

ATTACHMENT B

ENERGY UPGRADE CALIFORNIA: LOS ANGELES REPORT TO CEC

Retrofit LA

Final Report

Prime Contractor Name: **Los Angeles County**

Contract Agreement Number: **400-09-024**

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Project Manager: **Howard Choy & Ana Rosales**

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The information contained in this final report for the *Retrofit LA* Program includes activities, metrics, accomplishments, and expenditures completed through the June 2012 Reporting Period.

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EXECUTIVE SUMMARY

A. Program Background and Approach

The County of Los Angeles (LAC) partnered with local governments representing nearly the entire population of the region, including the City of Los Angeles and nearly all cities in the County, and a highly qualified team of public and private partners to implement *Retrofit LA*, a countywide residential energy retrofit program. The assembled partners represented nearly all of the eighty-eight incorporated cities and unincorporated areas in California's most populous county and a diversity of program expertise that drew together leadership at the local, state, and national level. *Retrofit LA* was created to develop a program that would rapidly accelerate home energy retrofits across the region, spur deep market penetration, and drive market transformation in alignment with state energy policy. This market transformation program was designed to help transition the region from the utility single-measure approach to a whole building approach, in order to achieve deeper energy savings that meet the State's energy goals. The program was also designed to be highly transferrable, both statewide and nationally.

Retrofit LA aligned local government workforce and outreach stakeholder pathways, business capacity, utility infrastructure, and consumer demand to implement an energy efficiency whole building market transformation program that completed the following:

- Leveraged government workforce and outreach stakeholder programs to engage the private sector to harness market forces and accelerate program participation;
- Expanded the energy upgrade delivery capacity of building professionals and the supply chain through workforce development programs;
- Drove consumer demand for home energy upgrades through innovative marketing and communication strategies that leveraged existing community and private-sector distribution channels and word-of-mouth program promotion;
- Created financing programs to support retrofits by making funds readily available for lending to a wide range of constituents.

B. Project Structure

Retrofit LA, a countywide program under the statewide Energy Upgrade California™ brand (Energy Upgrade California), was developed and implemented by the County of Los Angeles, the Cities within the County, Southern California Edison (SCE), Southern California Gas Company (SCG) and the municipally-owned utilities in the County, in coordination with California Public Utility Commission (CPUC) and the California Energy Commission (CEC). Energy Upgrade California is an umbrella brand with a one-stop-shop website (www.energyupgradeca.org) for homeowners wanting to find qualified contractors to conduct energy saving improvements that will improve the home's energy efficiency, make homes more comfortable, and improve indoor air quality. Energy Upgrade California is an unprecedented energy efficiency market transformation program aimed at changing the historical single-measure approach to a whole house approach. To implement Energy Upgrade California, LAC leveraged three American Recovery and Reinvestment Act (ARRA) funding sources; Formula Energy Efficiency Conservation Block Grant (EECBG), Better Buildings Program (BBP) funding and CEC EECBG discretionary funding. Formula EECBG funds were utilized for market research, program design, incentives, building administrative and management systems, financing loans through credit enhancements, and implementing the program in the unincorporated areas of the County. CEC EECBG funds leveraged this investment and provided implementation funding to expand activities throughout incorporated cities in the County, focused on participant recruitment, marketing, and workforce development. BBP funding tested new innovative pilot program models to drive deep market penetration in focused neighborhoods. LAC

designed *Retrofit LA* and all other Energy Upgrade California activities to leverage Investor-Owned Utility (IOU) program incentives and QA/QC process, as well as the customer and community engagement resources, workforce capabilities, and codes and standards of the participating local governments.

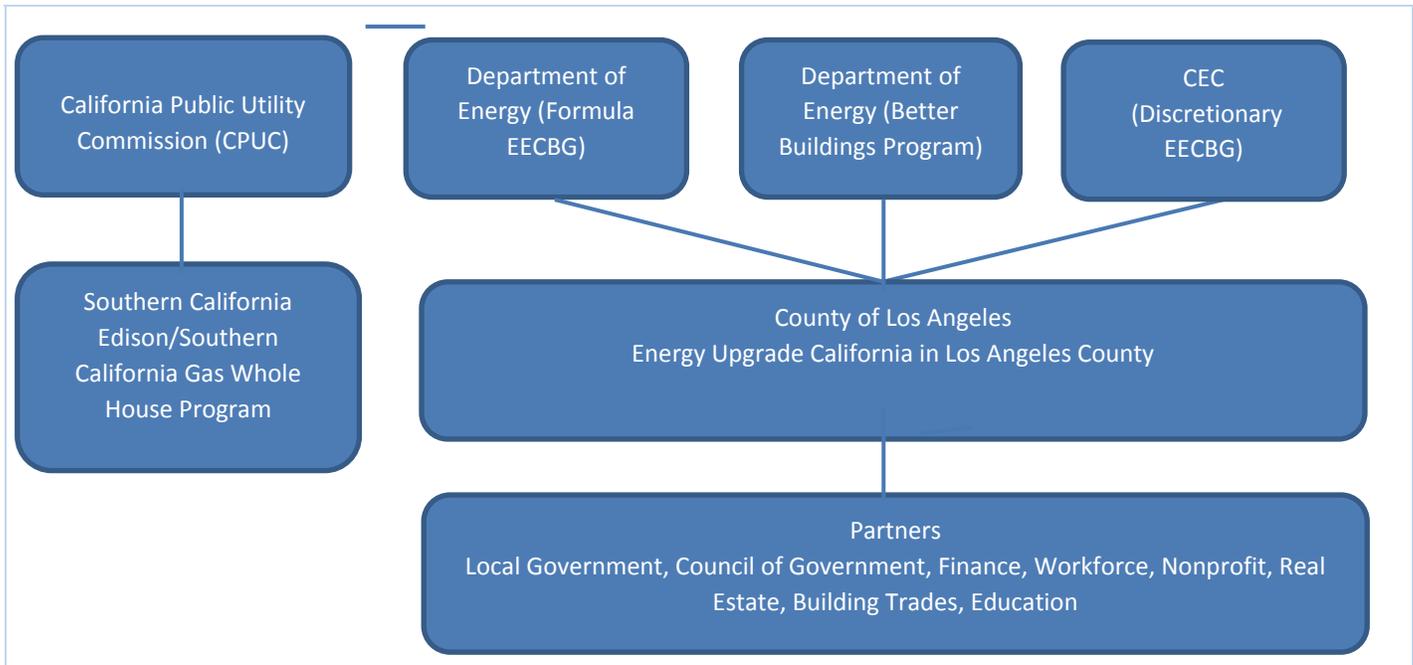


Figure 1.1: *Retrofit LA* Energy Upgrade California Program Relationships

C. Program Organizational Structure

LAC was the prime contractor, lead facilitator, and convener of *Retrofit LA*. LAC led project management activities and had primary budget and contract oversight. LAC convened bi-monthly Steering Committee meetings, and quarterly Program Advisory Committee meetings. The Steering Committee was comprised of County staff, consultant representatives and Councils of Governments (COGs). Their primary role was to seek agreement on the implementation of the countywide program design, marketing and outreach strategies, workforce development support, and local stakeholder engagement. The Program Advisory Committee included the Steering Committee and key program stakeholders from the building trades, education, non-profit, realtor, and workforce industries. Their primary role was to advise the Steering Committee on the practicality of countywide program activities and to obtain feedback and buy-in from their respective constituencies in support of the program. The following figure illustrates the organizational structure of the program.



Figure 1.2: Funding/Contractor Organizational Structure

In addition to LAC, the *Retrofit LA* partners consisted of consultant representatives (private firms) and Councils of Governments (COGs). Bevilacqua Knight, Inc. (BK_i), a private energy consulting company, was selected as the lead consultant to support program design, implementation, and administration. In that role, BK_i provided administrative support, completed key countywide deliverables, and provided oversight of sub-consultants charged with completing various countywide deliverables for all aspects of the program.

PROGRAM GOALS

The original goals of *Retrofit LA* mirrored those of the American Recovery and Reinvestment Act of 2009 (ARRA): (a) energy savings, (b) job creation/preservation, and (c) economic recovery. Along with the other Energy Upgrade California activities, *Retrofit LA* was designed to develop and implement a comprehensive whole building energy efficiency retrofit program for existing residential buildings.

To achieve these goals, *Retrofit LA* identified a set of four core program objectives that addressed the major barriers to market transformation and served to guide program design. These three objectives aimed to spur residential energy retrofits.

- Provide financing mechanisms, including both Property Assessed Clean Energy (PACE) and alternative financing using credit enhancements, to address the high upfront cost of energy retrofits;
- Demonstrate more effective marketing and outreach methods to inform and motivate property owner participation;
- Streamline participant, contractor, and administration processes to reduce the high transaction costs and build a quality green workforce;
- Expand the energy upgrade delivery capacity of qualified building professionals and the supply chain through workforce development programs.

The intent behind these objectives was to deliver a program that fundamentally and permanently transformed the energy market by deploying the whole building approach. This required the development of a solid foundational relationship between the utilities (SCE and SCG), the County and participating local governments. The program design was initially set forth and vetted through the Home Energy Retrofit Coordinating Committee (HERCC), a statewide organization composed of local governments, utilities, building professionals, CEC, and CPUC. The HERCC formed a number of subcommittees to flesh-out the content, approach, and implementation of the program design, marketing and outreach, and workforce preparedness. The HERCC recommendations strongly influenced the final design of both the utility program and local government ARRA funded programs.

To initiate the program, LAC allocated 79 percent of its \$15.4 million EECEBG funds to program design and implementation, including incentives. In addition, LAC also secured the CEC ARRA-funded *Retrofit LA* contract to support implementation of marketing and outreach activities, workforce training, and incentives. Initial program goals for these efforts, (within a landscape that included Property Assessed Clean Energy [PACE] financing programs) included achieving 8,300 single family and 1,000 multifamily upgrades over a two year period while creating 1,662 jobs in the process. In working toward these goals, *Retrofit LA* was designed to build a new infrastructure capable of ongoing implementation of a countywide whole building retrofit industry beyond the life of the program's contract.

A. Program Objectives – Successes and Barriers

Retrofit LA sought to create jobs and stimulate the economy through a comprehensive program to implement energy retrofits in existing residential buildings. Through successful implementation throughout the CEC program period, *Retrofit LA* has achieved a countywide market primed for continued growth and aligned the Energy Upgrade CA infrastructure in LA County for ongoing program support.

