. The dispersal of the remaining participants illustrates the participation density within the city of Claremont is unusually high.

Pilgrim Place residents are retired community service workers, for those who worked religious or charitable organizations. Pilgrim Place became involved in EUC because several residents were active members of Sustainable Claremont. Several of these individuals were involved in the design and construction industry and had an interest in home performance. These Pilgrim Place residents brought the idea of upgrading the Pilgrim Place homes to the staff of Pilgrim Place. Staff decided to use HAF incentives and EUC incentives to offset the cost of upgrades and facilitate upgrading every home on their campus over time (expecting it might take about five years). Some Pilgrim Place residents currently occupying single-family homes upgraded their homes with their own funding; the remainder of the housing stock is being upgraded by the Pilgrim Place association as the units become vacant.

Pilgrim Place staff stated that residents are not typical “homeowners.” First, Pilgrim Place residents do not own their homes. Second, residents are retired clergy and spent their careers in community service. Many residents have a strong sense of community, high environmental awareness, and a desire to take actions to help reduce climate change.

Pilgrim Place staff described working closely with Sustainable Claremont to plan their EUC upgrades. Rather than keeping the HAF incentives earned through the pilot, Sustainable Claremont shared the incentives with Pilgrim Place, which used their portion of the HAF incentive to fund additional EUC projects on their campus.



Figure 2. Map of HAF submittals.

## The Connected Maven

The influence of individuals willing to champion energy efficiency and home energy upgrades is visible in the performance of Sustainable Claremont and Pilgrim Place. Primary evidence from staff interviews, Energy Champions survey results, qualitative interviews with

individuals involved with Sustainable Claremont and residents of Pilgrim Place, as well as secondary data such as analysis of pilot lists, organization websites, and related newspaper articles indicate that one key individual was likely critical to spurring EUC participation in Claremont. Almost 60% of the HAFs for this pilot received came from organizations in Claremont. This individual champion played key leadership roles in Sustainable Claremont and CHERP, and had considerable influence with Pilgrim Place and Home Performance Matters, one of the leading EUC contractors in Claremont. This individual's ability to connect many organizations, provide information, and spur behaviors such as participation in the Energy Champions pilot provide evidence that he is a "connected maven".

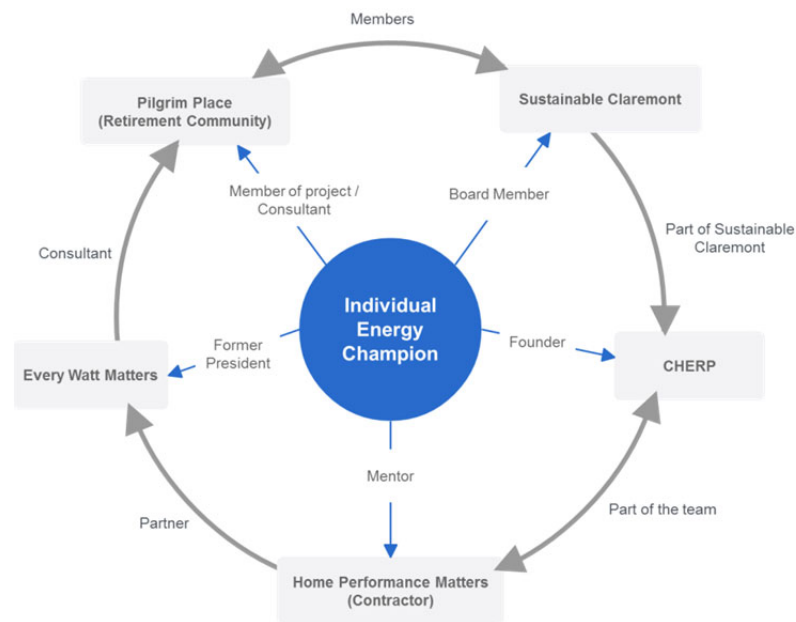


Figure 3. Illustration of Influence of One Individual on Energy Champions Pilot.

