

Reinventing Multifamily: A High-Touch Method of Engaging Multifamily Properties

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ABSTRACT

The multifamily sector makes up 21% of all residential housing units in the US, and the delivery of energy efficiency to this sector usually utilizes a mass-market approach that is typical for all residential customers. In reality, many multifamily property owners operate their properties in a manner resembling a commercial operation. Unlike decisions made by homeowners that are often emotional in nature, those made by multifamily housing operators are usually rational business decisions. Utilizing a similar strategy used for large business customers, Southern California Gas (SoCalGas) started the practice of assigning dedicated account executives to large multifamily property owners in its territory. Being a gas-only utility, SoCalGas is also taking a step further by connecting the property owners to electric and water programs and services from overlapping utilities. This paper will discuss all aspects of the single-point-of-contact strategy, including the statistics, successes, and best practices.

This idea originated from a major retrofit project in Santa Ana, California, with LINC Housing, a nonprofit organization managing a large portfolio of affordable housing. The project yielded actual gas savings in excess of 15%, as well as sizable water and electric savings. As many as six different programs from multiple utilities touched this project, aided by an account executive to coordinate program activities. This project and other case studies demonstrating the value of an assigned account executive will be discussed, and the wide-ranging programs that serve the multifamily sector, from incentives to on-bill financing, will be highlighted in this paper.

Introduction

Multifamily housing makes up about one of every five residential units in the United States (US Census Bureau 2011.) This sector provides a tremendous opportunity for improving energy and water efficiency. A recent study (McKibbin 2012) has shown that comprehensive energy efficiency retrofits for buildings in this sector can improve efficiency by 30 percent for natural gas and 15 percent for electricity. At the national level, this level of savings would translate into annual utility bill cost savings of \$3.4 billion for the entire sector.

Utility programs provide significant funding, \$7 billion in 2011, for energy improvements (Foster et. al., 2012), which could increase to \$16.8 billion by 2025. This is a very significant amount funding that could be leveraged to assist implementation of efficiency projects in multifamily housing, a sector that has been historically underserved by energy efficiency programs. Barriers do exist in this sector (McKibbin 2012), namely:

- The issue of split incentive. Building owners are responsible for making the investment, while tenants, who often pay the utility bills, are the ones receiving the benefits. It is also difficult for building owners to quantify the non-energy benefits, for example higher rents or reduced tenant turnover.

- Efficiency takes a back seat. Multifamily owners are constantly burdened with general maintenance and operational costs, so energy efficiency is often perceived as a luxury investment that they can ill afford.
- Confusion about energy/water efficiency programs. Program administrators are often confused about categorization of multifamily buildings, whether they should be eligible for residential or commercial programs. This lack of certainty can frustrate building owners, thus making them even less likely to participate in efficiency projects.

Due to the cyclic nature of energy efficiency funding, speed to market is often one of the key factors in the design and implementation of energy efficiency programs. Since the multifamily sector is one that has long been considered hard-to-reach, it is not unusual for administrators to create multiple programs and strategies to address this particular market. Such impetus, while justifiable, can lead to more market confusion, especially for building owners who are lacking in resource and patience to digest and select the multitude of offerings thrown at them. In the effort to accelerate multifamily participation in public programs, ACEEE recently released the following best practices for multifamily programs (Johnson 2013):

- Provide a one-stop shop for program services;
- Incorporate on-bill repayment or low-cost financing;
- Integrate direct installation and rebate programs;
- Streamline rebates and incentivize in-unit measures to overcome split incentives;
- Coordinate programs across electric, gas and water measures;
- Provide escalating incentives for achieving greater savings levels;
- Serve both low-income and market-rate multifamily households;
- Align utility and housing finance programs;
- Partner with the local multifamily housing industry; and
- Offer multiple pathways for participation to reach multiple buildings.

