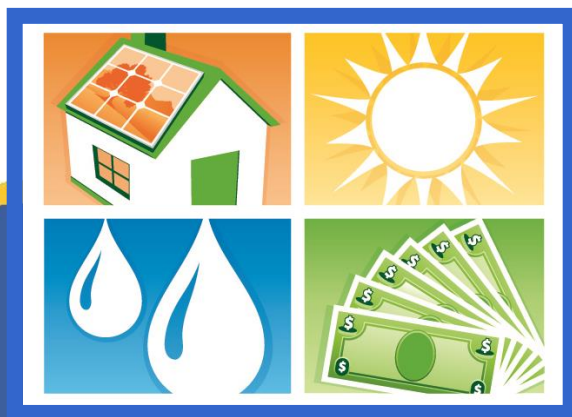


emPower 3.0



Final Program Report

November 30, 2013

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Award Number: DE-EE0003796

BBNP Name: County of Santa Barbara

Project Title: emPowerSBC

Name of Project Director/Principal Investigator: Kerry Bierman

Team Members: Angela Hacker, Sherman Hansen, Ashley Watkins

Prepared for:

The U.S. Department of Energy

Prepared by:

Santa Barbara County emPower Team



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Executive Summary

This report serves as the Final Report for Santa Barbara County's Energy Efficiency and Conservation Block Grant (EECBG) BetterBuildings Neighborhood Program (BBNP) award from the U.S. Department of Energy (DOE). This report explains how DOE BBNP funding was invested to develop robust program infrastructure designed to help property owners complete energy improvements, thereby generating substantial outcomes for the local environment and economy. It provides an overview of program development and design within the grant period, program accomplishments and challenges to date, and a plan for the future sustainability of emPower, the County's innovative clean energy and building efficiency program.

During the grant period, Santa Barbara County's emPower program primarily targeted 32,000 owner occupied, single family, detached residential homes over 25 years old within the County. In order to help these homeowners and their contractors overcome market barriers to completing residential energy improvements, the program developed and promoted six voluntary, market-based service areas: 1) low cost residential financing (loan loss reserve with two local credit unions), 2) residential rebates, 3) local customer service, 4) expert energy advising, 5) workforce development and training, and 6) marketing, education and outreach. The main goals of the program were to lower building energy use, create jobs and develop a lasting regional building performance market.

These services have generated important early outcomes and lessons after the program's first two years in service. The DOE BBNP funding was extended through October 2014 to enable Santa Barbara County to generate continued outcomes. In fact, funding related to residential financing remains wholly available for the foreseeable future to continue offering Home Upgrade Loans to approximately 1,300 homeowners. Since program launch in late 2011, emPower activities have focused on transforming the market to generate four key areas of outcomes explained in this report:

Widespread homeowner awareness: Extensive marketing, education and outreach activities (including over 70 events, hundreds of print/radio/tv ads, over 40 media stories and leveraged resources of a broad network of community partners), reached a distribution of over 300,000 people, resulting in nearly 14,000 web hits to date. These activities attracted 3,600 individuals to contact the program for general information, assistance, qualified contractors and/or incentives/financing

Homes becoming more efficient: Homeowner engagement activities resulted in over 450 leads for participating contractors, leading to home energy work begun in approximately 230 homes. Over 70 energy improvement projects are complete in Santa Barbara County (approx. 20 more in progress). Of these projects, 23 have already closed an emPower Home Upgrade Loan and are averaging over 30% energy savings (45 applications received to date). At least 50 other assessments have been conducted, which are likely to lead to future energy improvements. In addition, approximately 120 homeowners have taken advantage of the free Energy Coach service since launched January 2013 as an easy way to get started with their upgrade.

Increased economic activity: During the grant period, DOE BBNP funding allowed the County of Santa Barbara to fund three full time positions, along with funding for various other support functions of the program, such as marketing and design consultants, Energy Coach, support from other County departments, and technical support for program offerings. In total, hours funded by the program totaled over 45,700 hours which is the equivalent to 7 full time positions being funded for three years the program has been operating.

In addition staff estimates that reported emPower energy efficiency projects resulted in nearly 4,000 job hours for participating contractors. These reported projects have led to approximately \$2 million in emPower project income earned by participating contractors, resulting in nearly \$4 million in economic activity (IMPLAN analysis) and approximately \$770,000 in loan activity for local participating lenders. Local contractors report economic advantages of participating in emPowerSBC, including developing new divisions, creating jobs, experiencing increased demand, and enjoying lower marketing costs.

Lasting impacts for the local contracting market: Along with increasing consumer demand and project income for over 20 participating contracting companies, emPower has generated other lasting positive impacts for the local contracting market. For example, the program has provided over 30 workforce trainings for over 460 attendees from the local building trades, struggling with underemployment in recent years, resulting in a 700% increase in the number of professionals certified to conduct building performance assessments and retrofits within the County, and 100 BPI professionals within the Tri-County region. With access to a free energy efficiency tool lending library and ongoing mentorship available through emPower's Energy Coach (23 onsite mentorship visits to date), these professionals are now using building performance principles in new construction and general remodels, along with typical energy retrofits, and are sharing best practices and ideas through emPower's growing Contractor Input Committee.

The program has used just over \$1 million in DOE BBNP funding to date to build and deploy the large number of assets and pilot programs detailed in this report, which have effectively engaged community partners, homeowners and building professionals in a newly developed building performance market for region. Meanwhile, the program experienced challenges that were largely outside of its control that impacted the number of completed retrofits. The initial program proposed for the DOE funding solicitation intended to use funds to support a comprehensive energy efficiency program, including property assessed clean energy (PACE) financing, which was intended to be made available to support a broad range of markets, eligible projects (including single measures and solar) and participating contractors. When PACE was challenged in 2010, the County had to redesign the program using a loan loss reserve credit enhancement model and was instructed to pair it alongside the recently launched "whole house" utility rebate program, Energy Upgrade CA. While that program design decision streamlined finance project qualification needs, it dramatically limited the level of consumer demand and made contractor participation far more cumbersome than originally intended. emPower's experience can be added to a growing body of research evidence that suggests that limited financing products to complicated, whole house requirements leads to low levels of loan uptake and lender and contractor participation.

Santa Barbara County is now poised to build upon emPower's unique and valuable assets. Fortunately, just as early funding sources for programs like emPower are coming to a close, another wave of funding has arrived alongside a number of significant policy decisions aimed at lowering energy consumption. Section 2 of this report illustrates that interest in this policy area has grown, not diminished. In fact, spending in the US on utility-funded energy efficiency programs is expected to double by 2025 to nearly \$10 billion¹. In CA, recent clean energy legislation is expected to be followed by significant sums of funding to various support entities with regional infrastructure ready to achieve energy savings. Local public agencies, like emPower, are seen as critical implementation partners, as they are best able to leverage and deliver centralized, regional energy efficiency resources and services.

The County's investment of DOE BBNP funding was used to build a lasting, effective, and innovative program design that has earned statewide recognition and distinction. As a result of the County's leadership, the

1 <http://www.greentechmedia.com/articles/read/spending-on-utility-efficiency-programs-to-double-by-2025>

California Energy Commission (CEC) and the California Public Utilities Commission (PUC) offered over \$5 million in funding to continue realizing ongoing returns on the initial investment made in developing emPower, alongside remaining (extended) DOE BBNP funds. These new funding sources, accepted by the County Board of Supervisors on June 25, 2013, also allow the program to expand its innovative energy solutions to the broader region, including Ventura and San Luis Obispo Counties. A corresponding implementation plan for the two funding sources is outlined in Section 5 of this report.

1. emPower Background & Institutional Design

Over the course of the last several years, buildings have become a key focal point of both State and national policy strategies to stimulate economic recovery while lowering energy consumption. Competitive funding provided to 30 governments across the nation under the American Recovery and Reinvestment Act (ARRA) through the US Department of Energy's BetterBuildings Neighborhood Program led to the development of many innovative programs and practices in local communities throughout the US aimed at removing obstacles that keep property owners from retrofitting their homes or businesses.

