



GREENING CITY GARDENS:

A case study in the effectiveness of a coordinated approach to accessing utility incentives for energy efficiency retrofits in multifamily affordable housing in California.

NOVEMBER **2013**



**California
Housing
Partnership
Corporation**

*California's Experts on Affordable
Housing Finance, Advocacy & Policy*

ABOUT THE **CALIFORNIA HOUSING PARTNERSHIP**

The California Housing Partnership Corporation (CHPC) is a private nonprofit organization committed to helping government and nonprofit housing agencies preserve and expand the supply of affordable housing for lower-income households throughout California. Through our Green Rental home Energy Efficiency Network (GREEN) and related advocacy efforts, CHPC is expanding access to energy efficiency resources for multifamily rental properties in California and ensuring that publicly assisted properties serving the state's lowest-income households receive an equitable distribution of these resources.

ACKNOWLEDGMENTS

CHPC would like to thank the following people for their contributions to the City Gardens demonstration project:

LINC Housing

Hunter Johnson, President/CEO
Karen Maeshima, CFO

Kango Development LLC

Fran Hereth, Principal

Southern California Gas Company

Frank Spasaro, Energy Efficiency Partnerships Manager
Mark Drake, Manager, Residential New Construction
Gail McEneaney, Senior Acct Executive, Energy Efficiency Programs
Mark Aguirre, Customer Programs Manager, Energy Savings Assistance Program (ESAP)

Southern California Edison

Jose Buendia, Program Manager, Residential Energy Efficiency Rebates & Programs

California Housing Partnership Corporation

Matt Schwartz, President & CEO
Tara Siegel, Sustainable Housing Program Manager
Megan Kirkeby, Sustainable Housing Policy Manager
Caroline McCormack, Sustainable Housing Policy Intern

Stewards of Affordable Housing for the Future (SAHF)

Richard Samson, President, SAHF Energy (a division of SAHF)
Rebecca Schaaf, Vice President, SAHF Energy

And all of the property staff and contractors who helped make this project possible.

Photography courtesy of LINC Housing; photos by Gary Krueger Photographer



Photography courtesy of LINC Housing; photos by Gary Krueger Photographer

TABLE OF CONTENTS

Introduction

Part One: **City Gardens Demonstration Project**

Background

Step 1: Property Assessment and Green Audit

Step 2: Accessing Utility Incentives

Step 3: Finalizing a Scope of Work

Step 4: Covering the Financing Gap After Rebates and Incentives

Part Two: **Barriers to Access**

Barrier 1: Navigating Multiple Programs

Barrier 2: Different Income Qualification Standards

Barrier 3: Gap Financing Needed for Stand-Alone Retrofits

Part Three: **Looking Forward**

INTRODUCTION



Photography courtesy of LINC Housing; photos by Gary Krueger Photographer

This report describes a new approach to financing energy efficiency retrofits at affordable multifamily rental properties in California. The California Housing Partnership Corporation (CHPC) and Stewards of Affordable Housing for the Future (SAHF) worked with LINC Housing (LINC) on a whole-building retrofit project to demonstrate how common barriers to financing energy retrofits can be overcome through close coordination with investor owned utilities.

The innovative approach taken at City Gardens Apartments in Santa Ana, California, was made possible through the cooperation and leadership of the owner, LINC, and senior managers from local utilities Southern California Gas Company (SCG) and Southern California Edison (SCE). The retrofit of City Gardens demonstrates the potential of a one-stop shop approach to financing efficiency retrofit work in California that provides owners with an integrated package of utility incentives and financing paid for by cost savings produced by the retrofit.

