SoCalREN

ESSMA WO 1028

Multifamily Process Evaluation

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Grounded Research and Consulting, LLC

ILLUME Advising, LLC

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1 Executive Summary

The team of Grounded Research Consulting, LLC and ILLUME Advising, LLC (evaluation team) performed a process evaluation of the SoCalREN Multifamily (MF) program to delve into the program implementation and customer experience to help improve the program. This is the first process study of the full multifamily program and covers the evolution of the program but focuses on PY20 (i.e., from 01/20 to 12/20) as the most recent year. The assessment took place between November 2020 and June 2021, gathering data directly from participating property owners/managers (12) and contractors (7), as well as reviewing program data.

As described in the Multifamily Contractor Manual: "SoCalREN was authorized by the California Public Utilities Commission (CPUC) in 2012 and offers energy efficiency programs and services to multifamily Customers and public agencies in a 12-county area covering the SCE and SoCalGas electric and gas service territories. The SoCalREN Multifamily Program is designed to help multifamily Customers save money and add value to their properties. Customers follow a simple process: Complete Program enrollment documents, Submit project scope and cost estimate, Complete energy efficiency retrofit, and Receive incentive payment."

GOALS

2020 was an unprecedented year, requiring programs throughout the utility and energy sector to find innovative ways of adapting their programs due to the COVID-19 pandemic (and the associated social distancing requirements). The SoCalREN MF program (implemented by ICF) introduced the Common Area Path as a way to minimize contact with multifamily property residents and retrofit 29 properties in 2020. While this was only 36% of their 80 project goal (that had been set pre-pandemic), the program exceeded their goal of 50% of these properties being in Disadvantaged Communities (DAC), with 52% of projects in DAC. Additionally, the program grew their participating contractor list from four in 2019 to 13 by the end of 2020, exceeding their contractor retention goal of 10, and brought 14 properties into the pipeline for 2021 implementation. However, 2020 savings were lower than pre-pandemic goals, providing 1.9 net GWh, 0.29 net MW, and 0.13 net MM Therms (30%, 26%, and 65% of goals, respectively). In 2019 (prior to the pandemic), the program was able to reach 61 projects, providing 5.7 net GWh, 0.36 net MW and 0.35 net MM Therms.

Continue implementing bonus incentives to complete projects by the end of the year to keep projects moving forward. So far, the program has exhibited yearly dips and spikes in participation. Changes in PY19 brought about the highest number of projects since the program's 2013 inception (61 projects). Specifically, the program increased incentive caps by 5-15% and introduced a $5,000 end of year incentive to contractors if the work was completed that year.

The evaluation team found that, given the extraordinary circumstances, the SoCalREN multifamily program operated effectively in 2020. The effectiveness is borne out as customers and contractors were generally satisfied with the program and the implementers put in place activities to expand rural participation (an area that has historically been underserved).

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Customers found the program easy to participate in as the contractor did much of the work associated with enrollment and installation while keeping customers well informed. While customers were primed to participate based on their own interests, the program motivated them to do more than originally planned. Ten of the twelve interviewed participants said they installed more equipment than they were originally planning because of the benefits they received from the program and another participant said they would have done the work in stages without the program. Additionally, customers indicated less tangible benefits such as bringing up the community value through energy savings and water efficiency, showing tenants they care about the environment, and creating better illumination in the buildings.

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The MF program contracted with four local government collaboratives (regional program partners) in late 2020 and early 2021 specifically to get the word out about the program and help find local contractors. Two of these partners are specifically involved in rural areas, but it may be difficult to bring in new contractors in these areas. We heard from one of the regional partners that contractors in their area are already very busy with work and may be reluctant to take on additional work that could arise from the program.

Look into integrating WE&T efforts in rural areas. While contractors indicated that they would be willing to travel to projects in rural areas, the distance required to travel could be a barrier. Having participating contractors in rural areas would remove this barrier and could increase rural participation. Integrating SoCalREN WE&T activities into the MF program to help ensure local skilled labor is available could allow rural contractors to expand or grow their business.

Most contractors indicated they received support from ICF while a few raised concerns about the application process and the clarity of the energy assessment report.

Update trade ally portal. Not all contractors are utilizing the training available to them and therefore some report issues with the application process. While some contractors reported that the training provided to them was helpful in both learning about the program and completing program applications, others either were not aware of or did not utilize the training available to them. One contractor specifically requested that the online application include examples of the types of documentation that need to be submitted at each step (which ICF already includes in their training). To address these problems:

- Consider integrating contractor training into the trade ally portal, either with a direct link from the trade ally portal to the training portal, or by integrating training modules related to the application process into the upload tool on the trade ally portal.
- Continue to promote the training portal to contractors as a tool to learn about the program and application process.

Update Table 1 of assessment report. While most participants reported that the assessment reports were easy to understand, a few contractors indicated that the reports could be overwhelming for participants. One contractor indicated that the report requires a lot of "translating" on their part and one participant said they needed to have an in-person meeting with their contractor to go over the report as they were confused about its contents. One contractor mentioned that the information in the report could be overwhelming and that property owners want to see "on-paper financial benefits".

- Consider updating the Table 1 summary in the assessment report to create a more user-friendly summary of recommended measures and their potential energy and financial savings.

Ensure the program can fully support an impact evaluation. For the most part, the program can support a future energy impact evaluation. In terms of specific data points, SoCalREN needs to ensure that all project specific contact information and installed measure information is available (number installed, savings, and measure names match between assessment report and program tracking database). SoCalREN may want to consider how (or if) to capture utility data.

In tandem with this study, the evaluation team also conducted a portfolio-level process evaluation study. Value metrics for the Multifamily program are explored within that study and recommendations for future Multifamily value metrics will be provided in the Portfolio-level Process Evaluation Report.

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2 Introduction

The SoCalREN Multifamily Program

In program years 2019 and 2020 (PY19 and PY20), the SoCalREN Multifamily Program served 90 properties and over 19,000 units. The program offers participant building owners technical assessments and incentives for both in-unit and common area retrofits with a participation requirement to install multiple measure types. The program overarching goals are to:

- Help multifamily communities throughout the SoCalREN service area reduce energy use and

- Provide a more comfortable, safer living environment for tenants through property improvements and upgrades.

SoCalREN was authorized by the California Public Utilities Commission (CPUC) in 2012 and offers energy efficiency programs and services to multifamily Customers and public agencies in a 12-county area covering the SCE and SoCalGas electric and gas service territories. The multifamily program began in 2013 and has evolved over time to increase project completions, expand reach, and better target disadvantaged communities. Since 2013, the program has had two implementation contractors. ICF is the current implementer and has been since late 2017.

This is the first process study of the full multifamily program. As such, we touch on the evolution of the program, but focus on PY20 as the most recent year.[1]

Study Objectives, Research Questions, and Approach

There are five study objectives. We grouped into two sections within the report, as shown below.

Table 1. Study Objectives

Report Section	Study Objectives
Program Implementation Document program efforts and assess ability to meet CPUC goals and objectives	• Document the effectiveness and efficiencies of SoCalREN's multifamily program as it is currently operating • Evaluate program implementation including quality control, operational practice, and outreach • Identify whether SoCalREN can effectively track and meet CPUC-approved multifamily program goals and objectives*
The Program Experience Gauge participant satisfaction and experience and improve processes *(Participants are program installation contractors and building property owners/managers)*	• Gauge participant satisfaction with SoCalREN's multifamily program • Develop actionable recommendations regarding program design and/or implementation

While SoCalREN is not held to the same TRC requirements as the IOUs, they are interested in cost effectiveness to ensure that rate payer dollars are well utilized.

The study also included 11 research questions. Appendix A has the specific questions and location within this report of answers to each question.

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[1] The CPUC has assessed the SoCalREN programs in the past, with a focus on energy impacts, coordination with the statewide Marketing, Education, & Outreach, and targeted non-resource activities.

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To meet the study objectives, the evaluation team gathered data via in-depth interviews from different groups as shown in the table below. All interviews took place in May and June 2021 and all respondents received a $50 Amazon gift card as a token of our appreciation of the time spent with our evaluation team. (Data collection instruments are included in Appendix C.)

Table 2. Data Collection - In-depth Interviews

Group	Population	Sample Frame	Planned Interviews	Completed Interviews*	Avg Interview Length (minutes)
Participating multifamily building owners / managers (2019-2020)	90	60	10-20	12	30
Participating Contractors	13	13	5-10	7	45
Near Participant Building Owners	15	15	3-5	1	14
Total			*18-35*	*20*	

The evaluation team contacted all potential respondents in our sample frames through email and phone at least three times across several days before stopping outreach.

We contacted all participating contractors to complete interviews for this evaluation. To conserve budget, we selected 60 of the 90 participants from PY19 and PY20 to reach out to for interviews. Since we were able to complete a satisfactory number of interviews with participants, we did not contact the remaining 30 participants that were not initially selected. Near participants were identified based on their status of "Application Cancelled" in the implementation tracking data. These were customers who had initiated participation in the program but ended up not moving forward with a project. Given their low level of engagement with the program, it was also difficult to get them to engage with our evaluation, and we were only able to complete one near-participant interview.

Additionally, we had multiple discussions with the SoCalREN program manager and the manager of the implementation team in December 2020 and January 2021, as well as analyzing secondary data (e.g., program implementation plans over time, other evaluation studies, census data).

