

The Community Energy Champions Grant: Building Local Organizational Capacity to Catalyze Community Energy Behavior Change

Shayna Hirshfield and PJ Iyer
Silicon Valley Energy Watch Program, City of San José

ABSTRACT

Although there is growing recognition of the importance of behavioral¹ programs in reducing energy consumption, public funding and policy mechanisms lag behind. Utilities and state governments are beginning to support local nonprofit agencies to pilot behavioral initiatives. Yet, measured in state and federal funding, public support pales in comparison to that for technology-based programs, due to the twin burdens of proving their effectiveness and demonstrating the efficiency of their delivery mechanisms. This paper addresses the latter question – that of the delivery mechanism – by examining an organizational model wherein behavioral programs are delivered at the community level, with funding and technical support from a local government-utility partnership.

The Community Energy Champions Grant program (CECG) launched in 2010. It awarded funding and technical assistance to fifteen community-based organizations (CBOs) and one municipal agency to deliver behavioral energy efficiency programs in targeted communities across Santa Clara County. The program was not designed to prove the merits of behavioral programs, nor to assert which outreach tactics are most successful. It was founded on the assumption that long-term social marketing or behavior change programs, implemented via local community-based agencies, with government and/or utility support and guidance, can accomplish deep and lasting energy use behavior changes, and that they must become a critical component of statewide and regional initiatives. Results will identify the most effective delivery mechanism, and may also indicate where and when this delivery model should be applied.

This paper presents a preliminary process evaluation of the CECG. Overall, grantees are meeting their goals, connecting with their target populations, and effectively integrating core energy efficiency messages. The delivery mechanism is assessed for appropriateness and efficiency. We conclude by recommending next steps for broader implementation.

Introduction

¹ Consistent with existing literature, this paper defines behavioral programs as programs that target “behaviors associated with the purchase and installation of energy efficiency technologies as well as behaviors, decisions, and actions that might be thought of as more independent of technology. These include energy use habits, lifestyle, choices, and consumption patterns” (Ehrhardt-Martinez & Laitner, 2009, p. iii). Behavioral programs encompass traditional outreach and education, installation or distribution of basic measures to incentivize or accelerate subsequent technology adoption, and strategies to enable or encourage access to existing resources. Behavioral programs may target immediate actions or long term habit changes. “Hybrid” programs that install widgets as part of longer-term strategies are considered behavioral.

Sustained behavior change is a critical component of market transformation. California's ambitious energy and greenhouse gas (GHG) emission reduction goals² require technical, financial, and behavioral approaches – discrete areas of influence with different implications for cost-effectiveness, and evaluation. Technical approaches abound, targeting the development, proliferation, or mandated adoption of energy-efficient technologies and upgrades.

By contrast, there are relatively few publicly-funded behavioral programs. Those that do exist tend to be fragmented and under-resourced.³ In 2010, the California Public Utilities Commission (CPUC) recognized behavioral programs as eligible energy efficiency resources in the statewide energy efficiency portfolio.⁴ Only one such program has been funded to date.⁵ The CPUC requires a high burden of proof for behavioral programs, including rigorous experimental design to test program impacts.

Behavioral initiatives are not fully funded or implemented at scale due to a perception of insufficient proof of effectiveness. Yet the full extent of success cannot manifest without scaled implementation, and neither scale nor sustainable funding can be achieved without a proven, efficient delivery framework. This paradox is not unique to California. Public policy ambivalence is particularly acute when it comes to local delivery versus regional campaigns.

Despite these challenges, there is growing recognition of the pivotal role for behavioral initiatives. Working alongside technological programs, they can realize the full potential of consumer energy savings.⁶ Behavioral programs may “prime the pump” for retrofits and measure uptake by expanding awareness of resources, cementing conservation-oriented behavior, ensuring that buildings are operated optimally once measures are installed, and augmenting demand beyond the capacity of mandates or financial incentives.

For behavioral programs to thrive, appropriate implementation frameworks must be developed and evaluated. What programs are best delivered at the state or regional level? Which are most effective when left to community-based implementers? How can local implementers augment statewide campaigns, and how can governments and utilities best support them to ensure broad reach, optimal results, and consistent messaging?

Delivery mechanisms from state funding to local implementation are complex. Recent work from ACEEE indicates a vital role for local organizations in delivering energy efficiency programs to targeted communities,⁷ with evidence from four behavioral initiatives. While comprehensive local partnerships are shown to be important for effective delivery, they indicate that more evidence from the field is needed.

The Program Niche

² Statewide goals include the 2006 Global Warming Solutions Act (AB32) and the California Energy Efficiency Strategic Plan, adopted in 2008 by the California Public Utilities Commission.