Coincidentally, starting in 2012, SoCalGas began implementation of a multifamily project that mirrored the best practices outlined above. This project with LINC Housing or LINC has helped reshape the way SoCalGas and its peer utilities in California deliver energy and water efficiency services and programs to the multifamily housing industry. This new approach, also called the Integrated Demand Side Management (IDSMS), utilizes a single-point-of-contact who helps streamline products and services, making it much more convenient for multifamily building owners to engage with utility programs.

Background

SoCalGas is the nation's largest natural gas distribution utility, providing energy to 20 million consumers through approximately 6 million meters in more than 500 communities for over 140 years. The company's service territory encompasses approximately 20,000 square miles in diverse terrain throughout Central and Southern California, from Visalia to the Mexican border. SoCalGas' overall budget for 2013-2014 energy efficiency programs totals \$178 million. SoCalGas, along with the other California Investor-Owned Utilities (IOUs), started implementing energy efficiency programs in the 1980's (Alliance Commission on National

Energy Efficiency Policy 2013). Over the years, SoCalGas has implemented numerous energy efficiency programs targeted at the multifamily sector.

LINC is a nonprofit organization based in Long Beach, California, that builds, owns, and operates affordable housing for seniors and families throughout California. LINC has a 30-year history of creating communities for thousands of families and seniors throughout California, and its portfolio includes more than 5,500 housing units spread across 57 properties. LINC's mission is to provide housing for people underserved by the marketplace. The need for affordable housing is viewed as a crisis that will continue to persist well into the future. The State of California predicts that California's population will reach 42.7 million by 2050, and 50 million by 2060. The 2060 population will be 39 percent higher than the state's most recent 2012 estimate (California Department of Finance, 2013.) LINC views energy and water efficiency as an important part of its strategy to keep pace with this population growth. Investments in energy and water efficiency result in cost savings that can be re-invested into future properties.

The California Housing Partnership Corporation (CHPC) is an advocacy organization that assists non-profit and government housing agencies in creating and preserving housing affordable to lower-income households. Its mission is also to provide leadership on housing preservation policy and funding. CHPC has embarked on an initiative called Green Rental Home Energy Efficiency Network (GREEN) in the effort to lead a discussion on how to better incorporate energy efficiency in multifamily affordable rental housing. In early 2012, CHPC requested SoCalGas and other California utilities partner with affordable housing providers that are in the process of modernizing their buildings. One of its goals was to create linkages between utilities and affordable housing providers so that the housing providers could receive comprehensive services and assistance in their effort to retrofit their buildings with cost-lowering energy efficient technologies.

The first project introduced to SoCalGas by CHPC was the City Gardens affordable housing complex in Santa Ana, California. The 274-unit property was built in 1969, and acquired by LINC in 1996 with tax-exempt bonds and 4 percent low-income housing tax credits. The City Gardens property was in need of refinancing in 2012, and LINC wanted to bring the property up to date and to include green retrofits. By engaging utility programs, LINC would be able to offset some of its retrofit costs, thereby freeing up capital for other future projects. Given the complexity and scale of the retrofits, however, it would soon become evident that the project's needs extended well beyond what individual utility programs could offer. Instead, it would need a combination of products and offerings that span across different programs and utilities. In other words, a project like City Garden could not fit into any single program that utilities offer, instead, the utilities and utility programs had to work together to deliver an integrated solution befitting the project's ambitious scope.

SoCalGas' Residential Multifamily Programs

SoCalGas' energy efficiency programs are funded by ratepayers under the auspices of the California Public Energy Commission. In the latest program cycle of 2013-14, SoCalGas' funding totals 178 million, and the portfolio is organized into 14 programs and 70 subprograms covering all sectors (Southern California Gas 2012.) Nine of the 70 energy efficiency subprograms touch the multifamily sector. In addition, SoCalGas also offers rebates for

installation of solar hot water heating. Table 1 presents a summary of programs that serve the multi-family sector.