In tandem with this study, the evaluation team also conducted a portfolio-level process evaluation study. Value metrics for the Multifamily program are explored within that study and recommendations for future Multifamily value metrics will be provided in the Portfolio-level Process Evaluation Report.

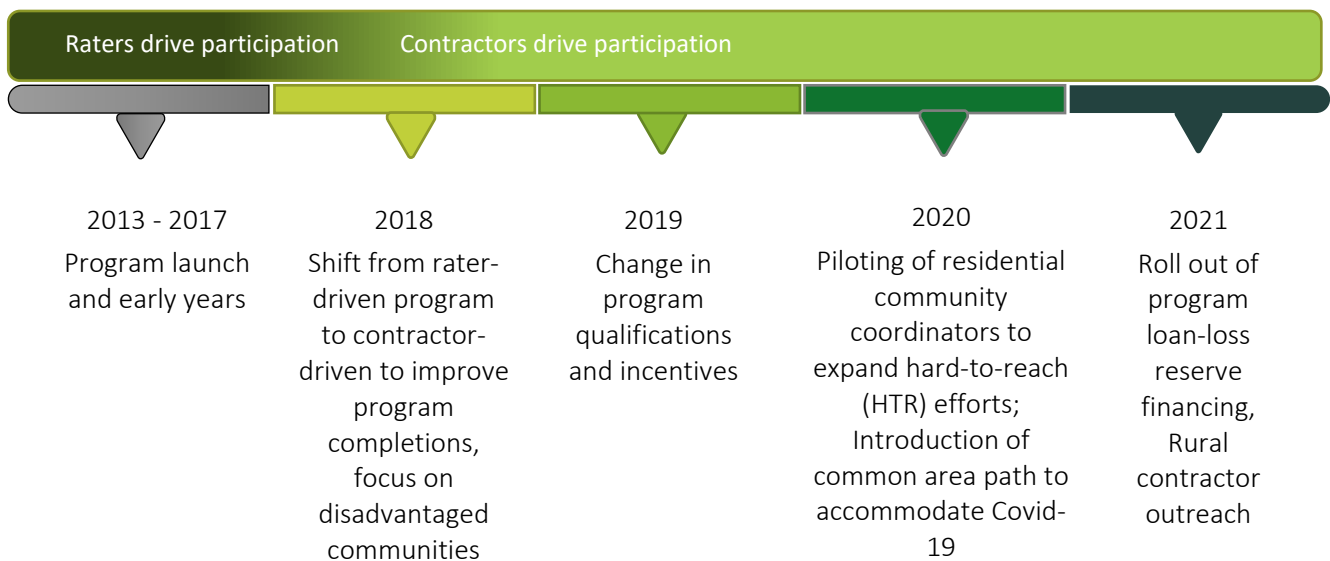GROUNDED ILLUME
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3 Program Implementation

The SoCalREN Multifamily program is continuously seeking to improve. Changes, both large (changing who drives participation) and small (adjusting incentive structure), have occurred over time to bring in more projects and meet the overarching goals of the program. Feedback from program contractors and participants indicate an effective program (described more in Section 4), although the COVID-19 pandemic reduced the program's ability to meet anticipated CPUC savings goals. (see Table 3) The program tracks most of the information needed to demonstrate meeting CPUC impact goals. (see Section 5.1)

3.1 2013-2019 - The SoCalREN MF Program Evolves

The SoCalREN Multifamily program has evolved over time to increase project completions, expand reach, and better target disadvantaged communities. The figure below highlights key program changes that have occurred over the years.

Figure 1. Program Timeline Highlights

2013 - 2017	2018	2019	2020	2021
Program launch and early years	Shift from rater-driven program to contractor-driven to improve program completions, focus on disadvantaged communities	Change in program qualifications and incentives	Piloting of residential community coordinators to expand hard-to-reach (HTR) efforts; Introduction of common area path to accommodate Covid-19	Roll out of program loan-loss reserve financing, Rural contractor outreach

2013 -2017 – SoCalREN MF Program Launch and Early Years

SoCalREN launched the MF program in 2013, targeting low-income and moderate-income multi-family properties with three or more units in the combined service territory of Southern California Edison (SCE) and Southern California Gas (SoCalGas).

Originally, independent raters, who provided building audit services, drove much of the activity of the program, including identifying customers for audits. The program conducted marketing and outreach. The program partially paid building owners to have an audit completed, and further incentivized building owners if they installed energy efficiency measures. The program allowed building owners to use their own contractors or find contractors on their own to hire for the efficiency upgrades. Program benefits largely accrued as bill savings for in-unit tenants and also as efficiency improvements and bill savings to property owners for common area retrofits.

The program originally used an independent rater model under the assumption that MF owners preferred this approach. During the early years of the program, a contractor-based approach was intentionally not used, with the reasoning that multifamily property owners tend to prefer working with contractors whom they already know,

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and not with program-designated contractors. Instead, property owners could obtain a rater-assessment incentive from either a rater of their choice or directly from the SoCalREN team.

In late 2017, ICF assumed implementation of the program from the prior implementer. ICF fully ran the program in 2018 and continues to do so through the present day.

2018 – Shift to Improve Program Completions and to Reach Disadvantaged Communities (DACs)

ICF began to fully run the program in 2018 and continues to do so through the present day. ICF's role includes marketing and outreach, maintaining the contractor network, on-site energy assessments, energy modeling, providing energy savings feedback to customers, processing incentives, and project quality control.

The program began shifting to a contractor-driven approach in 2018 to increase confidence that there was a project that would be completed after an audit and continues with this approach. According to the August 2018-May 2019 program implementation plan, projects could be brought to the MF program via interested property owners directly or contractors who have an existing relationship with MF property owners. Program marketing also expanded to include direct contractor outreach and leveraging contractors as the program's sales force.

Incentives were offered in a tiered structure, with higher incentives for higher energy savings achievements over baseline (i.e., 10-14.9% savings, 15-19.9% savings).

Beginning in 2018, the program also shifted to more intentionally target properties classified as hard-to-reach or located in a DAC and began to offer higher incentives to encourage participation of these types of properties. Additionally, total project incentives were capped at 75% of the project cost for DAC properties, compared to 50% of the project cost for non-DAC properties.

2019 – Program Requirement and Incentive Changes

The 2019 annual report indicated that all rater incentives were dropped as of April 2019, fully moving the program to a contractor-driven model. Program and implementation staff report that contractors continue to be a key delivery component for the program to this day – finding customers and installing measures. The program continued to seek to obtain deep energy savings and requires:

- three (3) different types of measures be installed (and must include both electric and gas) and
- a minimum of 10% savings from the EnergyPro modeled information.

Additionally, the 2019-to-current program manual states that qualifying buildings must have 5+ units. This is a change from prior years, in which program implementation manuals documented that qualifying buildings must have 3+ units.

Program staff report that this change was made in anticipation of launching a future MF financing program. Lending laws amongst banks commonly classify MF projects differently than how they are often classified in the utility world. Many banks cannot loan to MF properties with less than 5 units. To ensure consistency with lending laws, the program changed its requirements such that properties must have 5+ units.

The program also altered its incentive levels in 2019. Program staff report that an unintended consequence of the previous tiered approach was that some program actors got stuck in "analysis paralysis" – essentially, trying to figure out how they could move into the next savings tier in order to receive additional incentives.

To combat this, early in 2019, the program eliminated the tiered savings and incentive scale and created a linear scale. Now, the more savings that a property realizes, the more they are paid in incentives in a linear fashion.

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2016-2019 - Program Saw Varied Participation and Energy Savings By Year

Program savings have fluctuated over time: 2017 and 2019 had the highest savings, with noticeable dips in both 2016 and 2018. Program staff report that, due to the long lead time it takes to get customers interested, signed up, and approved through the program, it can take a while for a project to be completed which causes a build-up of projects in the pipeline before they are finalized. This helps to explain the trend we see in the figure below with dips in participation in 2016 and 2018. Those were years in which customers signed up and projects started, but the projects were not completed until 2017 and 2019, respectively, where we see spikes in participation.

2019 saw the highest participation in the program's history (61 projects), in part due to a program push to complete projects by the end of the year by introducing additional incentives. The program increased incentive caps by 5-15%, depending on the size of the project, and introduced a $5,000 contractor incentive to motivate contractors to complete their outstanding program work.