The program had four core program objectives: 1) provide finance mechanisms; 2) demonstrate effective marketing and outreach; 3) streamline participant, contractor, and administrative processes, and 4) expand the workforce. The following are the key successes and barriers to achieving these objectives:

Financing Mechanisms

Financing was a critical component of the program because of the high upfront costs of an upgrade. The average cost of an Advanced Path upgrade is \$13,000 and in some cases Advanced upgrades can exceed \$20,000.¹ Early on in this program, the Federal Housing Finance Authority (FHFA) issued guidance that halted the development of residential Property Assessed Clean Energy (PACE) programs. To contend with the loss of PACE financing that was an integral part of the original program design; LA County launched an alternate financing option in July 2011. The Loan Loss Reserve Fund and Interest Rate Buy Down for County financing products is funded from the formula EECEBG grant and work tangentially to create affordable options to a wide range of borrowers. There are few other financial products in the market today that are accessible and affordable for most homeowners. To date, successes include:

- The average financed Energy Upgrade California project is \$15,015 indicating that deeper retrofits are being achieved with financing than those that do not take advantage of low-cost financing;
- 32% of the applications received to date are from homeowners in POU territories indicating that financing plays an integral role in achieving retrofits in areas that do not offer the high IOU Energy Upgrade California incentives;
- 23% of the funded loans were to borrowers with a low to middle household income (less than \$75,000), and additional 20% of the funded loans went to households with an income of less than \$100,000. For reference, median income for LA County is \$69,200².

The downturn in the economy, combined with the high cost of the Advanced Path upgrades and the lack of available affordable financing, resulted in slower homeowner uptake in the program than originally expected. In addition, the Basic Path upgrade, initially expected to lower the cost entry point for homeowners, has had minimal uptake. Homeowners participating through the Basic Path are required to complete a set of core measures to be eligible for financing and incentives and many homeowners had previously installed one or more of the set core measures or did not have an HVAC system, making them ineligible for the Basic Path rebates. Additionally, many of the LA cities located on the coast already have advanced sustainability programs. As a result, different measures are necessary to achieve the energy efficiency realized by the Basic Path in other climate areas. As an alternative to the Basic Path, LA County created Flex Path (discussed in more detail on page 18), a points-based prescriptive incentive program where homeowners choose a combination of two or more single measures and receive an incentive after achieving 100 points or more.

Marketing and Outreach

For marketing and outreach, the *Retrofit LA* program used branding guidelines developed by the CEC and the CPUC in concert with statewide stakeholders. To maximize program participation and maintain consistent branding, the County and its partners collaborated on community outreach, countywide advertising and the development of a statewide Energy Upgrade California website.

LAC crafted a comprehensive Communications Plan that leveraged funding from all three sources (EECEBG, CEC and BBP) into one cohesive effort that used the same messaging, branding, and outreach strategies designed to minimize customer confusion and reduce duplication. State sponsored market research helped determine target markets and likely candidates for *Retrofit LA*. The marketing committee built an outreach plan aimed at reaching the homeowners identified as most interested in doing upgrades on their home combined with

¹ Based on SCE and SCG Whole House Data for *Retrofit LA* Program metrics as of 5/31/2012

² Source: <https://www.efanniemae.com/sf/refmaterials/hudmedinc/hudincomerresults.jsp?STATE=CA>

those most capable of affording these services. A multiple touch approach was used to educate homeowners about the whole house approach, and a combination of outreach events, marketing materials and mass media ads helped to steer consumers to the Energy Upgrade California website.

Separate consumer and contractor facing template materials in English, Spanish and Chinese were created and shared with marketing partners under *Retrofit LA* to ensure brand consistency, unity of messaging, and to reduce development costs. Established local government stakeholder and outreach networks were leveraged to educate homeowners, contractors, and retailers about the program. In some regions, “hot spot” maps were developed to conduct targeted marketing. In addition to the countywide marketing and advertising efforts, the County intensified marketing efforts in specific pilot marketing areas where, based on extensive consumer research and analysis, a high percentage of the primary target audiences live.

The whole house approach was new to consumers and contractors, as well as the IOUs, which meant a steep learning curve, as well as some market confusion, and misalignment between program operational readiness and practices and marketing efforts. At times, the program had difficulty providing the information needed to sell comprehensive energy upgrades (such as return on investment data). In the beginning especially, contractors needed better marketing and sales tools earlier in the program to reduce the time they spent with homeowners educating them about the whole house approach. More widespread awareness of the Energy Upgrade California program would have helped to create stronger brand recognition and our efforts thus far to create awareness should be maximized in future marketing campaigns

Workforce Development

The need to support the development of a knowledgeable base of building professionals that could not only effectively deliver upgrades but could also sell upgrades to homeowners was apparent from the beginning of the program. The County developed a Workforce Development Plan which identified a significant gap between the need for credentialed and experienced contractors and the existence of those contractors. Prior to program launch, roughly 100 individuals had completed Building Performance Institute (BPI) training in the Los Angeles region. In order to complete an Energy Upgrade California project, however, contractors needed to be Building Performance Institute-Building Analyst (BPI-BA) certified. Qualitative research indicated that only 10 or so were actively employed with this certification prior to program launch, although the County projected a need of 176 BPI-BA certified professionals to complete the upgrade goals identified for the Retrofit LA program. The County also identified gaps in contractors’ knowledge of the required EnergyPro modeling software, sales techniques and messaging of whole-house retrofits, and issues associated with understanding of program submittal requirements and procedures such as energy modeling and incentive applications.

To address the shortcomings in the workforce, the County formed a workforce subcommittee (comprised of participating contractors, Efficiency First, California Building Performance Contractors Association, and IOU and County representatives) and initiated a multi-faceted strategy that involved offering free trainings, coordinating with educational and workforce organizations to develop and promote trainings, providing scholarship opportunities for contractors to offset the costs of trainings and certifications, and supporting trained contractors with job placement efforts. The County-sponsored trainings that utilized CEC funds to support the following: BPI-BA trainings, Real Estate Professional workshops, Certified Green Real Estate Professional Trainings, Certified Green Building Professional Trainings, GreenPoint Rated Trainings and sales and marketing webinars. Details of these efforts are featured on page 12. As a result of these efforts, over 520 building professionals attended trainings directly funded by the County’s team using CEC funds; professionals were also trained through partner efforts, particularly through several series of basic building science and BPI trainings offered through SCE directly. As a result of these efforts, over 66 contracting firms now employ BPI certified professionals in the County.

The largest challenge associated with developing the workforce is that, as previously mentioned, merely training and certifying professionals does not guarantee that they will be hired to perform retrofits in a sluggish economy, nor does it provide them with the experience and skills needed to successfully sell an upgrade, audit a home, model energy savings, or perform the work in an efficient manner. The County efforts to address this concern included a Sales and Marketing Webinar series as well as EnergyPro trainings and job placement support through an online job board and job fair. While the County's and partners' efforts have done well to increase the supply of trained building professionals, contractors in the industry will need to continue to gain experience if whole-building retrofits are to achieve significant market penetration moving forward.

Streamlined Processes

Retrofit LA sought to streamline homeowner and contractor participation in the program through both marketing and technical program elements. For marketing, the Energy Upgrade California brand served as the umbrella for the County and SCE and SCG programs, and the County worked to ensure that participation in one program automatically triggered participation in as many other programs as applicable. To streamline contractor selection (for homeowners) and qualified lead generation (for contractors), homeowner-facing outreach efforts often included participating contractors (in events such as workshops) to provide education and qualify leads. Electronic communication channels including list serves, email distribution lists, and E-newsletters were centralized to streamline messaging to homeowners and contractors. For technical elements, the County utilized SCE and SCG's Whole House Rebate program requirements for contractor credentials and trainings as the base contractor requirements for *Retrofit LA*. The County worked with partner agencies to target contractor trainings to meet these base requirements and provided additional subsidized trainings that addressed needed skills such as field mentoring, energy modeling, and contractor sales and marketing, as well as training targeted towards women and minority contractors. Finally, the County's ARRA-funded incentives through the BBP program leveraged as many SCE and SCG Whole House Rebate program protocols and practices as possible, including the associated energy modeling, QA/QC processes, and web-tracking software.

A number of administrative processes were also developed to address the ARRA contract requirements and State requirements. An online platform was used as a single communication hub for the consulting team to upload files, share documents, message members, and calendar events or deadlines. A monthly reporting template that met ARRA and CEC content requirements was created for narrative progress reporting and monthly invoicing. This enabled all reporting entities to report on program progress and budget, which could be rolled up into a single monthly report. Several State and Federal mandates such as the Environmental Protection Act, historic preservation, and waste management were addressed at the countywide level. These blanket processes exempted most individual projects from having to file separately, which would have added to the already high administrative burden to participating contractors. The Steering Committee agreed from the launch of the program to strive for countywide uniformity to reduce consumer and contractor confusion, delays, and costs as contractors conducted work across city boundaries. Program administrators worked closely with SCE and SCG to establish consistent quality assurance requirements and standard contractor participation requirements.

That said, the process of coordinating several large bureaucracies to manage the program effectively arguably posed the largest challenge to successful program implementation.

Coordination between the IOUs and the County posed a significant challenge as well. In tying the County program to SCE's Whole House Program, it became necessary for the County to collaborate regularly and often with SCE around a number of administrative and program issues, such as sharing retrofit project data between programs, which not only affected the County's ability to meet ARRA reporting requirements, but also limited the contractor's ability to market upgrades to homeowners and left homeowners without adequate information when making decisions on retrofitting their homes. Additionally, issues related to SCE's program design,

including the QA/QC standards, the application process, and the allowable measures specifications, were a consistent concern of participating contractors and homeowners in the County, and the County and SCE needed to maintain regular coordination to resolve these issues. This coordination, while ultimately fruitful in many aspects, led to a significant amount of additional expended time and resources, and often created delays in the launch of specific program elements.

ACCOMPLISHMENTS

Retrofit LA sought to create jobs and stimulate the economy through a comprehensive program to implement energy retrofits in existing residential buildings. From disparate local efforts, *Retrofit LA* created and developed program infrastructure and tools that would sustain a countywide whole building retrofit industry. CEC funded Program activities and accomplishments focused on three objectives designed to address the major barriers to this market transformation: (1) demonstrating more effective marketing and outreach methods, (2) streamlining participant, contractor, and administration processes to reduce high transaction costs and (3) build a quality green workforce. The fourth primary objective identified in the *Retrofit LA* proposal, to build on existing finance mechanisms, was not supported in the original method intended only because there was no residential PACE program in the LA County region. However, LA County did initiate residential credit enhancement programs for energy efficiency projects, which included a loan loss reserve, an interest rate buy down and pre-negotiated loan products with a local credit union using formula EECBG funds as the seed money.