These program practices have produced important insights regarding the most attractive type of incentives, and the most effective processes to deliver services and encourage property owner action. To varying degrees, many of these practices, including those developed by emPower, have demonstrated early indicators of sustainable transformation in local and national building efficiency markets. As expected, however, despite significant progress across the nation, the larger effort has proven itself too large to complete in only a couple of years. As a result, State and federal governments are continuing to designate funds and set goals to build upon the momentum created by programs like emPower. In fact, this February (2013), the White House announced its goal to cut energy consumption in homes and businesses in half by 2020. The US Department of Energy estimates that if just 10% of homes and business in the US cut energy usage by 25%, over \$8 billion in energy consumption costs would be saved².

Similarly, California's Long-term Energy Efficiency Strategic Plan adopted by the California Public Utility Commission aims to cut energy use in homes by 40% and in commercial buildings by 30%. In California's residential sector alone, 5.8 million homes are likely candidates for substantial energy retrofits. The State estimates it will cost \$60 billion to complete these retrofits, a number that highlights the importance of keeping lenders, qualified contractors, and programs like emPower engaged.

In 2010, the Santa Barbara County Board of Supervisors recognized that addressing the County's 150,000 existing homes presented a unique opportunity to simultaneously create jobs, increase resource efficiency and deliver a wide array of benefits to both property owners and the broader community. In mid-2011, the Board authorized emPower to deploy strategies to help property owners tackle key obstacles to making energy improvements, such as affordability, inconvenience, and confusion.

Now in 2013, the same key obstacles exist for many property owners. However today, emPower's staff, partners and contractors are armed with the experience, tools, services and expertise to overcome them. The progress described in this document details outcomes generated across the community in emPower's first two years in operation, which have gained recognition throughout the State. Before sharing program

² US Department of Energy BetterBuildings Neighborhood Program:
<http://www1.eere.energy.gov/buildings/betterbuildings/neighborhoods/about.html>

outcomes, challenges and future plans, it is important to briefly review the program’s purpose and evolution to date in the context of key State and federal policies.

Purpose

emPower is often referred to as a “financing program.” While the development of innovative, affordable and accessible financing for home energy upgrades was a critical part of developing emPower, it is only one of many needs that motivate property owners to seek assistance from emPower for their energy upgrade. The purpose behind the program was always much broader than one loan product. The emPower Home Upgrade Loan, successfully developed with CoastHills Federal Credit Union, was one tool in a larger toolbox necessary to help property owners make energy improvements to local buildings. The history detailed in this section reflects the evolving design of the program, which includes varied and interconnected service functions from rebates, to outreach events to contractor mentorship. In fact, the name emPower was developed 3.5 years ago as an acronym abbreviating the broad intent to offer “Elective Municipal Programs to Optimize Water Energy and Renewables.” In 2010, the redesigned Implementation Plan included the following vision statement:

“emPowerSBC will generate demand for building efficiency upgrades and renewable projects throughout the County by leveraging, centralizing and enhancing resources that will address the obstacles that currently inhibit owners from upgrading existing residential and commercial properties. As a result, the County will stimulate the economy, improve the local building stock, and help residents save money while conserving resources.”

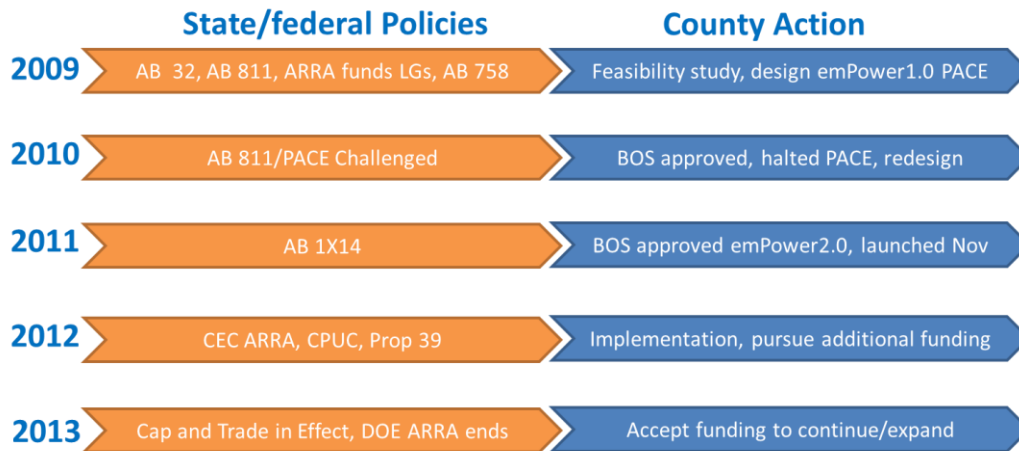
This vision concept still drives the program, though the mission statement has since been simplified:

***To help the community transform existing inefficient buildings
by developing, leveraging and promoting innovative, voluntary market solutions
designed to stimulate the economy and save energy.***

History

This section describes the policy framework in which emPower was created in order to implement a broad scope of energy efficiency services, including, but not limited, to financing. It reflects the enormous amount of national and State political will and capital that has been deployed specifically to help local governments stimulate the economy and put people back to work, while also improving buildings and saving energy. Below is a brief history of the program since 2009, displayed alongside major policy events. A visual timeline is provided in Figure 1 summarizing major program milestones described below and key State and federal policies since 2009.

Figure 1. Policy and program visual timeline



2009

In response to key State and federal legislation, the County Executive Office and the County Board of Supervisors directed staff to conduct a feasibility study for a voluntary municipal energy efficiency program targeting privately owned buildings. The following legislative actions signaled that local governments had an important role in implementing building efficiency and job creation efforts:

- **CA Assembly Bill 32** (2006) Global Warming Solutions Act, including greenhouse gas (GHG) targets for local governments and building efficiency as a major pillar of GHG reductions
- **CA Assembly Bill 811** (2008) authorized local governments to administer property assessed clean energy (PACE) financing
- **Federal American Recovery and Reinvestment Act** (ARRA) (2009), including Energy Efficiency and Conservation Block Grant (EECBG) formula and competitive funding to local governments
- **CA Assembly Bill 758** (2009) directed California Energy Commission to address existing buildings in partnership with local governments

The County's feasibility study determined there was demand and need for energy retrofits in Santa Barbara County. It also concluded that upfront costs and confusion were key obstacles for property owners, and that a comprehensive PACE program could be a self-sufficient and attractive model to help residential, commercial, agricultural and industrial property owners overcome these obstacles (see Figure 2). Based on the feasibility study results, the Board directed a project team of County staff to develop a multi-faceted program (referred to now as emPower 1.0) to save energy and create jobs in the local economy.

Figure 2. emPower 1.0



2010

emPower 1.0 was developed using PACE as the financing mechanism. The Board of Supervisors approved the program, provided \$5 million in general fund seed funding for a revolving loan fund, and accepted \$3 million in ARRA Energy Efficiency and Conservation Block Grants to support program administration through August 2013. The County completed all legislative and judicial requirements to establish a PACE program. Three weeks before emPower made PACE applications available to property owners, the Federal Housing Finance Administration released statements challenging the seniority of the PACE lien against a residential property. This action halted PACE programs throughout the nation, including emPower.

When it was clear that PACE would not be resolved quickly at the federal level, the County immediately worked to redesign the program based on other national best practices in building efficiency programming. The redesigned program proposal utilized awarded ARRA funds to achieve similar goals without using the PACE model. In December, the Board unanimously approved the emPower 2.0 plan, which focused on a comprehensive model including marketing and outreach, workforce development, customer service, partnership with statewide utility rebate programs, and a new financing mechanism (see Figure 3). The new financing mechanism was designed to provide public credit enhancements (loan loss reserve funds) to private lenders who would in turn facilitate attractive, unsecured loans (explained in greater detail in Section 2).

Figure 3. emPower 2.0



2011

Following Board approval, there was a competitive solicitation to select a lending partner that would offer the best energy efficiency financing services to the community. CoastHills Federal Credit Union, working together with Ventura County Credit Union, was selected. Over the course of 6 months, the County and credit union executives developed an agreement outlining the mechanics of the innovative public-private relationship. In

August, the Board approved the loan loss reserve agreement, making \$20 million in private capital accessible for building energy upgrades and solar, the largest energy efficiency financing partnership in the State.

emPower staff worked in conjunction with lending partners, electric and gas utility providers, non-profits, marketing firms, REALTORS, the building trades community and other key stakeholders to design program operating processes, a workforce development plan and a marketing, education and outreach strategy. Officially launched in November 2011, the program streamlined the process of attaining low cost loans for single family residential home energy upgrades, along with high dollar utility rebates from the statewide Energy Upgrade CA program, and qualified contractors. emPower became one of only two local programs in the State offering these combined services.



