

2019 Annual Report









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Background

The Southern California Regional Energy Network (SoCalREN) is a program administrator (PA) that provides energy efficiency (EE) programs and services to residents, businesses, and public agencies. SoCalREN serves customers located in the areas that receive electricity and gas from Southern California Edison (SCE) and SoCalGas[®], encompassing 12 counties and a population of over 20 million.

SoCalREN's 2019 energy efficiency portfolio leverages well-established approaches that were originally adopted during the inception of the RENs in D.12-11-015 and conforms to the authorization adopted in D.18-05-051. SoCalREN's 2019 energy efficiency portfolio is a continuation of SoCalREN's commitment to fulfilling the California Public Utilities Commission (CPUC or Commission) directives to the RENs: 1) provide services that complement and supplement investor-owned utility (IOU) programs and/or fill gaps in the market to maximize opportunities for residents, businesses, and public agencies; 2) provide programs and services to hard-to-reach markets that the IOUs are not serving; and 3) pilot new, innovative approaches to programs that can potentially scale and offer an avenue to greater energy savings.

Since its inception, SoCalREN's portfolio has delivered strategies motivating customers to adopt more comprehensive energy efficiency approaches, characterized by deeper, longer lasting savings. These energy efficiency strategies have, over time, provided a meaningful suite of benefits to ratepayers within the market sectors the SoCalREN serves. In 2019, SoCalREN continued implementation of several successful programs and also launched several new programs to address customers' needs. SoCalREN's customer-centric approach, paired with ongoing program modifications for continuous improvement, is key to achieving meaningful results and satisfaction across SoCalREN's EE portfolio.

SoCalREN Portfolio Overview

Summary of Portfolio Performance

In 2019, SoCalREN's EE resource programs collectively achieved **6,920,487** kilowatt-hours (kWh) and **492,655** therms of energy savings. SoCalREN's EE programs continue to help customers save money, save energy, and live more comfortably. Over the past year, these gas and electric energy savings have reduced CO₂ by approximately **7,500** metric tons, the equivalent of removing approximately **1,620** cars from the road in support of the State's goal of reducing greenhouse gas (GHG) emissions.

The CPUC has recognized that it is not realistic to expect REN programs to be cost-effective within the traditional IOU definition, and the RENs are not subject to the same cost-effectiveness test as the IOUs. However, SoCalREN believes it is important to be as cost-efficient as possible in the use of rate-payer funds. In 2019, SoCalREN achieved its highest level of cost-effectiveness since inception, at .42 Total Resource Cost (TRC) (62% increase from the previous year) and .57 Program Administrator Cost (PAC). SoCalREN continues to enhance its portfolio offerings by

identifying opportunities to make it easier for customers to engage and participate in energy efficiency programs. SoCalREN will maintain its focus on breaking down barriers for hard-to-reach customers and disadvantaged communities.

SoCalREN's 2019 Annual Report describes the full set of programs delivering deep energy savings that allow SoCalREN to help the State meet its ambitious EE and carbon reduction goals. Below are some highlights of the accomplishments of SoCalREN's active EE portfolio during 2019.

Residential Sector

The Southern California Regional Energy Network (SoCalREN) has delivered the Multifamily Program since 2013. The Program aims to cost-effectively improve the efficiency of multifamily buildings through custom comprehensive retrofits and to provide a turnkey solution with financial incentives, so property owners can adopt new and more efficient technologies. In 2019, SoCalREN's Multifamily Program delivered its highest level of cost-effectiveness since inception by delivering 5.7 GWh (Net) and 351,418 therms (Net) in energy savings at a TRC of 0.71.

SoCalREN's Multifamily Program primarily targets hard-to-reach (HTR) and disadvantaged community (DAC) multifamily properties. In 2019, SoCalREN completed a total of 62 projects in Los Angeles County, Orange County, Riverside County, San Bernardino County, and Ventura County. Of the projects completed, 53% were in DACs across the SoCalREN territory. SoCalREN will continue to focus on serving HTR markets and DACs to help multifamily customers save energy, improve tenant comfort, and reduce ongoing maintenance costs.

The SoCalREN Residential Community Coordinator (RCC) Program was launched in Q4 of 2019. The RCC Program is a companion program to the SoCalREN Multifamily Program. This program aims to overcome the primary language market barrier commonly found with HTR customers. The RCC is a community-based engagement effort (excluding corporate owners and service contractors) in DACs.

In Q4 2019, the RCC Program interacted with nearly 748 customers by participating in 13 community events and seminars. These outreach events targeted Hispanic and Chinese audiences and were successful at increasing program awareness in these communities.

SoCalREN's RCC Program will continue to provide in-language support to HTR customers and provide opportunities for these customers to save money and add value to their multifamily properties.

Public Sector

The SoCalREN Energy Efficiency Project Delivery Program (EE PDP) was launched by the County of Los Angeles (County) in September 2013. In 2019, SoCalREN continued to support the advancement of the public sector portfolio by designing and launching three new programs: Public Agency Normalized Metered Energy Consumption Program (known as the Metered Savings Program), Distributed Energy Resources (DER) for Disadvantaged Communities (DAC)

Project Delivery Program (known as Pathway to Zero), and SoCalREN's Revolving Loan Fund (RLF).

The Metered Savings Program, Pathway to Zero, and the RLF aim to overcome significant market barriers and harness the collective actions of Southern California public agencies to save energy. These programs work together seamlessly as companion programs and have expanded services available to agencies to drive deeper energy efficiency savings and create more sustainable communities.

SoCalREN helped public agencies overcome unique challenges and barriers in 2019. Collectively, the network of agencies achieved 17,692,420 annual kWh and 15,203 annual therm savings (gross) on 79 construction completed projects, while working on a 22,418,161 kWh and 161,577 therms pipeline for future years. The program prioritizes support to DACs, and in 2019, 48% of completed projects were at facilities in ZIP codes classified as DACs. All energy savings are attributed to and claimed by SCE and SoCalGas because the EE PDP is a non-resource program that funnels projects through utility core and third-party programs. The IOUs track these projects as SoCalREN supported. In 2019, SoCalREN public sector programs contributed to 43% of SCE's 2019 public sector portfolio claimed savings.¹

In 2019, Pathway to Zero delivered 12 comprehensive DER reports as appendices to the Project Proposal and developed nine projects. As of April 2020, two of these reports have been delivered, with seven additional reports on track for delivery in 2020. The program also provided energy efficiency audits, developed future pipeline, and provided agencies with benchmarking support services.

The Metered Savings Program focused on developing a strong project pipeline and the tools and templates needed to seamlessly deliver projects in 2020 and beyond. Customer feedback from initial presentations on program services has been incorporated into processes and marketing materials to improve the participant experience, communicate value, and remove barriers to customer participation.