³ See Ehrhardt-Martinez & Laitner, ACEEE (2009).

⁴ D-10-04-029 (April 8, 2010), “Decision Determining Evaluation, Measurement and Verification Processes for 2010 Through 2012 Energy Efficiency Portfolios.”

⁵ OPower works with PG&E, San Diego Gas and Electric, and Southern California Gas, in addition to a number of municipal utilities, to deliver Home Energy Reports. See <http://opower.com/utilities/results/> for more information.

⁶ The potential magnitude of energy savings and GHG emissions reductions from behavioral programs have been discussed in numerous studies. See e.g. Hummer (2010); P. Erickson (2011); Wei et al (2011); Dietz & Stern (2002); and McKenzie-Mohr (2011).

⁷ See Mackres et al (2012).

Targeted local programs are particularly critical in Santa Clara County. Located in the heart of Silicon Valley, in the southern San Francisco Bay area, its two million residents are geographically, socio-economically, and linguistically diverse. Thirty seven percent are foreign-born, and half speak a language other than English at home. With over half of the county's population, the City of San José has no racial majority. One third of residents are Latino; almost 30% are Asian. County median income was \$85,000 in 2010, compared to \$60,000 across California and \$50,000 nation-wide. Yet over 30% of students receive free school meals – a figure that has risen steadily since 2006.⁸ A fifth of adults hold graduate degrees, while 14% have not completed high school. The county includes rural farmland and the largest Vietnamese population of any US city;⁹ it is also home to IT giants such as Google, eBay, and IBM, and numerous clean-tech startups.

Santa Clara County is a complex web of subcultures. Here in particular, local delivery can greatly increase the salience of public messaging. Unique, small-scale outreach programs are important in accounting for disparities in communities' needs, motivations, and ability to act.

An Innovative Solution

Through the Community Energy Champions Grant, the Silicon Valley Energy Watch program (SVEW) is partnering with community organizations to deliver innovative behavioral programs, increase public energy efficiency program uptake rates, and lower overall energy consumption. The CECG provides a structure to support and learn from community-level programs, in order to identify an effective organizational framework that will enhance the ability of utility and government energy efficiency initiatives to reach unique and/or hard-to-reach market sub-segments. It is predicated on the following assumptions:

- Particularly among disenfranchised and hard to reach communities, local leaders are trusted more than government or utilities to deliver complete information, relevant messages, and culturally-appropriate programming.¹⁰ CBOs are vital liaisons between government and communities. They often originate within the populations they serve. Their outreach strategies can directly address their communities' needs, including appropriate messaging and sensitivity to socioeconomic barriers.
- CBOs are best positioned to utilize best practices from social work, community organizing, and neighborhood planning in serving hard-to-reach communities. Successful outreach initiatives are most effectively delivered at the community level, where locally specific goals can be set, and high levels of participation can be achieved.¹¹
- Small, community-based programs are adept at innovating, blending program goals, and addressing multiple participation barriers to capture the full extent of non-energy benefits. Mackres et al (2012), Waddell (2000), and others have identified the important role of local, grassroots CBOs in reaching diverse and hard-to-reach markets, including

⁸ Joint Ventures Silicon Valley Network, [Index of Silicon Valley 2012](#).

⁹ Between 1990 and 2000, the city's Vietnamese population doubled, from 40,000 to 80,000. See http://www.sanjoseca.gov/planning/census/briefs/race_ethnicity.asp

¹⁰ Further discussion on the importance of local, or indigenous, leadership can be found in Waddell (2000) and Checkoway (1997). Bockmeyer (2000) provides a compelling discussion of the distrust felt by marginalized communities of government programs.

¹¹ Further discussion on community participation can be found in Alinsky (1989), and Ross (2000).

low-cost program delivery, multiple funding sources enabling diverse emphasis areas, longer time horizons, and mission-driven programming.

- Energy efficiency messages may gain increased salience within broader frameworks of environmental conservation. Because energy efficiency is not easily visualized, more obvious needs – gasoline prices, food, broken entertainment systems – tend to prevail. Unifying concepts (such as conservation or environmental stewardship) broaden the framework to better contextualize energy use. The US Environmental Protection Agency applied this principle in 2011 in a campaign to address public health by linking indoor air quality with energy efficiency. Preliminary research applying microeconomic principles to energy efficiency suggests that single-topic conservation programs might encourage substitution among resources, resulting in no net change in overall resource use.¹²

Program Mechanics

The City of San José administers the CECG through the SVEW, a partnership with PG&E providing energy efficiency resources to Santa Clara County. Part of the State’s energy efficiency portfolio under the auspices of the California Public Utilities Commission (CPUC), SVEW is one of 19 Local Government Partnerships in PG&E territory. SVEW works in four main areas: Small business energy savings and rebates; low and moderate income residential energy assistance; municipal and nonprofit energy savings and rebates; and community-wide education, outreach, and service coordination. The City has administered SVEW since 2004.