Figure 2. Overall Participation and Savings by Program Year (2014-2019)

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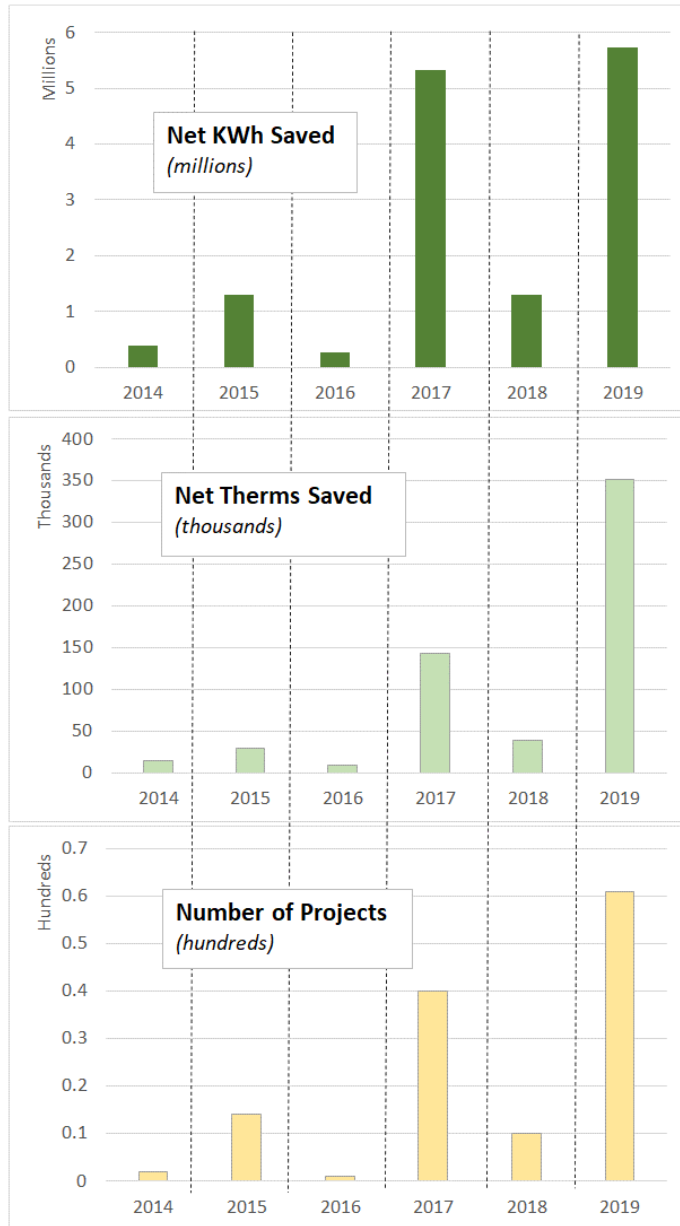
3.2 2020 - SoCalREN's Multifamily Program

2020 was an unprecedented year, requiring programs throughout the utility and energy sector to find innovative ways of adapting their programs. SoCalREN introduced the Common Area Path as a way to minimize contact with multifamily property residents.[2] The Common Area path is focused on projects in common areas only that meet the following key requirements:

- Properties must have at least five attached units;
- The energy efficiency retrofit must include a minimum of two efficiency measures, with one being an electric measure;
- Installed measures must achieve a minimum of 4% energy savings over baseline calculations; and
- Customers must have service from SCE or SoCalGas.

In 2020, the program grew the contractor network (despite the pandemic) from four contractors in 2019 to 13 participating contractors by late 2020. Growing the network of contractors included a combination of marketing and outreach by ICF staff and according to ICF staff, contractors were motivated to participate as to not be at a disadvantage compared to their competitors who were bidding on the same work at MF properties. 2020 also saw the launch of the trade ally portal, where contractors can upload and track their program applications. ICF also launched the Energy Efficiency Learning Center (EELC) which provides contractors with on-demand trainings regarding the program and application processes.

The Residential Community Coordinator (RCC) pilot targeted at hard-to-reach was revised in 2020 because the design of in-person meetings and discussions was unavailable during the pandemic. This effort is now focused on outreach in rural and other disadvantaged urban areas that have had historically low participation rates.

COVID-19 affected program goals

SoCalREN set their 2020 goals in late 2019, prior to the pandemic. During the pandemic, restrictions in place for social distancing (e.g., installations in tenant units were dropped for much of the year) limited goal attainment. (Table 3)

Table 3. 2020 Multifamily Program Goal Achievements

Goal	Goal Details	Achievement*	Notes
Goals met (and exceeded) despite the COVID-19 pandemic			
DAC Participation	50% of projects	52% of projects	15 projects in DAC (3,419 tenant units which were 57% of all units served)
Retention of participating contractors	Retain 10	13 contractors	
Goals affected by the COVID 19 pandemic			
Number of Properties / Units	80 properties; 13,500 tenant units	29 properties; 5,994 tenant units	21 properties had both common area and tenant retrofits. 7 properties had common area only retrofits. 1 property had tenant retrofits only*
GWh Savings	6.2 Net GWh	1.9 Net GWh	
MW Savings	1.1 Net MW	0.29 Net MW	Savings achievements data sourced from CEDARS
MM Therm Savings	0.2 Net MM Therms	0.13 Net MM Therms	
Enrollment of customer projects through	10 projects	0 projects	RCC pilot was dropped due to the pandemic. The program switched to a Regional Partner model.

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[2] The program had been providing common area installations as part of a comprehensive project scope all along, but adjusted the 2020 details to allow for a pathway that just included common area measures with reduced requirements for participation.

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Goal	Goal Details	Achievement*	Notes
Residential Community Coordinator (RCC) efforts			

Source: Cedars data provided by implementer.

*Note that as shown in the prior section, prior to the pandemic (in 2019), the program was able to reach 61 projects and provide 5.7 net GWh, 0.36 net MW and 0.35 net MM Therms.

While 2020 had fewer projects than planned, according to the 2020 SoCalREN Annual Report, the program completed 14 assessments in 2020 with projects that have carried over into the 2021 program year (and so support 2021 goals).

The 2020 program installed 23 different measures. Some measures were installed infrequently while others were installed in the majority of sites. (Table 4) The properties averaged 6 different measure types (ranging from 2 to 10 different measure types).

Table 4. Types of Measures Installed by Location (in 29 projects)

Measure Type Installed (number of projects with measure)		
Common Area	*Common or Tenant Area*	*Tenant*
Exterior Lighting (27)	Interior Lighting (27)	Showerheads (12)
Variable Speed Pool Pump (9)		Bathroom Faucets (11)
Variable Speed Spa Pump (6)		Kitchen Faucets (11)
Pool Heater (5)	Lighting Controls (9)	Smart Thermostats (10)
Pool Heater Timer (5) *(different sites than for pool heater)*		DHW Pipe Insulation (10)
		High Efficiency DHW (10)
Spa Heater Timer (5) *(different sites than for spa heater)*		High Efficiency DWH Recirculating Pump* (4)
		Thermostatic Shower Values (3)
Spa Heater (4)		DHW Recirculating Pump Controls* (2)
Pool Covers (4)		High Efficiency HVAC Units (1)
Boiler Demand Controls (2)		Solar Thermal Water Heating* (1)
Solar Thermal Pool Heater (1)		

*The program assigns savings for these measures to tenants, although the measures are installed in common areas.

Given the measures installed, the property owners saw most electric savings while tenants garnered most of the gas savings. The figure below shows the percent of 2020 net savings in tenant units vs. common areas.

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Figure 3. 2020 Percent of In-Unit vs. Common Area Savings
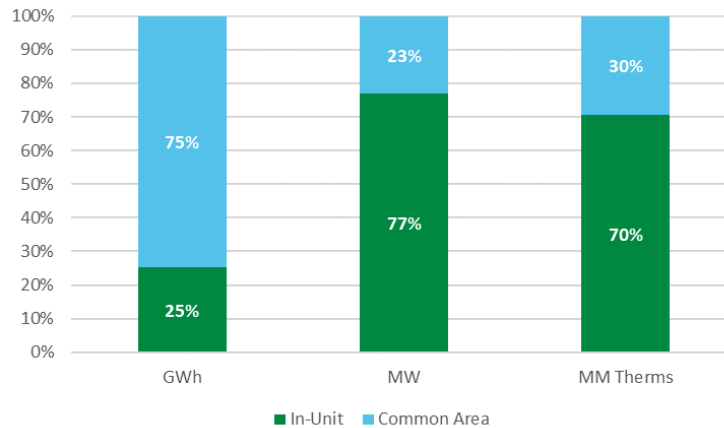
According to the program manager, in-unit MW savings appear to be due to a high contribution from DHW pump and pump controls.

All 29 projects were completed in the Los Angeles, Orange, Ventura, San Bernardino, or Riverside counties with an approximately 1,500 square mile spread (~50 miles north/south from Thousand Oaks to Hemet and ~30 miles east/west from Huntington Beach to San Bernadino). Los Angeles, Orange and Ventura counties are essentially urban while San Bernardino and Riverside counties have rural areas. However, all projects within San Bernardino and Riverside were within urban areas (e.g., the city of San Bernardino or Hemet). There were no projects in the other SoCalREN counties of Mono, Inyo, Imperial and the SoCalREN parts of Santa Barbara, Tulare, Kings and Kern.

The 2020 program served DAC well (when DAC determined by zip code), but may want to update to target by census tracts

Overall, SoCalREN spent $2.21 million in incentives on 29 projects completed in 2020 ($48,500 in assessment incentives and the remainder for improvements) to obtain a range of 1.3% to 30.9% savings (average of 14%).[3] The program spent very similar incentives for DAC and non-DAC properties ($370/tenant unit and $367/tenant unit respectively) and saw similar average percent savings per property (averaging 13.8% and 14.3%, respectively).[4]

However, contractors noted that funding and outreach are barriers to working in DACs. For example, one contractor indicated that funding is a large barrier to working in DACs: Once property managers realize the out-of-pocket cost, they are reluctant to participate. The contractor noted that having an increased rebate in these communities may yield greater participation. A few contractors suggested more targeted marketing for DACs.

Additionally, one contractor questioned how DACs are defined. This contractor noted that the way the program identifies DAC vs. non-DAC (by zip code) may not be the most accurate to service disadvantaged communities. According to this contractor, while a zip code may be categorized as DAC (based on the SB535 CalEPA Enviro List) , there are still buildings with very high rent prices (and presumable non-low-income customers) who are still being considered DAC.