2012

In 2012, emPower refocused its program activity to drive homeowner demand, recruit and train contractors, assist customers and refine program services (described in detail in the next section). The financing model attracted distinction in California and staff were asked numerous times to provide input and insights for policy practitioners across the State. As a result of the innovative and effective program design, State agencies offered to help continue and expand program services as existing funding sources begin to expire:

- **California Energy Commission (CEC):** \$11 million in remaining ARRA funds were allocated by the CEC to Los Angeles County in order to subgrant funding to programs like emPower that are able to expand services to neighboring underserved communities. Santa Barbara County is offered \$1.55 million to provide financing and other services across the Tri-County including San Luis Obispo and Ventura Counties.
- **California Public Utilities Commission (PUC):** The PUC mandated that investor owned utilities continue previously ARRA funded programs and dedicate \$300 million in 2012 and 2013-2014 energy efficiency program cycle budgets towards local and regional programs. Santa Barbara County was offered substantial new funding contracts for comprehensive services in Santa Barbara County and throughout the Tri-County. The PUC also commits to funding the statewide Energy Upgrade CA utility rebate program for another 10 years, and names local and regional programs as key implementation partners.

On September 4th, the Board received an update from emPower, and accepted a new funding contract for \$875,000 from Southern California Gas for 2012 PUC funding. At the same hearing, the Board directed staff to pursue additional funds to build upon the emPower model in the Tri-County region and sustain and enhance program activities through the end of 2014.

Before year-end, California voters approved **Proposition 39**, which is expected to generate \$500 million a year for clean energy projects across the State. Many policy actors hope in the future some of those dollars become allocated to regional energy efficiency programs offered by public entities.

2013

The State's **Cap and Trade** greenhouse gas emission policy went into effect, which is expected to generate \$6 billion in auction proceeds by 2020 in the power sector alone. Again, several policy factors are currently seeking to allocate some of those dollars to regional energy efficiency programs offered by public entities.

The County experienced an uptake in program demand and launched new services, including Energy Coach and Flex Path, as explained in the next section. Following Board direction, staff prepared contracts for additional funding sources. It is important to reiterate that, in the interest of cost effectiveness program administration, recent energy efficiency policy initiatives have focused on providing funding to public programs that can offer large scale regional services.

2. Program Design and Accomplishments

Program Design

As mentioned in Section 1, Figure 4 below illustrates the six functional services areas of the current emPower program design (referred to as emPower 2.0). These six “lanes of service” represent program infrastructure built and operated under emPower 2.0, which together serve as a “bridge” to help inefficient County homes cross over to become efficient.

Figure 4. emPower 2.0 Services



This section explains these services in more detail and provides indicators of program performance in each area since program launch in November 2011. First, it is important to highlight the most noteworthy performance indicators, which demonstrate the high initial rate of return on the initial investment of grant funding. In sum, emPower activities have:

- Attracted over 3,600 interested individuals to engage with a broad range of program services, education and assistance.
- Led to home energy work in approximately 230 homes as of October 31, 2014, resulting in:
 - Over 70 projects complete, 59 associated with DOE reportable data
 - Average 13% annual kWh savings, and 31% annual therm savings
 - Approximately \$2 million in project activity for participating contractors, leading to nearly \$4 million in economic multipliers (according to IMPLAN projections).
 - Over \$770,000 in loan applications for participating lenders
 - Average of 30% energy savings for completed loan projects (\$440,000)
- Enrolled 23 participating contracting companies, from one man shops to large well established firms.
- Provided workforce trainings for nearly 460 attendees from the building trades, resulting in 700% increase in nationally recognized building performance certifications in Santa Barbara County

- Along with project generated economic impact, local spending of federal, State and utility grant dollars on program delivery is estimated to have generated an additional \$4 million in economic impact.
- Initial funds allowed the development of an innovative, robust and lasting program infrastructure, which earned Statewide recognition and resulted in \$5 million in new State funding to continue and expand program

External Service and Outcomes

The six service areas below detail the services provided by the program, which conform to Santa Barbara County's BBNP Statement of Project Objectives (SOPo), as well as outcomes accomplished through each service.

Workforce Development / Training

SOPo TASK 4 "Contractor Management": The presence of skilled, trained and qualified workforce is critical to the success of a large scale building retrofit and renewable energy installation initiative. This is an area where emPower efforts have made the greatest impact during the initial phase of the program. For example, three years ago, there were only 5 individuals in the County certified by the Building

Performance Institute (BPI), the nation's premier standards development and credentialing organization for residential energy efficiency retrofit work. Today there are nearly 40 BPI certified professional in the County, which is largely a result of emPower workforce trainings and contractor outreach.

emPower ultimately aims to prepare the broader local contractor industry to complete a high volume of small and large scale energy retrofits and solar installations throughout the region.

Services

- Free or substantially discounted, local trainings in building performance, sales and other professional skills
- Contractor recruitment and enrollment. Access to a Home Performance Tool Lending Library, through membership sponsored by emPower.
- Contractor program support and advocacy with statewide utility programs
- Ongoing building performance skill mentorship offered by emPower's Energy Coach
- Facilitation of a Contractor Input Committee to gather feedback on program offerings and share best practices
- Media exposure and lead generation activities to increase contractor sales
- Access to program marketing materials (yard signs, brochures, door hangers, etc) to support contractor sales

Outcomes to Date:

- Number of participating contractors: 23
- Total project income generated: \$2,000,000

- Leads reported by participating contractors generated by emPower: over 400
- Number of trainings for building professionals: 30
- Numbers of building professional attendees: 460
- Percentage increase in number of BPI certified professionals: 700%
- Direct job hours funded by DOE BBNP: 45,700, 7 full time positions
- Estimated Contractor job hours for reported projects: Approximately 3,800
- Contractor testimonials:

“emPower jobs will make up 35% of my business in 2013. Due to emPower, I plan to hire more people into our new home performance division.” – Joe Halsell, Halsell Builders

“emPower’s marketing and outreach saves us time and money by raising the awareness of whole house energy efficiency in the community and provides us with supplementary lead generation by providing our information to a high number of interested homeowners” – Shawn Jacobsen, Allen Associates

“I cannot tell you how valuable the emPower sponsored BPI class and the resulting Building Analyst certification has been to me. I am grateful for this opportunity” - Tom Kirschner, Tom Kirschner Construction

Marketing, Education and Outreach

SOPO TASK 3 “Marketing and Outreach Campaign” (“Driving Demand” pillar):

A multi-faceted marketing, education and outreach approach is necessary to generate program awareness throughout the County. It is also a critical part of successfully encouraging homeowners to take advantage of home energy services and incentives. It was very important that emPower’s branding and messaging be specifically designed to be relatable to Santa Barbara County homeowners. The County and expert marketing consultants used national best practices, market research, and local experience to craft an inviting marketing approach that appeals to homeowners throughout the County looking to replace older systems, live more comfortably and save money.

A large component of emPower’s outreach activities aim to educate homeowners about the principles of home performance, a comprehensive whole-house approach to identifying and fixing

comfort and energy efficiency problems in a home while ensuring occupant safety. A broad scope of marketing and outreach tactics help the program communicate that working with one of emPower’s home performance contractors is the best way to solve a wide range of frustrations in the home, from cold nights, to poor indoor air quality, to high utilities bills.

Implementing the following marketing functions accounts for a significant amount of emPower staff time and program spending, but also provides the greatest opportunity for widespread impact.



In fact, emPower contractors report that emPower marketing is one of the most valuable services emPower provides. According to contractors, the program's unique ability to attract homeowners in need and connect those prospective customers with participating contractors has led to a significant number of home energy projects.