The following activities and accomplishments effectively leveraged program funding to establish the infrastructure necessary to achieve the program goals.

A. Activities Undertaken

Retrofit LA effectively administered contract funds within the parameters tied to CEC ARRA stipulations.

Administration activities included:

- Creation of a countywide Steering Committee made up of staff from the County, IOUs, COGs and principal subcontractors, who met regularly during program development and operation
- Master Agreement contract approvals and amendments with the CEC and coordination of 9 subawardee agreements
- Creation of a countywide Program Advisory Committee that included Steering Committee members, as well as nominated representatives from industry sectors related to whole building retrofits (e.g., training/community colleges, contractors/trades, real estate, utility)
- Monthly Reporting (Finance/Narrative Report) for 22 months of contracted program activities
- ARRA Section 1512 Metrics Reporting for 22 months of program operation (begun in September 2010).
- Coordination of subawardee/subcontractor input for the Kick-off Meeting, two Critical Program Review Meetings, and the Final Report
- Documentation of waste management plans, and historic preservation compliance

Retrofit LA developed a strong working relationship between the COGs, Cities and the SCE and SCG Whole House Rebate Programs (as the administrators of the countywide applicable IOU funded Energy Upgrade California rebates). This unprecedented countywide relationship has the capacity to lend additional future support to local government and SCE and SCG whole building programs and help maintain the momentum started under *Retrofit LA*. This foundation included:

- Monthly (and often more frequent) meetings to first establish, in coordination with the HERCC, and then review the status of:
 - Overall program design
 - Contractor qualifications and certification requirements
 - Quality assurance and consumer protection policies
 - Minimum energy efficiency thresholds and verification protocols
 - Reporting protocols
- Coordination of marketing efforts, collateral development, and outreach activities
- Review of job processing procedures and activities to best leverage countywide support for these same utility efforts

- Reporting of energy retrofit activity and associated metrics as allowed by SCE and SCG to communicate program successes to partners
- Coordination around issues associated with the SCE and SCG Whole House Incentive Programs as learned through LA County’s participant recruitment, marketing and other efforts

Retrofit LA prime and subawardee contract recipients collaborated extensively with other similarly aligned ARRA-initiated and existing whole building retrofit efforts, including:

- LA County Department of Energy Better Building Program pilots
- Ecology Action’s Local Government Commission Energy Upgrade California contract
- Engage 360 (when funded) and the rebate database (still maintained)
- The CEC Statewide Energy Upgrade California Website, Steering Committee, Marketing Summit, and other CEC planning/program development activities
- Local workforce training initiatives (i.e., Clean Energy Workforce Training programs)
- Local Energy Upgrade California programs (i.e., EECBG incentive programs, HERS II Rebate program)

Retrofit LA partners collaborated extensively with local stakeholders and aligned programs through existing and newly developed relationships as summarized in Table 3.1. This collaboration was tailored to the specific needs of the program partners and the local whole building retrofit market, and provided the foundation for program operation/implementation activities.

Table 3.1: *Retrofit LA* Lead Agency Partners

Activity Area	Local Partners (Subcontracted)	Local Partners (Leveraged)
Marketing And Outreach	The Energy Coalition InterEthnica OSS MIG Fifteen Minutes PR Walden Hyde Opportunity Green Green Technologies Allison & Partners	Cities within Los Angeles County (for a list of participating cities click here) South Bay COG San Gabriel Valley COG Gateway Cities COG Westside COG San Fernando Valley COG Las Virgenes-Malibu COG Southern California Edison Southern California Gas Ecology Action Energy Champion organizations

Activity Area	Local Partners (Subcontracted)	Local Partners (Leveraged)
Participant Recruitment and Workforce Development	Build It Green California Building Performance Contractors Association	Southern California Edison Southern California Gas Local Workforce Investment Boards, including South Bay WIB, Los Angeles City and County WIBs California State University at Dominguez Hills Uncommon Good City of Santa Monica CleanEdison Jewish Free Loan Association City of Long Beach Long Beach Community College Los Angeles Regional Collaborative Long Beach Small Business Development Center Efficiency First ConSol CalCERTS HVACRedu.net NARI LA Los Angeles Community College District Young Black Contractors Association Latin Business Association Greater Los Angeles African American Chamber of Commerce National Association of Women Business Owners

Marketing and Outreach Methods

An essential part of transforming the whole building retrofit market included building awareness of energy efficiency and whole-house building retrofits. To do this, the County developed a Countywide Marketing and Outreach Communication Plan that guided marketing implementation. A key part of marketing was the leveraging of state and local partnerships to provide a cohesive and comprehensive marketing approach.

Retrofit LA program partners-primarily the County, SCG and SCE, developed and carried out marketing campaigns to give the program consistent branding and messaging. These campaigns were developed in conjunction with the CEC roll-out of the Energy Upgrade California brand in February 2011, and included:

- Market analysis developed by Retrofit LA program partners based upon housing stock, demographic, and energy use patterns, including:
 - Target audiences
 - Key messaging
 - “Hot spot” maps
- Countywide and local marketing and outreach plans
- Countywide marketing materials and media buys (broadcast, outdoor, and online)
- Countywide and local public relations campaigns
- Countywide developed marketing collateral templates

- Local marketing materials, media buys (including broadcast, outdoor, print, and online), earned media, and social media campaigns (Facebook, twitter, texting campaign)
- Multi-ethnic outreach and marketing including PR, media buys, and in-language support provided in person, by phone, and print materials
- Environmental Information Centers (portable, stand-alone booths placed throughout areas of the County)
- Environmental Service Centers (physical locations where residents can have customer service and learn about energy efficiency and sustainability)
- LA Hotline toll free phone number
- Extensive local outreach directed by countywide marketing plans/analysis, including:
 - Presentations/workshops with key partners/stakeholders (e.g., building department staff, realtors)
 - Community event tabling
 - Canvassing (door hangers, brochures, flyers and homeowner engagement)
 - Homeowner presentations (e.g., through community, business, and civic groups)
 - Homeowner workshops
 - Participation in a variety of events (expos, concerts in the park, green fairs, etc)
 - Providing outreach materials for cities to use (pull-up banners, canopies, posters, tabletop displays)
 - Family Stories videos providing relatable testimonials and completed upgrades
 - PSAs using local celebrities used for advertising and as a sales tool for contractors
 - Assessment vouchers and promo code coupons aimed at tracking where leads come from
 - Customer Resource Management database and email marketing campaign for homeowners that signed up for our database
 - Industry support newsletters and eblasts aimed at engaging stakeholders and inspiring affiliates
 - City stakeholder presentations to maintain engagement by local government leaders
 - Roadshows (display booths at a community outreach events or Home Events)
 - Roadshows consists of an Energy Upgrade logo wrapped van that drives to an event and provides homeowner outreach by explaining how their displays operate (energy efficient model home, lighting display, and window display), answering questions about the program, and dispersing program materials and brochures to homeowners
 - Trigger event marketing to capture energy efficiency upgrade opportunities through trigger events (furnace or hot water heater replacement, remodels and renovations, etc.), such as:
 - Realtor-client outreach materials and trainings as outlined below
 - Program collateral and educational materials maintained within building departments
 - Implementing retailer outreach programs that provide in-store training and marketing displays to local home improvement retailers
 - Online ads aimed at catching homeowners searching for solar, HVAC, energy, or home improvement, sending them to Energy Upgrade California Website first
 - Additional stakeholder engagement activities
- Implementing corporate outreach programs with companies such as Northrop Grumman, Jet Propulsion Laboratory, Kaiser Permanente, Disney, Toyota, Parsons, Dreamworks, Yahoo, AeroVironment, and employees of the County of Los Angeles

Retrofit LA marketing and outreach efforts were primarily designed to promote the Energy Upgrade California program and brand. In addition to the collateral and marketing efforts discussed above, this also included extensive work with the Statewide Energy Upgrade California website www.EnergyUpgradeCA.org, including:

- Promotion of Contractor/Rater, Rebates/Incentives, and Financing directories
- Promotion and updating of News and Events within Local Info county pages

- Maintenance of training calendar on contractor page
- Promotion of “Family Stories” web pages which focused on homeowner testimonials and case studies
- “Overview of the Assessment” web page demystifying the assessment for the homeowner
- Rotating box on homepage acting as a web “billboard”
- Live chat feature specifically on LA-specific pages
- Added retrofit case studies resulting from the Home Energy Makeover Contest
- Pages aimed to support the BBP pilot programs including:
 - Energy Champions
 - Whole Neighborhood Approach
 - HVAC pilot
 - Green Building Labeling
 - Multi-family
 - Family Stories (evolved from Home Energy Makeover Contest pages)

Retrofit LA implemented, and coordinated with, various countywide and IOU rebate programs. These programs and associated metrics are summarized in Section B below. LA County worked with IOU marketing staff to develop coordinated marketing materials that integrate *Retrofit LA* funded rebates into other IOU rebate offerings, including messaging and collateral to align with:

- SCE Whole House Rebate Program
- SCG Whole House Rebate Program
- BBP-funded countywide programs
 - Energy Champions
 - Home Energy Makeover Contest/Family Stories
 - Multi-Family
 - Green Building Labeling
 - Whole Neighborhood Approach
- EECBG—funded countywide rebate programs
 - LA County Energy Upgrade Incentive
 - Flex Path

In addition to marketing and outreach directed at homeowners, *Retrofit LA* marketing and outreach activities also targeted contractor and realtor groups.