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[3] The one site with 1.3% savings installed interior and exterior lighting and had over 400 units at the site. This project does not meet the specific program requirements.

[4] While DAC properties have a higher incentive cap and can be paid up to 75% of the project cost, according to the implementer, in many cases the actual incentive available based on the %/unit is less than the project cap. The program only pays out based on the %/unit and thus DAC and non-DAC incentives are more similar than expected based on the potential caps.

This contractor's comment is borne out as our analysis found that some of the properties (3 of 10 with known census tract data) were labeled as DAC, but were not located within a DAC census tract.[5] To ensure that only DAC properties are served, SoCalREN may want to target market by census tract.[6]

The 2020 QA/QC is a robust process

QA/QC. The SoCalREN Multifamily program has implemented very robust QA/QC procedures at almost every step of the program process. The following table outlines the stages of a project that receive QA/QC and the steps that are taken.

Table 5. QA/QC Steps by Project Stage

Project Stage	QA/QC Steps
Pre-Construction/Property Assessment	The contractor uploads customer enrollment documents (Customer Participation Agreement, IOU account numbers and property intake form) to the Contractor Portal. An ICF processor reviews documents, verifies past participation with SoCalGas and creates a customer enrollment.
	ICF's engineering team conducts a property assessment and uses the data collected during the assessment to prepare an energy model using Energy Pro Lite. An assessment report that provides a list of energy efficiency measure opportunities is created based on the results of the energy model.
	ICF's engineering lead QC's the assessment report (created by the engineering team of Lincus, a subcontractor to ICF) prior to the report being provided to the contractor. • If flawed, it goes back to the engineer for corrections. • If approved, assessment report is reviewed with contractor/owner to identify a scope of work.
	If there are any additional measures identified for the scope of work the energy models are revised and the QC process is repeated.
	ICF prepares a Reservation Letter based on the agreed scope of work and provides to the customer for signature.
Post Construction	Once a project is completed, the contractor uploads documents detailing all of the measures that were installed at the property (permits, itemized invoice, W-9). An ICF processor reviews the documents and prepares an installation report. Projects are randomly selected for on-site verification based on the following criteria: • 100% of projects greater than $100,000 • 50% of projects between $50,000 and $100,000 • 10% of projects less than $50,000

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[5] These properties were within a DAC zip code, but the CalEnviro list of DAC indicates that zip codes are "approximate". We used the census website to geocode the property addresses and obtain the census tract data and then compared that to the SB535 CalEPA Enviro List (version 4.0, 2021). https://www2.census.gov/geo/pdfs/maps-data/data/FAQ_for_Census_Bureau_Public_Geocoder.pdf provides details on how to find and use this feature.

[6] This may need to be a multi-step process. For example, Reonomy (a pay-for-information service) has a database of multifamily properties, but not with census tracts. Pulling addresses from Reonomy and then feeding that data into the free census site would obtain census tract that would then need to be mapped to the SB535 list of DAC.

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Project Stage	QA/QC Steps
	If a project is selected for on-site verification, an ICF account manager will schedule their inspection.
	An engineer will go onsite to confirm that the measures included in the installation report are installed in the correct locations and will upload an inspection report. For all projects, an engineer will do a post-construction desk review, which includes: • Reviewing the contractor's documentation • Reviewing the engineer's documentation (if applicable) • Filling out a desk review form

	If a project passes the desk review, it is sent to ICF for review. If it does not, the contractor is given the opportunity to appeal.
	• If appealed, the contractor will provide supporting documentation and the reason for the appeal and another desk review is completed.
	• If the contractor decides not to appeal, they have the option to fix the changes.
	    o If they decide to fix the changes, they will go back and install any measures that were on the invoice, but not installed and the project will start over from the construction stage.
	    o If they decide not to fix the changes, the project is cancelled.

	Once the desk review passes, it is reviewed by ICF. • If it passes ICF's review, the project is moved to the final approval stage. • If it does not pass ICF's review, it goes back to the engineer to correct the desk review.
Ready for Rebate	An ICF processor, program manager, and director will confirm that all the required documents have been uploaded.
	ICF will confirm that all information is imported into the tracking system and the project is finalized.
	An incentive disbursement request is then submitted to LA County seeking approval for incentive payment. Once approved, the final incentive check is issued to the customer or their assignee.

Source: SoCalREN MF Comprehensive Workflow flowchart and program manager; note that onsite verifications may not have occurred in PY20 due to pandemic restrictions.

We discuss recommendations regarding data tracking in the recommendations section of this report.

3.3 2021+ - Roll-out of Program Financing Option, Rural Contractor Outreach and Future Program Landscape

Financing. SoCalREN began offering financing in May 2021 and has trained all contractors on the program details. According to the program manager, the program is working with several contractors on potential financing proposals as of June 2021. The Multifamily Financing Program provides Energy Service Agreements (ESA) which is an off-balance sheet financing mechanism similar to an equipment lease. The program's funding partner, Renew Energy Partners provides the capital required to purchase and install equipment based on the project's estimated energy savings. The customer makes monthly payments to Renew Energy Partners and the term of the loan is designed to be revenue neutral such that the customer does recoups their monthly payment through the utility bill savings that result from the project savings. When the ESA term expires, the customer retains ownership of

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the equipment. A loan loss reserve minimizes risk for Renew Energy Partners as any loans that are charged off as a result of customer non-payment are backed by funding provided by SoCalREN.

Rural Outreach. In late 2020, the MF program began looking for ways to expand its participation and contractor network in rural areas where contractor coverage tends to be less robust. During late summer to early fall 2020, the program began working with existing partnerships with local government collaboratives (partnerships from the SoCalREN Public Agency program) to help conduct program outreach into their communities. The MF program currently has contracted with four local government collaboratives (regional program partners) specifically to get the word out about the program and help find local contractors. Two of these partners are specifically involved in rural areas. (Table 6)

Table 6. Multifamily Program Regional Partners

Regional Partner	Location of Partner (city)	Areas Served by Partner
Serve Rural Customers		
High Sierra Energy Foundation	Mammoth Lakes	Mammoth Lakes and other eastern counties (e.g., Inyo, Mono)
San Joaquin Valley Clean Energy Organization	Fresno	Serve eight counties, but overlap with SoCalREN in portions of Kings, Tulare, and Kern counties
Serve Urban Customers		
South Bay Council of Governments	Torrance	16 cities in Los Angeles County (includes LA County)
San Gabriel Valley Council of Governments	Alhambra	31 cities, 3 Los Angeles County Supervisorial Districts, 3 Municipal Water Districts all located in San Gabriel Valley

While there are two partnerships to support rural participation by building owners and contractors, it may be difficult to bring in new contractors. We heard from one of the partners that contractors in their area are already very busy with work and may be reluctant to take on additional work that could arise from the program.

SoCalREN WE&T efforts may be able to help these local contractors grow their businesses by helping ensure local skilled labor is available. However, if local (rural) contractors cannot be found, most participating contractors we spoke with indicated that they did not do much work in rural counties but would be willing to if there are customers. Lead generation from SoCalREN would help them be able to do more of these jobs (lead generation is part of the responsibilities of these regional partners).

Future Program Landscape. The future (2021+) landscape for MF programs in the region (from data on the CAEEC website[7]) shows four ratepayer-supported MF programs. The SoCalREN program and three IOU programs that are fully designed and implemented by third parties. Willdan will design and implement a MF program in SCE's service territory while SoCalGas' service territory will have two MF programs (the Multifamily Energy Alliance that ICF will design and implement and the Multifamily Space and Water Heating Controls program that EnergX will design and implement) [8]. The 2022 Joint Cooperation Memo highlights the differences of each program, but we suggest that SoCalREN consider how to differentiate their program within their marketing to keep customer confusion about opportunities to a minimum.

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[7] https://www.caeecc.org/third-party-solicitation-process Third-Party Implementers Table (dated June 1, 2021).
[8] The EnergX program is the MF Space and Water Heating Controls program. It is relatively small (with a program budget of about $0.5 million per year) and has a very specific targeted population so may not cause market confusion. This program is seeking to directly install dual set-point controller and variable frequency drive measures in of apartments buildings with dual-function (Raydronics) central water heaters.

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4 The Program Experience

The following section outlines findings from interviews with contractors, participants, and a near-participant (i.e., a customer who began the process, but did not finish).

4.1 Contractors are generally satisfied with the program, but reported some issues with the application process

Overall, the contractors we interviewed were fairly satisfied with the program, although not all contractors are utilizing the training available to them and therefore some report issues with the application process.

Most indicated that they received support from ICF, specifically with marketing and training. One contractor specifically referenced that the online Energy Efficiency Learning Center was very valuable to them and their team. Another referenced in-person visits from ICF at the beginning of their participation in the program, including offering to meeting with customers to give them a "crash course" on how the program works and its offerings.

- *"I've been in the Multifamily energy efficiency space for over 10 years now and through ICF we've been able to gain a lot of knowledge on how a lot of these measures directly impact and support Multifamily communities." -* Contractor

One contractor mentioned that one of the challenges they have encountered with the program is the amount of time and paperwork required to participate. This contractor reported that the program is "constantly asking for new things" and reported that some of their projects were delayed due to the level of information they needed to provide to participate.

Another contractor expressed frustration with the lack of support they received from ICF. Their main point of contact was the ICF account manager, but there were delays on the ICF management side as far as getting projects approved. This resulted in some lost opportunities and customers that lost interest in the program.