Given the significant number of programs that provide service to the multifamily sector, it is understandable that property owners can be unsure as to how best to leverage these offerings. This uncertainty is further compounded by the fact that some of these programs offer similar, if not altogether identical, measures. Coordination between programs does exist, but is rather limited. For example, Energy Smart and Multifamily Tune Up, third-party implemented programs that provide no cost installations of low-flow showerheads and faucet aerators, do coordinate with the Energy Savings Assistance Program (ESAP) that serves the low-income sector to verify that their targeted facilities have not been served by ESAP or are not on the list of to be served. Such coordination is usually intended to minimize overlaps and avoid duplication between programs, and not necessarily to improve customer experience.

The City Gardens Project

Rehabilitation of the City Gardens property started in the summer of 2012. A need assessment was already performed the preceding year, and LINC had identified a list of improvements that they were considering. The first SoCalGas program that got involved in the project was ESAP, primarily because a large majority of the units were occupied by income-qualified renters. After assessing the list of improvements, it became apparent that ESAP alone could not provide all the services and incentives needed for the project, and a tight-knit coordination between SoCalGas' programs, as well as with other utility programs (City Gardens' electricity is provided by Southern California Edison, and water by Santa Ana Public Works), was necessary. To help manage the coordination with LINC's project manager, it was decided internally that assigning a SoCalGas point person to the project was the best way to proceed.

The task fell to Gail McEneany, a long-time SoCalGas employee with 20 years of experience, most of which as an account executive. At the time of the assignment, Ms. McEneany was an account executive for residential builders, making her a great fit for the role in the City Gardens project. Her years of experience in the residential new construction market proved beneficial in guiding the City Gardens project to the appropriate SoCalGas incentives and services.

Working with her internal program management teams, Ms. McEneany immediately identified the programs that could provide incentives and services to the City Gardens facility, and began coordinating with the program staffs. This process was aided by her several onsite visits to the property. Her firsthand experience with the property enabled her to navigate through specific requirements of individual programs, and to ensure that there were no coverage gaps. For example, by talking with the onsite property manager, Ms. McEneany was able to find out that the property was occupied predominantly by income-qualified renters, but there were also some units at the property designated as affordable but occupied by families that did not meet the ESAP income qualifications. This meant that ESAP's services needed to be supplemented with those from market-rate programs, such as Energy Smart and Multifamily Tune Up. Working with SoCalGas' program staff, Ms. McEneany was able to formulate a plan and a sequence of the programs that would be touching the site. The idea was to arrange for the more comprehensive programs such as ESAP to serve the facilities first, and have the programs with fewer measures come in to serve the rest. It should be noted that the most comprehensive program for this sector, Energy Upgrade California, was not yet available at the time.

Table 1. List of SoCalGas' multifamily programs

Category / Program Name	Description	Example Measures
Income-Qualified		
Energy Savings Assistance Program (ESAP)	Provides no cost installations of energy efficiency measures to low-income customers through a network of vendors.	Weatherization, insulation, low-flow showerheads and aerators
Middle-Income Direct Install Program (MIDI)	Provides no cost installations of energy efficiency measures to middle-income customers through a network of vendors.	Weatherization, insulation, low-flow showerheads and aerators
Third-Party Implemented (3P)		
Energy Smart	Provides no cost installations of low-cost showerheads and faucet aerators	Low-flow showerheads and aerators
Multifamily Home Tune Up	Provides no cost installations of low-cost showerheads and faucet aerators	Low-flow showerheads and aerators
On-Demand Efficiency	Provides no cost installations of boiler pump controllers	Domestic hot water boiler pump controller
Residential Whole-House Program		
Energy Upgrade California (EUC)	Provides tiered incentives for comprehensive home EE upgrades (including dwelling and common areas)	Low-flow showerheads, wall insulation, window replacement
Rebates and Incentives		
Multifamily Rebates (MFEER)	Provides per unit rebate for energy efficiency equipment	High-efficiency storage and tankless water heaters, Energy Star furnaces
Plug-Load Appliance Rebates	Provides instant rebates at point-of-sale or mail-in rebates	High-efficiency storage and tankless water heaters, Energy Star clotheswashers
Customized Incentives	Provides customized incentives for common area retrofits	High efficiency central furnace, space heating optimization
Solar		
Solar Thermal	Provides incentives for installation of solar panel for hot water heating	Solar panels for hot water heating