Services

- Events: Homeowner Workshop and BBQ, emPower Hour, Home Energy Showcase, Lunch and Learn, exhibit booths at community events
- Presentations: Local agency hearings or meetings, business and REALTOR meetings, HOA meetings
- Advertisements: Radio, TV, online and print, special campaigns (winter, single measures)
- Partnership development: Community Partner Advisory Group, marketing collaboration with credit unions
- Web outreach: Interactive website: emPowerSBC.org, eNewsletter, eblasts (program and partners), social media
- Earned media: Regular press coverage
- Collateral development: Brochures, Flyers, Homeowner Case Studies, Direct Mailers, Door Hangers, Pens, Magnets, Yard signs, Reusable Shopping Bags, Table Top Display, Energy Efficiency Posters



Outcomes to Date:

- Number of home energy projects completed/in progress: 230
- Number of workshops and community events: 64
- Number of presentations to community partners or businesses: 22
- Number of web hits to emPowerSBC.org: over 13,600

Local Customer Service

SOPO TASK 3 “Marketing and Outreach Campaign” (“Customer Experience” pillar):

Because home energy upgrades can be overwhelming and confusing, emPower was always designed to offer a local, personalized presence, rather than just a hotline and website. emPower aims to be friendly, helpful, responsive and accessible. The program's marketing activities described above have led to a great need for knowledgeable customer service available to connect customers with contractors, lenders and rebate programs. All customer contacts have recently been added to emPower's sophisticated new customer relationship management software, for easier tracking and follow up.

Services:

- Several team members are available by phone, email or in person to help homeowners navigate through various stages of their single family comprehensive home energy upgrade.
- Information and referrals to other programs and services for residents (including those that are not interested in single family comprehensive home energy upgrades), such as:
 - Free weatherization or retrofit services for low income households
 - Retroactive improvements (tax credits and utility



- incentives)
 - Program referrals for mobile home, multi-family and commercial energy services
 - Single measure incentives

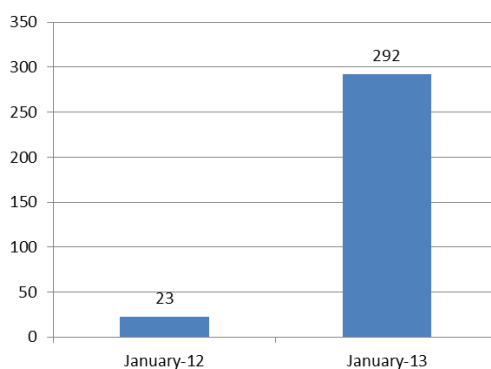
Outcomes to Date:

- Number of interested individuals that have contacted the program: Over 3,600
- Quotes from happy customers:

"Since the upgrade, our house has been much more comfortable. In the summer it was much cooler and now that the winter weather has arrived, we're finding our house is cozy and warm. Plus Paul and I expect to reduce our energy bills by about 90%. Our family loves knowing we're doing our part to help sustain our environment." Valerie Kushnerov, Goleta homeowner

"I loved the property but we didn't know how we would pay to make the needed improvements," said homeowner Kathy Rosenthal. "Then I attended an emPowerSBC workshop and learned about the rebates, financing and qualified contractors. The program made it possible for me to buy the home without having to worry about how I would pay to make repairs". Kathy Rosenthal, Solvang homeowner

Figure 6. Customer contacts Jan. 2012 vs Jan. 2013



Residential Financing

SOPO TASK 1 “Financing Program Design” (“Financing and Incentives” pillar): By offering low monthly payments, affordable and accessible financing, emPower has a tool to help homeowners overcome high upfront costs associated with home upgrades and solar system installation. Without financing, a comprehensive home energy upgrade would cost an average homeowner \$15,000, to be paid all at once. Now with emPower financing, a homeowner would pay little or nothing down and simply make monthly payments of approximately \$125, which can also be offset by utility savings.

Services:

The emPower Home Upgrade Loan is the result of a public-private partnership between the County of Santa Barbara and CoastHills Federal Credit Union, based in Lompoc Valley. The County placed \$1 million of its competitive ARRA EECBG grant (US DOE BetterBuildings Program) into a loan loss reserve with CoastHills. The loan loss reserve serves to cover a portion of potential defaults on \$20 million in CoastHills lending capital, achieving an outstanding leverage ratio of private to public funds (20:1). CoastHills, in turn, offers accessible unsecured loans at better terms and rates than are typically available on the market.



The attributes of the emPower Home Upgrade Loan are illustrated in Table 1. This table displays the specific advantages emPower financing can offer homeowners in comparison to a Home Equity Line of Credit (HELOC), a Refinance Loan (ReFi) or another unsecured loan product.

Table 1. emPower Home Upgrade Loan Attributes Comparison

| Attributes | emPower loan | HELOC | ReFi | Other unsecured |
|----------------------|---------------|----------------------------|-------------------|-----------------|
| Loan type | Unsecured | Secured | Secured | Unsecured |
| Collateral | None required | Home | Home | None required |
| Closing costs | No | Maybe | Yes | No |
| Equity required | No | Yes | Yes | No |
| Prepayment penalties | No | No | Maybe | Maybe |
| Loan maximum | \$25,000 | 80% Loan to Value | 90% Loan to Value | \$5-15,000 |
| Term | 15 years | Up to 30 years | 5-30 years | 5 or less |
| Starting rate | 5.90% | Variable (Start around 5%) | 3-6% | 13-30% |
| Approval time | 1 day or less | 2 weeks | 2 weeks | 1 day or less |
| Minimum FICO | 590 | 700 | varies | varies |

Note: Secured loans require some form of collateral and unsecured loans do not.

Outcomes to Date:

- Value of loan applications: \$771,000
- Number of loan applications: 45
- Value of loans closed: \$419,000
- Percent average energy saved in closed loan projects: 30%
- Most popular upgrades financed: furnace replacements, duct insulation, attic insulation, air sealing, windows and water heaters.

Residential Rebates

SOPO TASK 1 “Financing Program Design” and SOPO TASK 5 “Quality Assurance” (“Financing and Incentives” pillar): emPower determined two years ago that combining high dollar rebates with low cost financing was the key to offering homeowners the most affordable energy improvement possible. This combined approach allows emPower customers to simultaneously take advantage of rebates and financing in one process. By taking advantage of thousands of dollars of rebates, homeowners can substantially reduce the cost of making an upgrade. If combined with financing, rebates can reduce the overall loan amount and result in lower monthly payments.

Services

emPower promotes the following rebate offers, which also help qualify projects for emPower financing:

- **Energy Upgrade CA:** Energy Upgrade CA (EUC) is a statewide program administered by the investor owned utilities that offers up to \$4,500 rebates for residential energy upgrades. Given limited dollars, staffing and time, in 2011, emPower was strongly encouraged by grant agencies to team up with EUC. The combined approach was not only key to providing the most affordable upgrades possible, but it

also allowed emPower to leverage the EUC infrastructure already developed to qualify contractors, determine project eligibility, ensure proper job completion and perform quality control and quality assurance without expending any additional tax payer dollars. In return, emPower would use its marketing efforts to promote EUC rebates along with emPower financing. However, EUC's basic and advanced packages and the related rebates struggled to attract consumer demand statewide (described in the "Key Challenges" section on page 17). EUC deployed program improvements in June of 2013, which are expected to dramatically improve homeowner interest, including the launch of its new and more convenient Home Upgrade rebate option.

- **CSI Solar Water Heating:** Utility providers offer a substantial rebate through the California Solar Initiative (CSI) for solar thermal water heating, which heats water using the warmth of the sun, thereby lowering traditional energy consumption and is considered an energy efficiency measure. In August 2012, emPower began allowing solar thermal projects approved by the utilities to be eligible for emPower financing on a standalone basis without requiring they be combined with other energy efficiency measures.
- **Flex Path** (launched January 2013): Based on a successful model in Los Angeles County, emPower's limited time "Flex Path" option allows homeowners to receive a \$1,000 rebate for completing a more flexible range of energy saving improvements with a participating contractor.
- **CSI Solar (Photovoltaic):** Utility providers offer a substantial rebate through the California Solar Initiative (CSI) for installing solar photovoltaic systems, which can offset traditional energy consumption. To meet grant requirements, CSI solar photovoltaic projects can qualify for emPower financing if completed with along with an energy efficiency project that qualifies for any of the other three rebates shown above.