This contractor also expressed interest in an updated contractor manual with more detail, including examples of the types of documentation needed, and that the manual be clearer about the expectations for the information that needs to be submitted. However, another contractor indicated that they completed a training on how to fill out the intake form which included an example of one that had already been submitted. (Appendix B provides number of trainings attended and hour of mentoring by contractor.)

4.2 The program motivated customers to install more equipment than originally planned

The program did not need to motivate customers much as most participants were already interested in undertaking energy efficiency projects and wanted to participate in order to take advantage of the incentive. Some participants were interested in the cost savings they would see on their energy bills, and one expressed the desire to have an energy audit done on their property. However, while customers were primed to participate based on their own interests, the program did motivate them to do more than originally planned. Ten of the twelve interviewed participants said they installed more equipment than they were originally planning because of the benefits they received from the program, and another said they would have done the work in stages without the program.

The one near participant we spoke with indicated that they learned about new measures through their introduction to the program but were unable to move forward with the project due to a lack of available budget, even with the incentives they would receive.

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4.3   Contractors bring in customers, but tend to rely on existing relationships

Most customers come to the program through a contractor, although a few customers indicated that they heard about the program from a program consultant, through their own research, through the property owner, or through a tenant. The program supports contractors in their marketing efforts through providing helpful (according to the contractor) marketing materials.

Participating contractors tend to rely on existing customer relationships, though, and do not do a lot of direct marketing of the program (although a few reported an interest in receiving leads for new customers from program staff). One contractor mentioned that trade shows were a strategy that they used to market themselves and the program, however, that was put on hold in 2020 due to COVID. This contractor attempted cold calling multifamily properties with little success and ended up moving their focus to maintaining existing client relationships.

4.4   Customers are satisfied with the program and see benefits from participation

All customers we interviewed were either satisfied (4 respondents) or very satisfied (8) with the program overall. Participants also indicated high satisfaction with other program aspects, including the enrollment process, the assessment, the installation process, and the process to receive the rebate. (Figure 4)

Figure 4. Participant Satisfaction with Program Aspects (n=12)
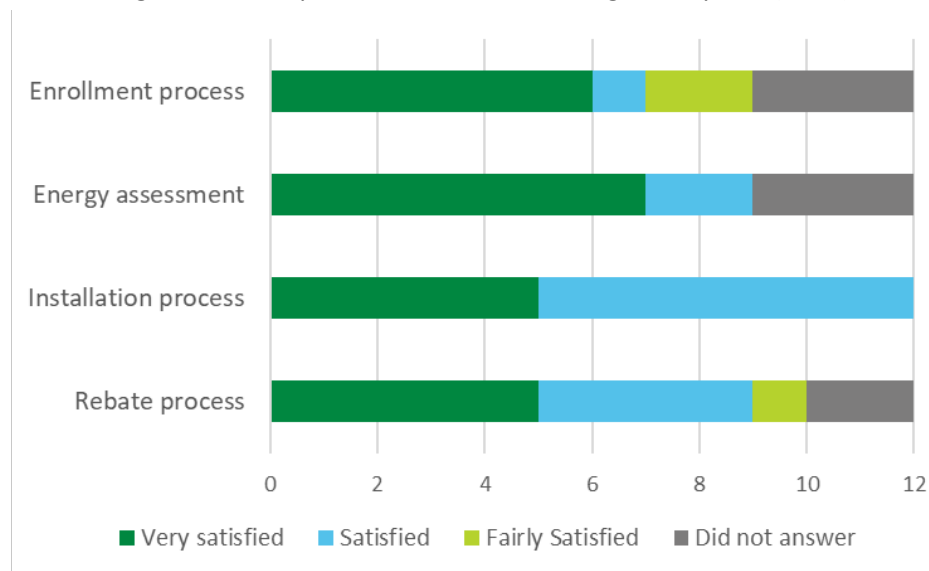
Enrollment is easy for customers

Participants worked closely with their contractors to enroll in the program. A few participants indicated that one of the initial steps to enrollment was to evaluate the Return on Investment of the project. Most participants indicated that they had to do very little work to get enrolled in the program and that most of it was handled by their contractor.

Energy assessment occurs mainly with contractors

Scheduling. Participants also reported that the scheduling process for the energy assessment was very easy and most of it was taken care of by their contractor. One participant reported accompanying the engineer during the energy assessment and that they did a good job of explaining everything along the way. Most participants, however, indicated that they were not present for the assessment and that their contractor handled everything for them. In cases where the engineer had to enter units during the assessments, participants reported getting pushback from only a handful of tenants and that for the most part, they did not have any issues entering individual units.

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Reviewing. After receiving the proposed scope of work, most participants reported that they simply reviewed the work proposed with their contractor and any other decision-makers at their property and decided which improvements they want to move forward with. Again, participants report here that their contractors were very involved in the process and took care of answering questions and moving things forward.

Most participants indicated that the assessment report they received was straightforward and easy to understand. They reported that it contained all the information they needed to make the decision about which upgrades to move forward with, and could easily forward the report on to other people in their organization to get the necessary approvals. For most participants, the assessment report, along with any additional explanation and support from their contractor, was enough information to inform their project planning and deciding which improvements to move forward with.

- *"They [the contractor] were very good at explaining all the recommendations, [including] what to do right away and where to hold back until next time. [it was] pretty easy to understand."* - Customer

However, one participant said they had a lot of questions about it (but questions were resolved after an in-person meeting with the contractor) and a contractor mentioned that the assessment reports were not very customer friendly, and that they required a lot of "translating" on the part of the contractor.

"The quantity of information we try to provide can be quite overwhelming to the client. If owners see the on-paper financial benefits, they're more prone to joining. Managers just see it as more work on their plate." – Contractor

Installations went well

After they approved the scope of work, participants reported that things moved forward quickly. A couple participants who made in-unit improvements noted that a large part of the next step was to notify their tenants of work that would be done in-unit. One reported that their property manager printed flyers for their tenants with pictures of the work that was going to be done in their unit, in addition to letting them know the timing of when they would be in the unit.

Incentive provided was as expected

All interviewed participants reported that they were given information during the enrollment process about the level of incentive they could expect through the program, and all but one said the amount they got was what they had expected. [9]

No participants interviewed reported using any financing (from any source) for their project. A few participants indicated that they would have if it had been available to them while another couple said they would not have taken advantage of any financing due to the level of approval it would need to go through at their organization.

Customers see multiple program benefits

The high level of satisfaction with the program overall may have been due to other benefits other than just receiving rebates. Customer indicated they were able to do more, reduce costs, and sometimes saw less tangible benefits such as value to the community (Table 7).

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[9] The participant who said the rebate was not what they expected, indicated that the received rebate amount was lower than expected. However, this participant also indicated that COVID-19 impacted the amount of work they were able to end up doing on the project, explaining the lower than anticipated rebate amount.

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Table 7. Program Benefits According to Customers

Getting more done	Reducing Costs	Other
• *incentive to do a little more work than we would have done without.* • *being able to do all these efficiency projects that we normally would not.* • *being able to implement more items onto a property rather than just resident/owners savings*	• *the cost savings to convert to LED fixtures* • *lower energy bills seen by customer and tenants* • *the savings in electric bill and lights* • *reduced operating costs* • *savings and rebate good for $ and good for environment*	• *the lighting has benefitted some of the older buildings because its created so much more illumination* • *showing their tenants that they care about being efficient and environmentally friendly* • *bringing the community up in value by addressing energy savings and water efficiency* • *free for us* • *being able to lower our energy*

Source: Quotes from customers

On the whole, participants reported that their tenants were happy with the program, with only a few issues reported. Some issues were related to the type of equipment installed, including the LEDs being too bright, and issues with plumbing and water pressure after water saving devices were installed. One participant mentioned that they would like to see solar measures added to the program:

"If they were able to offer solar regardless of income restrictions, that would be great." – Participant

5 Recommendations

Based on our findings, the evaluation team has the following recommendations for the SoCalREN MF program.

Continue implementing bonus incentives to complete projects by the end of the year to keep projects moving forward. Changes in PY19 brought about the highest number of projects since the programs 2013 inception. Specifically, the program increased incentive caps by 5-15% and introduced a $5,000 end of year incentives to contractors if the work was completed that year.

Update trade ally portal. Not all contractors are utilizing the training available to them and therefore report some issues with the application process. While some contractors reported that the training provided to them was helpful in both learning about the program and completing program applications, others either were not aware of or did not utilize the training available to them. One contractor specifically requested that the online application include examples of the types of documentation that need to be submitted at each step (which ICF already includes in their training). To address these problems:

- Consider integrating contractor training into the trade ally portal, either with a direct link from the trade ally portal to the training portal, or by integrating training modules related to the application process into the upload tool on the trade ally portal.
- Continue to promote the training portal to contractors as a tool to learn about the program and application process.

Update Table 1 of assessment report. While most participants reported that the assessment reports were easy to understand, a few contractors indicated that the reports could be overwhelming for participants. One contractor indicated that the report requires a lot of "translating" on their part and one participant said they needed to have an in-person meeting with their contractor to go over the report as they were confused about its contents. One contractor mentioned that the information in the report could be overwhelming and that property owners want to see "on-paper financial benefits".

- Consider updating the Table 1 summary in the assessment report to create a more user-friendly summary of recommended measures and their potential energy and financial savings.