Such strategy proved effective as the facility was able to maximize the penetration of SoCalGas' programs. Ms. McEneany also coordinated with the other utilities closely, enabling the property to also receive electric and water benefits. Table 2 presents the details of utility

program measures that were implemented onsite. It should be noted that the facility was master metered for gas and water, paid for by LINC, and individually metered for electricity, paid for by the tenant. Due to the uneven program coverage based on each tenant’s income qualification, for instance the ESAP program served only 218 units out of 274, not all units received identical measures from utility programs. To help bridge this gap, LINC used its own funds to match all program measures regardless of who were receiving the benefits, which helped address the owner-tenant split incentive issue. For planning purposes, it would be useful to identify such gaps and inform the property owners early on in the process so that these gaps could be factored into any budget or construction planning. Although not all owners may be willing to cover the gaps using their own funds, having such information at the planning stage helps the owners make the best decision for their facility.

Table 2. List of utility programs serving the City Gardens Project

Program	Measure	Quantity
SoCalGas' ESAP	Weatherization	218
	Pilot Igniters	218
	Space Heater Tune up	218
	Low-flow showerheads	218
	Low-flow aerators	218
SoCalGas' Multifamily Home Tune Up	Showerheads	60
	Bath Aerators	60
	Kitchen Aerators	60
SoCalGas' Emerging Technologies	Thermostatic Shower Valve	6
	HE Wall Heaters	3
SoCalGas' Solar Thermal	Solar Thermal Panels	405 sf x 14 Panels
SCE Multi-Family Rebates	Energy Star Ceiling Fan w/ CFL	215
	Energy Star Exterior Fixtures	386
	Energy Star Interior Fixtures	1038
	Occupancy Sensors	13
	T-8 Linear Fluorescent Fixtures	24

In addition to receiving benefits from regular energy efficiency programs, the facility also agreed to become test sites for two emerging technologies that SoCalGas was studying at the time. The first technology tested was a thermostatic shower valve that reduced the flow of hot water to a trickle when the water temperature exceeded 95 degrees F. Six units were retrofitted with the thermostatic valve, and the results showed that the hot water savings was in the 30-40% range. The second technology tested was a high efficiency wall furnace with AFUE of 71% (California building code requires units with a minimum efficiency of 63% AFUE). Three apartment units were retrofitted with the high efficiency furnace, and the results showed that there were 26% savings in the space heating gas consumption. By assigning a dedicated account executive, SoCalGas built a relationship and trust with LINC over time, and was able to convince the organization to take a risk and test out these technologies.

The City Gardens project also encouraged a new effort within SoCalGas. Initially, LINC was very interested in SoCalGas' On-Bill Financing (OBF) Program, a program offering zero-percent financing for qualifying energy efficiency projects. However, the City Gardens project did not meet the OBF program requirements. The OBF program made it mandatory for any project seeking a loan to be bill neutral, meaning that the resulting monthly installment payment must be equal or less than the monthly cost savings (thus the applicant would not see an increase in its monthly utility bill even after factoring in the installment payment.) Furthermore, the payback period for business projects was limited to five years. Most deep residential retrofit projects in the mild-climate southern California, including City Gardens, would have a difficult time meeting this requirement as they would typically carry a payback longer than five years. Therefore, another alternative to OBF had to be considered. To help accelerate the availability of financing to the multifamily sector, the California Public Utilities Commission (CPUC) directed the California IOUs to develop: “[a] financing program strategy designed specifically for the multifamily residential market that includes both credit enhancement and on on-bill repayment option...” (CPUC 2012). In response to this directive, SoCalGas is currently working on launching on-bill repayment pilots in collaboration with the CHPC that would allow a third-party to finance multifamily energy efficiency projects and seek repayment through the monthly gas bill.