Outcomes to Date:

- Number of Energy Upgrade CA projects complete/in progress in County (since November 2011): 48
- Number of CSI Solar Water Heating projects complete in County (since November 2011): 19
- Number of Flex Path projects complete (since January 21, 2013): 10

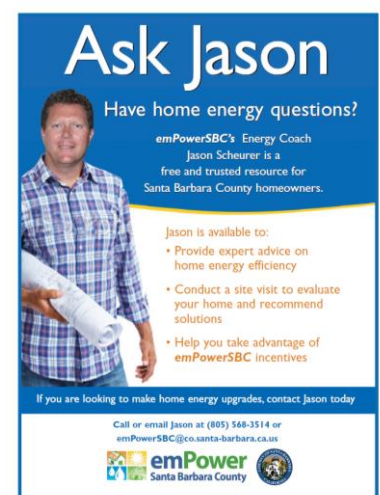
Expert Energy Advising

SOPO TASK 3 "Marketing and Outreach Campaign" ("Customer Experience" pillar):

In 2012, it became clear that many interested homeowners needed more assistance to make progress through the program pipeline. In particular, many homeowners who initially expressed great interest in the program struggled to take the first step to meet with a participating contractor. emPower determined that many homeowners did not feel comfortable contacting contractors and needed additional expert "energy advice" before moving forward with a home upgrade. It was clear that homeowners needed a more customized and personal onramp to the program. In other parts of the country, similar programs have successfully added an energy advisor service to provide expert, unbiased, third party technical assistance to both homeowners and participating contractors on site or over the phone.

Services

To assist residents, an energy coach was selected with over 25 years of construction experience as a general contractor. Jason Scheurer has experience teaching building



performance and has provided quality assurance for federal weatherization programs. He began offering technical energy assistance in January 2013 and is helping local homeowners consider useful energy improvements and connecting them with participating contractors. Preliminary results of a recent program survey indicate high levels of satisfaction with the Energy Coach service.

Outcomes to Date:

- Number of home evaluation visits: 120
- Number of contractor mentorship visits: 23

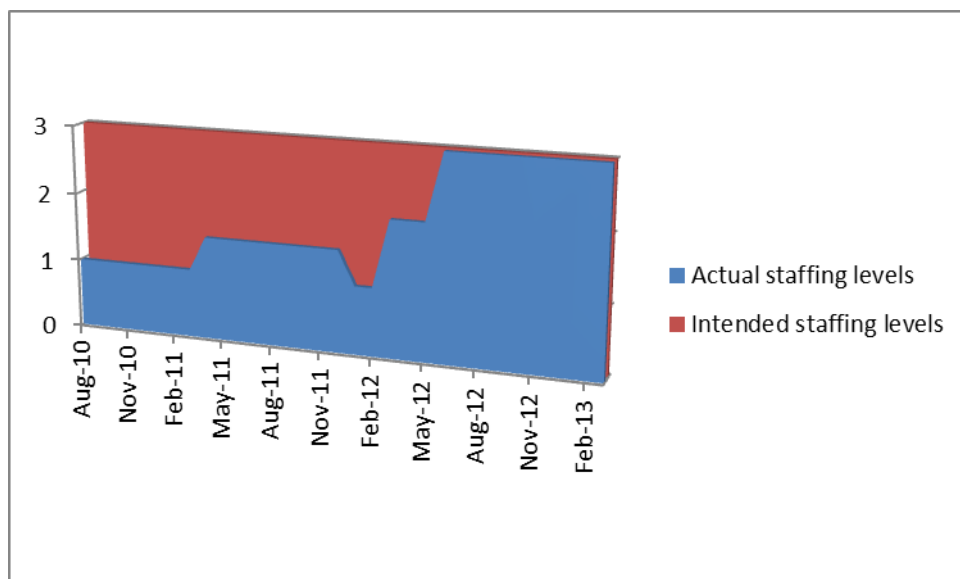
Internal Operations

Personnel (SOPO TASK 2 “Build and Enhance Capacity of emPowerSBC Personnel”)

Since the inception of the grant period, emPower ultimately hired and trained three full-time equivalent staff members, along with one Energy Coach on contract and several vendors or consultants, which have assisted with the finance program, Flex Path administration, web development, contractor training and marketing. Recently emPower also brought on two unpaid interns.

Personnel changes and County hiring delays that were beyond the control of the program were a significant factor in program progress. emPower has been overseen by 5 different individuals during the grant period and was understaffed until May 2012 (see figure 12 below). From August 2010 to April 2011, emPower was staffed by one full time program manager. In April 2011, a half-time business specialist was hired to focus on grant and fiscal administration and assisting with startup business needs. The grant and fiscal position was vacant from January – May 2012. In the meantime, a second business specialist was hired in late February 2012 to coordinate the programs’ marketing, customer service and contractor support. emPower has been fully staffed with three Full Time Equivalent positions as of May 2012, which has contributed to a significant increase in program effectiveness.

Figure 12. emPower Staffing Levels (August 2010 – March 2013)



Budget

The DOE BBNP program funding award provided \$2,401,309 from 2010 through the present. Of this award amount, \$1 million was dedicated to support emPower's financing program, which extends beyond the October 2014 grant extension deadline. The only way the loan loss reserve funds are actually "used" is if there are defaults against outstanding emPower Home Upgrade Loans. There have been no defaults against any of the emPower loans to date, thus the full \$1 million remains to support the program. In addition, emPower has yet to draw approximately \$162,000 of its award amount, but plans to expend all funds before the October 2014 extended deadline.

Evaluating Program Performance

SOPO Task 5 "Quality Assurance" and 6 "Ongoing Operational Assessment – Project Management and Reporting" (Data and Evaluation Pillar)

emPower staff gather, track, manage and analyze many data sources:

- Loan performance data provided by lending partners
- Project data and documentation from contractors, utility programs and other project administrators
- Activity data related to program activities, including events, earned media, contractor trainings, Energy Coach visits
- Website traffic and sources
- Customer contacts
- Contractor leads
- Formal survey responses or informal qualitative feedback from customers and contractors

All participant data has recently been added to a sophisticated customer relationship management system, which allows for easier and more accurate tracking, follow up and reporting. emPower staff use this information on at least a monthly basis for internal and grant related reporting, and also to inform program improvements and other internal decision making. emPower staff conduct a Quarterly Strategic Planning Meeting to review the previous quarter's performance and plan for upcoming priorities.

Verification of Data: Outcomes and related data were reported to DOE BBNP on a quarterly basis. Staff worked with DOE BBNP representatives to perform quarterly reviews of data submitted to ensure reports were as accurate as possible. Upon request by DOE BBNP representatives, project and other types of data was subsequently added or edited in previously submitted reports.

3. Challenges

Overall, emPower has accomplished a great deal in terms of both building programmatic infrastructure, generating community and economic outcomes and making progress towards its mission. As a startup program, emPower has, of course, experienced challenges along the way. This section describes some of the key challenges that have inhibited further progress during the initial stage of the program, and how these challenges are being proactively addressed.

Program redesign delayed launch

As described in Section 1, the federal challenges to PACE delayed the original launch date of the program for more than a year. The County was fortunate that ARRA grant funds were available to pay for the work required to redesign the program, seek Board approval, conduct a selection process for lending partners, develop lending agreements and redevelop all program processes and materials. While the program is now on track, the delay meant that the amount of time the program had to generate outcomes before the end of the funding period was greatly diminished.

“Whole House Approach May Limit Demand”

After emPower’s ARRA funding agreements were accepted, the DOE and CEC issued rules to encourage recipients to support the most comprehensive retrofits possible to elicit high energy savings. Based on building science principles, and a legislated “loading order,” programs were instructed to encourage customers to bundle the most cost effective energy efficiency measures (i.e. air sealing, attic insulation, duct repair) before incorporating larger system improvements (i.e. furnace replacement or solar electric installation). This meant that emPower was advised not to operate incentives that support single measure energy projects such as window or water heater replacements, nor solar installations, as it was originally designed to do.

As a result, the program replaced its original eligible measures list with the two packages of comprehensive, “whole house” retrofit packages offered by Energy Upgrade CA, a new utility administered rebate program. As the program promoted the Energy Upgrade CA rebate alongside emPower financing, it became clear that many homeowners wished to do projects incrementally, particularly during this economic downturn, rather than be required to complete all measures at once. This experience is not unique to California, it is a lesson shared by many programs across the country funded by the DOE BetterBuildings program.