PART 1: THE CITY GARDENS DEMONSTRATION PROJECT

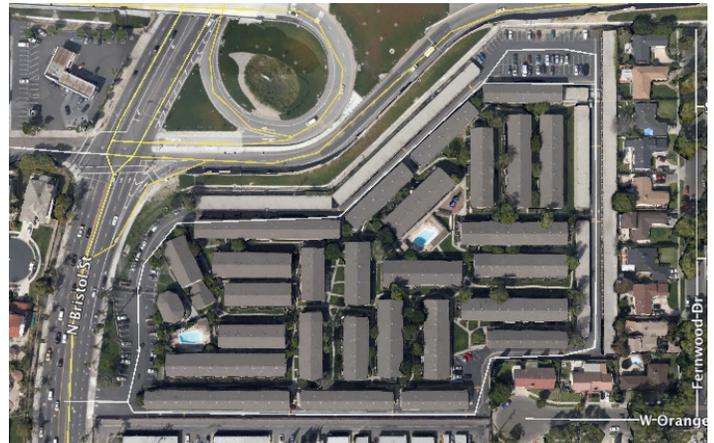
Background

City Gardens consist of 274 apartments in 27 two-story, “garden style” buildings spread across 11.9 acres. Each building contains a mix of studio, one- and two-bedroom apartments serving low-income residents. City Gardens was constructed in 1969, and underwent a major rehabilitation when LINC purchased the property in 1996. The development is typical of many suburban garden apartments in California, making it a strong candidate for a demonstration project.

In the early 2000s, LINC upgraded seven of the eight hot water boilers on the property. Doing so lowered utility costs at the time, in turn lowering the overall potential for energy and water efficiency gains from a future retrofit. Nonetheless, in 2012 LINC believed there were still significant opportunities to improve energy efficiency and began to pursue a comprehensive retrofit using proceeds from their Fannie Mae Green Refinance Plus loan, the first loan of its kind in the country. Although the Green Refinance Plus mortgage provided LINC with important additional resources to improve energy efficiency, LINC was also interested in finding new ways to leverage existing utility incentive programs. So, when CHPC and SAHF proposed to LINC in early 2012 to use the City Gardens retrofit as a demonstration for new approach to accessing utility resources, LINC readily agreed. CHPC and LINC began weekly meetings with SCG and SCE managers in March 2012. Significant energy retrofit work began during the 4rd Quarter of 2012 and was completed by LINC in April 2013.

STEP 1: Property Assessment and Green Audit

Utility systems in multifamily buildings are diverse and have varying upgrade needs and opportunities.



Aerial photo of City Gardens Apartments, Google Earth

City Gardens Property Snapshot

- Santa Ana, CA
- 274 Units
- 11.9 Acre Site
- Built in 1969
- Major rehab in 1996
- 55 units at 40% AMI
- 219 units at 60% AMI

Therefore, it is critical to begin a retrofit by assessing a property at the whole-building level to determine which specific energy and water conservation measures will bring about the greatest efficiencies, rather than choosing from a list of prescriptive weatherization and lighting measures that typically result in significantly less cost savings.

Enterprise Community Partners provided critical funding for a Green Property Needs Assessment (PNA) for City Gardens. EMG conducted the Green PNA in February 2012 and provided initial suggestions for the scope of work and estimates of the costs and potential cost savings of various retrofit measures. However, because

EMG performed the audit without considering all available utility incentives, CHPC worked with EMG and LINC to revise the scope of work and adjust the cost and savings projections to account for measures for which SCG and SCE had direct install and rebate opportunities.

STEP 2: Accessing Utility Incentives

As a stepping stone towards a single point of contact, SCG and SCE provided dedicated contacts to work regularly with CHPC and LINC staff. This close partnership helped LINC understand which utility direct install and rebate opportunities were available to City Gardens, and helped utility staff understand a multifamily retrofit from an owner's perspective. SCG and SCE managers also helped LINC navigate the application process for various incentives. Working closely with SCG and SCE program managers and account executives, CHPC helped LINC access nearly \$397,000 (more than \$1,000 per unit) in utility rebates and direct install services from three main energy efficiency incentive programs:

- **The Energy Savings Assistance Program (ESAP)**, funded by SCG and SCE, provides income-qualified households —at or below 200 percent of the federal poverty line—with free direct install energy conservation measures including energy efficient refrigerators, energy efficient furnace control upgrades, weather stripping, low-flow shower heads, and door and building envelope repairs.
- **The Multi-Family Energy Efficiency Rebate Program (MFEER)** provides rebates to owners for the installation of gas and electrical energy conservation measures with a primary focus on lighting rebates.
- **The California Solar Initiative (CSI)** offers building owners rebates for the installation of solar photovoltaic or solar domestic water heating systems.