- Contractor-focused marketing and outreach activities included:
 - Online Resource library containing marketing materials and Print-on-demand capability
 - Free lawn signs
 - Co-brandable collateral templates specifically for contractor use
 - Contractor case studies on the contractor website aimed at demonstrating successful business models for other contractors
 - Sales presentations and webinars
 - Program manuals and “How to market Energy Upgrade” toolkits
 - “Heat maps” for contractors to use in their own advertising campaigns.
 - Workshops with Participating Contractors on how to use/leverage Energy Upgrade California logos, branding, messaging, and collateral templates
 - Sharing of developed “hot spot” maps based on housing stock, demographic, and energy-use patterns
 - Support to contractors so they could be appropriately listed in www.EnergyUpgradeCA.org directories

- Realtor-focused marketing and outreach activities included:
 - Online resource library containing affiliate advocacy information
 - Presentations, newsletter articles, and web buttons available for Real Estate professionals to be able to touch their market
 - Realtor focused workshops and trainings to educate realtors on whole building retrofits
 - Working groups to address potential implementation of time-of-sale energy conservation ordinances
 - Realtor-client facing materials for program outreach
 - Networking events with Participating Contractors

Table 3.2: Retrofit LA Summary of Marketing and Outreach Methods

General Marketing Activities³	
Total Media Impressions (Paid)	248,389,042
Total Website Page Views (Energy Upgrade California/Local Portals)	546,254
Energy Upgrade Outreach Events	719
Number of Attendees at Events	98,682
Energy Upgrade Tabling Events	285
Public/Property Owner Focused Workshops/Information Sessions	72
Number of Attendees to Workshops/Information Sessions	2,923
Sector-Specific Workshops/Information Sessions (Realtors, Building Officials, City Council, etc.)	198
Number of Attendees to Sector-Specific Workshops/Information Session	3,421
Targeted Communications	
Direct Mail	5775
Direct Email	30,380
Door Hangers	375,000
Door-to-Door Homeowner Engagement	2573

Streamlined Participation Processes

Retrofit LA undertook numerous activities to streamline participant, contractor, and administration processes to reduce high transaction costs and build a quality green workforce. Some of these activities focused on the immediate needs of program participants, while others addressed larger-scale/long-term program protocols and requirements. Many of the countywide activities that served contractor and other workforce development efforts were outlined by the *Retrofit LA* Workforce Development Plan (submitted to the CEC as part of the Implementation Plan) developed in consultation with key stakeholders, including SCE, SCG, Los Angeles Community College District, Los Angeles Department of Water and Power (LADWP), South Bay Workforce Investment Board’s Gateway to Green Building Training Program, California State University at Dominguez Hills Solar Installation training program, and other Workforce Investment Boards (WIBs) and professional training organizations. Local activities were based out of these countywide resources, as well as local Advisory Committees, Workforce Investment Board community college/training organization partnerships, and local contractors.

Retrofit LA program partners worked extensively with the contractor community to increase the number of contractors in the program and gain feedback from those already participating. These activities included:

- Development of a Workforce Gap Analysis and Plan that analyzed the existing workforce and projected workforce need based upon program goals

³ This includes activities under the CEC grant as well as leveraged activities under EECBG and Better Building Programs Funds. Activities are not tracked by funding source.

- Local presentations/workshops on Energy Upgrade California and how to participate in the program with various contractor audiences/organizations
- Promotion of contractor trainings required for participation in the SCE and SCG Whole House Rebate Program, including:
 - Participation Workshops
 - Basic Package Technical Trainings
 - Advanced Package Technical Trainings
- Local contractor forums and roundtables hosted as either on-going or single events to provide feedback for how to recruit additional, and better serve existing, Participating Contractors
- Development and implementation of a contractor scholarship fund that provided 240 scholarships to offset the cost of training, field testing, field training and certification
- Development of an online toolkit to support contractors in learning about Energy Upgrade and how to participate in the program
- Contractor surveys on marketing efforts, lead generation, and training needs

Many *Retrofit LA* activities were designed to further improve Energy Upgrade California aligned information and skill sets held by Participating Contractors and potential participating contractors (e.g., experienced contractors that had taken Building Performance Institute (BPI) courses at a local community college). These activities included:

- Development of contractor resources to communicate contractor credentials, certification requirements, and general program curriculums for single-family energy retrofits (as aligned with SCE and SCG Whole House Rebate Program) and multifamily energy retrofits (as aligned with statewide Multifamily HERCC recommendations)
- Trainings developed, hosted, and/or promoted to contractors to address specific topics/needs relevant to contractor participation in Energy Upgrade California, including Retrofit LA funded trainings (summarized in Table 3.3) and trainings leveraged by Retrofit LA (summarized in Table 3.4)
 - Building Performance Institute Building Analyst test preparation, certification, and mentoring
 - EnergyPro trainings to reduce contractor error and increase input speed for program-required energy modeling
 - Sales and marketing trainings to increase marketing effectiveness and increase close rates
 - Combustion Appliance Zone Safety Testing to increase contractor field-based skills
 - Certified Green Building and GreenPoint Rated certifications to increase building and allied professionals' understanding of green building, expand business opportunities and generate additional utility savings, particularly in regards to the water-energy nexus
 - Partnership or coordination with local workforce development organizations, trade associations and other organizations as described in Table 3.1 above
 - Energy Star Quality Installation training for HVAC contractors
- Job Placement Support including:
 - Development of a Job Placement Strategy
 - Job placement support at major events, such as AltBuild Expo
 - A job fair held in February 2012
 - Creation of an online Job Board to facilitate communication between employers and candidates
- Additional sales, job processing, and general contractor staff support services including:
 - Online information resources specific to contractor needs, maintained through a contractor resource library
 - Business development resources including guidance on how to develop profitable business models and access growth capital/financing

- On-demand program support through the Call Center
- Communicating retrofit and rebate application statuses related to *Retrofit LA* Rebate
- Generation of case studies for successful contractors

Retrofit LA program administrative processes coordinated with and leveraged existing SCE and SCG Whole House Rebate processes and protocols as much as possible. This resulted in a more consistent countywide marketplace and helped simplify contractor participation in the multiple program components (specifically rebate programs) present throughout the region.

- Single Family:
 - Quality Assurance (QA) Protocols and Plan (including development through Single Family HERCC and SCE and SCG collaboration) leveraged as primary QA process for Retrofit LA rebate programs
 - Partner programs issuing project-based rebates added additional desktop review QA to supplement SCE and SCG protocols, principally to address issues of historic preservation
 - Minimum energy efficiency thresholds consistently applied between programs; SCE and SCG project reporting tools and verification protocols leveraged when possible
 - SCE and SCG Qualified Participating Contractor List used as initial threshold for contractor participation in Retrofit LA rebate programs
- Multifamily:
 - Coordinated with statewide multifamily committee (MF HERCC) for the development of:
 - Multifamily upgrade packages/approaches to whole building upgrades
 - Minimum energy efficiency thresholds and project reporting procedures for whole building upgrades
 - Quality assurance protocols for whole building upgrades, including protocols for verification of projects
 - Coordinated on the following activities led by the Association of Bay Area Governments through their State Energy Program contract:
 - Developed a high-rise module for EnergyPro to more effectively model multifamily buildings
 - Development of a statewide online decision tool and multifamily asset manager to assist property owners and building operators in planning, funding, and designing upgrades, as well as managing properties for energy use post upgrade. The asset manager is currently under continued development through a separate California Energy Commission contract.
 - Quality Assurance (QA) Protocols and Plan (including development through the Multifamily HERCC) initiated to be aligned with future local government rebate programs, if implemented
 - Minimum energy efficiency thresholds, project reporting procedures, and verification protocols initiated
 - Multifamily packages and software module developed for energy modeling

Table 3.3 summarizes trainings directly funded by *Retrofit LA*. Table 3.4 summarizes trainings leveraged by *Retrofit LA*.

Table 3.3 Trainings Funded by *Retrofit LA*

Training	Number of Trainees
EnergyPro (Single Family)	16
EnergyPro (Multifamily)	9
Sales and Marketing (Webinar Series)	141
Triple Training: Certified Green Building Professional, Green Point Rated Core, Green Point Rated Existing Homes	93
BPI Building Analyst	36
Real Estate Workshop	79
Certified Green Real Estate Professional (2 day)	150
TOTAL WORKERS TRAINED	524

Table 3.4 Additional Trainings Promoted/Leveraged by *Retrofit LA*

Training	Funding Organization	Number of Attendees
SCE and SCG Participation Workshops	SoCal Edison	1,695
Basic Package Technical Training	SoCal Edison	Unavailable
BPI Building Analyst	SoCal Edison	Unavailable
Energy Star Quality Installation Training for HVAC	SoCal Edison	13

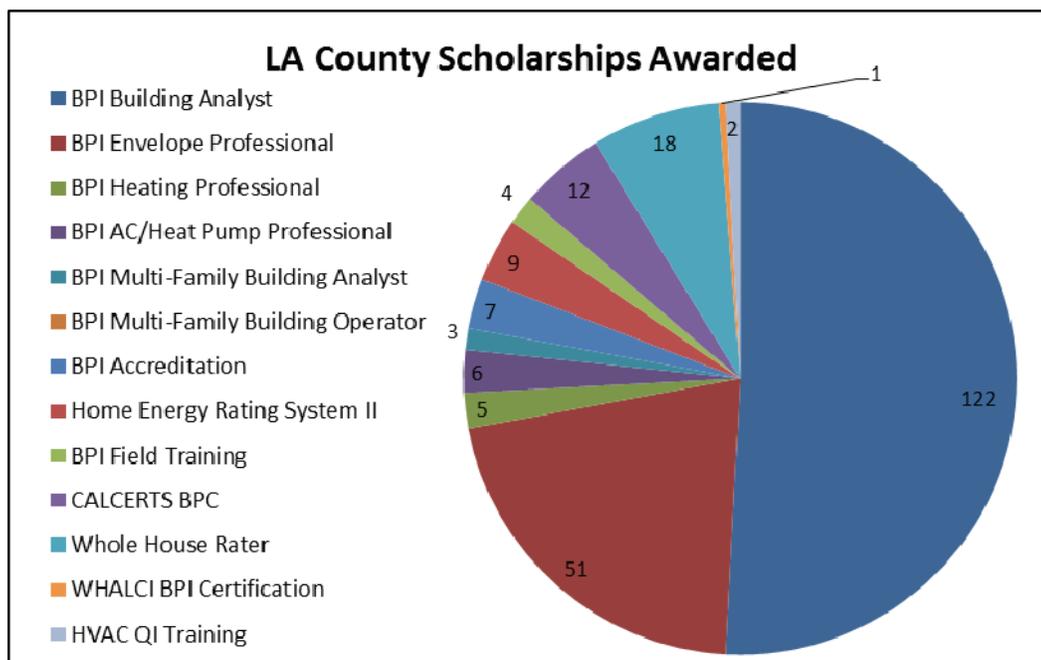


Figure 3.1 Scholarships Awarded Through the Scholarship Program⁴

⁴ Scholarships were awarded to individuals who showed proof of achieving a qualified certification.

B. Incentives

As referenced above, whole building energy retrofit projects completed within *Retrofit LA* counties were eligible for a range of countywide and local IOU rebate programs. Although there were no rebate programs directly funded by *Retrofit LA*, program partners did promote Energy Upgrade California aligned rebates funded by other program partners (EECBG, BBP, and CEC). These leveraged rebate programs are summarized in Table 3.5.