In addition, as a large scale new program, Energy Upgrade CA experienced various process challenges, which affected application processing, contractor interest and demand for Energy Upgrade rebates. Since emPower financing was tied to Energy Upgrade projects, emPower loan volume suffered as well. In response, emPower has developed and launched a more flexible pathway into rebates and financing, called Flex Path, which is a temporary offer designed to align with consumer demand for more customizable upgrades. emPower is also active on the Energy Upgrade Statewide Working Group, providing feedback as Energy Upgrade seeks to improve its eligible rebate packages. In June 2013, improvements were made to the Energy Upgrade CA basic package, now called “Home Upgrade”, which now allows for homeowners to use a menu based approach and better address consumer demand by allowing for incremental upgrades.

In emPower's experience, there is certainly regional demand for energy upgrades, and the incentive and loan capital is there. It is mainly the program design (tied to EUC processes) in the middle that has bottlenecked greater success. Home Upgrade was a great improvement in California, which is expected to have a positive impact on emPower project volume. However, Home Upgrade is still a complicated comprehensive retrofit rebate program. Requiring the whole house approach may be reasonable when it comes to rebates, but unlike a rebate, a loan (though "subsidized") does not provide free money, so the consumer is paying for improvements themselves and therefore should expect some greater degree of choice.

In programs across the country, high loan volume seems to track best alongside programs with lots of choice, primarily those with single measures. In a recent article, *Reaching Middle Market Homeowners Through Finance Programs and the Contractor Network* (State and Local Energy Report, Summer 2013, Peter J. Krajsa explains that a key element to a successful loan program is "qualification of installed improvements and energy saving tracking and management." He states that successful financing programs address both proactive improvements and reactive improvements, which reflect an immediate need (i.e. heating or defective equipment) and happen to account for 90% of all energy related improvements.

In the simplest terms, high volume is necessary to keep lenders engaged, and whole house has struggled to produce high volume. Programs are more likely reach volume by meeting the market's demands than to unnaturally force its radical transformation on individuals for whom it may never make sense, thereby excluding many consumers, businesses and workers. Unfortunately, emPower can never attain perfect data on the demand we attracted but lost simply by overly restricting eligible measures. However, emPower's results can be compared against less restrictive programs.

A growing body of data, including the experience of many of the DOE BBNP programs, seems to demonstrate that project eligibility infrastructure may be more critical to program success than a perfect loan product. If true, programs like emPower can build the best loan product in the world, but if it doesn't offer financing for something people actually want, they will continue to underperform with tax and rate payer dollars. Allowing more price-friendly, flexible and incremental home energy improvements may be a more reasonable and successful proposition for programs and contractors to encourage. Based on recent new guidance from funding agencies, emPower is currently working on program design changes that will allow for incremental improvements.

Financing is a Good Solution for Some, But is Not a Silver Bullet

Theoretically, attractive energy improvement financing should be able to help consumers overcome the obstacle of upfront costs. As a result, financing should unlock access to the building efficiency market, thereby enabling lower energy use while also creating green jobs for workers underemployed by the recession. Since the improvements are designed to save money overtime, loan payments could potentially be offset with bill savings, meaning consumers only had to only make the rational calculation to see that such an action was in their best interest over time.

However, consumers are not perfectly rational. In fact, financing is associated with a variety of emotions, and unless a person is on the profiting side of the transaction, those emotions tend not to be positive, particularly in the wake of the mortgage crisis. In response, the industry collectively decided that energy efficiency loans were not really debt since the investment paid back in energy savings. But, as it turns out, debt is debt.

Nonetheless, policy makers and program implementers across the country have gotten in the business of encouraging debt for the greater good. However, since no attractive financing for these improvements was available, policy makers and program implementers focused on this problem as a market failure, and the

solution would be to make energy improvement financing far more attractive, accessible and convenient than was currently provided by the private sector.

It isn't hard to understand why financing was an alluring solution. It promises to actualize public goals with limited public investment. It helps individuals buy what policy makers want them to have now. In this case, BBNP and its recipients wanted individuals to complete extensive energy improvements, despite the fact that they carry high upfront costs that are beyond the means of an average homeowner. Because most programs cannot afford to directly pay for all the improvements needed to meet its goals, financing was seemingly the only way to pay for the balance of energy improvements after available incentives are applied.

However, as Matt Golden wrote in a recent blog post, "Simply put, people don't replace a furnace because there is cheap financing - the financing just makes it easier and potentially enables investments in more efficient systems that cost a bit more upfront" (<http://www.efficiency.org/1/post/2013/08/the-hidden-flaw-in-residential-energy-efficiency-financing.html>).

In other words, when it comes to energy efficiency, financing does not appear to be the silver bullet solution, in fact it may not even be the best bullet. emPower contractors report that only approximately half of the consumers they speak with are willing to consider financing. Consequently, financing is more like a necessary bullet for those that want and need it, and perhaps the only bullet government can afford to offer in a large enough volume to make a significant impact on energy consumption. Some jurisdictions throughout the country have attempted to test the concept and change the market. It was hoped that the energy upgrade loan performance data could inspire a new asset class, and invite lenders nationwide to hop in the warm, profitable bath created for them. As Recovery Act funding wraps up, we are still trying. The market is changing, albeit more slowly than most of us would like.

Scaling Up Takes Time

Before the launch of the emPower program, the concept of home performance was unknown to both homeowners and contractors. As a result, emPower was responsible for creating brand awareness and driving demand for "whole house" home energy upgrades while simultaneously preparing a workforce that could meet this demand. These market factors must operate concurrently in order to complete a large volume of home energy improvements, but they take time. emPower has made great strides in helping contractors update their business models to include the range of home performance functions and will continue to conduct local training and recruitment efforts.

In addition, because home energy upgrade projects carry a relatively high price tag, participating contractors report that it often takes 3-12 months for a lead to turn into a signed a contract for services. Home improvements are a large investment for most homeowners, who often take quite a while to consider the purchase before they sign a contract. Several campaigns and limited time offers have been crafted to create a sense of urgency to encourage homeowners to initiate their projects sooner. As a result, more homeowner have begun their upgrade projects, but of course, not all need financing. As the total number of retrofits underway increases with time, the volume of emPower loans is expected to scale closer to the levels originally expected under PACE.

Finally, hiring delays were a significant factor in program progress. emPower 2.0 was fully staffed with three positions only as of May 2012, which has contributed to a significant increase in program effectiveness.

4. Program Assets (Developed Products)

Perhaps the greatest success of emPower 2.0 has been applying initial grant funds to the development and operation of a substantial list of valuable and lasting assets (examples shown in Table 2), which can only continue to be viable if the program is still in operation.

Table 2. emPower Assets

| Functional Service Area | Program Assets |
|-----------------------------------|---|
| Financing | \$1,000,000 loan loss reserve supports \$20 million in private capital for emPower Home Upgrade Loans |
| | Formal functioning relationship with 2 local credit unions, including complex lending agreement for loan facilities/servicing |
| | Customized loan application system |
| | Loan production and performance reporting systems |
| | Outreach support through 30,000 Credit Union member listserv, local branches and credit union staff |
| | Accounting methodology developed by Auditor Controller |
| | Lender Guide with underwriting instructions |
| Rebates | Relationship with Statewide Energy Upgrade utility program, including streamlined rebate and financing application processes |
| | Streamlined utility solar thermal rebate and financing application processes |
| | Internally developed and managed Flex Path rebate program, including application, quality control and payment systems |
| Workforce Development/Training | Participating contractor enrollment process (documentation, screening, training) |
| | Participating contractor directory that helps property owners find qualified contractors |
| | A Contractor Input Committee (CIC) which meets regularly to help contractors provide feedback, network and share lessons |
| | Mentorship assistance from Energy Coach who can assist newer home performance contractors on their projects |
| | Sponsored tool lending library subscription for emPower contractors and trainees. |
| | Relationships with local training providers |
| | emPower marketing assets, which help participating contractors' increase visibility, credibility, and sales |
| Marketing, Education and Outreach | emPower brand and widespread brand awareness |
| | Marketing strategy and messaging platform |
| | Two marketing firms on contract and trained on all program processes |
| | Customized online presence including website, enewsletter, facebook page, twitter account |
| | Designed and produced program materials including tv and radio commercials, ads, collateral, presentations |
| | Several effective event formats and planning protocols |
| | Press kits, media relationships and media contact list |
| | Community partner advisory group including key stakeholders (i.e. REALTORS, contractor associations, non profits, cities) |
| Local Customer Service | Relationships with lenders, cities, local agencies/businesses that leverage valuable resources and increase outreach distribution |
| | Three knowledgeable staff members |
| | Customer intake processes |
| | Customer contact list that reaches nearly 2,000 individuals |
| Expert Energy Advising | Customer contact systems including hotline, web contact forms, email |
| | Home energy information packet |
| | One Energy Coach on contract and trained on all program processes |
| Program Administration | Energy Coach intake and assistance protocols and processes |
| | Fiscal and procurement systems and protocols |
| | Trained personnel |
| | Grant administration, reporting and compliance systems |

5. Program Sustainability Plan

Same program design, bigger boundary

Following the Board's direction in September 2012 to pursue available opportunities to continue and expand emPower, this section details how funding contracts totaling over \$5 million present a unique and timely opportunity to continue serving the building efficiency needs of the region.