Income qualification challenges and opportunities

LINC's experience in accessing ESAP incentives for City Gardens underscored that the current income verification process required by ESAP is duplicative and inefficient. LINC had previously collected and verified

Results of the ESAP Income Verification Process at City Gardens

Out of 274 apartments...

- **201** qualified as income eligible using the 200% Federal Poverty guideline
- **28** were over income limits
- **36** could either not be reached or chose not to participate
- **9** were vacant
- **13** unqualified households became eligible through the 80/20 rule

City Gardens Retrofit Timeline

CHPC believes this timeline can be shortened if the lessons learned from this demonstration project are implemented.

1st Quarter 2012

- Audit completed
- Lighting measures installed
- Roof repairs to prepare for solar domestic hot water system

2nd Quarter 2012

- Education and outreach to residents
- ESAP income qualification process for free weatherization services

3rd & 4th Quarters 2012

- ESAP measures installed in income-qualified apartments
- Identical measures installed in non-qualified apartments
- Solar domestic hot water system and recirculation pumps installed

resident income data for each household at City Gardens in order to ensure residents were qualified to live in subsidized housing. However, ESAP does not currently accept income verification data collected during the annual resident certification processes done pursuant to existing federal and state programs. Instead, ESAP requires utility contractors to spend additional time and resources to verify household income and demographic data for a second time through a unit-by-unit approach that inevitably misses a significant number of residents either because of scheduling conflicts or because residents do not wish to provide the information to a third party.

The door-to-door income qualification process at City Gardens took six weeks to complete. Worse, 36 households at City Gardens either declined to participate or could not be reached, and were therefore ineligible to benefit from ESAP. LINC's records, verified by a state agency, show that 16 of the 36 unreachable households had incomes below 200% Federal Poverty Guideline and would have qualified for ESAP if LINC had been allowed to use state or federal agency-verified records rather than the door-to-door verification process.

Fortunately, the ESAP 80/20 Rule states that if 80% of the units in a building qualify for ESAP then the whole

Table 1.1 Energy Conservation Measures

The table below shows only the measures for which CHPC assisted LINC in accessing utility incentives and/or those that produced energy or water savings for City Gardens. Other non-efficiency retrofit work, including, but not limited to, roofing, balcony and siding replacement, termite repair, and storm water drainage improvements, is not recorded here.

Type	Measure	Rebate	Free, Direct Installation	Remainder Covered by Owner
Water	Solar domestic hot water	CA Solar Initiative		X
Gas & Water	On demand recirculation pumps		SCG Pilot Program	
Gas	Gas wall heater replacements		SCG Pilot Program	
Electricity	Interior & Exterior lighting plus controls	MFEER		X
Gas & Electricity	Weather-stripping wall gaskets		ESAP	X*
Gas	Furnace clean & tune		ESAP	X*
Gas	Electronic pilot igniters		ESAP	X*
Hot Water (Gas & Water)	Low-flow fixtures		ESAP	X*
Hot Water (Gas & Water)	Shower Start thermostatic shower valves		ESAP	

*Gap financing necessary only for units that did not qualify for ESAP.



Exterior LED pole lighting was installed in all parking areas in March 2013. Photography courtesy of LINC Housing; photo by Gary Krueger Photographer.

building can be served free of charge. Nine of City Garden's 27 buildings were able to meet this threshold, increasing the total number of units receiving free ESAP measures from 201 to 214 (out of 274). LINC was then left to pay for the cost of providing similar benefits to the remaining 60 units.