SoCalREN implemented a comprehensive yet customizable approach for a variety of public facilities and assets. These include agency sites such as schools, libraries, streetlights, water and wastewater facilities, parks and recreational facilities, data centers, police departments, city halls, and community centers. SoCalREN works collaboratively with engineering firms, contractors, Local Government Partnerships (LGPs), SCE, and SoCalGas to ensure seamless, streamlined, "one-stop" services to customers.

The Public Agency Program's 2019 annual satisfaction survey statistics demonstrated that agencies find significant value in SoCalREN's services. More than 90 percent of survey respondents agreed that SoCalREN is helping their agency fill gaps in efforts to identify, plan, procure, and install energy efficiency projects.² Annual customer satisfaction ratings are

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¹ This value is based on SCE's final confirmed dashboard for the 2019 Annual Report, Public Sector value of 29,278,773 kWh gross savings value and SoCalREN's savings attribution of 13,800,000 kWh based on IR submitted projects flagged SoCalREN.

² Southern California Regional Energy Network 2019 Public Agency Satisfaction Survey

consistently 90% or higher³ and in 2019, survey respondents reported a **94% satisfaction rate** with services. Maintaining high customer satisfaction is a signature of the SoCalREN Public Agency Programs.

These programs demonstrate how actions by a broad group of public agencies can drive more cost-effective energy solutions in the public sector market. Specifically, SoCalREN aims to inspire action that achieves the following three objectives:

- 1. Expand the implementation of cost-effective energy efficiency projects.
- 2. Make energy efficiency expertise accessible and available.
- 3. Integrate energy efficiency as a standard business practice for public agencies.

Finance Sector

In 2019, SoCalREN developed the Residential Loan Loss Reserve (LLR). The LLR broadens access to finance for more multifamily property owners/contractors for energy efficiency upgrades by allowing a financial institution partner to modify its underwriting criteria and accept more risk than it would otherwise on qualified projects. The program design incorporates a credit enhancement that reduces the rate for the borrower; the design incorporates features that make the program process easy for the borrowers, financial institutions, contractors, and the administrator, therefore encouraging investments in energy efficiency. This program addresses the funding market barrier, thus promoting more long-term energy benefits for multifamily housing through funding the implementation of comprehensive energy efficiency upgrade measures. The program aims to 1) assist property owners and property managers with making informed decisions about the cashflow associated with energy efficiency improvements, 2) offer credit enhancements to decrease market-based interest rates and 3) facilitate additional whole-building energy efficiency measure installations, further encouraging investments and market participation in energy efficiency.

SoCalREN plans to launch the LLR in Q2 2020 to help address the market barriers preventing multifamily property owners/contractors, including HTR and DAC customers, from participating.

In 2019, SoCalREN designed and launched SoCalREN's Revolving Loan Fund (RLF) with the aim to accelerate the implementation of energy projects that would otherwise be delayed pending budget allocation by providing the funds for approved but not-yet-budgeted projects. The RLF is a cross-cutting financing program designed to support energy upgrades to facilities owned by enrolled public agencies via loans that accelerate project implementation. It offers a unique form of short-term and up-front construction financing for small to midsize projects at 0% interest to bridge the gap left by utility On-Bill Financing (OBF) or other funds made available after project completion. The RLF is a catalyst for agency enrollment and project development that prioritizes serving DACs.

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³ County of Los Angeles Southern California Regional Energy Network 2018 Annual Report

After launching in mid-2019, the Revolving Loan Fund program developed four pipeline projects expected to leverage the fund in future years. Throughout 2019, the program also focused on outreach and developing internal tools and templates to optimize program performance. Specifically, an internal program manual was created to support SoCalREN project managers on RLF outreach.

WE&T Sector

SoCalREN's Workforce Development program provides training, tools, and opportunities for minority participants in DACs to pursue careers in energy and water efficiency. In 2019, SoCalREN's workforce, education, and training (WE&T) program initiatives included:

- 1. How to do Business with SoCalREN: E-Contractor Academy Training Workshop Series
- 2. E-Contractor Academy
- 3. One-On-One Technical Assistance for Small, Minority, Disadvantaged Contractors
- 4. Architecture, Construction, and Engineering Students (ACES) Pathway Program

The "How to do Business with SoCalREN: E-Contractor Academy Training Workshop Series" allowed small and diverse businesses to learn about opportunities with SoCalREN programs or agencies. Through the workshop series, SoCalREN prepared 137to compete for energy efficiency projects and increase their capacity.

The E-Contractor Academy prepared small and diverse contractors to compete for and perform energy efficiency projects for the County of Los Angeles and other entities throughout Southern California. Through the E-Contractor Academy, contractors can access bonding and capital resources and an introduction to sustainability, public contracting requirements, and how to bid on energy efficiency projects. Small, minority, and disadvantaged contractors who enroll in the E-Contractor Academy receive personal technical assistance to become prequalified with Los Angeles County to compete for EE projects. The County awards projects using a procurement strategy that promotes local, small contractor participation and an integrated workforce development strategy that stimulates the creation of quality career jobs. In 2019, SoCalREN helped 11 contractors become prequalified with Los Angeles County to compete for EE projects.

The ACES Pathway Program provides education and career pathways for economically disadvantaged youth. The program improves educational achievement and removes barriers to higher education by co-enrolling high school students in community college courses in science, technology, engineering, art and math (STEAM) fields. The credits students earn are transferable to campuses within the California State University and University of California systems. In 2019, SoCalREN enrolled 67 high school students in community college courses in STEAM fields.

ACES participation also offers students paid summer internships. In 2019, 29 students were offered paid summer internships through SoCalREN, where students received hands-on work experience alongside industry professionals. With ACES, SoCalREN helps pave the way for students to secure employment in high-paying careers.

SoCalREN's Workforce Development Program continually pursues new ways to provide greater employment opportunity to under-represented individuals performing energy efficiency project work.

Portfolio Optimization and 2020 Outlook

SoCalREN's eight-year Rolling Portfolio reflects a long-term plan to merge and balance innovation with performance, and to make EE programs and the administration of those programs nimbler and more cost-effective. To continue providing long-term value in 2020 and beyond, SoCalREN will leverage its non-resource strategies to direct further savings to its partner IOUs and will continue to identify gaps throughout its respective covered territory. SoCalREN will also seek to identify new resource approaches that will lead to a more cost-efficient portfolio. The comprehensive set of both non-resource and resource strategies will help to ensure that SoCalREN is on a continued course to provide ratepayers significant and substantial long-term value in energy efficiency.

In addition, SoCalREN will incorporate strategies to improve coordination between programs and their partner IOU portfolios. SoCalREN will also look to implement evaluation, measurement, and verification studies that will seek to identify program process improvements and market assessments so that strategies can be modified to more accurate targeted tactics.