Funding and Timeline

SVEW issued an RFP in February 2011, describing the grant requirements, funding structure, and activity parameters. The program was open to 501(c)3 CBOs and local government agencies in PG&E territory within Santa Clara County. Grantees selection was based on three main criteria:

- How well does the program identify and target a specific and/or underserved community through innovative outreach and engagement strategies?
- Is energy efficiency situated within a broader sustainability framework?
- Does the program address ongoing implementation beyond the grant?

Grants range from \$10,000 to \$25,000 for CBOs and \$15,000 to \$35,000 for public agencies. They were awarded in August 2011, and must be spent by December 2012.

¹² Tiefenback (2011) applies the concepts of spillover and moral licensing to energy efficiency programs. Moral licensing occurs when sacrifice is made in one area, and the actor, whether consciously or subconsciously, uses that sacrifice as an excuse to act extravagantly in another area (e.g., “I’ve been good about conserving gas this year; I deserve to upgrade my flat-screen TV”). Conversely, spillover occurs when concepts are applied more broadly than originally intended, such as when a recipient of water conservation messages begins saving both water and electricity.

Delivery Model: Building Organizational Capacity

Using a “Train the Trainer” model, SVEW provides technical assistance, core messages, “starter energy efficiency kits,” policy information, and resource linkages. Grantees use the assistance, along with grant funding, to educate staff, train volunteers, and implement customized programs in their communities. See Appendix 1 for a complete list of grantees, including primary program focus and target audience.

While grantees exhibit a rich array of organizational structures and delivery methods, SVEW works to ensure that core energy efficiency messages are consistent. Core messages are promulgated by PG&E and the CPUC; they include recommended measure loading order, weatherization, water-energy nexus, and so on. Grantees required varying levels of assistance in this area. Two initial applications included plans to encourage double-paned window installation. Santa Clara County is in Climate Zone 4, where window upgrades have less impact on energy efficiency than insulation and weatherization. Other grantees were unfamiliar with local water conservation resources or the role of plug loads. These organizations demonstrated otherwise sound program models, a solid understanding of their communities, and ability to deliver impactful programs. They were receptive to instruction on basic principles of building science relevant to the local climate, and quickly became effective local purveyors of energy information. The entire CECG network “rolls up” to appropriate state-wide efficiency programs.

Grantees were required to attend four technical sessions, held within the first four months after contracts were signed to facilitate integration of information into the campaigns. Time was allotted in each session for networking. Grantees leveraged knowledge and resources from one another, learned about other outreach strategies and, in some cases, found additional areas of the county that fit their target population profile. The sessions addressed the following key topics:

- Basics of Energy Efficiency Principles, including technology options and incentives
- State, County and Municipal Policies
- Evaluation, Measurement and Verification Methods for Behavioral Programs
- Applications of Community Based Social Marketing (CBSM) and Core Messages

The technical sessions provided a solid foundation from which to hone strategies, refine messaging, and fill resource gaps. SVEW provides additional ongoing assistance through three key channels:

- Energy Efficiency program materials and collateral: SVEW provides information about energy efficiency resources that assist grantees as well as their target populations. This include language-appropriate marketing materials, low income residential programs, and connection to SVEW’s nonprofit direct installation program.
- Site visits: SVEW conducts three formal site visits with each grantee. The visits enable SVEW to understand where further assistance may be needed, identify collaboration opportunities with other grantees or municipal programs, address concerns, and ensure that energy efficiency messaging is current and consistent.
- Online Project Management: SVEW uses an online project management site to disseminate mass communication and facilitate communication among grantees. Some post to it frequently to announce events or ask questions, while others access it only as needed to receive information.

Evaluation

Using process evaluation, our analysis addresses the organizational delivery mechanism itself: the process of blending utility and local government resources to support a distributed network of local organizations to validate and amplify energy efficiency messages via targeted behavioral energy efficiency campaigns.

Process evaluation addresses organizational factors, including program operation, implementation activities, and use of resources. It draws conclusions about a delivery framework by investigating the use of resources, success in reaching target populations, and ability to transmit program information among key stakeholders. In situations where long-term impacts are difficult to measure, process evaluation can be the best way of assessing whether a program should be continued or adjusted. Ideally, a long-term impact evaluation of behavioral outcomes would be conducted simultaneously to interpret the results from the process evaluation. SVEW is seeking additional funding to conduct an impact evaluation in 2013 to test the long term behavioral impact of grantees' campaigns on target population behavior.