Flex Path

The Flex Path pilot program is intended to empower and educate contractors who are already performing specialty improvements about the benefits of incorporating energy efficiency and a more comprehensive building approach with the renovation work they already perform. By focusing on specialists such as window installers, insulation technicians and HVAC contractors, the Flex Path pilot program was able to capture a new audience that may not have had any previous knowledge of the Energy Upgrade California in Los Angeles County program, including the available whole-house rebates and incentives. Contractors can leverage a conversation with a homeowner requesting the installation of a single measure to upsell to a Basic or Advanced Package. While contractors and homeowners both became more educated about the Energy Upgrade California program, they also were educated about the whole house approach and energy efficiency. Relationships were developed between homeowners and contractors who were new to them. These contractors, having training in energy efficiency, are now able to return to these customers to offer them further resource-savings improvements in the future.

The Flex Path pilot allows owners of single family detached homes to choose two or more qualifying measures from a prescribed set of nineteen measures. The combined point value for the selected retrofit measures must total 100 or greater to receive a \$1,500 incentive that is paid solely by Los Angeles County. Installation of these measures must be completed by an Energy Upgrade California Participating Contractor, an existing program element of *Retrofit LA* that further leveraged SCE and SCG Whole House Rebate program protocols. In allowing contractors and homeowners to decide together what measures make the most sense for the particular home, Flex Path allows homeowners to do a project that is beneficial to them at a lower cost of entry.

The nineteen qualifying measures were each assigned respective point values based on energy modeling for a typical single family residence in LA County. To achieve the modeled energy savings, all measures have strict pre- and post-retrofit requirements that determine a project's eligibility for Flex Path. In following these strict requirements, the Flex Path pilot eliminated the need for a Comprehensive Energy Assessment on each home, which was a disadvantage in other incentive programs. In doing so, this also eliminated the exhaustive Quality Control that the Utility required to verify the energy modeling and incentive amounts. The simple design of Flex Path made retrofits accessible to a larger and more diverse population than other incentive programs, as well as generate upselling into the Advanced Path.

During informal surveys with homeowners, the Flex Path Quality Control Professional saw a marked enthusiasm for the program. Residents spoke of greater comfort within the home and a real appreciation for the financial incentive that pushed them toward doing these improvements.

Table 3.5 Description of Rebates Promoted/Leveraged by *Retrofit LA*

Incentive Program	Incentive Amount	Number of Projects 6/14/2012	Description and Funding
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SCE/SCG Whole House Program⁵	\$1000	18	Incentive for Basic Path; Funded by SCE/SCG and administered by ICF
	\$2,500 for 20% +\$500 for 5% +\$500 for 5% +\$500 for 5% Max \$4,000 for 40%	198	Incentive for Advanced Path. Funded by SCE/SCG and administered by ICF. Rebate amount determined by percentage of energy savings
Los Angeles County Assessment Voucher	\$300	190 redeemed	\$300 off a qualified assessment and distributed to contractors for use at their discretion. Funded by EECBG and administered by BKi
Los Angeles County Homeowner Coupon	Up to \$400	184 redeemed	Coupon for \$200 provided to homeowner at an expo or a homeowner workshop as marketing tool. Can be applied to assessments or retrofits. Funded by EECBG and administered by BKi
Los Angeles County Incentive	SCE/SCG Match	165 completed 520 applications	Provided to homeowner for as supplementary incentive for advanced or basic Path job. Funded by EECBG and administered by BKi
Flex Path	\$1500	306 completed 584 applications	Points-based prescriptive incentive program where homeowners receive incentives after receiving 100 points. Measures were assigned points value based upon modeled energy savings for typical homes in LA County. Funded by EECBG
HERS II	Up to \$500	Unavailable	Statewide incentives for HERS II Assessments; Funded by CEC and administered by Ecology Action
Federal Tax Credit	Up to \$500	Unavailable	Federal Tax Credit for 30% of eligible improvements. Expired Dec 31
Energy Champions Incentives	\$100 Basic/Flex; \$500 Advanced	17 completed 73 applications	Incentive provided to non-profit partner organization (Energy Champion) that co-markets Energy Upgrade; Currently 106 participating organizations. Funded by BBP and administered by BKi

C. Finance Programs

The original program proposal stated that *Retrofit LA* would build on the region’s existing investments in PACE financing and reduce or remove barriers for a wide range of projects and population segments. In July 2010, the Federal Housing Finance Agency (FHFA) issued a statement that put restrictions on residential PACE programs, essentially putting such financing on hold⁶.

⁵ SCE/SCG Basic and Advanced upgrades are reported through May 31, 2012; Metrics are reported at the beginning of each month for the previous month’s metrics.

⁶ <http://www.fhfa.gov/webfiles/15884/PACESTMT7610.pdf>

To contend with the loss of PACE financing, which was an integral part of the original program design, Los Angeles County launched a financing program in July 2011. Although LA County’s alternative financing program was funded by formula EECBG funds, it directly influenced the ability of consumers who might otherwise not have been able to complete a retrofit and/or complete a more in depth retrofit. Through Matadors Community Credit Union (“Matadors”), LA County pre-negotiated 2 loan products including a secured and an unsecured product. Interest rates, terms and credit criteria were negotiated. To further enhance these products for constituents, LA County created a Loan Loss Reserve (LLR) fund which effectively lowered the interest rates of the products and reduced the risk to the credit union. A 10% reserve was set aside for each closed loan providing 90% default coverage. Without the LLR, the interest rate for an unsecured 5-year loan would be a variable rate starting at 8.66%. With the LLR, the rate for an unsecured, 5-year loan is fixed at 6.99%. As borrowers pay back the energy loans, the LLR fund is replenished and available to cover additional loans. The LLR is a self-sustaining program and will operate beyond the ARRA grant period.

In December 2011, the County provided additional funding to Matadors in order to offer property owners a subsidized fixed interest rate of 2.0% for Energy Upgrade California LA residential energy upgrades and qualifying renewable energy systems. This Interest Rate Buy Down (IRBD) works tangentially with the LLR; however, it is not a fund that is replenished as the loan is paid back. Once the funds are exhausted, the promotional interest rate will no longer be available. Initially, the uptake for Matadors’ financing products was low because the mortgage industry was advertising low interest rates for mortgage refinances and CHF financing was available at 3.0% in one city in the County. Consequently, consumers expected all loan products for home improvements to be competitive even though a secured mortgage loan and an unsecured home improvement loan have very different levels of risk. At 5.99% for a secured energy loan and 6.99% for an unsecured energy loan, Matadors’ products were not competitive. After introducing the 2% loan product, Matadors experienced a 210% increase in loan applications. With a steady increase in loan applications, the County will be able to renegotiate with Matadors lower interest rates for future financing products.

Consequently, the County decided to buy down the interest rate on the 6.99%, 5-year, unsecured loan to a fixed 2.0% for a 5-year, unsecured loan. The 2% energy loans enable homeowners to finance upgrades they may not have been able to afford or help them finance a deeper upgrade for deeper energy savings. The IRBD will be available until its designated grant funds are exhausted.

Table 3.6 LA County Loan Statistics

	Applications	Average Interest Rate	Average Terms (months)	Average Monthly Payment	Average Loan Application	Average Days to Funding
2% Loans	102	2.00%	60	\$264.00	\$15,015.53	56
Other Unsecured Loans	8	8.24%	98	\$241.82	\$12,993.39	72
Defaulted Loans	0	-	-	-	-	-

Retrofit LA local lead agencies did not have access to program partners with the capacity to influence lending programs that consumers might use to finance energy retrofit projects. However, whenever possible, *Retrofit LA* marketing and outreach efforts promoted existing and newly created financing mechanisms and resources, including:

- Green Loan Programs
- Energy Efficient Mortgages

- CHF Financing Program

In further support of the benefit that financing programs bring to the market transformation of the energy efficiency sector, the CEC has awarded LA County an additional \$11 million to be used to support existing financing programs and to create new ones. Financing programs anticipated under this contract include:

- Support and expansion of the residential LLR
- Support and expansion of the residential IRBD
- Creation of a Non-residential PACE Debt Service Reserve
- Creation of a Multi-Family LLR
- Creation of a LA County Building Revolving Loan Fund
- Creation of a Public Agency Building LLR
- Creation of HERS Rating and audit incentives

D. Key Program Outcomes

Retrofit LA sought to create jobs and stimulate the economy through a comprehensive program to implement energy retrofits in existing residential buildings. In light of the activities and accomplishments outlined above, *Retrofit LA* participants are proud to have achieved the following key program outcomes:

Creation of a market for whole building energy retrofits

Prior to the launch of *Retrofit LA* and Energy Upgrade California, there was no regional market for whole building retrofits. Before these programs started, individual entities were advancing various components of whole building initiatives. Building performance contractors were performing energy retrofits through the national Home Performance with ENERGY STAR program. Local governments were exploring financing options, but without consistent loading order requirements. Utilities were offering single measure energy efficiency rebates but had no rebates for comprehensive projects delivering deeper energy savings. Each effort had its own terminology, protocols, and priorities. *Retrofit LA* and Energy Upgrade California effectively changed this landscape, introducing consistency and standardization that has enabled the countywide market to evolve into a statewide program. In an unprecedented collaboration, contractors, local governments, and utilities, workforce entities, and other partners have developed consistent messaging, standard contractor participation requirements and quality assurance protocols, and complimentary incentive programs.

Original market research indicated that there were retrofit-ready consumers in LA County. Flex Path was designed to allow homeowners who do not have the means to go forward with a complete house retrofit do some home improvements that result in energy savings. Not only does this allow a larger pool to participate, it also increases the amount of economic diversity that was able to complete a project through Energy Upgrade California. It gets these customers to start thinking about home improvements in a new resource-focused way. It spreads interest and excitement throughout a new segment of the population that was not reached otherwise.

Alignment of infrastructure for ongoing program support

Central to program successes to date, and to continued improvement of the program moving forward, is the unique aligned infrastructure of program participants. Coordination in program design and implementation between contractors, local governments, and utilities paved the way for the creation of this new countywide market. While it is clear that there are challenges within the current program design, this evolving partnership will enable program participants to continue to refine the program and effect those changes that are most necessary to maintain the momentum the program has established.