Addressing Impacts of COVID-19

On March 4, 2020 Governor of California, Gavin Newsom, proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19. In a short period of time, COVID-19 has rapidly spread throughout California. To protect public health, all individuals living in the State of California were ordered to stay home or at their place of residence except as needed to maintain continuity of operations of the federal critical infrastructure.

SoCalREN is learning to adapt and follow the guidance of Governor Newsom's Stay at Home Order, while continuing to provide energy efficiency programs and services to residents, businesses, and public agencies. The health and safety of the communities we serve and the employees helping us implement our programs is of utmost priority. We are committed to ensuring our customers and employees stay safe and healthy. SoCalREN has developed guidelines for implementation of EE programs through this unprecedented time, so we can continue to fulfill the California Public Utilities Commission (CPUC or Commission) directives to the RENs: 1) provide services that complement and supplement IOU programs and/or fill gaps in the market to maximize opportunities for residents, businesses, and public agencies; 2) provide programs and services to hard-to-reach markets that the investor-owned utilities (IOUs) are not serving; and 3) pilot new, innovative approaches to programs that can potentially scale and offer an avenue to greater energy savings.

COVID-19 will have severe short- and long-term impacts on the well-being of all of our customers. SoCalREN is still taking stock of the impact of COVID-19 on the energy landscape and what it means for future development and implementation of EE programs and services. SoCalREN foresees negative impacts in energy savings across the entire EE portfolio due to COVID-19. For

2020 and beyond, SoCalREN has taken a range of actions to mitigate the impact of COVID-19. These strategies include:

- Developing and implementing program safety protocols based on OSHA, CDC, and Federal, State and Local Guidelines
- Exploring opportunities to employ virtual assessments of public agency buildings and multifamily buildings
- Providing frequent communications to public agencies and multifamily property owners/contractors to continue engagement and upward momentum into EE investments
- Hosting webinars to inform and educate stakeholders on available EE opportunities to continue building the pipeline across SoCalREN's EE programs and to discuss best practices and highlight regional needs as public agencies and multifamily property owners/contractors navigate the post-COVID-19 world
- Working closely with Regional Partnerships to develop innovative pilot programs that can address specific gaps in their localities and help support the needs of hard-to-reach markets and disadvantaged communities who were already struggling pre-COVID-19
- Providing alternative delivery solutions through the launch of pilot programs that can be delivered remotely with the potential to scale
- Engaging directly with the communities we serve through the launch and implementation of pilot programs to provide EE measures that can be easily selfinstalled



Residential Sector Programs

Overview of Sector Performance

The SoCalREN Residential Sector Programs helped multifamily property owners and residents achieve significant energy savings in 2019. Collectively, more than 60 properties completed comprehensive retrofit projects that achieved more than 64 GWh and 4 million therms in net lifecycle energy savings and built a pipeline of 14 properties heading into 2020. Annual achievement against goal is shown in Table 1.

Table 1. 2019 Residential Program Results

	Goal	Achieved	Percent of Goal
Number of Installed Projects	47	62	132%
Number of Residential Dwelling Units Impacted	8,695	13,749	158%
kW (First-Year Annual Gross)	980	430	44%*
kWh (First-Year Annual Gross)	7,299,141	6,920,487	95%
Therms (First-Year Annual Gross)	229,246	429,655	187%
kW (First-Year Annual Net)	735	362	49%*
kWh (First-Year Annual Net)	5,474,356	5,730,064	105%
Therms (First-Year Annual Net)	154,741	351,418	227%

^{*}Peak kW definition was updated from 2018 to 2019

The Program met most of its key performance metrics and substantially exceeded some areas, including therm savings. The over-delivery of therm savings was due to the fact that many gas efficiency measures (e.g., boilers, boiler controls, etc.) are found in common areas which do not impact tenant dwelling units. Common area projects can be completed much more quickly than projects in dwelling units, as the project schedule is not dependent upon tenant availability. This scheduling flexibility helped the Program complete many projects at year end. The missed goal related to peak kW is mostly attributed to an updated definition of peak kW to comply with

current CPUC direction. The peak kW filed in the 2019 ABAL was based on the CPUC's peak period definition in place in 2018. With a revised peak period definition in effect for 2019, many measures installed in 2019 claimed a lower value for peak kW than was forecasted in the ABAL.

Figure 1 shows the Program's strategic value to the SoCalREN territory.

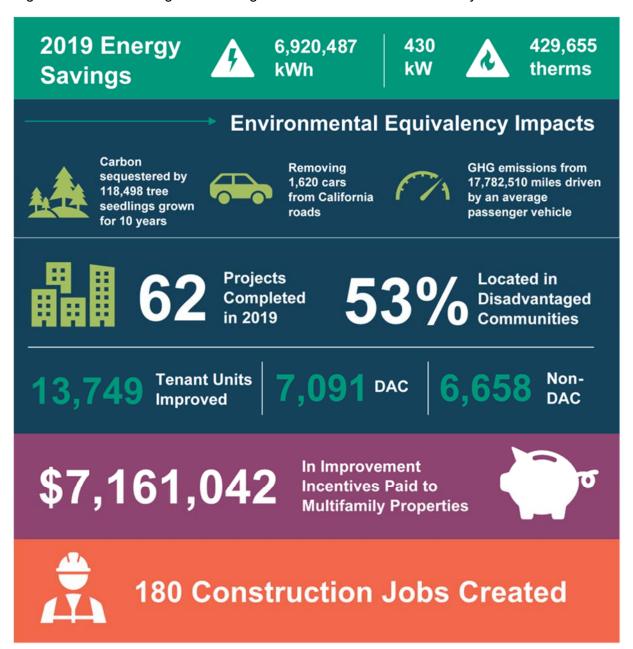


Figure 1. 2019 Residential Program Impacts

The SoCalREN Program was extremely successful in delivering energy savings results in 2019. The holistic approach that brings both electric and gas solutions to customers has proven valuable. The Program helps customers identify and prioritize project opportunities to achieve a percentage savings above baseline usage, regardless of utility. This allows customers to make

informed facility improvement decisions rather than evaluating standalone offerings and examining offerings to decide which one provides the best incentive.

Another area of success for the Residential Sector involved results achieved in ZIP codes classified as disadvantaged communities (DACs). In 2019, 53 percent of the projects completed were in DAC ZIP codes. These projects achieved 3,597,973 kWh gross (3,058,277 GWh net) and 194,514 therms gross (165,337 therms net). These DAC projects occurred in Los Angeles, Orange, Riverside, and San Bernardino counties. The contribution of Program results from DAC and non-DAC properties is shown in Figure 2. More than 50 percent of the program's kW and kWh savings were achieved from DAC properties. Therm savings were about equal between the two property types.