SVEW is using four strategies to understand the CECG's organizational effectiveness:

- **Status Reports:** Grantees are required to submit two Status Reports¹³ and a Final Program Report, which include both narrative and quantitative content. Key statistics are tracked to assess the CECG's overall demographic reach and inclusivity, mix of outreach strategies and energy efficiency measures, application of technical assistance and utility resources, and grantee staffing.
- **Surveys:** Grantees are required to survey their target populations. Where staff education is a core program component, agency staff themselves are surveyed. While ultimate behavioral impact is not the primary target of our evaluation, the surveys will add to the total body of information to "tell the story" of the CECG. They will also directly benefit grantees, as they consider how their new program components have affected stakeholders and whether to retain, adjust, or jettison them at the pilot's end.
- **Grantee Feedback:** Grantees provide formal feedback on various program components through evaluations of the appropriateness, accessibility, and usefulness of technical assistance. This included evaluations of each technical session.
- **Ongoing Monitoring and Direct Observation:** Through site visits, events, and ongoing communication, SVEW staff observe grantees' organizational structures, internal communication, outreach strategies, and overall program delivery.

Findings

At the time of this writing, two thirds of the pilot has elapsed, and five grantees¹⁴ have concluded their campaigns. Within the first few months, thousands of PG&E customers were reached through in-home audits, workshops, community events, and other tactics.

In the following discussion, we first explore factors that appear to influence grantees' success. We then examine the CECG delivery model itself, including technical assistance. We

¹³ Status Report templates and a compilation of current program statistics are available at www.svenergywatch.org.

¹⁴ Midpeninsula Community Media Center; Zerol: The Art and Technology Network; Enlighten Chinese School; Boys and Girls Club; and Rebuilding Together Silicon Valley

conclude by discussing where and when we believe this organizational model should be applied. Complete case studies, including discussions of how each grantee integrated the CECG's core energy efficiency and policy messages, will be available in January 2013.

Organizational Factors

Well-established organizations with a strong staff or volunteer base have been the most adept at integrating technical assistance. They have been more resilient in weathering change, including the growing pains of incorporating new elements into existing programs.

The City of Cupertino, the only public agency grantee, is operating two separate campaigns: Growing Greener Blocks and Cupertino GreenBiz. Both serve well-defined target populations. The former trains the City's existing network of neighborhood Block Leaders to be Energy Ambassadors, incentivizing them to conduct outreach in their own communities. The second leverages a grant awarded through EPA's Food Recovery Challenge (FRC), delivering recycling bins and other items to catalyze conversations with downtown businesses about energy efficiency. The City assists interested businesses in connecting to the County's Green Business Program. Dedicated staff and a stable organization enable the City to seamlessly integrate resources, ensuring that both campaigns are connected to the City's long-term economic development and renowned sustainability efforts.

Conversely, even established CBOs can experience misalignment between new projects and organizational mission, as well as destabilizing staff turnover. This was the case with SJB Child Development Center (SJBCDC), the one organization terminated from the pilot. The proposed project would have embedded energy efficiency as a new unit in their successful after school program, including parent education and facility retrofits, at a 11 sites, entrenching new areas of expertise among staff. However, staff turnover left the organization with a program that was unaligned with the core mission, and poorly understood among management.

Target population intimacy. Grantees benefit from a deep understanding of their target populations, large networks of interdependent institutions, holistic menus of services, and natural trust from communities underserved by other programs. Asian American Center of Santa Clara County (AACSC) is a respected social services provider for Vietnamese and Burmese immigrant communities. Their campaign has included providing energy efficiency giveaways and resource information at key points of service provision. In six months, AACSC has received over 720 requests for information on low-income energy assistance and related resources. They note that, in addition to their other capacities, they now have become the "go-to energy expert" among their target populations.

School-based programs are deeply rooted in their communities. Four educational institutions are implementing energy-focused curricula as a lynchpin for broader outreach, delivering tailored education and resources to students and families. Their organized instruction facilitates new thematic units. Their campaigns have been organized and innovative, and they have provided others with adaptable educational modules. Catholic Charities piloted an energy efficiency unit within their Balanced Literacy program at two schools, using books, journaling, "thinking maps," and hands-on activities that require students to audit their own homes and have conversations with their parents about energy. The unit has now expanded to 24 schools. Students at Enlighten Chinese School created an "Energy Saver Handbook" in Mandarin and

English to hand out to family and friends. The handbook showcases the children's artwork, while providing pertinent energy efficiency resources and information.