The outcome of the City Gardens project exceeded everyone's initial expectations. Figure 1 shows the property's natural gas consumption in 2011 (before the project) and 2013 (after) relative to monthly average temperature. As it can be seen in this chart, the gas consumption in 2013 showed a remarkable drop of 16.3%, after weather normalization. While many large projects had come through SoCalGas' portfolio programs, not many were touched so extensively by different programs and utilities while also maintaining a seamless customer experience. Without the single-point-of-contact strategy, such outcomes would hardly seem possible. For example, without the account manager, LINC would not have been involved in the Emerging Technologies studies, and the arrangement to have the market-rate energy efficiency program (Home Tune Up) come in right behind the low-income (ESAP)_program would not have happened. In his note to SoCalGas, Mr. Hunter Johnson, the President and CEO of LINC offered the following testimonial (SoCalGas 2014):

“LINC Housing utilized the SoCalGas IDSM program to identify and implement numerous gas, electric and water savings measures at our City Gardens Apartments (274 units, Santa Ana). The team from SoCalGas worked with us every step of the way, providing thoughtful recommendations that saved money for both our limited-income families and our property operations.”

The success of the City Gardens also helped LINC demonstrate its ability to execute large-scale showcase projects, and thus secure a \$1.35 million grant from the California Energy Commission's Public Interest Energy Research (PIER) Program to convert the Village at Beechwood property in Lancaster, CA to near zero energy (Ferris, 2014.) The PIER grant funding will enable LINC to retrofit 30 units at the Lancaster property site to near zero net-energy, and the remaining 70 units will be used as a 'control group'. In addition to LINC and SoCalGas, other participants in the consortium include Electric Power Research Institute (EPRI), BIRAenergy, and Southern California Edison (SCE). In addition, SoCalGas' account executive continues to work with LINC to enroll various properties in SoCalGas' programs.