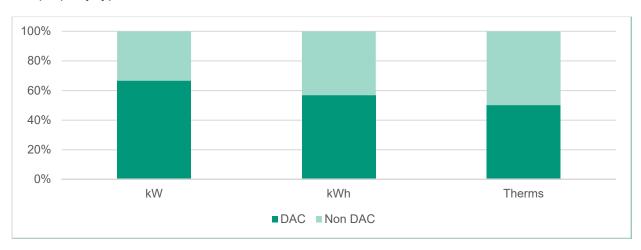


Figure 2. DAC and Non-DAC Results

Figure 3 lists the top 10 measures installed at DAC and non-DAC properties. The measures are similar between both property types, but the order of prevalence is slightly different which likely led to the delivery of a higher peak kW reduction for DAC properties than non-DAC properties.

Top 10 Measures Installed in 2019 DAC Properties Non-DAC Properties Lighting Measures* Lighting Measures* In-Unit Water Efficiency Measures** In-Unit Water Efficiency Measures** **DHW Pipe Insulation DHW Recirculation Pump Controls** DHW Recirculation Pump Controls **DHW Pipe Insulation** High-Efficiency Natural Gas Instantaneous Smart Thermostat Water Heater Variable Speed Pool Pump High-Efficiency Natural Gas Instantaneous **Smart Thermostat** Thermostatic Valves for Showerheads Water Heater Thermostatic Valves for Showerheads Variable Speed Pool Pump **Boiler Controls Boiler Controls Pool Heaters Pool Heaters** *Common Area, In-Unit, and Exterior Lighting **Efficient Showerheads and Faucet Aerators

Figure 3: Top 10 Measures Installed in 2019

Sector Modifications

The SoCalREN Residential Sector program has looked at ways to achieve greater participation from DACs and introduced a new effort in late 2019 to focus on DACs and Hard-to-Reach (HTR) customers. In addition, a new financing program was proposed for a planned launch in 2020.

New Program Offerings

In 2019, one new Residential program was introduced:

Residential Community Coordinator to support HTR customers and DACs with a single point of contact to help navigate Program engagement.

Additional information about the Residential Community Coordinator program is described in Table 2 below.

Table 2. Residential Community Coordinator

SoCalREN 2019 New Residential Sector Program Benefits for Property Owners and Residents Residential Community Coordinator is designed to Targeted in-language marketing and maximize energy efficiency results from hard-tooutreach to specific areas reach customers and disadvantaged communities by High touch in-language support to help providing in-language support and resources to property owners navigate program overcome historical lack of participation. Print and processes. Workshops and training for facility online marketing content as well as one-on-one support are provided in a variety of languages maintenance personnel and property spoken in the SoCalREN territory. A single point of residents. contract with the same language and cultural background can help overcome participation barriers.

SoCalREN's customer-centric approach, paired with ongoing program modifications for continuous improvement, is key to achieving meaningful results and satisfaction across all Residential sector programs.

Multifamily Program

Program Description

The Multifamily Program is designed to advance the multifamily market on a path to greater energy efficiency by systematically addressing and overcoming barriers that have prevented significant adoption of comprehensive energy efficiency. Eligible properties include three or more units and property owners are required to install no fewer than three energy efficiency measures and achieve a minimum 10 percent improvement over existing conditions to receive program incentives. The Program offers a tiered incentive structure that encourages higher levels of energy savings with the highest tier for projects that save 30 percent or more of baseline usage.

Program Services

The Program offers many services to support multifamily customers with energy efficiency projects, including:

- Technical support, including energy assessments, identifying energy efficiency improvement measures, and EnergyPro modeling of energy savings;
- Project management and other staff support throughout energy efficiency projects;
- Contractors trained to install Program measures and deliver Program savings;
- Project inspection to validate all equipment is installed and operational; and.
- Tenant educational materials in a variety of languages.

The Program also offers participating contractors with services to help them market the program to their customers:

- Training and education on energy efficiency measures;
- Marketing materials for customer sales meetings;
- Lead generation for multifamily projects through targeted digital, print, and direct mail advertising efforts; and,
- Technical support on project scope and installation.



Program Objectives

- Drive SoCalREN Portfolio Cost Effectiveness: The Multifamily Program offers a streamlined approach to achieving energy savings to ensure the overall SoCalREN maximizes cost effectiveness.
- Deliver Comprehensive Energy Saving Projects: To best serve the mission of SoCalREN, the Multifamily Program engages contractors, building owners and tenants to identify and implement energy savings opportunities through comprehensive retrofit projects.
- Achieve High Participation in HTR and DAC Customer Groups: The Program goal is to achieve at least 50 percent participation in DAC ZIP codes.

- **Drive Energy Efficiency Upgrades in All Building Types/Sizes:** The Program serves the entire SoCalREN multifamily market, from large, corporate-owned portfolios to small, individually owned and managed multifamily properties (minimum size of three units).
- Develop, Enhance, and Expand the Energy Efficiency Service Provider Market Serving SoCalREN Multifamily Properties: The Program fosters the growth of service providers supporting the multifamily market at every level of building, project size, and complexity in order to facilitate the installation of comprehensive projects.

Program Performance

The goal of the SoCalREN Multifamily Program is to deliver reportable energy savings by identifying and implementing comprehensive and cost-effective energy efficiency projects while filling gaps in services provided by the Investor Owned Utilities (IOUs). 2019 Program performance is highlighted in Table 3 below; locations for DAC and non-DAC projects throughout the territory are displayed in Figure 5.

Table 3. Project Implementation Performance

Project Implementation Performance		
# of completed projects*	62	
% of projects completed at properties that serve disadvantaged communities ⁴	53%	

^{*}Projects are defined by 2019 construction completed projects with installation reports submitted in 2019 or Q1 2020.

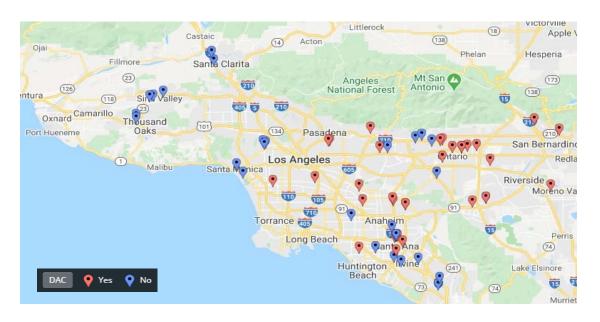


Figure 5: 2019 DAC and Non-DAC Project Locations

⁴ As defined by CalEnviroScreen 3.0

Projects are identified through a comprehensive facility energy assessment that is conducted in partnership with the customer's contractor. The contractor gathers information regarding the property using a guided form. Data collected at this stage includes property square footage, number of units, types of space heating and water heating systems, quantities of exterior and inunit lighting fixtures and existing equipment information such as make, model, size, efficiency, and other pertinent nameplate data.