No Contractor Choice for ESAP and MFEER

ESAP and MFEER do not allow owners to choose their own contractor. This restriction has frustrated owners who want the efficiency of hiring one primary contractor to do the majority of the retrofit work and the quality assurance of knowing that the selected contractor has experience retrofitting multifamily properties. At City Gardens, LINC faced the challenge of coordinating three contractors to accomplish the MFEER and ESAP measures. However, LINC benefitted from the fact that the ESAP program contractor, TELACU, was experienced

with multifamily properties. LINC was also able to hire TELACU to install identical measures in the units that did not qualify for ESAP.

STEP 3: Finalizing a Scope of Work

After CHPC helped LINC expand the final scope of work to include measures that came with utility incentives and rebates, the City Gardens retrofit is now projected to result in energy savings of approximately 23% annually.

Table 1.1 shows the energy and water conservation retrofit measures implemented at City Gardens, as well as the primary incentive or financing method for each measure. Table 1.2 below shows the projected cost savings associated with each category of conservation measures. The total projected benefit to LINC and City Gardens residents of the retrofit measures amounted to more than \$74,000 in annual owner and tenant cost savings.

STEP 4: Covering the Financing Gap after Rebates and Incentives

To complete all the measures in the whole-building retrofit of City Gardens, LINC had to identify funds to cover \$218,019 after all rebates and free direct install measures were leveraged. Fortunately, LINC had access to the remaining Fannie Mae Green Refinance Plus loan proceeds to pay for these additional costs.

Table 1.2 Projected Cost Savings

Proposed Measures for City Gardens	Rebate or Value of Direct Install Measure	Measure Costs After Rebates	Projected Annual Owner Cost Savings	Project Annual Tenant Cost Savings
Electricity	\$64,378	\$18,736	\$9,360	\$17,026
Gas & Water	\$332,597	\$199,283	\$47,911	\$0
Totals	\$396,975	\$218,019	\$57,271	\$17,026



Left: New exterior CFL lighting was installed outside each apartment in May 2012. Center: Solar panels collect energy to heat the newly installed solar domestic hot water (DHW) system. Right: Installation of a new, insulated, 500-gallon water storage tank, which will hold the pre-heated water generated by the solar DHW system. Photography courtesy of LINC Housing; photos left and center by Gary Krueger Photographer

Key Lessons Learned at City Gardens

- **Whole-Building Audit:** To achieve maximum energy savings and return on investment, a performance-based, whole-building energy audit is required at multifamily properties.
- **Single Point of Contact:** Identifying a single point of contact at the utilities to help deliver direct install and rebate incentives is key to leveraging existing programs and achieving deeper savings.
- **Income Eligibility Requirements:** Conforming ESAP to national and state best practices for income eligibility and using pre-qualified property lists created by government housing agencies would reduce or prevent the need for door-to-door contact and significantly decrease administrative expenses.
- **Contractor Choice:** Allowing the primary retrofit contractor to install ESAP and MFEER measures would enhance efficiency, increase accountability, and ensure owners could choose contractors with multifamily housing experience.
- **Financing:** Third party capital to cover the cost gap after an owner has leveraged all available incentives is a critical need.

PART 2: BARRIERS TO ACCESS

Historically, most energy efficiency programs in California were designed to meet the needs of single-family homes and ignored the unique needs of multifamily properties, making it difficult for owners of multifamily properties to access the incentives available to them. The City Gardens retrofit highlighted common barriers multifamily owners face when trying to access utility incentives for energy efficiency retrofits.