A countywide market primed for continued growth

Retrofit LA primed the region’s whole building energy retrofit market for increased and continued growth. Marketing and outreach activities have begun to accelerate energy retrofit uptake as messaging has been refined and critical grassroots relationships have been established. Flex Path was designed to be marketed solely by contractors, and this proved very successful. It allowed marketing efforts to be targeted to customers that contractors could pre-determine that their homes or neighborhoods had particular building stock that could qualify. It also decreased the barrier between hearing about the program and getting in touch with a Participating Contractor. This approach complements both contractor and SCE and SCG Whole House Rebate marketing efforts, layering outreach efforts to consumers. Workforce development activities have expanded Participating Contractor skills and increased the capacity of the countywide workforce to fulfill key roles within the whole building energy retrofit industry. Finally, quality assurance and reporting protocols have promoted consumer confidence in work performed under Energy Upgrade California, and enabled partners to begin communicating program accomplishments to constituents.

While market transformation within the 18 months of program operation under *Retrofit LA* was unfeasible, it is important to recognize that the program has paved the way for a full market transformation to follow, wherein the whole building energy retrofit industry achieves increased energy savings while spurring job creation and economic development. The unprecedented partnership developed under *Retrofit LA* between Cities and COGs, SCE and SCG, and contractors has yielded the current program accomplishments cited above. *Retrofit LA* program partners are actively seeking the means to build on these accomplishments to provide continued support of Energy Upgrade California.

In a final analysis of program goals, *Retrofit LA* offers the metrics in Table 3.7. *Retrofit LA* cites single family energy retrofit totals based upon SCE and SCG Whole House Rebate program data. Job creation data are based upon program funds, as well as leveraged funds, and are calculated from the CEC directive for this data.⁷

⁷ “Use the Council of Economic Advisers’ Estimates of Job Creation (May 2009) from the American Recovery and Reinvestment Act of 2009, to provide a formula-based estimate of jobs created by the proposed program. Divide the total investment in the program by \$92,000 to estimate the number of direct jobs created. The total investment shall include ARRA SEP funding and all leveraged funds.” — Request for Proposal California Comprehensive Residential Building Retrofit Program #400-09-403 (CEC October 2009).

Table 3.7 Retrofit LA Key Program Outcome Metrics

Single Family Retrofits promoted through SCE and SCG Whole House Rebate Program⁸	
Number of Advanced Path Retrofits Achieved (Completed)	198
Number of Basic Path Retrofits Achieved (Completed)	18
Average Electrical Savings per Advanced Path Retrofit (kWh) ⁹	2,507.83
Average Gas Use Savings per Advanced Path Retrofit (therms)	172.40
Average Electrical Savings per Basic Path Retrofit (kWh)	304.75
Average Gas Use Savings per Basic Path Retrofit (therms)	65.67
Average Cost of Advanced Path Project ¹⁰	\$12,817.34
Average Cost of Basic Path Project	\$4,474.50
Total Value of Advanced Path Retrofit Projects Incentivized	\$2,537,833.3
Total Value of Basic Path Retrofit Projects Incentivized	\$80,541.00
Total Value of Advanced Path Incentives Paid	\$965,651.94
Total Value of Basic Path Incentives Paid	\$72,000
Participating Contractors (All SCE and SCG Territory)	109
Participating Contractors (LAC Territory)	128
Flex Path Incentives¹¹	
Applications Approved	584
Projects Paid	188
Total Value of Flex Path Incentives Paid	\$282,000
Average Cost of Installs	\$4,996
Average Energy Savings	16.70%
Job Creation – Retrofit LA	
Jobs Created – Program Funds (\$8,993,579.31)	97.75
Jobs Created – Leveraged Funds ¹² (BBP, EECBG)	552.82
Jobs Created – Leveraged Funds ¹³ (Private Capital + SCE and SCG Whole House Rebate Funding)	409.24
TOTAL¹⁴	1062.06

⁸SCE and SCG Whole House Dashboard Data for *Retrofit LA* Program metrics as of 5/31/2012

⁹ SCE Whole House Dashboard data (electrical and gas savings data is the total demand divided by the number of projects completed by SCE)

¹⁰ SCE and SCG Whole House Dashboard Data (avg. cost for both advanced and basic path is weighted average - # of projects x avg. project cost)

¹¹ Flex Path metrics are reported as of 6/14/2012

¹² \$50,859,104 in Energy Upgrade aligned Local Funds reported through 6/14/2012

¹³ \$37,650,160 in Private Capital and Rebate Funding for SCE, SGE Rebated Retrofits through 6/14/2012

¹⁴ Total jobs created by the program include direct jobs funded by *Retrofit LA* directly, and indirect jobs generated by activities that leveraged program activities

CONCLUSIONS

A. Major Findings or Conclusions

- A market transformation program like Energy Upgrade California (EUC) requires a multi-year commitment of resources by all stakeholders. This two-year contract was instrumental in establishing the basic infrastructure that will ensure long-term sustainability of the whole house energy retrofit market.
- Substantial additional funding will be needed to scale Energy Upgrade California up and achieve the volume of energy upgrade projects needed to meet the goals of the California Long Term Energy Efficiency Strategic Plan (CEESP) for existing housing stock in the residential market, create new jobs, and support economic recovery.
- The program requires ongoing alignment of utilities and local governments as program implementers to reach the depth of market penetration required to meet program goals. Despite LA County matching utility incentives, the number of retrofits was far below original estimates as a result of many barriers that were beyond the control of the County.
 - The Energy Upgrade California incentive program that was implemented by Southern California Edison (SCE) and Southern California Gas Company (SCG) launched approximately nine months later than planned.
 - The investor owned utility (IOU) program was slow ramping up because of excessive time delays related to field QC and energy modeling of Advanced Path projects. The program design is too complicated for homeowner ease of understanding and contractor ease of use. A simpler program design would improve program success. Furthermore, the IOUs required a 100% QC both pre and post retrofit, causing excessive delays in contractors' ability to begin construction on the upgrade. This caused distress between the contractor/client relationships resulting in less positive word of mouth.
 - The design of the Basic Path is so restrictive that few homeowners could participate. LA County's Flex Path program clearly demonstrates that a simple, prescriptive approach is much more effective in engaging homeowners and contractors.
 - Los Angeles Department of Water and Power (LADWP) and other municipal utilities did not develop programs that leveraged IOU and County incentives causing multiple messaging and spotty rebate amounts across the county.
 - Delayed launch of SCG-only territory program.
 - LA County, like much of the rest of California, is experiencing a depressed local economy.
 - The high cost of the Advanced Path upgrades, even with low-interest financing, made it difficult for middle income homeowners to participate.
 - Certain areas, such as Palmdale, have a large percentage of vacant or foreclosed single family homes.
 - Temperate climate with many coastal residences.
- Greater scale in terms of the number of active contractors and the volume of home retrofits is necessary to reach the statewide energy and greenhouse gas emission reduction goals.
- Additional research and pilot testing of the package of energy-saving measures and ways to integrate renewable energy generation and HVAC and insulation contractor point of contact are required.
- The implementation of workforce programs funded through various ARRA grants could have better aligned with the launch and ramp up of Energy Upgrade California to provide participants with more secure job pathways.

- Local governments played a key role in implementing the program by using existing community networks and infrastructure to deliver program messages to citizens where they live, work, and play.
- Delays in launching the program impacted time-sensitive marketing and outreach campaigns for educating homeowners about the whole house approach and building awareness of the Energy Upgrade California brand.
- Financing options are necessary for some homeowners to participate in Advanced Path upgrades. More analysis is needed to assess the impact of financing on middle income homeowner participation.
- Driving homeowners to the Energy Upgrade California website made it difficult to track which marketing method initially drove them to the website and whether homeowners completed upgrades.
- The market research insinuated a demographic with pent up demand, indicating this segment would proceed with upgrades upon program launch. These pioneers would be used for future word of mouth and testimonial marketing, which never occurred.

B. Best Practices

- Uniform statewide brand guidelines and tools that maintain the integrity of the brand provide a framework for continuity of consumer awareness that local marketing campaigns can build upon to drive program participation.
- Marketing templates and outreach materials that can be targeted to reflect specific community needs.
- One-Stop-Shop website that is user friendly and easy to navigate where all information on the program is located.
- Steering Committee and Program Advisory Committee resulted in program buy-in by stakeholders, but did not necessarily result in successful coordination at the regional level. It is important to consider the goals, timelines, and constraints of regulated and unregulated entities that partner at the local or regional level.
- Uniform program design resulted in increased consumer and contractor program understanding, however, a complex program design tends to deter participation by both groups.
- Establishing protocols for addressing the Waste Management and Historic Preservation streamlined individual projects going through the pipeline.
- Leveraging the Home Energy Retrofit Coordinating Committee facilitated bringing together local governments, utilities, CEC, and CPUC around whole building upgrades.
- Uniform statewide credential requirements that allow contractors to access multiple programs.

C. Lessons Learned

Program Design

Lesson #1: Keep It Simple for Contractors & Consumers

An inherently complicated program design created a huge ramp-up for contractor credentials, along with expansion of the contractor business model to include sales, finance, and homeowner education. A simpler program design should be considered. The Flex Path pilot program filled the void created by the failure of Basic Path and successfully demonstrated that a simple, prescriptive approach could increase participation by both homeowners and contractors without compromising quality control.

Lesson #2: Limit Mid-Course Program Design Changes

Substantial mid-course program design changes including a change in the utility administrator, the introduction of HERS II, and changes in credential requirements for Participating Contractors undermined the consistency of the marketing of the program and program requirements.

Lesson #3: Limit Administration

The group of stakeholders that came together to implement Energy Upgrade California in LA County, including the County and its consultant team, SCE and SCG, municipal utilities, local governments, and the CEC was unprecedented. Forming effective partnerships between regulated and non-regulated entities is an extraordinary challenge that resulted long delays in program startup, as each entity has its own set of technical requirements, retrofit goals, and timeline for program completion. A reduction in reporting, paper submitted, and parties to report to is necessary to enable all parties to focus on completing energy upgrades.

Lesson #4: Roles of Regional Agency and Local Government

The role of the LA County as the convener and facilitator was critical to obtaining the contract, establishing regional program uniformity, and mobilizing community awareness and market demand. Local governments aligned this program with their traditional role as protectors of the public health and safety. They also leveraged local relationships and resources to reduce overall project costs with local building supplier engagement, provide local finance options, offer contractor training, and conduct homeowner outreach through existing networks including local leaders and organizations. Local government endorsement of the program created credibility with consumers.

Lesson #5: Revisit Upgrade Path Design

The program offered a choice between a Basic Path upgrade and an Advanced Path upgrade, and 95 percent of the energy upgrades were Advanced Path projects. Many Participating Contractors found that the minimum project scope required to turn a profit went beyond the Basic Path parameters. Thus it was not a viable business model. Also, because some homeowners had already done some work on their home, they were not eligible for Basic Path participation. Revisiting the upgrade program design is necessary to increase energy savings, decrease project costs, and make it simpler for the contractor and homeowner.