Once this data is collected, Program engineers visit the property to verify information, make assessments regarding potential energy savings measures, and gather additional data such as temperature setpoints, timeclock settings, etc. and may install spot metering as required to determine the energy usage baseline. That data is used to complete the EnergyPro model which is used to calculate savings.

For 2019, the Program completed 85 energy assessments with 62 converted into completed projects, and an additional 14 projects committed for 2020. The 2019 Program's conversion rate from assessment to commitment is 89 percent.

Energy savings claimed by SoCalREN were 5,730,064 kWh (net) and 351,418 therms (net). Regional results are shown in Table 4.

Table 4. Regional Energy Savings Results

County	Population	Projects	kWh (net)	Therms (net)
Los Angeles	10,200,000 (54%)	19	1,432,148 (25%)	75,271 (21%)
Orange	3,190,000 (17%)	22	1,425,396 (25%)	124,964 (36%)
Riverside	2,400,000 (13%)	5	847,906 (15%)	31,948 (9%)
San Bernardino	2,100,000 (11%)	11	1,537,201 (27%)	58,740 (17%)

Total	18,744,000	62	5,730,064	351,418
Ventura	854,000 (5%)	5	487,413 (9%)	60,495 (17%)

These energy savings will result in a 5,910 metric ton greenhouse gas emissions reduction, equivalent to taking 1,277 cars off the road for one year. Through the accelerated replacement of older, inefficient equipment, multifamily properties receive additional benefits beyond reduced energy costs, including lower maintenance costs, improved ambiance, and increased tenant comfort and safety. Projects completed in 2019 provide the following financial savings to multifamily properties:

Table 5. Financial Benefits to Multifamily Properties

Financial Benefits to Multifamily Properties			
Annual utility bill savings (\$) for all properties (and DACs)	\$1.24 MM (\$647,000 in DACs) ⁵		
Total value of projects completed (\$)	\$16,598,762		
Total incentives paid (\$)	\$7,161,042		

The Program strives to support construction jobs. This Program goal is measured by completed projects' gross construction costs. The 2019 gross construction costs of \$16.6 M⁶ translate to 180 construction jobs supported.

Program Modifications

For 2019, the Program adjusted its market approach to focus more on contractor trade allies rather than building energy raters. Prior to April 2019, a \$5,000 incentive (which was a reduction from the \$25,000 available in 2018) was offered to building energy raters for performing comprehensive energy assessment and energy modeling. In 2019, the rater incentive was eliminated as the Program shifted its focus to contractors. With this new focus, Program staff completed energy modeling using site data provided by contractors which was verified through a



Figure 6. Participating Multifamily Property Image

⁵ Based on U.S. Energy Information Administration average California utility costs of \$0.1797 per kWh

⁶ Construction conversion to jobs = Gross Project Cost/\$92,000

pre-inspection process. The impact of this modification was a reduction in timeline from energy assessment to Program reservation since contractors had previously vetted customer interest in the Program.

In addition, the property incentive was modified from a step function, which provides one incentive rate for a range of savings percentages, to one that increased linearly as the percentage savings increase beyond a minimum level of 10 percent.

This linear approach has been used with success by the Statewide Savings by Design (SBD) Program for many years and is a best practice used by other multifamily programs across the country. The linear incentive structure encourages property owners to achieve the maximum percentage savings within their available project budget. For example, if the property owner can afford to reach a 14 percent savings target, they will be provided an incentive commensurate with that target rather than being paid the same amount as a property owner who reached only the minimum 10 percent target.

Incentives are paid based on the number of individual dwelling units at the property and are capped at the lesser of the program incentive or 50 percent of the project cost for non-Disadvantaged Community (DAC) properties, and at 75 percent of project cost for DAC properties.

This incentive structure, displayed below in Figure 7, is designed to encourage participation by DAC properties, delivering Program benefits to households across geographic and socioeconomic spectra.

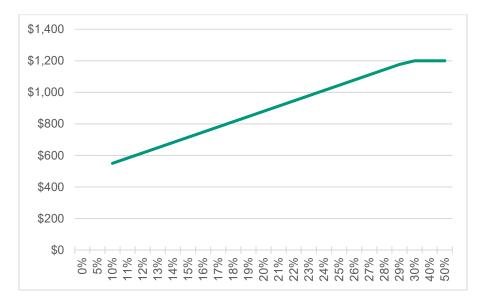


Figure 7. 2019 Linear Incentive Structure

2019 Strategies

The following are noteworthy 2019 strategies that built on SoCalREN's record of successful program design.

- 1. **Increased outreach to multifamily customers.** The Program did more direct outreach to multifamily customers in 2019 than in prior years. This allowed the Program to work with property managers across their entire portfolio rather than one property at a time.
- 2. **More direct partnership with contractors.** The Program partnered with contractors to identify energy retrofit opportunities. Contractors know the properties best and know what measures will most resonate with the customers. The SoCalREN Program team worked in tandem with contractors to help identify projects at customer properties.
- 3. Streamlined processes to reduce costs. In early 2019, the Program moved away from using raters to assess properties and used contractors instead. The rater model did not connect the assessment to an actual contractor-driven project and thus many projects sat in the queue for years. The streamlined process reduced the project development timeline from an average of more than one year to under two months. Elimination of the rater incentive reduced delivery costs with a requisite increase in Total Resource Cost (TRC) for 2019.

Program Optimization/2020 Outlook

The Multifamily Program will continue to address the unique needs of multifamily property owners and tenants. The Program will continue refining services to enable customers and contractors to overcome barriers to project implementation and improve cost-effectiveness, while increasing program penetration throughout the eligible service territory. Optimization strategies include:

- Continue to **expand contractor participation** especially with smaller, disadvantaged contractors that work with small DAC/HTR property owners.
- Provide access to increased training content for participating contractors
- **Pilot a streamlined solution** for properties with fewer than 50 units to help overcome participation barriers and reduce delivery costs for this customer segment
- Targeted marketing and outreach using data analytics to focus on specific regions and building types
- Leverage Multifamily Financing to overcome financial barriers for retrofit projects

Residential Community Coordinator Program

Program Description

The Residential Community Coordinator Program (RCC or Program) is a community-based engagement effort targeted toward multifamily customers (excluding corporate owners and service contractors). The RCC is designed to overcome the spoken language market barrier in targeting hard-to-reach (HTR) customers and disadvantaged communities (DAC)-including independent multifamily property owners and tenants. The RCC provides a single point of contact (SPOC) to help property owners develop and complete energy efficiency projects through education, training, and general support in completing the SoCalREN Multifamily Program application and participation process.