BARRIER 1: Navigating Multiple Programs

The confusion of navigating multiple programs at City Gardens was lessened greatly by the willingness of SCG and SCE to provide dedicated staff to work closely with LINC and CHPC. However, for many owners throughout the state, utility incentive programs remain difficult to leverage concurrently because they are not offered in an integrated or coordinated way. A building owner wishing to access multiple programs offered by an IOU must identify the appropriate staff for each program and navigate varying project contractors, administrative processes, and program guidelines. This “siloed” process is highly inefficient and can lead to delays in the execution of a retrofit, causing disruptions for residents and increasing frustration and confusion for all parties. As a result, multifamily rental owners often choose not to use incentive programs and miss opportunities for deeper energy savings.

SOLUTION: A Single Point of Contact

Owners need a single point of contact who can help them navigate the utility incentive programs. The City Gardens demonstration project was a large step toward getting SCG and SCE to adopt a Single Point of Contact approach. With weekly help from CHPC, SCG and SCE realized they could use their existing major account

executive program to provide senior staff to participate in weekly project coordination meetings.

CHPC has advocated strongly for each utility to have an internal single point of contact for incentive programs. CHPC first recommended this approach in a 2011 filing for the Energy Savings Assistance Program proceeding led by the California Public Utilities Commission (CPUC). The CPUC has also recognized this as an important approach to improving program uptake and satisfaction. The four California IOUs have since endorsed the concept and each is currently in the process of making a single point of contact available to multifamily owners through the Energy Upgrade California program for multifamily.

Single Point of Contact vs. One-Stop Shop

Single Point of Contact: A single entity at the utility that helps customers navigate which incentive programs are right for their property and their resident population.

One-Stop Shop: A step beyond Single Point of Contact. A single entity that provides integrated access to financing and energy efficiency incentive programs. The One-Stop Shop acts as a liaison between the single point of contact at a utility, the developer, and all lenders.

BARRIER 2: Different Income Qualification Standards

ESAP’s use of 200% of Federal Poverty Guideline, rather than the Area Medium Income (AMI) standard used by most federal and state housing agencies, makes it unnecessarily difficult to determine building-level eligibility for ESAP. Despite the fact that properties

that are federally and/or state assisted already have certified income data and that the U.S. Department Of Energy (DOE) and the Department of Housing and Urban Development (HUD) have developed a way to make this available at a building level, ESAP still does not allow the use of building-level eligibility data. A related barrier is ESAP's attempts to count housing subsidy as income, which other income-restricted programs do not. CHPC and advocacy groups for low-income consumers and residents have testified that it is not feasible or reasonable to measure and track housing subsidies by household and have recommended that this requirement be removed.

The result of the current policy is that residents must be qualified for ESAP through a costly and time-intensive door-to-door income qualification process.

SOLUTION: Use Housing Agency Income Data to Streamline Income Eligibility

This barrier was also experienced in DOE's Weatherization Assistance Program (WAP). To overcome the income eligibility barrier in WAP, DOE and HUD collaborated to streamline the qualification process. HUD used existing certified income records of federally assisted buildings to produce a list of buildings where enough residents income qualify for the entire building to be served by the weatherization program (buildings where 66 percent of units had household incomes at or below 200 percent of the federal poverty level). As it did for WAP, a similar partnership with HUD and/or other state housing agencies could streamline income qualification for ESAP and avoid duplicative income qualification.

BARRIER 3: Gap Financing Needed for Stand-Alone Retrofits

In a world of substantially diminished federal and state housing funding, affordable housing owners have few options to cover the cost of energy and water efficiency retrofits beyond what they can get from utility incentive programs. Rents and cash flow are highly regulated in assisted housing, meaning that in most cases retrofit costs cannot be passed on to residents.

With high annual projected savings an owner may wish to seek financing for an energy efficiency retrofit, but most multifamily rental buildings serving low-income households are financed with multiple layers of debt and equity, requiring owners to negotiate with and obtain permissions from numerous parties. This permission process may be worth the effort in the context of a major refinancing and rehabilitation of the property, which often take place every 20-30 years, but is unattractive in the context of smaller stand-alone energy efficiency retrofits, which typically cost \$1,500-\$3,000 per unit in California.