Closely monitor rural participation and look into integrating WE&T efforts in rural areas. While contractors indicated that they would be willing to participate in rural areas, the distance required to travel could be a barrier. Having participating contractors in rural areas could remove this barrier and increase rural participation. However, a regional partner indicated that contractors in their area are already very busy with work and may be reluctant to take on additional work that could arise from the program.

- The efforts of the current regional partners over the next year should provide a good idea of whether the program has the contractor capability to service interested rural MF properties. If this component shows fruitful results, consider exploring partnerships with other partners who cover rural areas.
- Consider directly integrating SoCalREN WE&T activities into the MF program to help ensure local skilled labor is available through apprenticeships or other efforts and rural contractors can more easily participate and grow their business.

Consider adjusting DAC targeting to be by census tract rather than zip code. Our analysis found that some of the properties (3 of 10 with known census tract data) were considered DAC, but were not located within a DAC census tract. (These properties were within a DAC zip code, but the CalEnviro list of DAC indicates that zip codes are "approximate".) To ensure that only DAC properties are served, SoCalREN may want to target market by census tract. Conversely, if SoCalREN continues to target by zip code (as we assume occurs within other PAs), then SoCalREN should ensure that DAC counts appropriately indicate that the counts are based on zip codes.

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5.1 Recommendations Specific To Data Tracking

Data Quality and Considerations for Future Impact Evaluation. The SoCalREN MF program tracks data to support implementation and evaluation. The main program data source is ICF's multi-use database called SightLine™. This database enables customer relationship management, tracking, QA/QC, and reporting and forecasting.[10]

For the most part, the program can support a future energy impact evaluation. In terms of specific data points, SoCalREN needs to ensure that all project specific contact information and installed measure information is available. SoCalREN may want to consider how (or if) to capture utility data. Because impact evaluators generally use CEDARS data as the basis for what is evaluated, ensuring that program tracking data matches CEDARS data is also important.[11] Table 8 has a summary of the data needed for a future impact evaluation with details following the table.

Table 8. Assessment of Data for Future Impact Evaluation

Data Purpose	Data that need attention
Energy Savings *(gross and net estimates)*	**Project Specific Installed Measures** • Ex ante measure level **savings** estimates by common area and tenant unit (including number of measures installed) **Project Level Utility Data** • **Utility data** associated with MF sites **Project Specific Contact Information** • Premise level **contact** information for participating MF sites (most present, but need 100% available)

Project Specific Contact Information. Any future impact evaluation will seek to talk with building owner/property manager participant to schedule a site visit, verify installed equipment, or to understand program influence. They likely will want to talk to the contractors involved with participating sites. It is important that any completed project have all needed contact information.

- In our assessment of the Multifamily program data (provided to us in November 2020 and February 2021), all 2020 (29 of 29) and most 2019 (58 of 61) multifamily sites included property names, property contact names, street addresses, city, zip, email addresses, and/or telephone number data.[12]

- Every project in the program tracking database included contractor contact information associated with the project.

Project Specific Installed Measures. To understand energy savings, an impact evaluator will want to know what was recommended and need to know what was installed and the estimated energy savings by measure. Additionally, they will need to know where the equipment was installed, although the level of detail will vary depending on the evaluation data collection. For onsite audits, the specific location of measure installations is required (e.g., stairways, tenant bathroom #1, etc.). Desk reviews most likely only need to understand if the measure was installed in a tenant unit versus common area.

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[10] ICF also manages trade allies through an online application portal and provides on-demand trade ally training through their Energy Efficiency Learning Center. SoCalREN houses other data in the cloud on a LA County SharePoint site (e.g., data provided to CEDARS).

[11] This point is not shown in the table. We noticed inconsistencies between data shown in our review of the earlier program tracking database and CEDARs that we could not explain (e.g., savings in one year in the program tracking database did not match CEDARS). The most recent data sent to us did not exhibit this problem.

[12] The three projects without contact information were LAMFPS1540891940, LAMFPS1540891948, LAMFPS1540891962.

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- The electronic tracking system supports an understanding of measures, but not measure level savings. The program tracking data provided to the evaluation team contained records for each project at the measure-level, however the savings were reported at the site-level, meaning that all records for a given project had identical savings, regardless of the measure.

- An evaluator could obtain the measure specific data as the assessment reports include this information, but it could be costly, most likely imprecise, and possibly cause SoCalREN savings to be lost.

  o *Evaluator cost:* The reports are in PDF format and therefore would need to have someone go through each individually to create an electronic dataset. We note that since there have historically been under 100 sites in a year, it may not be an issue in the future for the evaluation team to sample from the assessments and create the electronic dataset.

  o *Measure names mis-matched:* The proposed measure names are close, but do not exactly match the measures shown in the program tracking database. This imprecision can lead to difficulties for the evaluator to know what was installed. For example, in the example assessment sent to us by ICF, the assessment indicated savings from "Insulate Exposed Domestic Hot Water Piping", but the program tracking database for this same site shows "DWH Insulation Wrap / Jacket" (which has different savings assumptions).

  o *Measure numbers missing:* The tracking database we received did not have the number of measures installed, which could lead to the program inadvertently having their savings reduced. For example, if the assessment report described savings associated with faucet aerators in 225 units, but only 200 units actually had them installed, then the evaluator may assume that 225 were supposed to be installed and reduce the savings by 25 units (even though the program tracking savings were for 200 units).

Project Level Utility Data. Impact evaluators often desire utility data to enable calibration of models or to perform pre- and post-retrofit whole building savings. Obtaining utility data can be problematic for individually metered multi-family units. Previous CPUC evaluators recommended "including utility service account numbers in data tracking as well as site identification numbers, when feasible". Both these numbers are included in utility consumption data tracking and are specific to a utility.

- **The individual meter problem.** We heard from ICF that the majority of participating buildings are individually metered.
  o *Meters by Account Numbers:* It is not feasible to obtain the account numbers of all the tenants (especially in larger buildings) when the tenants are not the decision maker for energy efficiency upgrades within their units. (For example, the building owner may choose to upgrade the hot water heaters in tenant units.)
  o *Meters by Address:* Even for programs run by the utilities (who can more easily access energy data), it is time-consuming and not always precise to use the building address as the way to find utility data. This is because the apartment numbers are not always available or able to be matched to the utility addresses.
- **A potential individual meter solution.** SoCalREN could request the account number(s) that are paid by the participating building owner and then ask the utility to use those to determine the premise number(s). (The program already checks that the projects have utility data, so this may not be too much hassle.) The premise number is analogous to the building and other accounts at a premise are often a subset that can then be found more easily in utility data (i.e., utility consumption data is pulled by premise number). SoCalREN may want to explore this option with SCE and SoCalGas and, if the IOUs are willing to share this type of data, test out a few buildings to see if this results in sufficient utility data that would be useful for an impact evaluation team to use for billing analysis.

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A. Appendix: Location of Research Question Answers

Study objectives are further detailed through 11 research questions and found on the specific sections shown below.

Study Objective	Research Question	Location of Research Question Answer
Program Implementation Document Program Efforts and Assess Ability to Meet CPUC Goals and Objectives	*How has the program evolved over time to better address the needs of multifamily property owners? (Program design, management and operations, staffing, common vision, goal setting)*	Section 3.1
	To what extent has the program driven deeper energy savings? How can the program encourage higher participant investment in efficient equipment and larger projects?	Section 3.2
	What percent of savings are from measures installed through the program in the common areas (so savings accrue to the property owner) or in tenant spaces (so energy savings accrue to the tenants)?	Figure 3
	What quality control procedures and processes have been established and implemented to ensure effective program delivery?	Table 5
	What tracking and data collection methods are currently employed? Does current program tracking, and data collection methods sufficiently support a future impact evaluation?	Table 8 (and text associated with the table)
The Program Experience Gauge Participant Satisfaction and Improve Processes	*How has SoCalREN effectively motivated property owners to participate in the program?*	Section 4.2
	What is the program experience and how satisfied are participants (both installation contractors and participating property owners) with the program across the different phases of program implementation and throughout the entire program experience? How do property owners feel about their investment decisions? How could the program create more meaningful interactions with customers to drive deeper participation?	Section 4
	Has the program successfully connected property owners interested in upgrades to financing options that can offset capital requirements?	Not applicable as there was no financing option during the time of this study
	How well do participating property owners understand the analytical reports detailing opportunities for energy efficiency provided by SoCalREN program staff? How important are these reports in their decision-making process for making upgrades to their property?	Section 4.4
	What program services are most useful to the property owners to inform their capital planning efforts and how does this differ by different types of multifamily customers/decision-makers?	Section 4.4 (note that there were insufficient numbers of customers to made useful differentiation)
	How can operations of SoCalREN's current Multifamily program (including the Residential Community Coordinator component) be improved to increase its efficiency and effectiveness (especially as contractors and customers move across the different program phases), while reducing/minimizing costs?	Section 5

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B. Appendix: Contractor training and mentoring details

The MF program provides online training for contractors as well as in-person mentoring. Below are details about the training and mentoring provided to the evaluation team by ICF (in 2019-2020) for the 11 contractors who completed projects in 2019 and 2020 (the program has 13 participating contractors).

As shown below, mentoring hours are not directly related to number of completed projects as the highest mentoring hours were provided to a first with 1 project and another firm with 14 projects.