## Conclusions

Community organizations participating in the BBNP pilots, in their role as trusted messengers, found it more difficult than anticipated to persuade homeowners to participate in EUC. While Energy Champions organizations held events and presentations, providing outreach for EUC beyond countywide marketing efforts, these activities motivated fewer homeowners than expected to make retrofits. A minority of the organizations that entered the Energy Champions pilot submitted HAFs, and uptake with their constituents was lower than expected. The size, complexity, and cost of EUC projects and the level of effort required to understand and explain the program and its financial requirements, contributed to this slow uptake. As a result, the pilot devoted more resources than planned to supporting Energy Champions.

Organizations with contractor contacts were successfully taking advantage of these relationships, and had more HAF submissions than organizations that did not. Successful Energy Champions organizations held more events and were more likely to have an EUC contractor present at their events to market the program and answer questions than organizations that had not submitted HAFs.

The most successful Energy Champions organization—Sustainable Claremont—promoted sustainability and EUC before its involvement in the pilot, and that experience contributed to its success. While the program designers intended for the pilot’s incentives to motivate community organizations to promote EUC, Sustainable Claremont used pilot incentives to augment efforts to encourage deep energy retrofits. Due in part to work promoting residential energy efficiency, Sustainable Claremont had the knowledge and partnerships that helped it succeed as an Energy Champion.

## **So What? A Checklist for Successfully Using CBOs**

The Energy Champions pilot revealed the challenges associated with motivating a diverse group of nonprofit and CBOs to promote comprehensive energy retrofits in constituent homes, even when offering a referral incentive. These challenges have been observed in other attempts to leverage constituency-based organizations’ credibility and access to their members (Research Into Action, 2014). Nevertheless, it is clear that traditional program marketing could be augmented by a community-action component. We offer the following checklist for program designers considering this approach.

- Rather than seeking to motivate organizations that otherwise would not promote energy efficiency to do so, consider identifying and supporting community organizations whose missions align with the program’s goals and objectives.
- When setting goals for programs involving community organizations, assess how complex the programs are; the level of knowledge, insight, and time needed to promote them; and the level of commitment required of constituents. Consider what type of organizations may be able to meet program needs and assume that even the most capable will need more assistance than anticipated. Consider limiting organizational partners, at least initially, to those mostly likely to be successful.
- Focus recruiting and support resources on organizations that are invested in engaging their constituents through events and one-on-one interactions and gauge how often prospective participants carry out these types of activities.
- Encourage community-based partners to work directly with a contractor in their efforts to promote the complex value proposition embedded in comprehensive residential efficiency upgrades.

## **References**

- Cadmus and Research Into Action. *Retrofit California Process Evaluation Final Report*. November, 2013. Available by public request to Los Angeles County’s Internal Services Department: <http://www.lacounty.gov>
- Gladwell, M. 2000. *The Tipping Point*. Boston, Massachusetts: Little, Brown and Company.
- McEwen, B. 2012. “*Community Based Outreach Strategies in Residential Energy Upgrade Programs*.” Master’s Thesis, Massachusetts Institute of Technology, 2012. [http://web.mit.edu/energy-efficiency/docs/theses/mcewen\\_thesis.pdf](http://web.mit.edu/energy-efficiency/docs/theses/mcewen_thesis.pdf).

McKenzie-Mohr, D. 2011. *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing*. Third ed. Gabriola Island, British Columbia: New Society Publishers.

Research into Action. 2014. Evaluation of NYSERDA's Constituency-based Outreach Program. [Pending public availability]

Rogers, E. 2003. *Diffusion of Innovations*. Fifth ed. New York, NY: Free Press.

SBW Consulting, Inc. 2010-2012 PG&E and SCE Whole House Retrofit Program Process Evaluation Study – PGE0302.01. December 12, 2012

Vigen, M., and S. Mazur-Stommen. 2012. *Reaching the "High-Hanging Fruit" through Behavior Change: How Community-Based Social Marketing Puts Energy Savings within Reach*. Washington, D.C.: American Council for an Energy-Efficient Economy.  
<http://aceee.org/files/pdf/white-paper/high-hanging-fruit-cbsm.pdf>.