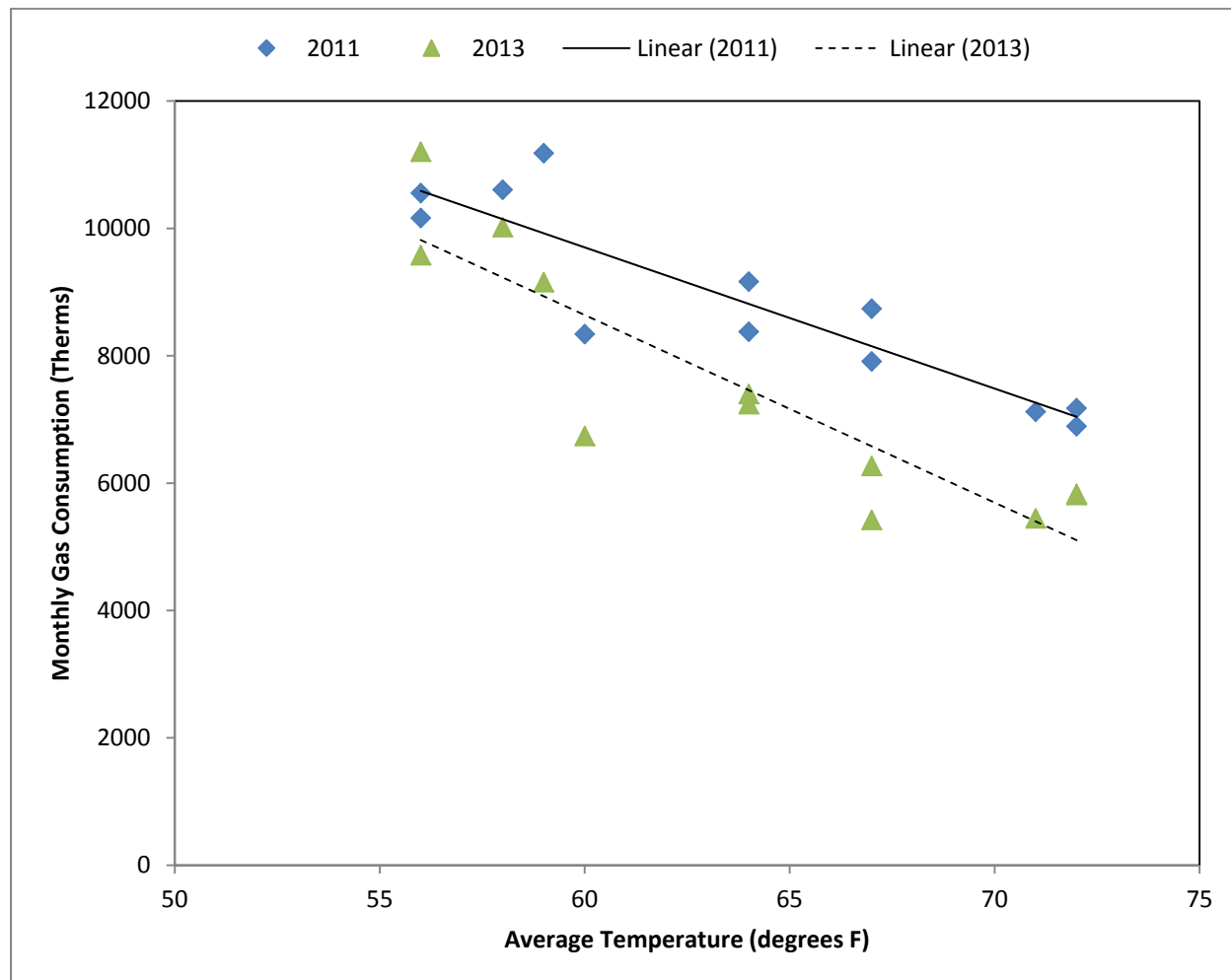


Figure 1. City Gardens’ monthly natural gas consumption before (2011) and after (2013) the Retrofit Project.

Park La Brea Project

Park La Brea in Los Angeles is SoCalGas' largest multifamily master metered residential customer. Built during the 1940s, it is an extensive apartment complex with 4,255 units located in 18 13-story towers and 31 two-story garden style apartment buildings. It is the largest housing development in the United States west of the Mississippi River (Foster 2012.) It sits on 160 acres in the Wilshire District of Los Angeles.

SoCalGas has been working with Park La Brea throughout the years. However the relationship has been limited to interactions between individual programs and the property. For instance, in early 2013, the property installed several thousands of low-flow showerheads and faucet aerators through the third-party implemented Energy Smart Program.

Following the success of City Gardens approach, SoCalGas made a commitment to expand its single-point-of-contact approach. Park La Brea, being the largest of its kind, was a natural candidate to apply this approach to. In the middle of 2013, SoCalGas assigned an account executive to Park La Brea to start working closely with the property and developing

comprehensive energy projects for the near and far term. The SoCalGas account executive held working sessions with the property manager, and other stakeholders, such as the Los Angeles Better Building Challenge (LABBC)¹, and the Los Angeles Department of Water and Power (LADWP), the water and electric utility for the property. Encouraged by SoCalGas' success in the City Gardens project, LADWP also assigned a dedicated account executive to Park La Brea in early 2014.

Through the IDSM initiative, Park La Brea received a no cost facility assessment for one of its 13-story towers. This assessment provided an overview of the tower's energy and water efficiency needs, and served as a good planning tool for future projects. Park La Brea is currently considering measures to improve the performance of the steam boilers serving the towers.