Other youth-focused programs (CreaTV, Midpeninsula Community Media Center [MCMC], San José State University, Green Energy Agents [GEA], and the Boys and Girls Club) provide compelling models on how to encourage youth to become energy efficiency ambassadors in their communities. For example, the winning film in the new Energy Category in MCMC's GreenLight Film Festival is now being used as the basis of a new energy efficiency curriculum that will be shared across several Santa Clara County schools.

Perhaps the most unique campaign has been the Art Inspector program, run by Zero1: The Art and Technology Network. The Art Inspector worked with five local artists, replacing energy intensive and toxic materials with environmentally friendly alternatives, transforming the practices of participants. The artists blogged about their experiences, and have become ambassadors in their communities about the "new" materials and processes. An installation of artwork created during the process, along with photos, storyboards, and a film documenting the project, are now on display at San José City Hall. The fact that the Art Inspector is herself a local artist who has applied the same practices espoused through the campaign lent credibility to her recommendations. Attention to detail and the campaign's creative look and feel encouraged expression and made the artists feel welcome.

The organizations with the least knowledge of their target communities, GEA and Acterra, had the most difficulty gaining traction. Both are applying unique models, conducted elsewhere with positive results, in new communities. Acterra is rolling out their "Green@Home" house-call program in a low income San José neighborhood. GEA delivers environmental curricula to youth programs, training youth to sell energy-efficient products in place of other fundraiser items. GEA's model assumed reaching out to faith-based organizations, but grantee programs were required to be non-religious. Their new target communities were not economically advantaged enough to support a fundraiser model, forcing a shift in tactics. Both grantees found themselves ill-prepared for the new communities' needs.

Alviso Neighborhood Group (ANG) is experiencing similar difficulties in applying the Green@Home model to a primarily Spanish-speaking, low income community. ANG tried to tailor outreach to their community's needs by implementing a Spanish language "DIY program," but they are still falling short of their outreach targets. While they used creative tactics, they have had difficulty linking energy efficiency with the more pressing concerns of the low income, immigrant community members. They have had limited outreach success as a result.

In all three cases, grantees identified a program model first, and then tried to apply it to a particular community, rather than first understanding the communities' needs and then using available resources to develop an appropriate program. To help ameliorate their challenges, Acterra was permitted to expand their neighborhood boundaries so that marketing efforts would be less restricted. GEA was permitted to work with faith-based institutions, provided that their trainings are open to all. Community engagement levels have increased following these adjustments, but the full effects of these changes are not yet clear.

Incorporation of environmental issues in agency missions. Environmental organizations easily assimilated an increased energy focus. For others, introducing energy required quick learning to align the new topics with other services. AACSC, which was among the least experienced in energy efficiency, had little difficulty in this task because they approached the topic from an environmental justice standpoint that easily fit with their mission.

Rebuilding Together Silicon Valley (RTSV), a housing rehabilitation agency, has had resounding success augmenting their biannual Rebuilding Day. In their standard program, seniors and disabled individuals sign up in advance for home health and safety installations. For one day, an army of volunteers become Resource Coordinators, House Captains, or Installers, educating residents and installing measures. Into this successful program, RTSV introduced energy efficiency. On the April Rebuilding Day, after a series of energy efficiency trainings, volunteers educated residents and installed health, safety, and energy efficiency measures in 81 homes. The full suite of measures takes three hours of installation time, and can save each homeowner up to \$150 per year. Because the homeowners were receiving critical services from a well-known nonprofit agency, they were eagerly receptive to the in-home education.

RTSV is adept at reaching their target demographic, mobilizing volunteers, collecting survey data, and improving their program with each iteration. They intend to build on their CECG success to incorporate comprehensive energy efficiency and weatherization measures in their standard health and safety program. With these changes, the agency stands to become a unique and valuable addition to standard low income energy efficiency programs.

Energy efficiency measures. Albeit resource intensive, free home assessments that include measure installations and education likely have the clearest impact on immediate behavior change. Most of the organizations using this delivery method have structured training programs (Acterra, RTSV, De Anza College, and the Center for Training and Careers [CTC]), and easily included energy efficiency with their core service offerings. These are qualitatively different from the “long-term” programs that targeted awareness raising. RTSV and Sacred Heart Community Services address both realms by integrating measure installation with broader social service provision. Programs with and without energy efficiency measures have been equally responsive and adaptive to technical assistance.

Prior expertise. While prior energy efficiency knowledge has been helpful in some cases, it has not affected the likelihood of success. In fact, the grantees who have faced the most difficulty in reaching their outreach targets (GEA, Acterra, CTC, and Alviso) were initially selected for the pilot based largely on their demonstrated energy efficiency experience.