Lesson #6: Incentives

The LA County retrofit incentive was successful in driving homeowners to participate in the program, however, as the majority of SCE projects are occurring in LA County there is concern that homeowner participation will drop off once the County matching incentive program is ended. LA County benefitted from a simple incentive matching approach, which increased simplicity and program understanding for contractors who work within county borders. LA County matched IOU incentives, subsidized assessments up to \$300 with Assessment Vouchers, and provided \$200 coupons for homeowners that attended community events. Further study to quantify the relationship of these leads to completed upgrades is necessary to inform if and how this approach can be successfully replicated and scaled elsewhere.

Lesson #7: Accessibility to Data

A data sharing agreement is needed with SCE/SCG. LA County did not have access to critical program data held by the utility (e.g., energy savings, upgrade locations, high energy user locations), which made targeted marketing and program success very difficult. LA County was limited to homeowner data for which the homeowner signed a release.

Workforce

Lesson #8: Building Trust

Many homeowners have an ongoing relationship with and trust in contractors who have performed work for them in the past. Most of these contractors, however, are not home performance contractors. Building trust for Participating Contractors can be accomplished through local advertising that features local home performance contractors and by leveraging trusted local non-profits to organize local contractors.

Lesson #9: Trusted Independent Guide

A trusted third-party is necessary to guide property owners through a project. County staff and the County's consultant team can serve in this role, providing unbiased information and helping homeowners navigate the program.

Lesson #10: Targeted Recruitment

While the program should be open to all contractors interested in participating, a general outreach approach should be complimented by a targeted approach. High volume contractors should be individually recruited into the program. They provide an opportunity for rapid scalability through their existing customer base, sales efforts and administrative infrastructure.

Lesson #11: A Suite of Resources

Building professionals need access to a suite of resources to successfully integrate home performance as part of their business model and transform the market. These resources should include, but are not limited to, ongoing technical training tailored to different positions within a company, mentoring, job placement, marketing support and business financing.

Lesson #12: Bridging the Gap between Certification and Business Success

In addition to technical training and certification, there are soft skills needed to be a successful home performance contractor, including knowing how to market your business and sell upgrade projects. In an effort to assist contractors in gaining wider visibility and better messaging the value of their services, the County sponsored a series of marketing and sales webinars for contractors. The series provided industry-specific guidance and tips to assist contractors in growing their businesses.

Lesson #13: Opportunities in Multifamily Buildings

Multifamily buildings provide one of the best opportunities for the state to reach its retrofit goals. With its aging building stock, the multifamily sector is in great need of a whole-building performance based approach, such as the successful LA County pilot program. Multifamily buildings are the most efficient and cost-effective way to bring large numbers of retrofits into the program. Raters and contractors who work on multifamily buildings are already well-familiar with complex projects and, hence, well positioned to take advantage of a retrofit program with minimal additional training.

Lesson #14: The Role of Real Estate Professional

Real estate professionals, including real estate agents, appraisers and lenders, have powerful potential as a high leverage point to promote energy efficiency upgrades. Savvy marketers, such professionals have connections to hundreds of consumers. They are instrumental in connecting consumers to incentive and financing opportunities, such as Energy Upgrade California and energy efficient mortgage, at time of sale/purchase. LA County has had success engaging and training real estate professionals, but additional investment is needed to transform this critical segment of the existing home market.

Marketing

Lesson #15: Understanding Market Segments

Homeowners varied in their reasons for participating in the program. Some cared about the environment, others about health and comfort, others wanted to save money, and others wanted to be off the grid all together. Additional market segment studies are necessary to determine trends and effective marketing strategies for those segments.

Lesson #16: Strategic Multi-faceted Marketing Required

There is no one single marketing approach that will reach or resonate with everyone. Given the demographic, geographic, economic, and ethnic diversity in the county, multiple approaches are needed to

reach targeted audiences. There is a need to market to different segments with different strategies – social media, print, radio, TV, tabling events, workshops, etc. Such multi-faceted marketing should be employed in future programs. In addition, social equity needs to be addressed in outreach strategies, particularly with the limited options available for financing.

Lesson #17: Localized Marketing Required

Marketing success in generating leads was supported by customized marketing-education-outreach approaches that leveraged the character of a community, local events, and trusted messengers. Furthermore, as stated above, LA County has numerous market segments that were addressed by targeted by local marketing. Most jurisdictions also had local websites that linked to the Energy Upgrade California Website. These websites provided more localized information and were typically hosted on County websites where residents are used to searching. Finally, marketing in language to certain ethnic groups demonstrates a level of respect as well as empowerment.

Lesson #18: Local Government Partnerships

Local government partnerships with industry professionals (contractors, realtors, retailers etc.), non-profits, and community groups were extremely important to promoting the program, educating the consumer, and driving contractors to trainings.

Lesson #19: Continued Marketing Required

Most homeowners are not aware of how their homes work or the economic and environmental benefits of energy efficiency. While the Energy Upgrade California website and local marketing campaigns have achieved an initial measure of homeowner education, building broader awareness and deeper knowledge will be vital to future program implementation and market transformation.

Lesson #20: Actual Retrofit Data for Public Consumption Required

The program had difficulty providing the information needed to sell comprehensive energy upgrades (such as return on investment data) as data was not available or unable to be released to public due to legal limitations of certain stakeholders. As the program continues, real data can be drawn from to inform potential participants.

Lesson #21: Consistent and Repetitive Whole House Messaging Required

The whole house approach was new to both consumers and contractors, which meant a steep learning curve, as well as some market confusion, and misalignment between conventional practices and marketing efforts. To increase understanding of the benefits of deep retrofits, whole house messaging over time is required. The increase in general awareness of the whole house concept will result in higher understanding and more likely uptake in program participation.

Lesson #22: Continued Marketing Training & Support for Contractors Required

In the beginning especially, contractors needed better marketing and sales tools earlier in the program to reduce the time they spent with homeowners educating them about the whole house approach. Furthermore, contractors will continue to need assistance to align their business models with marketing assistance to reach potential customers.

Lesson #23: Sales Messaging vs. Educational Messaging

During the first year of the program, the marketing messaging educated homeowners on the whole-house approach and what Energy Upgrade aimed at accomplishing. The call to action directed parties to the website rather than actually doing the upgrade, which led to high numbers and traction, but not a lot of people successfully navigating the website in a way that resulted in immediate retrofit projects.

TECHNOLOGY

Table 5.1 describes any products produced or technology transfer activities accomplished through the June 2012 reporting period.

Table 5.1 Retrofit LA Technology Products Produced

Task Number	Agency	Item	Description
2.7	TEC	Website	LACEP splash webpage (which is no longer active) : www.LACountyEnergyProgram.org (leveraged EECBG) LA-specific pages of Energy Upgrade California statewide website www.EnergyUpgradeCA.org/LACounty (Leveraged BBP)
2.7	LAC	Call Center	Call Center Info: (877) 785-2237 LAhelpdesk@EnergyUpgradeCA.org Live Chat is available M-F/ 9a,-5pm on the website: www.EnergyUpgradeCA.org/LACounty
2.7	TEC	Website	A resource library with tools for real estate professionals, contractors, affiliates, speakers bureau and Energy Champions:: https://energyupgradeca.org/county/los_angeles/resources
2.7	MIG	Website	A website providing information on Energy Home Makeover Contest and the participation process for homeowners. http://www.lacountymakeovercontest.org
2.7	IE	Publication	The Energy Champions Training Manual was developed into a fully interactive PDF with bookmarks and links
2.7	TEC	Publication	The Energy Upgrade California LA Program Manual was developed for use by Cities/COGs to assist in program marketing
2.7	RF	Websites	Online information for financing options: http://www.matadors.org/loans/energyloans.html https://energyupgradeca.org/county/los_angeles/about_local_financing
2.7	TEC	Educational Display	3 Educational dollhouse displays to illustrate the principles of home energy performance.
2.7	TEC	Educational Display	Environmental Information Center kiosks to increase brand awareness and access to Energy Upgrade resources (leverage EECBG)
2.7	MIG	Audio Produced	Multiple radio promos produced (KABC online ad Weather Section 070811)
2.7	TEC	Media Produced	Designed new ad campaign (Jan 2012) including new media buys: Radio, online, print, email, TV ad.
2.7	TEC	Production videos	Family Stories testimonial videos marketing program (5 families highlighted), Opportunity Green video using Don Cheadle (leverage BBP)
2.7	MIG	Websites	LA County information on Recovery.Gov informational website: http://www.onlyyoucansaveenergy.org/energy-upgrade/energy-upgrade-california
2.6	BIG	Software	Energy Pro HERS II/Green Point Rated Software to provide enhancements to the HERS II/CA T-24 part 6 code compliance software application to multifamily existing buildings

2.6

BIG

Software

Green Energy Compass-Software development for tracking retrofit project results and environmental benefits.

DELIVERABLES

The schedule of deliverables reported in Table 6.1 covers deliverables completed through the June 2012 reporting period.