Best Practices

Through its work with LINC and Park La Brea, SoCalGas has identified a number of best practices that will be deployed in future engagements with multifamily property owners. These include:

- Appointing new account managers that are dedicated solely to the multifamily sector. The standard practice in the utility industry is to assign multifamily properties to commercial/non-residential account managers, if they are assigned at all. However, the multifamily sector is unique, and it requires expertise that is more tailored to it. Therefore, assigning multiple multifamily portfolios to a multifamily-dedicated account manager is expected to provide a more effective and consistent service. SoCalGas and other California utilities, such as SCE, are in the process of bringing on account executives dedicated to the multifamily sector. In the beginning, this service will be made available to owners with multiple properties, but may be expanded to include more at a later time.
- Providing extensive training to the multifamily account managers. SoCalGas, like many other large program portfolios, has multiple programs serving the multifamily sector. Each program has its rules and requirements, and may also have overlaps and duplication with others. Knowing the program details, as well as standard practices in the multifamily sector, will allow the account executive to work with property owners more efficiently.
- Creating a road map for program participation. Starting the facility on programs that provide more comprehensive services will encourage the facility to do more. Programs providing specialized services and incentives should be brought in later to cover any gaps. When no-cost or lower-cost specialized measures are provided upfront, they may impact the remainder of the project scope, making it less desirable for property owners to pursue a deep, comprehensive project. Such road map should also consider adding multiple pathways depending on the facility's needs. An example of a road map being used by SoCalGas is presented in Figure 2. In this diagram, the pathway is designed such that the more difficult and comprehensive offerings (such as Energy Upgrade California) are always offered first, and the lighter touches (rebates and education) last. The

¹LABBC is a US Department of Energy leadership initiative to commit building owners in Los Angeles to set a goal of 20% in energy reduction by 2020

rationale is to avoid owners choosing “low hanging fruits” and leaving behind more expensive and comprehensive measures. Also, technical assistance is made available to those facilities that have plans to implement comprehensive measures.

- Involving other utilities early on in the process. In both the City Gardens and Park La Brea projects, SoCalGas involved the electric and water utilities early in the planning process, allowing the project to develop faster and further by increasing the resources available to the project.
- Tracking all available measures and services closely. In partnership with the overlapping utilities, SoCalGas is developing databases of program services, incentives and rebates for the multifamily sector. This database is not only useful for the account manager, but also for property owners who are looking for specific services or incentives.
- Bridging gaps between programs. By having a complete picture of all services and offerings available to the sector, any gaps in services and products could be easily identified. For instance, in SoCalGas’ portfolio of multifamily programs, there is a lack of programs that provide comprehensive audit services. The EUC program currently provides no-cost audits, but only for facilities that were ready to commit to a comprehensive retrofit. To help bridge this gap, the IDSM initiative provides an introductory comprehensive audit to multi-family portfolios that have the financial means to upgrade a facility, but need technical support to identify and plan for the project (see Figure 2.)
- Connecting properties to benefits and services outside of utility programs. Since the multifamily sector is increasingly becoming a focus for energy efficiency and sustainability, new efforts and initiatives targeting this sector continue to be added. These efforts should be monitored and leveraged whenever possible. For example, in the Park La Brea project, SoCalGas is involving the LABBC program, and is also exploring other opportunities such as Property Assessed Clean Energy (PACE) as a funding method.

Conclusion

The City Gardens project has reshaped the way SoCalGas and other California utilities approach the multi-family sector. While the energy efficiency industry often struggles to define the multifamily sector, a successful project like City Gardens makes it clear that it is a sector worth the investment in energy efficiency measures. The reality is that the multifamily sector is unique and significant, and therefore should be provided the special expertise and/or approach it deserves. Many program administrators have created programs specifically targeted at the multifamily sector, but in some cases, like it is in California, the efforts may be comprised of different approaches and strategies that are not necessarily coherent to the customers. Under such circumstances, creating account management resources that are specifically dedicated to this sector should be seriously considered as a key strategy to accelerate adoption of energy efficiency and sustainability in multifamily properties.