Similarly, experience with government or utility contracting does not appear to affect the likelihood of success. Expectations for data collection, reporting, and ongoing communication were conveyed through the technical sessions. Even those with little experience working closely with publicly funded programs have provided complete and illustrative data, while others with ongoing government contracts have been less forthcoming.

Delivery Model Effectiveness

Technical Sessions were effective in promulgating core messages, establishing cohesion among grantees, and setting expectations; session evaluations were highly positive. Grantees requested more workshops, with more information overall but less per session, and preferred sessions to be clustered closer to program start date.

Staying current with grantees’ progress and technical assistance needs has been time-intensive, but it has enabled SVEW to respond quickly to challenges, and to proactively suggest collaborations when grantees would not otherwise know to seek them. The online project management tool has been used less than initially anticipated, but this appears due to the site’s

confusing structure. Grantees have expressed a desire for a more user-friendly site through which they could easily communicate with one another and share materials. Customizing such a tool would be a valuable one-time investment.

After three quarters of implementation, it is clear that some areas of technical assistance run counter to the CECG's premise, while others bolster it. Providing outreach assistance to the organizations that are having trouble reaching their target populations has been inefficient. SVEW attempted to provide limited marketing assistance to Acterra and GEA, but these efforts detracted from SVEW's core programs, and was less effective than analogous efforts of grantees who better understand their target populations. This appears to confirm the premise that local agencies and CBOs conduct more effective and efficient outreach to narrowly targeted populations than larger public institutions.

On the other hand, collaboration assistance has been expedient and often quite fruitful. Concurrent support of multiple programs enables SVEW to identify complimentary assets and facilitate cooperation that would not have otherwise occurred. For example, RTSV and CTC collaborated to encourage women in alternative career classes at CTC to become Resource Coordinators for Rebuilding Day. Students' expanded their work experience and resumes, while RTSV was able to retain specially trained volunteers. Enlighten Chinese School students submitted a film to the Midpeninsula Community Media Center's Greenlight Film Festival, giving the students a broader audience and greater recognition, and helping the Film Festival to reach a more diverse audience. Acterra has advertised Green@Home volunteer opportunities to De Anza students, and De Anza College provided interns to assist with ANG's outreach.

By developing a trusting relationship with the grantees, SVEW has expanded the market for energy efficiency services. Several grantees signed onto SVEW's nonprofit Direct Install program, receiving energy audits and retrofits in their own facilities. SVEW recruited grantees to market our ongoing Low and Moderate Income residential programs. This enabled grantees to stretch their program funds further, as they learned that they would not have to provide redundant resources to homes or facilities served by existing utility-funded programs.

Challenges

The CECG is experiencing overall success in meeting campaign goals, building the capacity of grantees, and delivering energy efficiency resources to a substantially broader audience than either PG&E or SVEW could have accomplished. Three key challenges have emerged, and should be addressed in future consideration:

- **Timeframe.** With few exceptions, the campaigns would benefit from extended timeframes to hone strategies. Those with strict internal deadlines, such as RTSV's Rebuilding Day or MCMC's Greenlight Film Festival (held on Earth Day), tended to cope well with the shortened timeframe. All grantees have reported learning valuable lessons along the way that they hope to act upon if the program is repeated.
- **Resource Intensity.** Extensive staff time has been spent learning about the organizations, target populations, and outreach strategies, and finding creative linkages among programs and public resources. The time commitment was greatest at program outset. Utilities or public agencies considering this program model should prepare for a resource-intensive launch period.

- **Organizational Barriers to Collaboration.** Collaboration opportunities are numerous, but organizations often lack the resources to pursue them. For example, CTC’s campaign hinges on conducting home performance audits and educational workshops, to provide at-risk vocational students with the hands-on assessments required for graduation. Sacred Heart and AACSC, provide multifaceted outreach to low income communities where residents lack the financial resources to access partially-rebated utility services. Collaboration would have helped CTC rapidly attain the 80 audits that they needed, and enabled the others to provide an enhanced continuum of services. However, staffing changes within CTC, and staff time constraints in general, precluded collaboration.

Conclusions and Next Steps

Part of the strength that CBOs bring to public energy efficiency program frameworks is the ability to integrate multiple community needs and complex responses into single, coordinated initiatives. More customers are engaged and retained as a result. By establishing implementation partnerships with local agencies, the CECG has given SVEW and the City of San José latitude to identify and address pre-energy efficiency barriers (such as lack of information or sub-standard housing), as well as to directly target non-energy benefits (such as public health and community cohesion).