Table 6.1 Retrofit LA Schedule of Deliverables and Due Dates

Deliverable	Brief Description	Due Date in Agreement	Date Delivered to CEC
1.1 Attend Kick-off	Kick-off Meeting Deliverables	9/21/2010	9/21/2010
	An Updated Schedule of Deliverables	9/21/2010	9/21/2010
	An Updated Gantt Chart	9/21/2010	9/21/2010
	An Updated List of Leverage Funds	9/21/2010	9/21/2010
	An Updated List of Permits	NA	No permits required
	Schedule for Recruiting PAC Members	9/21/2010	9/21/2010
	Final report Instructions (CCM Deliverable)		
1.2 CPR Meetings	CPR Meeting Deliverables	TBD	
	CPR Report 1 - 5 days in advance of CPR meeting	CPR meeting #1: 4/4/2011	3/29/2011
	CPR Report 2 - 5 days in advance of CPR meeting	CPR meeting #2: 9/8/2011	9/3/2011
	CPR deliverables identified in this Scope of Work	Ongoing	Ongoing
	Agenda and a List of Expected Participants		CCM Deliverable
	Schedule for Written Determination		CCM Deliverable
	Written Determination		CCM Deliverable
1.3 Final Meeting	Final Meeting Deliverables	6/1/2012	
	Written documentation of meeting agreements and all pertinent information - 3 working days after final meeting	6/1/2012	No meeting required
	Schedule for completing closeout activities - 3 working days after final meeting	5/14/2012	No meeting required
1.4 Monthly Progress Reports	Monthly Progress Reports	6/14/2012	Monthly
1.5 Final Report	Final Report Deliverables	6/11/2012	6/19/2012

Deliverable	Brief Description	Due Date in Agreement	Date Delivered to CEC
Final Report Outline	Draft Outline of the Final Report	3/15/2012	3/15/2012
	Final Outline of the Final Report - 5 working days after receipt of CCM comments. CEC sent all ARRA awards their preferred outline.	3/30/2012	3/30/2012
Final Report	Draft Final Report. – CEC modified due date for deliverable for all ARRA awardees	5/14/2012	5/21/2012
	Final Report – CEC modified due date for deliverable for all ARRA awardees	6/11/2012	6/19/2012
1.6 Identify and Obtain Leverage Funds	Identify and Obtain Leverage Fund Deliverables	TBD	
	A letter regarding source of all leverage funds	9/21/2010	9/28/2010
	Letter that Leverage Funds were Reduced (if applicable)	TBD	
1.7 Identify and Obtain Required Permits	Required Permit Deliverables	6/14/2012	No permits required
	A letter documenting the Permits or stating that no Permits are required	N/A	No permits required
	Updated list of Permits as they change during the Term of the Agreement	N/A	No permits required
	Updated schedule for acquiring Permits as it changes during the Term of the Agreement	N/A	No permits required
	A copy of each approved Permit (including air quality) and any documents prepared pursuant to CEQA	N/A	No permits required
1.8 Electronic File Format	A Letter requesting exemption from the Electronic File Format (if applicable) 90 days before deliverable is submitted	N/A	No exemption required
1.9 Establish the PAC	PAC Establishment Deliverables	10/22/2010	10/22/2010
	Draft List of PAC Members	9/21/2010	9/21/2010
	Final List of PAC Members	10/22/2010	10/22/2010
	Letters of commitment from each PAC member	10/22/2010	10/22/2010
1.10 Conduct PAC Meetings	Conduct PAC Meeting Deliverables	6/14/2012	
	Draft PAC Meeting Schedule	9/21/2010	9/21/2010
	Final PAC Meeting Schedule	10/22/2010	10/22/2010

Deliverable	Brief Description	Due Date in Agreement	Date Delivered to CEC
	PAC Meeting Agenda(s) with Back-up Materials for Agenda Items	Monthly	Monthly
	Written PAC meeting summaries, including recommended resolution of major PAC issues	Monthly	Monthly
1.11 Waste Management Plan	Waste Management Deliverables		
	Waste Management Plan	10/22/2010	
	Waste Management Certification and Compliance Forms	30 days after contract execution or project identification, whichever is later	5/23/2011
1.12 Historic Preservation	Historic Preservation Task		
	Consultation Package	30 days after contract execution or project identification, whichever is later	9/21/2010
2.1 Program Management	Program Management Deliverables	6/14/2012	6/19/2012
	Draft implementation plan	10/22/2010	10/20/2010
	Final implementation plan - 15 days after receipt of CCM comments	11/9/2010	1/28/2011
	Draft agreements (subcontracts, MOUs, letters of commitment and intent, etc.)	10/22/2010	10/29/2010
	Final executed agreements (subcontracts, MOUs, letters of commitment and intent, etc.) signed by all parties to each agreement. <i>(Subcontracts were issued in Nov 2010 and revised in Dec per CEC request then resubmitted in Dec which caused delay of execution)</i>	11/9/2010	1/14/2011
	Monthly risk management reporting to identify perceived risks and actions taken (or to be taken) to mitigate these risks, to be included in monthly progress reports	Monthly	Monthly

Deliverable	Brief Description	Due Date in Agreement	Date Delivered to CEC
2.2 Workforce Development	Workforce Development Deliverables	6/14/2012	
Ongoing training marketing and outreach	Rosters of training graduates, as part of monthly reporting	Monthly	Monthly
	Workforce development updates, as part of monthly reporting	Monthly	Monthly
2.3 Participant Recruitment	Participant Recruitment Deliverables	6/14/2012	6/14/2012
Stakeholder outreach	Initial Stakeholder outreach meeting schedules and presentation content	12/6/2010	12/6/2010
	Stakeholder outreach meeting reports on alliance-building and local policy formation; Stakeholder outreach attendance rosters; Updated presentation content and updated meeting schedules (part of monthly reports)	Monthly	Monthly
Contractor recruitment	Initial Contractor orientation workshop schedules and presentation content	12/6/2010	12/8/2012
	Contractor orientation workshop meeting reports and attendance rosters; Updated presentation content and updated workshop schedules (part of monthly reports)	Monthly	Monthly
2.4 Retrofit Installations	Retrofit Installations Deliverables	6/14/2012	<u>6/14/2012</u>
	Qualified Participating Contractor List	Initial content due 11/8/2010, updated Monthly	11/8/2010; Monthly
	Initial Advanced Project Management software system	8/1/2011	12/31/2011
	Final Advanced Project Management software system	8/15/2011	3/30/2012
	Monthly reports of retrofit installation activity including updates on neighborhoods identified and number of households retrofitted	Monthly	Monthly
2.5 Quality Assurance	Quality Assurance Deliverables	6/14/2012	<u>6/14/2012</u>
Quality assurance activities	Monthly reports of QA activities and outcomes, including customer satisfaction surveys	Monthly	Monthly
2.6 Verification of Energy Savings	Verification of Energy Savings Deliverables	6/14/2012	<u>6/14/2012</u>

Deliverable	Brief Description	Due Date in Agreement	Date Delivered to CEC
	Minimum energy efficiency thresholds, project reporting procedures, verification protocols, and energy and carbon savings calculation methodologies, submitted as part of implementation plan- <i>(Program used existing GreenPoint Rated Climate Calculator methodologies; development of customized Performance Systems Design Compass system was pending an executed contract under SEP funding and deployment of tracking was pushed back to 10/31)</i>	5/1/2011	10/31/2011
Energy and carbon savings calculation and reporting	Web-based tracking and reporting system-delay due to intellectual property issues. <i>(Deployment of tracking system was updated to 10/31 due to IP issues regarding Performance Systems Design's online Compass system and pending contract under SEP funding as reported in the 7-2011 and 8-2011 monthly Narratives)</i>	8/1/2011	10/31/2011
	Monthly reports of energy savings (including database of estimated post retrofit HERS II rater verification and actual monthly utility-use information), carbon reductions, and EM&V efforts, as part of program reporting	Monthly	Monthly
2.7 Marketing and Outreach	Marketing and Outreach Deliverables	6/14/2012	<u>6/14/2012</u>
Develop integrated marketing & outreach plan	Draft marketing plan, submitted as part of implementation plan	10/22/2010	10/21/2010
	Final marketing plan, submitted as part of final Implementation Plan	3/31/2011	10/21/2010
	Marketing Materials	Monthly	Monthly
	Consumer website	2/14/2011	2/14/2011
Operate public relations and marketing campaigns	PR and marketing progress reports, as part of monthly reporting	Monthly	Monthly
Operate customer interface via website and hotline system	Website activity tracking reports, as part of monthly reporting	Monthly	Monthly

Deliverable	Brief Description	Due Date in Agreement	Date Delivered to CEC
	Schedule of real estate training events	Initial content due 4/10/2011; Updated Monthly	3/31/2011; Updated Monthly
Added-value development (MLS, etc.)	Documentation of MLS listings as part of monthly reporting	Monthly	Monthly

BUDGET

Actual Expenditure reported in Table 7.1 covers expenditure through June 14, 2012 reporting period.

Table 7.1 Retrofit LA Project Budget

Budget Category or Deliverable	Brief Description	Budgeted	Actual Expenditure
1.1 Attend Kick-off Meeting	Establish lines of communication and procedures for implementing Contract Agreement	\$ 9,591	\$7,051.98
1.2 CPR Meetings	Meetings between the Energy Commission and the Contractor to discuss any modifications needed to be made to tasks, deliverables, schedule or budget to the Contract Agreement	\$ 44,714	\$24,274.24
1.3 Final Meeting	Final Meeting with the Energy Commission to discuss findings, conclusions and recommendations as well as closeout of the Agreement	\$ 11,163	\$0.00
1.4 Monthly Progress Reports	Preparation of monthly progress reports summarizing the Agreement activities performed by Contractor. This includes assessment ability to complete deliverables within current budget including expenditures tracking	\$ 421,828	\$380,606.87
1.5 Final Report	Preparation of the written Final Report that describes the work performed under the Agreement	\$ 39,788	\$28,368.13
1.9 Establish the PAC	Establishment of a regional Program Advisory Committee (PAC) that will coordinate the residential building retrofit efforts among	\$ 46,288	\$45,642.36
1.10 Conduct PAC Meetings	Monthly PAC meetings for purpose of coordinating regional program design and implementation	\$ 56,899	\$54,843.06
1.11 Waste Management Plan	Waste Management Certification and Compliance Forms	\$ 2,500	\$1,649.00
1.12 Historic Preservation	Consultation Package	\$0.00	\$0.00

Budget Category or Deliverable	Brief Description	Budgeted	Actual Expenditure
2.1 Program Management	Perform deliverables/activities detailed under both the Implementation Plan and Program Risk Management tasks. These activities include development of a detailed plan to complete the proposed program and manage and mitigate risks that affect program performance and successful outcome	\$ 555,561	\$511,583.75
2.2 Workforce Development	Establish a skilled workforce capable of delivering targeted volume of home retrofits, consistent with program quality standards	\$ 1,221,560	\$1,122,029.69
2.3 Participant Recruitment	Engage stakeholders to provide input on effective design, cultivate partners and allies to champion the program through their communication channels	\$ 597,507	\$594,503.14
2.4 Retrofit Installations	Retrofit of single family homes and multifamily housing units	Leveraged Funds	\$0.00
2.5 Quality Assurance	Apply consistent quality standards to build consumer confidence and maximize customer satisfaction by cooperating with utility incentive programs and providing monthly reports on QA activities and outcomes	\$ 123,310	\$127,367.81
2.6 Verification of Energy Savings	Documentation of expected annual energy savings from participating projects based on field verification of actual installed improvements; provide informative summary reports	\$244,158	\$244,140.52
2.7 Marketing and Outreach	Develop and implement a communications strategy that will motivate property owners to invest in efficiency and/or solar retrofits to their properties	\$5,825,133	\$5,851,518.76
<u>TOTAL</u>		\$9,200,000.00	\$8,993,579.31

APPENDIX

Attachment A: Supply and Equipment Inventory List