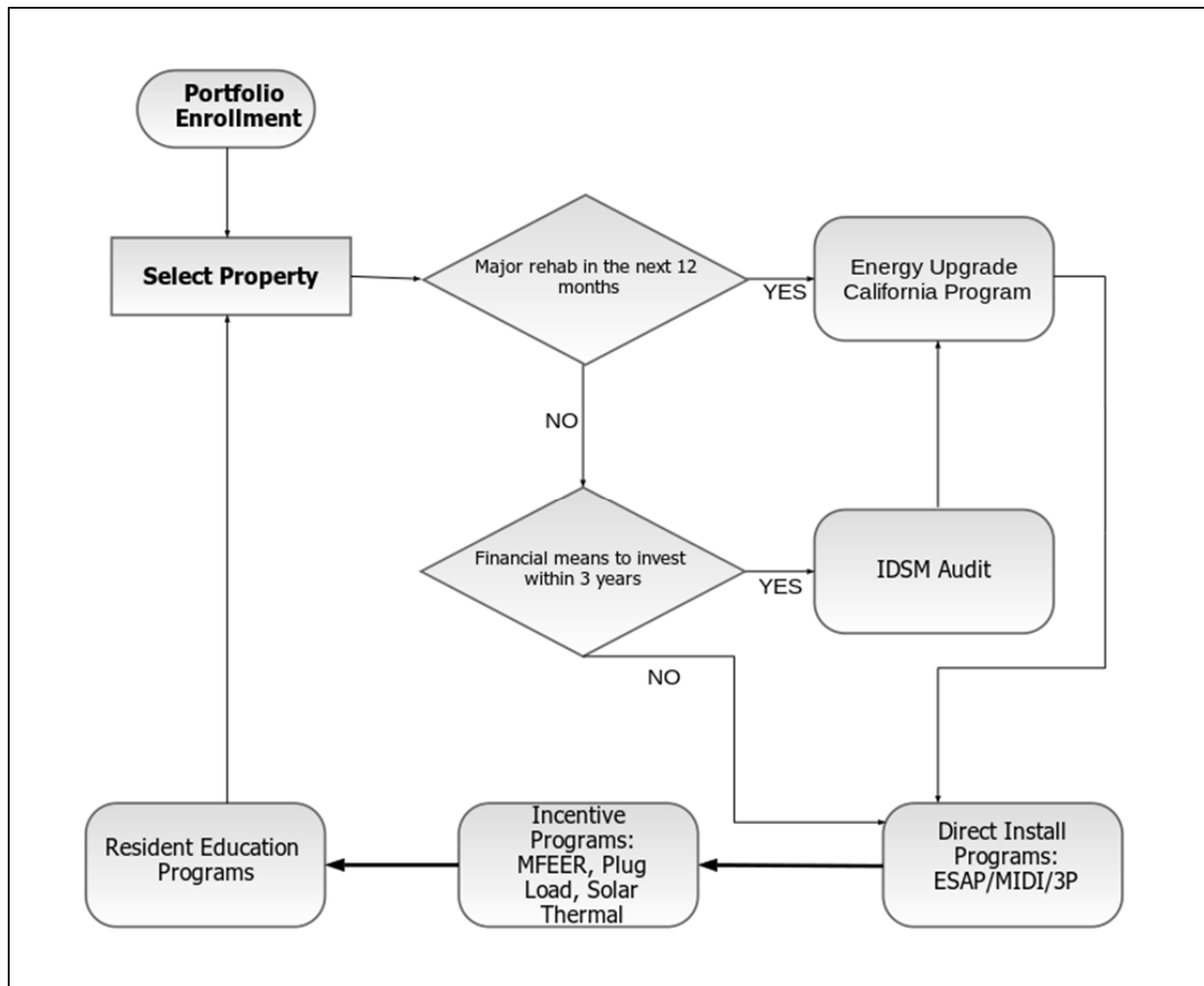


Figure 2. A simple diagram of SoCalGas' Multi-Family Program flow.

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