In contrast, standard utility-funded energy efficiency programs, including Local Government Partnerships, require performance to be measured through cost effectiveness tests (such as the “Total Resource Cost” required by the CPUC) that cannot account for the social benefits of reaching marginalized communities or of addressing multiple needs through comprehensive programs. Because of their complexity, community programs leverage multiple funding sources. Evaluation frameworks that can account for multiple funding sources and complex goals need to be developed and entrenched.¹⁵

To maximize resources, implementation frameworks must leverage multiple partners’ strengths so that work is not duplicated and retooling is minimal. Government and utilities have expertise in energy efficiency policy and technology, as well as financial resources and regulatory mandates. Local agencies have intimacy with target communities, are able to deliver innovative and integrated services, and easily adapt to shifting resources. As noted above, grantees with extensive prior energy efficiency experience (the sphere of government and utility expertise) have not exhibited more success in achieving their goals. On the other hand, those with a combination of innovative outreach, community trust, and robust organizational structures, have had the most overall success in reaching their goals. Policymakers seeking to apply the CECG model should keep in mind an appropriate allocation of organizational assets, utilizing community agencies for their complementary strengths.

Our analysis suggests some specific combinations of organizational structures and implementation strategies that are especially well suited to the CECG delivery model:

- Small local government agencies combining diverse goals or mandates into single targeted initiatives (e.g. the City of Cupertino)

¹⁵ Mackres et al (2012) call for diverse program networks and multiple stakeholders in delivering community-based programs, and of incorporating non-energy benefits into community energy efficiency programs.

- After-school and/or culturally-specific educational programs applying new curricular themes, which are linked to broader, youth-based community outreach (e.g. Catholic Charities, Enlighten Chinese School)
- Locally respected programs whose missions can easily incorporate energy efficiency, and that utilize volunteers for brief yet high-impact campaigns (e.g. RTSV)
- Entrenched grassroots organizations that provide multiple services tailored to their communities' needs (e.g. AACSC, RTSV, Zero1)

Preliminary results from the CECG also show that government-utility partnerships can provide sufficient oversight and appropriate technical assistance to local agencies to facilitate consistent messaging and effective implementation. The following factors appear most critical in facilitating effective integration with utility and regional goals:

- Partnerships with a diverse range of providers
- Continuous, non-invasive program monitoring
- Early provision of core messages, technical resources, and CBSM training
- Accessible, facilitated frameworks for collaboration and communication
- Longer timeframes combined with frequent milestones to encourage continuous improvement

The CECG provides an in-depth exploration of the merits of using public energy efficiency funds to support a diverse network of local implementers. It also illuminates the types of agencies, organizational structures, and outreach strategies that may be best suited to deliver local behavioral energy efficiency programs to diverse populations. As policymakers move closer to recognizing the critical role for behavioral approaches in advancing energy efficiency, we hope they will recognize the ways in which local entities, including small municipal agencies and CBOs, can be leveraged to achieve those goals.

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Appendix 1

Community Energy Champions Grant Pilot Grantees

Agency and Project Name	Project Description	Target Population and Language	Core Program Elements	Previous Energy Exper.
Acterra: Green@ Home	Train volunteers to educate residents about home energy conservation, reducing air pollution, and curbing climate change, via home visits with measure installation.	Winchester (San José) neighborhood residents – English and Spanish	In-home visits with limited measure installation, volunteer training, events.	Y
Alviso Neighborhood Group: Creating Sustainable Communities	Provide workshops for adults and children and energy saving starter kits to promote increased energy saving awareness in a small Spanish-speaking community.	Alviso neighborhood (San José) residents – Spanish	Workshops, events, in-home visits	N
Asian American Center of Santa Clara County: Vietnamese Community Energy Savings Project	Increase awareness and bring relief through energy efficiency resources to the most economically burdened Vietnamese, Burmese and Spanish speaking households, who use a large portion of their income to meet their energy needs.	Vietnamese and Burmese communities across Santa Clara County	Home visits, events, media (TV, radio, Newspaper)	N
Boys and Girls Club of Silicon Valley: Silicon Valley Energy Fair	Partner with organizations and corporations to promote energy efficiency through youth training and a neighborhood Energy Fair.	East San Jose neighborhoods – English and Spanish	Community and youth workshops, event	N
Catholic Charities: CORAL Energy Champions	Incorporating Energy Efficiency Education in the CORAL after-school program through structured literacy activities, discussion, home participation and competition.	Elementary school youth from Franklin-McKinely and San Jose Unified School Districts – English and Spanish	Literacy activities, home surveys, competition	N
Center for Training and Careers: Energize Now	Provide home energy audits and educational workshops in collaboration with PG&E, Santa Clara Valley Water District, and CTC's Green Careers Academy.	Neighborhoods of Green Academy graduates throughout Santa Clara County – English and Spanish	Home energy audits and installations, vocational training.	Y
City of Cupertino: GreenBiz Cupertino	Provide capacity, offer incentives, and support business enrollment in the Santa Clara County Green Business Program. Address greenhouse gas emissions through energy and water conservation.	Small and medium sized businesses and restaurants in the City of Cupertino – English	Business energy audits, resource education	Y
City of Cupertino: Growing Greener Blocks	Engage neighborhoods in the suite of city services to support energy efficiency, materials management, water conservation, and financial savings.	Cupertino Residents, neighborhood Block Leaders – English	Block parties, house parties, workshops	Y
CreaTV: Cortese Climate Kids Program	Produce six episodes of a new children's program based on concepts from County Supervisor Dave Cortese's Climate Kids Club. Each episode will feature science topics and things that kids and families can do to conserve energy and resources.	Youth grades 2-4 throughout Santa Clara County – English	Broadcast media, school visits	N
De Anza Community College: Energy Management Technician Lab Teams	Build and equip a lab to train students in energy efficiency monitoring, data collection, and analysis. Students will intern in neighboring cities conducting energy assessments, providing data analysis, and projecting recommendations.	De Anza Community College Students, De Anza Campus and north and west county businesses – English	Technical training, hands-on practical lab, student internships	Y