Figure 8. Program Overview in Spanish

The RCC reaches stakeholders through the following channels:

- Seminars and workshops;
- Tabling and presentations at community events;
- Meetings with community-based organizations (e.g., councils of governments, local government partnerships, etc.);
- Meetings and presentations to public agencies; and,
- Interest form on website.

The RCC provides multilingual support to property owners who speak Spanish, Vietnamese, Mandarin, Cantonese, and Korean. Support for additional languages can be provided as needed. The RCC assists in the design and development of alternative language marketing pieces produced by SoCalREN team.

There are 124 ZIP codes in the SoCalREN territory that are classified as DAC. The RCC will work in partnership with HTR and DAC building owners and managers, as a trusted advisor, to help them develop project scope, work with contractors, close out projects, and provide support materials and resources that will educate building operators how to maintain energy-efficient practices at their property.

Program Services

Generating awareness of and interest in the SoCalREN Multifamily program requires a variety of marketing, education and outreach (ME&O) efforts—from digital advertising and marketing collateral to direct contractor outreach and one-on-one conversations with property managers. The RCC provides these services through a variety of tactics, described below.

1. **Community Events:** The RCC leverages existing SoCalREN ME&O programs to reach a broad cross section of HTR/DAC customers. It maintains an annual events and trade show

calendar and participates in key events. Event participation is branded as SoCalREN with program materials available in languages appropriate for the specific community targeted.

2. Community Seminars and Workshops: The RCC provides face-to-face classroom-style seminars and disseminates multifamily energy efficiency information to attendees. The seminars educate customers on common energy and water saving strategies and empower them to implement lasting energy efficiency measures. In addition, the seminars inform customers about other utility and third-party efficiency program offerings and encourages them to take advantage of the various programs to reduce their utility costs.

To effectively achieve attendance from target communities, the RCC coordinates with local community-based organizations, faith-based organizations, and cities to host seminars for property owners. It also provides bilingual instructors with extensive experience in teaching energy efficiency. Seminar topics and materials will be simple and focused so that energy knowledge will translate to energy savings and direct program participation.

3. **Multifamily Tenant Education:** Ensuring tenant understanding of the upgrades that the Multifamily program provides is an important aspect of achieving SoCalREN's overall goal to bring energy efficiency to the greatest number of residents and property owners as possible. The RCC provides properties with tenant educational materials, community signage, and in some instances, on-site tenant education events (for properties with an appropriate meeting/community space).



Figure 9. RCC Tenant Outreach Event

Tenants will see consistent, branded materials in

the building common areas, as well as pieces provided for tenants. Community signage and door hangers will be provided in languages required by each community, per guidance from property management/staff.

Program Objectives

- Increase DAC and HTR participation in the Multifamily Program;
- Dedicated marketing and outreach effort focused on cultural and language diversity;
- Leverage public agencies to reach local market through collaboration with community development and local chambers of commerce; and,
- Provide program incentives and financing to overcome project cost barriers.

Program Performance

The program was launched in October 2019 and started initial community outreach activities in November. Table 6 shows the number of community events and seminars held each month, and the total number of tenants that interacted with program staff during the event.

Table 6. Residential Community Coordinator Program Results

Residential Community Coordinator Program Results			
Month	Events and Seminars	Tenants Engaged	
November	6	375	
December	7	373	
Total	13	748	

Program Modifications

There were no modifications as the Program was launched in late 2019. Activities were conducted in 2019 to build awareness for the SoCalREN Multifamily Program. The Program will be a key part of the 2020 outreach strategy to target HTR and DAC customers.

2019 Strategies

Following a successful program launch, the Program succeeded at reaching a fair number of non-English speaking tenants to build initial awareness. The following are noteworthy strategies from 2019:

- A calendar of events that resides on the SoCalREN website was built, so all program staff, participants and other stakeholders have access to RCC planned activities;
- SoCalREN documents were revised to accommodate multiple languages to support RCC efforts: and.
- Advertising strategies for 2020 were mapped out, including print and radio placement to reach specific language groups.

Program Optimization/2020 Outlook

After launching RCC in November, there was limited opportunity to interact with building owners and property managers, so more focus was placed on general community awareness. For 2020, specific outreach activities will be used to work directly with building owners and guide them through the end-to-end energy retrofit process. RCC program optimization initiatives for 2020 include:

- Develop HTR/DAC Marketing and Outreach Strategy: Using a data-driven approach, the program will identify specific DAC/HTR regions and deploy targeted marketing and outreach activities to engage qualifying properties.
- Partner with Public Agency Partners: Leveraging the current partners established through the SoCalREN Public Agency Program, the RCC will engage those partners as a channel to reach HTR customers.
- **Deploy In-Language Marketing:** The translation work started in 2019 will be completed in 2020 so that program materials will be available in Spanish, Mandarin, Cantonese and Korean. These are the predominant four languages that will be

- targeted by the RCC program. Other languages such as Vietnamese will be considered depending on the need.
- Explore a Program Pilot Geared for Smaller Properties: HTR property owners typically own one or more smaller properties that they self-manage, as opposed to larger corporate owner or managed properties. The processes established for the comprehensive whole building program are prohibitive for many of these smaller properties, creating a barrier to participation. To address this barrier, a streamlined program design will be considered to promote deemed measures rather than modeled savings, while maintaining some level of comprehensiveness.
- **Leverage Multifamily Financing:** To overcome first-cost barriers, the Multifamily Finance Program will be promoted heavily to this market who may not have the financial capacity to fund energy efficiency upgrades.

2019 Sector Strategies

SoCalREN Residential Sector Programs implemented the strategies described below in 2019.

Increase Program Enrollment and Drive Cost-Effective Energy Savings

The Multifamily Program had great success in 2019 having a 400 percent increase net kilowatthour savings compared to 2018, and a 670 percent increase in net therms. Through effective management of administrative, marketing and direct implementation costs, the program delivered these higher savings with a 110 percent increase in cost effectiveness. The program TRC was 0.71 in 2019 versus 0.66 in 2018.

Contractor vs. Rater Model

Part of the reduction in direct implementation costs was the elimination of the Energy Rater incentive. This incentive was intended to reimburse participating raters for the cost for a comprehensive energy assessment and EnergyPro model. However, the incentive created a perverse market effect in that companies created a business around delivering assessment reports for the cost of the incentive, and thus these were completed at no cost to the customer. The result is that the program paid for many assessments that never materialized into projects. Changing the model to partner closely with contractors and provide the assessment report for them, increased the project conversion rate and deliver installed savings much more quickly than prior years.