There have been several attempts to provide stand-alone retrofit mortgage financing in California, including most recently the Bay Area Multifamily (BAM) Fund administered by the Low Income Investment Fund and Enterprise Community Partners. However, the onerous requirement of getting permissions from all existing lien holders in order to accept a subordinate energy loan has shown this to be an unattractive alternative.

SOLUTION: On-Bill Repayment

In September 2013, after several years of advocacy by CHPC, the CPUC directed California's IOUs to provide additional energy efficiency financing options including an on-bill repayment (OBR) pilot for affordable multifamily properties. OBR offers a mechanism for property owners to repay energy efficiency loans from a third-party lender through a tariff placed on the owner's monthly utility bills. An objective of the pilot will be to limit OBR payments to an amount less than the energy cost savings projected by an energy audit ("Bill Neutrality"), allowing properties to use energy cost savings to finance all retrofit work. Unlike a traditional real estate loan, financing repaid through OBR is not secured by the property, meaning that no deed of trust is provided to the lender, thus not activating the onerous lien holder permissions process.

PART 3: LOOKING FORWARD

Millions of people living in multifamily buildings in California and nationwide could benefit from energy efficiency improvements. Until very recently, owners faced a number of barriers to achieving deeper energy and cost savings.

However, there has been significant recent progress. The CPUC has recognized many of the existing barriers and directed the IOUs to improve and develop programs for multifamily properties accordingly.

IOU program innovations since the City Gardens retrofit

Energy Upgrade California (EUCA) for Multifamily:

The EUCA for Multifamily pilot is a whole-building performance-based subsidy program that was launched in Summer 2013 by all four IOUs, as well as the Bay Area and Southern California Regional Energy Networks. EUCA for Multifamily attempts to lessen confusion across IOU programs by offering a single point of contact assigned by each utility. The hope is that these pilots will be developed in fully funded programs.

Middle Income Direct Install (MIDI) Pilot:

The MIDI pilot was authorized at the end of 2012 and provides measures similar to those covered by ESAP to households at 250% Federal Poverty Guideline, slightly above ESAP's existing 200% threshold.

Energy Savings Assistance Program (ESAP):

A preliminary 2013 report conducted by The Cadmus Group evaluated how ESAP could better serve multifamily properties. The Cadmus Group report assessed best practices in the highest functioning low-income multifamily programs nationwide and recommended many of the same solutions proposed in this report. The recommendations from the Cadmus

Group will shape the next cycle of revisions to ESAP.

Master-Metered Multifamily Financing (MMMMF) Pilot:

Through the MMMF pilot, the CPUC authorizes the use of OBR in substantially master-metered multifamily rental properties. The pilot will be rolled out in phases, the first of which was authorized to begin in September 2013 with five properties in SCG territory, with full implementation set to begin Summer 2014.

Ratepayer Integrated On-bill Payment Program

The MMMF pilot provides owners of affordable multifamily buildings access to OBR. CHPC and national partner SAHF are poised to help owners take advantage of OBR availability through the Ratepayer Integrated On-bill Payment Program (RIOPP). CHPC and SAHF's innovative pilot offers a complete package of integrated financing tools tailored to the specific needs of low-income multifamily rental properties for performance-based, whole-building energy retrofits. RIOPP offers coordinated technical assistance (as in the case of City Gardens), leverages the use of utility rebate and free direct install programs, and helps to secure third party financing through OBR. RIOPP refers to the combination of these services as a "one-stop shop."

Looking Forward

The availability of OBR and the slow-but-steady improvement of existing utility incentive programs offers an encouraging picture of the future for energy efficiency retrofits in multifamily affordable housing. CHPC is hopeful that these and future improvements will help California reach its greenhouse gas reduction targets, and improve and preserve affordable homes for millions of low-income Californians.