The main premise of emPower 3.0 suggests that building upon current program assets is the best way to turn the initial outlay of funds into an investment that can elicit significant returns for years. On June 25, 2013, the Santa Barbara County Board of Supervisors unanimously decided to accept funding contracts from the California Energy Commission (CEC) and the California Public Utilities Commission (PUC). This decision, along with the County accepting an extension of DOE BBNIP grant funding, has allowed emPower to continue to operate and generate outcomes through the end of 2014. It also positions emPower to pursue future funding opportunities to generate results for years to come.

As mentioned, these and other funds becoming available are based upon programs like emPower offering services on a regional basis. The funds available are also based upon emPower's unique ability to be expanded into neighboring communities including Ventura and San Luis Obispo Counties. From the State's perspective, regional programs offer the most cost effective and least redundant approach to ensuring communities have access to building efficiency services. Given how complicated and time consuming programs like emPower are to develop, it would not make sense for each local jurisdiction in the State to design, develop and administer their own program. A similar logic applied when the County originally decided to offer emPower services to all 8 incorporated cities within the County, as it does today.

Table 5. Single Family Residential Parcels

| Jurisdiction | Number of Single Family Residential Parcels |
|-------------------------------------|---|
| Santa Barbara County | |
| Unincorporated | 27,847 |
| Incorporated | |
| Buellton | 1,149 |
| Carpinteria | 1,763 |
| Goleta | 3,269 |
| Guadalupe | 1,278 |
| Lompoc | 7,064 |
| Santa Barbara | 14,219 |
| Santa Maria | 16,043 |
| Solvang | 1,179 |
| Total Incorporated | 47,974 |
| Santa Barbara County Total | 75,821 |
| San Luis Obispo County | |
| Unincorporated | 31,360 |
| Incorporated | |
| Arroyo Grande | 3,026 |
| Atascadero | 7,216 |
| Grover Beach | 2,928 |
| Marro Bay | 3,922 |
| Paso Robles | 8,028 |
| Pismo Beach | 3,168 |
| San Luis Obispo | 7,993 |
| Total Incorporated | 38,191 |
| San Luis Obispo County Total | 69,551 |
| Ventura County | |
| Unincorporated | 10,219 |
| Incorporated | |
| Filmore | 3,073 |
| Ojai | 7,399 |
| Oxnard | 30,078 |
| Santa Paula | 4,308 |
| Ventura | 22,631 |
| Port Hueneme | 2,153 |
| Camarillo | 18,290 |
| Thousand Oaks | 28,340 |
| Simi Valley | 31,749 |
| Moorpark | 8,310 |
| Total Incorporated | 156,531 |
| Ventura County Total | 166,750 |

Program Design

As described in the previous section, emPower 2.0 was funded by past grant awards through August 2013 to support the development and start-up phase of emPower for Santa Barbara County residents. emPower 3.0, described in this section, proposes the use of new funding awards to support the same program design through the end of 2014, with an expanded service boundary. State funding agencies have offered continuation funding under the specific expectation that Santa Barbara County can provide services to neighboring areas in San Luis Obispo County and Ventura County.

emPower 3.0 therefore looks very similar to emPower 2.0 from a service delivery perspective. As shown in Table 5, Ventura and San Luis Obispo Counties also have a large volume of older homes the program targets.

Ongoing study reveals that new and emerging best practices in building efficiency programs are being successfully implemented across the country. Where possible, staff intends to continue to identify, design and implement innovative variations of the six service functions in the next phase. Examples include: financing for multi-family residences, contractor incentive programs and trainings, new outreach strategies, and strategic partnerships to leverage additional resources with local agencies.

The following sections provide additional detail regarding advantages to a Tri-County program, and program management and operations.

Existing Residential Building Stock

Several factors suggest that the volume of demand for energy upgrades to existing residential properties in the Tri-County region is substantial. To help house a population of 1.4 million people, there are 315,000 single family residential properties in the Tri-County, as detailed in Table 5 using Assessor data from each County. In Santa Barbara County, approximately half of the residential properties are owner occupied units, 58% are single family detached homes, and 86% were built before 1990. In fact, a majority of the stock was built in between 1960 and 1990.³ Older homes are typically likely in need of rehabilitation, including the measures eligible for emPower incentives and financing. emPower estimates that approximately 135,000 single family homes throughout the Tri-County are good candidates for emPower services (owner-occupied and over 25 years old).

In addition, tens of thousands of multi-family homes could be good candidates for emPower services, which highlight the need to begin developing specific services during this phase to meet this demand.

Tri-County Advantages

A Tri-County approach provides wide benefits to the region and helps emPower achieve its goals. Neither Ventura nor San Luis Obispo currently offer the type of services emPower offers to the residents of Santa Barbara County, including financing, and specific outreach, customer service, and workforce development efforts. Both Counties have formally indicated great interest in allowing residents to take advantage of emPower offerings, which would be administered centrally by Santa Barbara County with CEC and PUC funds.

3 Santa Barbara County 2009-2014 Housing Element

<http://longrange.sbcountyplanning.org/programs/housing/documents/2009/Chapter%20-%20Needs%2011-4-10.pdf>

Santa Barbara County is being offered funding because it has a previously ARRA funded program that offers financing through credit union partners that also happen to serve the entire boundaries of San Luis Obispo and Ventura Counties. These are specific conditions of the funding sources, meaning Ventura and San Luis Obispo have no other means by which to fund these services in the foreseeable future. The State recognizes that a Tri-County approach maximizes current programmatic and marketing infrastructure (i.e. standardized agreements, processes, workflows, branding, advertising, etc) while minimizing programmatic redundancies and community confusion. In effect, Santa Barbara County controls whether the two jurisdictions will have access to energy services or not.

In addition to serving a greater number of residents, the Tri-County approach benefits current emPower efforts in Santa Barbara County. By increasing the pool of potential applicants, emPower will attract a greater level of demand for services, which will help to strengthen the growing building performance market. emPower's effective marketing, education and outreach methods are well positioned to serve shared media and consumer markets that naturally exist in the Tri-County. By keeping branding, messaging and processes consistent and tied to one program pipeline, a Tri-County program helps to eliminate confusion in the marketplace for customers who are looking for streamlined services.

In addition, more consumer demand will help achieve emPower's job creation goals by bringing more work to participating contractors that live, work and spend in the Tri-County region. In fact, the larger scale and greater longevity of the program is likely to motivate a greater number of local building professionals to become trained and enrolled to participate in the program, which will increase the broader and lasting impacts on local construction practices.

Finally, this approach positions emPower to continue to attract funding to continue services far beyond 2014. In fact, a new construct has recently been established and is gaining momentum, called a Regional Energy Network (REN). RENs have been developed by LA County to serve Southern California, and by several Bay Area governments, and have received nearly \$100 million from the PUC in the 2013-2014 funding cycle. It appears unlikely that funds will continue to be provided on a County scale, meaning that funds could get invested elsewhere leaving residents of the Tri-County region underserved. The Tri-County is already seen as a natural region in the State for effective energy efficiency service delivery, and emPower is in perfect position to help pilot this strategic collaboration.

Relationship with Ventura and San Luis Obispo Counties

In several meetings with the staff at both Ventura and San Luis Obispo counties, it was clear that the best approach to initiating a Tri-County program would be to keep the mechanics as simple as possible. It was suggested that Santa Barbara County centrally administer the program because the funding was specifically and exclusively offered to Santa Barbara County, and Santa Barbara County already operates a live energy efficiency financing agreement with credit unions that serve the entire region.