Table 9. Program Trainings Attended and Mentoring Hours by Contractor

Project Volume in 2019-2020	Number of Contractors	Specific Contractors	Number of Trainings attended	Hours of mentoring, if any?
1-2 projects	7	A (1 project)	0	0
		B (1 project)	0	0
		C (1 project)	1	2.5
		D (1 project)	0	2
		E (1 project)	1	6.5
		F (1 project)	1	0.5
		G (2 projects)	2	2.5
12-18 projects	3	H (12 projects)	2	1
		I (14 projects)	3	9
		J (18 projects)	3	5
18 + projects	1	K (35 projects)	3	3

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C.Appendix: Interview Guides

Contractor Interview Guide

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SoCalREN Multi-Family Program

Participating Contractor Interview Guide

Final

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Context

This interview guide is designed to facilitate telephone interviews with participating contractors in SoCalREN's Multi-Family program. Installation contractors are independent construction professionals responsible for completing weatherization upgrades and other energy efficiency improvements as identified by the assessment for multi-family properties.

Introductory Email

Grounded Research and Illume Advising have been hired by SoCalREN to evaluate its Multi-Family Program. Our work depends on the input and insights from those who are delivering the program to customers.

We hope you will find 45 minutes to have a phone call interview with us. **As a thank you for your time, we are providing a $50 Amazon gift card.**

If you are willing to schedule an interview with us in the next two weeks, please email becca@illumeadvising.com or call 608.616.9008. If we don't hear from you, we'll also follow up with you by phone.

Thank you in advance for your consideration. If you have any questions about the legitimacy of this study, please contact Paul Kyllo at (877) 785-2237.

Warmest,

The Grounded Research and Illume Advising Evaluation Team

Background

SoCalREN contracted with my company [Grounded Research/Illume] to evaluate its Multi-Family program. We are primarily focused on how the program operated in 2020.

Thank you for taking the time to talk with us today. Our work depends on the input and insights from those engaged to deliver this program to California residents. There are no right or wrong answers. This conversation is designed to help us gain a better understanding of the program. Also, everything you share is confidential. We will report the findings of our interviews in aggregate and anonymously.

We have a few main goals for this interview:

- To better understand how the program is delivered.
- To gather information about your experience with the program, including successes and challenges you have had, and whether the program has helped the contractors' business.
- To explore if contractors feel program training has supported them in being ready to install energy efficiency measures.
- To identify any opportunities for improvement.

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We expect this interview to take about 45 minutes. We'd like to record this interview to refer to our notes later. Is that okay with you? Do you have any questions for us before we begin?

Interviewer Note: at conclusion of interview, record date, time, length of interview.

Roles and Responsibilities
Let's begin by talking about your roles and responsibilities with the program.

A1. How long have you been involved with SoCalREN's energy efficiency programs in California?

A2. How did you learn about the program(s)?

A3. What percent of your total business do SoCalREN Multi-Family program jobs represent?
   o How has that increased/decreased over the past 12 months?
   o What other rebate programs do you work with in the state of CA?

Key Interactions, and Properties Served
We know that COVID-19 has greatly affected the program and likely your business, and that many elements are in flux. We are interested in hearing about "typical" program jobs and jobs that you have conducted during COVID-19. We realize there may be differences in these experiences.

Note to interviewer: depending on contractor length of participation, some contractors may not have program participation experience prior to Covid-19. All questions below should be tailored accordingly.

A4. What types of interactions have you had with ICF staff?
   o Can you describe what you did to become an approved contractor in the program? How easy/difficult was this process?

A5. Can you describe the types of training or support the program has provided to you? *(Probe on one-on-one mentoring, group training opportunities, online/on-demand trainings, resources and materials provided.)*

Interviewer Note: For all of the following questions: If contractor wants a scale, ask on a 1-5 scale, with 1 being not at all and 5 being extremely supportive of the specified change. This will still be reported qualitatively.

   o **What do you value about that training and support?**
   o **Overall, do you feel like this support is changing your knowledge of energy efficiency? Can you tell me why/how?**
   o **Overall, do you feel like this support is changing your ability to sell projects? Can you tell me why/how?**
   o **Overall, do you feel like this support is changing your ability to install new or additional energy efficiency measures/upgrades? Can you tell me why/how? *(Probe to understand if this is within the program or outside of the program.)***

o What, if any, additional types of training or resources could the program offer you to set you up for success?

A6. Have you made connections with other firms as a result of your participation in the Multifamily program? If yes, what has resulted from those connections? *(Probe to understand installation of multiple measure types, additional projects with other contractors, whether projects occurred inside or outside of SoCalREN program.)*

A7. The program is trying to reach more multi-family buildings among disadvantaged communities. Do you think this program appeals to multi-family buildings in disadvantaged communities? Why/why not?
o How have you worked with these types of properties, if at all?
o How was the process different, if at all?
o What else is needed to support multi-family buildings in disadvantaged communities?

A8. The program is also trying to reach more rural SoCalREN areas. Do you do any jobs in rural areas, such as in Mono or Inyo counties? If so, which specific areas have you done jobs in?
o Do you do any non-program work in rural counties? IF YES: what prevents you from doing this work through the program?
o What other program support would you need to do jobs in these rural areas?

Program Outreach and Marketing

A9. What type of marketing and outreach do you do directly to customers?
o Can you tell me about a few examples?

A10. How does the program support you in outreach to customers? Can you describe what that looks like from your perspective? *(Probe to understand type of support, level of support, if any additional support is needed for success.)*

A11. What outreach strategies do you think work best to reach multi-family properties? Why?

A12. What outreach strategies, if any, haven't worked well for you?

Program Processes, Successes, and Challenges

A13. Can you walk me through a typical job? What interactions do you have with property managers/owners? Tenants?
o Thinking about that typical job, what were the key steps for you?
o How satisfied were you with how each of those steps actually went? Why?

A14. What types of unexpected issues do you run in to when doing a job?

A15. What is the simplest type of job? Can you walk me through an example?

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A16. What is the most complicated type of job? Can you walk me through an example?

A17. What does it look like from the customer's perspective? Tell me how you think they experience it.
- o What do you think works from the customer's perspective?
- o What, if anything, do you think is difficult from the customer's perspective?

A18. **What challenges/barriers, if any, do you run into?** *(Probe on challenges/barriers at the property such as health and safety barriers, challenges presented by program design itself, etc.)*
- o [IF CHALLENGES] Can you walk me through an example of when this happened? What did you do?
- o [IF CHALLENGES] How could the program better address these?

A19. Has your involvement with the program changed how you sell or install energy efficient measures for customers outside the program? If so, what has changed and why?

Opportunities
I have some final overarching process questions before we talk about recent COVID-related changes.

A20. Is there anything else that we haven't discussed that the program could do to better support you and your work overall? What is that?

Let's wrap up with a few questions about adjustments to the program as a result of COVID-19.

A21. How specifically has COVID-19 affected your work with the program?

A22. Are there any long-term implications on your involvement in the program because of COVID-19?

Wrap Up
A23. What, if anything, else would you like to share that we haven't already discussed??

Thank you so much for your time today, those are all my questions.

Before we go – can you confirm your email for your $50 Amazon gift card?

EMAIL: _____

Interviewer: Note Date, Time, Length of Interview:

Date: _____
Time: _____
Length: _____
Interviewee: _____

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Participant Interview Guide

Context

This interview guide is designed to facilitate telephone interviews with participants in SoCalREN's Multifamily program. Participants are multifamily building owners or managers who were responsible for enrolling their property or properties in the Multifamily program.

In 2020, there were 24 participating building owners or managers, representing 29 completed projects. In our original work plan, we stated that we would interview 10-20 participants. While the available sample does support this, the actual number of completes will depend on the responsiveness and cooperation of program participants. If responses are low, we will expand our sample pool to include 2019 program participants.

Most 2020 participants were only responsible for one project, however there were a couple that had two projects and one with 4 projects. We will attempt to complete interviews with the participants with multiple projects to get their perspectives on the program. We will also aim for diversity in geographic location.

This interview guide assumes the data collected will be qualitative and that interviewers will probe fully to understand responses to questions. We will provide a $50 Amazon gift card, delivered electronically, as an incentive to encourage participation and thank participants for their time.

Background

SoCalREN contracted with my company [Grounded Research/Illume] to evaluate its Multifamily program. We are primarily focused on your experiences with the program in 2020.

Thank you for taking the time to talk with us today. Our work depends on the input and insights from those who participate in the program. There are no right or wrong answers. This conversation is designed to help us gain a better understanding of the program. Also, everything you share is confidential. We will report the findings of our interviews in aggregate and anonymously.

We have a few main goals for this interview:

- To better understand the program from a customer's point of view.
- To gather information about your experience with the program.
- To identify any opportunities for improvement.

We expect this interview to take about 30-45 minutes. We'd like to record this interview to refer to our notes later. Is that okay with you? Do you have any questions for us before we begin?

Introduction

First, I would like to confirm that you participated in the program.

A1. According to our records, you participated in the SoCalREN Multi-Family Program [INSERT PATH – COMMON AREA OR WHOLE BUILDING] during [YEAR – 2019 or 2020]. Is that correct?

Awareness and Motivation

Next, I'd like to ask about how you learned of the program and what motivated you to participate.

A2. How did you first learn about the program?

A3. What was interesting to you about what you learned about the program? What made you want to move forward?