Conduct Marketing and Outreach

Residential Sector Target Audiences

The primary target audiences for the Residential Sector Programs are **owners/managers of eligible multifamily properties** located within the SoCalREN service area, and **contractors** who service these properties. The program serves a wide range of property types, from large corporate operations with multiple property sites to individual owners of single properties of three units or greater.

As noted in the 2018–2025 SoCalREN Business Plan, the majority of multifamily properties in Southern California were built prior to 1980 (before the state implemented its energy code)and would benefit greatly from energy efficiency improvements. Properties are evenly split between small 3-4-unit properties, mid-size properties, and large properties with more than 50 units.

Three types of property owners (i.e. program customers) make up the multifamily landscape in Southern California, and each group has different motivating factors that can drive them toward program participation. As described in the Business Plan:



Figure 10. Property Owner Marketing Postcard

- Market-rate, individual owner: Concerned with maintaining or improving property value;
- Market-rate, investor-owned: Values making money and providing timely Return on Investment (ROI) to investors; and,
- Affordable, for-profit and non-profit owners: may be mission-driven, seeking to improve quality of life for tenants; may seek to reduce property overhead costs.

The Program supports marketing to DACs and HTR customers by targeting marketing within DAC ZIP codes and providing in-language materials to serve the diverse communities within Southern California.

Secondary audiences include industry associations and product (e.g. HVAC, lighting, etc.) distributors. In addition, the program provides messaging and tools to help educate tenants in participating properties about the program, as well as general information about incorporating energy-saving behavior and habits in their homes.

The Residential program provides general energy efficiency information and links to all area utility energy efficiency programs for homeowners and renters in single-family properties. This information is provided via the SoCalREN website.

Marketing Tactics

To reach potential program participants and make industry allies aware of the Multifamily Program's availability, a Marketing and Outreach campaign was conducted during 2019. This campaign comprised:

- Digital marketing campaign with LinkedIn and Google Ads
- Social media
- Program website
- Targeted direct mail postcards
- Industry association engagement and events, including print and digital advertising
- Direct outreach by program staff
- Bi-monthly program email updates to participating contractors (average open rates exceeded 50%)

Industry association advertising delivered approximately 50,000 impressions each month throughout the January-December campaign. Digital advertising, launched in September 2019, delivered an average of 35,000 impressions per month with an average Click Through Rate (CTR) of 0.87 percent. In addition, the program website received nearly 15,000 pageviews in 2019, averaging more than 1,200 pageviews per month from visitors throughout the SoCalREN service area. This marketing activity performance is captured in Figure 11.

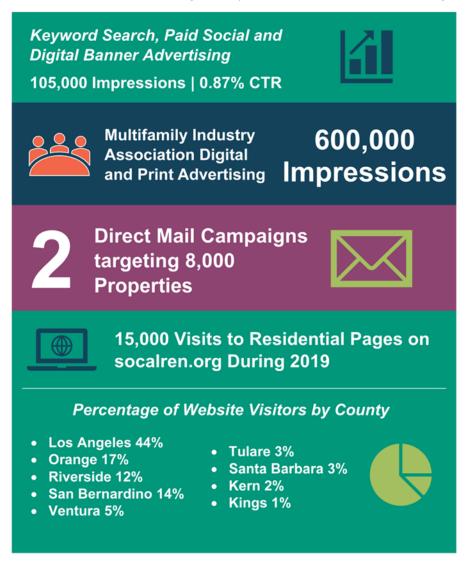


Figure 11. 2019 Residential Marketing Results

Sector Optimization/2020 Outlook

The following strategies will support the optimization and growth of SoCalREN Residential Sector Programs in 2020:

- Enhanced targeting strategies for marketing and outreach
 - The Residential Program will engage with additional database tools in 2020, including the CoStar database that provides detailed, robust information about

multifamily properties, owners, and managers throughout the SoCalREN service area. This information will allow us to more cost-effectively target the right properties in targeted areas.

- Grow the Program's contractor base by engaging in recruitment activities specifically targeting contractors and other trade allies
- Enhance support for contractors and trade allies by providing additional marketing tools, educational resources, and engineering support services
- Expand the Program's reach in all counties served by SoCalREN through targeted marketing and outreach activities, and partnerships with regional groups including councils of government and housing authorities.
- Increase focus on HTR/DAC properties through full deployment of the Residential Community Coordinator to engage with public agencies and qualifying customers.
- Market the Multifamily Financing Program to overcome project installation cost hurdles.
- Continue to evolve program processes to streamline the flow of projects from initial inception through installation.
- Provide more training and education opportunities for participating contractors to ensure that they have adequate process and technical training to successfully participate in the program.
- Provide direct marketing assistance to participating contractors through print-on-demand, co-branded promotional materials.
- Evaluate new program and pilot program opportunities to expand program reach into specific sectors of multifamily housing (e.g. small properties).



Public Sector Programs

Overview of Sector Performance

The SoCalREN Public Agency Programs enhance the power of public agencies to lead their communities towards a safe, secure, resilient, affordable, and sustainable clean energy future. SoCalREN takes a comprehensive approach to helping agencies complete energy efficiency projects. From energy benchmarking to project completion, our team offers a suite of services to help identify energy-saving measures and works alongside agency staff—all at no cost to the agency.

Customized technical support services to help participating public agencies implement thorough yet cost-effective energy upgrades and energy management practices. By supporting public agency energy efficiency projects, offering educational opportunities, and creating connections among agencies for peer-to-peer learning, SoCalREN is building the capacity of the public sector to drive communities toward a sustainable energy future.

SoCalREN helped public agencies overcome unique challenges and barriers in 2019. Collectively, the network of agencies achieved 17,692,420 first-year annual kWh and 15,203 therm savings (gross) on 79 construction completed projects, while working on a 22,418,161 kWh and 161,577 therms pipeline for future years.

Annual satisfaction survey statistics demonstrate agencies find significant value in SoCalREN's services. Overall, survey respondents reported a 94% satisfaction rate with services. Maintaining high customer satisfaction is a signature of the SoCalREN Public Agency Programs.

The SoCalREN Public Agency Programs added a significant value to the public sector in 2019. Program performance is based on energy and non-energy related values—such as building agency capacity and expertise, supporting job creation, and reducing GHG emissions—and is tied to the Program Implementation Plans, annual targets adopted in the SoCalREN's Annual Advice Letter (ABAL), and performance targets determined by Los Angeles County. Efforts to grow the Public Agency Programs and expand their reach were ramped up in 2019 to ensure delivery of the program's services across the entire territory. The value added to the public sector by these efforts is illustrated throughout this Public Sector section of the Annual Report.

Based on feedback from enrolled public agencies, SoCalREN expanded its program offerings in 2019, building upon the Energy Efficiency Project Delivery Program (EE PDP) with three new programs: the Metered Savings Program, Pathway to Zero and Revolving Loan Fund⁷. These are discussed in detail in this report.