Enlighten Culture and Education Foundation: Enlighten Energy Watch Promotion Program in Mandarin	Educate English-Mandarin bilingual school students about energy efficiency, advocate energy efficiency and use art to express their thoughts about energy efficiency.	Chinese K-12 students and families from San Jose, Los Gatos, Saratoga, Cupertino and Sunnyvale – Mandarin	Art projects, classroom education, video projects, competition, events	N
Green Energy Agents: Youth Energizing Communities	Engage youth organizations and train youth to become leaders in energy efficiency and conservation. Trained youth will become energy ambassadors, spreading knowledge and practices to their communities. Energy Efficiency products will replace other products in youth group fundraisers.	Youth ages 12-18 in various youth and faith based organizations – English	Hands-on workshops, environmental education, door-to-door canvassing	Y
Mid-peninsula Community Media Center: Greenlight Film Festival	Broaden the reach and educational impact of the Greenlight Film Festival to include a specific “Community Energy Champions – Conservation and Efficiency” award, attract more student entries from Santa Clara County cities beyond Palo Alto and provide educational materials and videos to interested teachers throughout Santa Clara County.	Youth grades 6-12 in Mountain View, Sunnyvale, Cupertino, and teacher participation in other schools throughout Santa Clara County – English	Energy efficiency education, video production, classroom visits and education	N
Rebuilding Together Silicon Valley: Energy Efficiency Ambassador Training Project	Train energy efficiency ambassadors to assist low-income homeowners with energy efficiency education, upgrades and access to resources. Expand energy efficiency awareness and education to volunteers and low income households with primarily seniors, disabled and isolated community members.	Santa Clara County low-income homeowners - primarily isolated, disabled, and senior community members – English and Spanish	Volunteer training and support, workshops, door-to-door canvassing, measure installation.	Y
Sacred Heart Community Services: Sacred Heart Saves Energy	Increase energy efficiency awareness, program adoption and weatherization measures in a low-income, predominantly Vietnamese neighborhood.	Low income residents in San José’s Seven Trees Neighborhood – Vietnamese and Spanish	In-home visits, door-to-door canvassing, workshops	Y
San Jose State University Research Foundation: Green Ninja Energy Reduction	Reduce household energy use through a student contest designed around the Green Ninja, an animated climate-action superhero who inspires solutions to our changing climate.	Youth grades 4-9 and teachers targeted through Bay Area Earth Science Institute – English	Social media, educational animated series, contests	Y
SJB Child Development Center: SJB EcoKids **	Educate and empower school age youth to understand environmental concerns and what they can do to be more energy efficient. Monitor the SJB buildings, and employ youth documentary development tools, a series of eco-education using books, and classroom resources.	Youth grades 1-6 at up to 11 centers throughout Santa Clara County – English and Spanish	Literacy activities, home surveys, facility engagement	N
Zero1: The Art & Technology Network: Healthy Art Program	Educate artists about eco-friendly art. Build capacity within the artist community on how to use energy efficient and eco-friendly practices by conducting environmental assessments of studios and replacing toxic or inefficient tools and materials.	Artists throughout Santa Clara County and public interested in art – English	Energy and toxicity audits, workshops, installation, social media	N

* Grant terminated in January 2012