A4. Why did you decide to participate in the program? (Probe on perceived program benefits, such as desire to reduce energy bills, desire to reduce maintenance costs, etc.)

A5. What were your expectations going into the program?

COVID Changes

A6. How was your project affected, if at all, by the COVID-19 pandemic?

A7. IF COMMON AREA: How did the pandemic influence your decision to choose the common area path instead of the whole building path?

Enrollment Process

This next set of questions will ask about your experience with the program, starting with the enrollment process, and ending with the rebate you received.

A8. Can you walk me through the steps you took to participate in the program?
   i. What happened after you learned about the program? What did you do?
   ii. Who did you talk to first? *(Probe on contractor, program representative, etc.)*. What did they tell you about the program? About what to expect?
   iii. What information did you have to provide before getting enrolled? How difficult or easy was it to provide that information?

A9. Once you were enrolled in the program, how did you decide to participate in [PATH] instead of [ALTERNATIVE PATH]? What factors led you to make this decision?

A10. Overall, how satisfied were you with the enrollment process? Why?

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Energy Assessment Process

A11. What was the process to schedule an energy assessment for your building? (*Probe: What did you do? How difficult or easy was it to schedule the assessment?*)

A12. What was your experience with the assessment like? What happened during the assessment? *(Probe: were you with the assessor during the assessment, what were the interactions like, what did you learn, did you have questions for the assessor?)*

A13. IF WHOLE BUILDING: What did you have to do to get into the tenant units for the assessment? What information did you provide to tenants? What kind of questions did you get from tenants? What obstacles, if any, did you encounter when getting into tenant units?

A14. What happened once you got the assessment report? What did you learn? What questions did you have?

A15. How difficult or easy was it to understand the assessment report? How useful was the report in helping you make energy efficiency investment decisions?

A16. Overall, how satisfied were you with your assessment process? Why?
   o   How satisfied were you with your assessment report? Why?

Contractor Experience

A17. How did you select the contractor for your project?
   i.   IF SELF-SELECTED: What was the process for selecting your contractor? What factors led to your decision to select the contractor that you did?
   ii. IF DIDN'T SELECT CONTRACTOR: Who selected the contractor for your project? How involved were you, if at all, in the decision-making process?

Installation Process

A18. What happened after you received the proposed scope of work for your project? *(Probe: Who, if anyone, discussed the scope of work with you? How difficult or easy was it to understand the scope of work?)*

A19. What happened after you approved the scope of work? *(Probe to understand construction phase, key interactions, level of ease/difficulty)*

A20. What type of follow-up visits, if any, did you have after construction on the project ended? *(Probe for: inspection visits, follow-up installations, fixing any equipment.)*

A21. Overall, how satisfied were you with this part of the process? Why? *(Probe on satisfaction with contractors, satisfaction with time it took to complete the project)*

Financing and Rebate Experience

A22. Did you use any type of financing for your project?
- If yes, can you tell me if the program and/or your contractors helped you with your financing choices in any way?
- [If did not have any financing] Do you think you would have done more energy efficiency upgrades if you had a low-cost loan? Why/why not?

A23. What information were you given during your participation in the program about the rebate? *(Probe for: rebate amount, amount of time it would take to receive the rebate)*

A24. Was the rebate amount what you expected? *(Probe: more or less than expected)*
- Why/why not?

A25. Overall, how satisfied were you with your rebate *(Probe on satisfaction with rebate amount and time to receive rebate).*

Satisfaction

A26. Overall, how satisfied are you with participating in this program? Why?

Program Participation and Benefits

A27. **What benefits, if any, have you seen since participating in the program**? *(Probe for: bill savings, reduced operation and maintenance costs and time, savings or other benefits to tenants)*

A28. In your opinion, what is the greatest benefit to participating in the program?

A29. **In your opinion, did you install more measures as a direct result of participating in this program? That is, would you have installed less measures in the absence of this program? Why?** (Interviewer: do not skip)

A30. **What other similar programs, if any, have you heard of?** (Interviewer: probe on utility rebate programs; do not skip)
- Did you participate in the program(s)?
- What did you find useful about the program(s)?

A31. Have you ever considered other technologies such as solar or battery storage?
- [IF YES] What is appealing about these technologies?

Perceived Tenant Experience (Whole Building Participants Only)

A32. How did you inform your tenants that your building would be participating in the program?

A33. What feedback have you received from tenants regarding the program? *(Probe for: is it generally positive or negative?)*

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A34. What do you think are your tenants perceived benefits of the program? *(Probe for: tenant comfort, tenant health)*

Firmographics (If time allows only)

A35. Can you confirm how many units are in the building(s) that participated in the program?

A36. What type of units are in the building(s) that participated in the program? *(Probe for condos vs. apartments)*

A37. [Property managers only] Do your tenants own or rent their units?

Wrap Up

A38. What, if anything, can SoCalREN do to improve the program?

A39. What, if anything, else would you like to share that we haven't already discussed??

Thank you so much for your time today, those are all my questions.

Before we go – can you confirm your email for your $50 Amazon gift card?

EMAIL: _____

Building Owners/Managers (Near Participants) Interview Guide

Final

Context

This interview guide will facilitate telephone interviews with near participants in SoCalREN's Multifamily program. Near participants are multifamily building owners or managers who began the process of participating in the program but ended up dropping out at some point in the process.

In 2020, there were 15 building owners or managers with a status of Application Cancelled. The tracking data available to us has limited information for these cancelled projects, so we do not know at what point in the project they dropped out.

This interview guide assumes the data collected will be qualitative and that interviewers will probe fully to understand responses to questions. We will provide a $50 Amazon gift card, delivered electronically, as an incentive to encourage participation and thank participants for their time.

Background

Thank you for taking the time to talk with us today. SoCalREN contracted with my company [Grounded Research/Illume] to evaluate its Multifamily program. We are interested in your experiences with the program in 2020 and the reasons you did not move forward with participating in the program.

This conversation will help us gain a better understanding of the program. There are no right or wrong answers. Also, everything you share is confidential. We will report the findings of our interviews in aggregate and anonymously.

We have a few main goals for this interview:

- To better understand what initially interested you about the program.
- To gather information about your experience with the program and why you did not move forward with participating.
- To identify any opportunities for improvement to help you participate.

We expect this interview to take about 20-30 minutes. We'd like to record this interview to refer to our notes later. Is that okay with you? Do you have any questions for us before we begin?

Program Involvement

First, I would like to confirm how you were involved in the program.

A1. Our tracking data shows that in 2020 you expressed interest in participating in the Multifamily program. Is that correct? (IF NO/NOT SURE: confirm and terminate).

A2. Our tracking data also shows that you did not end up moving forward with a project for your building in 2020. Is that also correct? (IF NO/NOT SURE: confirm and terminate).

Awareness and Motivation

Next, I would like to talk about your early interest in the program.

A3.   How did you first learn about the program?

A4.   What was interesting to you about what you learned about the program?

A5.   Can you tell me more about why were you interested in participating in the program? *(Probe on perceived program benefits, such as desire to reduce energy bills, desire to reduce maintenance costs, etc.)*

A6.   What were your expectations going into the program?
   i.   What benefits did you think you would see when you were initially interested in participating?
   ii.   What benefits did you think your tenants would see?

Program Experience
Next, I would like to discuss your experiences with the program.

A7.   Can you walk me through the steps you took to get started with the program?
   i.   What happened after you learned about the program? What did you do?
   ii.   Who did you talk to first? *(Probe on contractor, program representative, etc.)*. What did they tell you about the program? About what to expect?
   iii.   What information did you have to provide before getting enrolled? How difficult or easy was it to provide that information?

A8.   At what point did you decide not to move forward with the program? What work, if any, had already been done related to the program?

A9.   Did you receive an energy assessment for your building? (IF NO: Skip to next question).
   i.   IF YES: What was your experience with the assessment like? What happened during the assessment? *(Probe: were you with the assessor during the assessment, what were the interactions like, what did you learn, did you have questions for the assessor?)*
   ii.   Did you receive an assessment report? What happened once you got the assessment report? What did you learn? What questions did you have?

A10. Why did you decide to not move forward with the program?
   i.   What did you think about the cost of the recommended improvements?
   ii.   What challenges, if any, did you have when working with your tenants regarding the program?

A11. How did the COVID-19 pandemic influence your decision to not participate in the program, if at all?
   i.   PROBE: Were you hesitant to let people into the building to do work? How was your budget for projects like this affected by the pandemic?

A12. How was the program helpful to you, if at all?

A13. Are you still interested in participating in the program in the future?
  i. What would need to be different in order for you to participate?
  ii. What would you need from the program to help you move forward?
  iii. Would you like the program to contact you again to discuss options for moving forward with the program?
    1. IF YES: Is it okay if we pass your contact information along to SoCalREN?
A14. What other similar programs, if any, have you heard of? (Probe on utility rebate programs)
  i. Did you participate in the program(s)?
  ii. What did you find useful about the program(s)?

Firmographics

Finally, I just have a few questions about the buildings you own or manage.

A15. How many units are there in the building(s) that you were considering for participation in the program?

A16. What type of units are in those buildings? (Probe for condos vs. apartments)

A17. [For property managers only] Do your tenants own or rent their units?

Wrap Up

A18. What, if anything, else would you like to share that we haven't already discussed?

Thank you so much for your time today, those are all my questions.

Before we go – can you confirm your email for your $50 Amazon gift card?

EMAIL: _____

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