As described in the budget section on page 26, Santa Barbara County has accepted the funds to continue operating emPower and to expand and oversee the financing and general marketing and workforce development programs. Santa Barbara County will be passing through funds to both Ventura and San Luis Obispo via subagreements to support localized program delivery, including limited staffing and other operating costs associated with localized customer service, contractor recruitment and outreach for residents in each respective County. The subagreements call for Ventura and San Luis Obispo Counties to seek reimbursement for expenses incurred from Santa Barbara County, who would collect and manage all reporting and draws from funding agencies on behalf of the Tri-County. Santa Barbara County will also

manage the brand and facilitate training of staff hired by Ventura and San Luis Obispo County, as well as general oversight over Tri-County activities.

Additional Programmatic Enhancements

Along with undergoing program changes related to new funding acquired, emPower continues to make improvements to DOE BBNP funded activities. emPower is currently working with CoastHills on developing new program enhancements based on best practices, and program partner feedback. Current efforts to improve emPower's offerings include:

- Interest rate buy down: Using DOE BBNP funds, emPower hopes to buy down the rate on 100 loans by 200 basis points.
- Financing of incremental measures: To expand the types of eligible measures that can be financed, the program is working with lenders and utilities to develop a single measure (or incremental measure) program that will allow homeowners to finance energy efficient measures completed outside of an Energy Upgrade CA program.
- Prepayment re-amortization option: The prepayment re-amortization would allow homeowners to apply rebates or tax credits for a onetime prepayment on the principle of the loan and allow for a re-amortization, which would keep the terms of the loan the same but lower the monthly payment.
- Progress payments option for contractors. emPower lenders have proposed a voluntary progress payment option using a "fund control" payment system with an escrow company. Contractors would receive a 35% payment once milestones in the contract have been met, such as delivery of equipment. The final 65% payment would not be made until the project is completed and all required documentation is properly submitted.

emPower 3.0 Staffing

In order to achieve programmatic goals associated with delivering a regional program, it is estimated that emPowerSBC will need to fund an additional position already allocated to the program. As shown in Table 6, the program manager will oversee all aspects of the program, and an administrative leader and two business specialists will help execute program grant administration and reporting, marketing, outreach, customer service, project processing oversight, workforce development, as well as data monitoring and funding award compliance requirements.

Table 6. emPower 3.0 staffing costs

| Funded Positions | Estimated Annual Cost |
|----------------------------|-----------------------|
| Program Manager | \$ 137,325 |
| Administrative Leader | \$ 133,857 |
| Business Specialist II | \$ 127,102 |
| Business Specialist I | \$ 127,102 |
| Total Program Staff | \$ 525,386 |
| Staff in Other Departments | \$ 100,000 |
| Total County Staff | \$ 625,386 |

emPower 3.0 Program Budget

New program funding sources offered to the County from the CEC and the PUC via Southern California Gas Company (So Cal Gas) to expand and continue emPower through the end of 2014 are outlined below.

Table 7: emPower 3.0 Awards

| New emPower Funding for Tri-County | Offered |
|---------------------------------------|---------------------|
| ARRA CEC #2 | \$1,550,000 |
| So Cal Gas 2013-14 | \$3,700,000 |
| Total Grant Funding | \$5,250,000 |
| General Fund | - |
| Total EmPower Funding | \$ 5,250,000 |

Program spending through the next several fiscal years is estimated below.

Table 8: New award estimated funding breakdown

| New Funding Spending Breakdown | 2012-2013 | 2013-2014 | 2014-2015 |
|-------------------------------------|------------------|--------------------|------------------|
| Salaries and Benefits | \$47,800 | \$622,000 | \$311,000 |
| Operations, Workforce and Marketing | \$71,500 | \$660,000 | \$379,700 |
| Total Program Spending | \$119,300 | \$1,282,000 | \$690,700 |
| Pass Through to Other Counties | \$0 | \$828,000 | \$330,000 |
| Loan Loss Reserve | \$0 | \$1,600,000 | \$400,000 |

* Loan loss reserve funding provided in the PUC agreement will not be recorded as revenue.

**FY 2014-15 includes a partial year of funding

This estimated budget does not reflect significant increases in overall direct program spending as compared to previous years, but does include budget for a fourth position. Approximately \$275,000 per calendar year is expected to be passed through to both Ventura and San Luis Obispo (via separate agreements) to support localized program delivery, including limited staffing and other operating costs associated with localized customer service, contractor recruitment and homeowner outreach.

The new funding contracts make a maximum of \$2 million in additional loan loss reserve dollars available to support emPower loans throughout the Tri-County. These funds would allow the County to augment its current loan loss reserve program and establish segregated loan loss reserve funds with lending partners for both San Luis Obispo and Ventura County. Assuming the same leverage ratio achieved in emPower's current lending agreement (20:1), it is expected that \$8 million in private capital would be available initially in each of the two counties to support single family residential emPower Home Upgrade Loans. Other loan loss reserve dollars may allow emPower to explore developing other loan products, such as secured loan or an unsecured loan for multi-family projects.

Because proposed funding contracts are budgeted through December of 2014, spending for that fiscal year is only shown for half a year. It is anticipated that additional funding sources may become available prior to December 2014, which could allow program to continue.

Implementation Steps

It is anticipated the Tri-County program will be launched in the first quarter of 2014. With the Board having accepted the two funding awards on June 25, 2013, staff has been working on the following steps to fully implement the scopes of work associated with the funding awards. :

- Continue emPower services in Santa Barbara County, including outreach, customer service, contractor training, recruitment and support, and Energy Coach services.
- Bring on an additional position to support the emPower program
- Develop Memorandums of Understanding for Board consideration to pass through funds to both Ventura County and San Luis Obispo County that includes defined scope of work, reporting, invoicing and communication protocols.
- Work with County project team and CoastHills Federal Credit Union to amend the current Loan Loss Reserve Agreement to include programmatic enhancements and allow funds from other sources to be utilized to support residential emPower loans, and to broaden the service boundary to include Ventura and San Luis Obispo Counties. The amended agreement would be subject to Board approval.
- Train staff at Ventura and San Luis Obispo County on program application processes and protocols related to customer service, outreach, and contractor engagement.
- Update internal policies and processes for managing invoicing, accounting and reporting.
- Apply minor modifications to emPower brand and marketing materials to communicate broader service boundary.

Expected Outcomes for emPower 3.0

emPower 3.0 expects to generate and track the following measurable outcomes during the funding period associated with the PUC and CEC contracts.

- Attract 4,000 interested individuals to actively engage with a broad range of program services, education and assistance.
- Lead to home energy work (projects and/or assessments) in approximately 500 homes resulting in:
 - \$5 million in project activity for participating contractors
 - Generating \$10.4 million in economic impact
 - \$2 million in loan applications for participating lenders
 - Average of 20% energy savings for completed projects
- Enroll 10 additional participating contracting companies
- Provide workforce trainings for 200 attendees from the regional building trades
- Along with project generated economic impact, local spending of grant dollars on program delivery is estimated to generate an additional \$10 million in economic impact.
- Monitor policy and funding environment and pursue new sources of funding for Board consideration for ongoing program operations after 2014.

Beyond the funding period, these funds will have lasting impacts, given that loan loss reserve can support millions of dollars in capital that will be available to continue offering emPower Home Upgrade Loans for many years.

Conclusion

Despite initial challenges, emPower has generated early but important outcomes for the community. From beginning to transform the local contracting workforce and creating jobs, to providing services to over 3,600 local residents, 230 of which have taken action to assess and upgrade their home's energy efficiency, Santa Barbara County has made significant headway in stimulating the local home performance market and reducing local energy use. By undertaking program activities to drive demand for energy improvements, emPower has learned key lessons in its first two years of service that can be applied to the next phase, emPower 3.0. For example, while financing and rebates are important solutions, emPower has evolved to fill a broader set of community needs, including providing widespread energy efficiency education, connecting residents with qualified contractors, matching low income and underserved markets with available services and delivering other wrap around services that meet the varied needs of all those residing in our County. A Tri-County emPower program will allow us to continue our activities locally and expand these valuable services to our neighboring counties while also better positioning emPower to take advantage of future opportunities becoming available primarily for regional scale programs.