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⁷ The Distributed Energy Resources for Disadvantaged Communities (DER DAC) program is publicly known as Pathway to Zero. The Normalized Metered Energy Consumption (NMEC) program is publicly known as the Metered Savings Program.

The expanded portfolio allows SoCalREN to provide more comprehensive services, realize utility savings and environmental benefits for agencies, and increase SoCalREN portfolio cost-effectiveness. SoCalREN expanded its public sector offerings with the following aims in mind:

- Managing overall program costs while aggressively increasing savings
- Utilizing innovative approaches that fully capture the value of energy savings
- Addressing the barriers most commonly faced by public agencies that inhibit project implementation
- Designing new strategies based on successful past practices to provide customizable technical, financing, procurement, construction, and project management



Figure 12. Agency Feedback Leading to Pathway to Zero Program Launch

The figure below shows the program's strategic value to public agencies and their role in fulfilling an integrated demand side program offering.

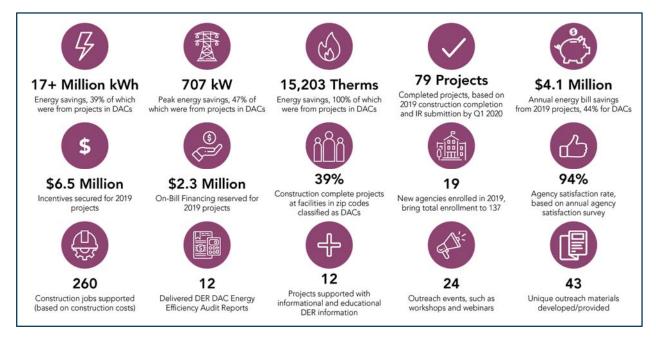


Figure 13. 2019 Program Impacts

As the increased pressure for cost-effective energy efficiency savings continues, SoCalREN takes a nimble approach to program design, recognizing that programs evolve as needs and conditions change. Regional Energy Networks (RENs) fill the gaps and provide services not provided by Investor Owned Utilities (IOUs), with an emphasis on hard-to-reach and disadvantaged communities (DACs). In 2019, 48% of completed projects were at facilities in ZIP codes classified as DACs. Further, the program provides services to 12 public agencies in rural and hard-to-reach (HTR) communities in the service territory. Rural and HTR is defined here as agencies serving ZIP codes having at least 20% of the population defined as rural per the US Census. SoCalREN also focuses a significant strategic effort on meeting the regional needs of the SoCalREN territory, as discussed in 2019 Strategies.

SoCalREN enhances program offerings and services by securing and leveraging non-ratepayer (CPUC) funds. In 2019, SoCalREN obtained approval to utilize funds from the California Energy Commission (CEC) to design a companion sub-program to Pathway to Zero. The sub-program is available to enrolled DACs in 2020 and provides enhanced benchmarking support and technical assistance for audits that evaluate various Distributed Energy Resources (DERs) as part of energy efficiency upgrades.

Sector Modifications

The SoCalREN Public Sector programs have a successful implementation track record and continue to expand based on experience and lessons learned. In addition to continuing to streamline services for cost-effectiveness, two important enhancements were introduced in 2019, the Pathway to Zero program and the Metered Savings Program, both which will continue to evolve in 2020 and beyond.

New Program Offerings

In response to needs in the public sector, SoCalREN designed and launched three programs in 2019, resulting in a more comprehensive public agency experience. These are:

- 1. **Pathway to Zero** to support disadvantaged communities with the integration of distributed energy resources as they maximize energy efficiency opportunities.
- 2. **Metered Savings Program** to capture stranded energy savings from an existing conditions baseline.
- 3. **Revolving Loan Fund** (RLF) to support public agency short-term financing needs (RLF details are in the Finance Sector Programs section of this report).

Table 7. Public Sector Programs and Benefits

SoCalREN 2019 New Public Sector Program	Benefits for Public Agencies
Pathway to Zero is designed to support DACs and maximize energy efficiency opportunities, while driving the integration of DERs using the support of non-ratepayer funds. It is a catalyst for agency enrollment, drives participation in energy efficiency programs, and supports	 State policy goals and 2019 public safety power shut offs have called public agencies to build energy resilience. Pathway to Zero provides guidance to make informed decisions on developing resilient facilities. The program ensures agencies capture and

greater reductions in GHG emissions from public agencies.

- optimize for energy efficiency when considering DERs.
- Pathway to Zero includes demand-side management solutions for comprehensive facility upgrades that maximize energy efficiency.

Metered Savings Program captures savings using an existing conditions baseline and aims to capture "stranded" energy savings. The program supports whole building and exterior lighting measures and provides post-installation training and energy usage tracking to ensure the persistence of savings.

- In an environment of increasingly stringent building code requirements and limited utility incentives, the program offers a path to capture all available savings and encourages deep energy efficiency projects.
- The normalized metered energy consumption (NMEC) approach of measuring savings at the meter empowers agencies to think holistically about energy upgrades.

SoCalREN's customer-centric approach, paired with ongoing program modifications for continuous improvement, is key to achieving meaningful results and satisfaction across all programs.

Energy Efficiency Project Delivery Program

EE PDP Program Description

The Energy Efficiency Project Delivery Program (EE PDP), the inaugural SoCalREN Public Agency Program, was launched in 2013. SoCalREN's flagship program provides public agencies with comprehensive, customized energy efficiency services to meet their unique needs and help to identify and complete projects. Services include portfolio energy benchmarking, high-level technical assistance, objective third-party expertise, access to financing, and project staffing support for all stages of energy efficiency projects at no cost. The program provides objective third-party expertise to help agencies implement the best measures to maximize energy cost savings.

EE PDP Program Services

SoCalREN offers many services to support public agencies with energy efficiency projects, including:

- Project management and other staff support throughout energy efficiency projects;
- Energy consumption benchmarking;
- Technical support, including facility energy audits, identifying energy efficiency improvement measures, and energy efficiency performance specifications;
- Analysis of financing options, financial advisory services, and assistance with rebate and incentive applications; and,

• Proposal and construction support, including procurement guidance, performance specification support, construction management support, and third-party objective review.

EE PDP Program Objectives

- Fill market gaps in the public sector and provide public agencies with an integrated, objective, and comprehensive energy efficiency solution for their facilities and other infrastructure.
- Increase the percentage of public agencies, particularly those serving disadvantaged and hard-to-reach communities, that engage their communities in energy action to reduce overall community energy consumption.
- Increase the ability of public agencies to meet local, regional, and state energy targets and policy goals.
- Increase the number of participating public agencies in the SoCalREN EE PDP, with an emphasis on underserved communities.
- Position public agencies to lead community awareness campaigns, engage stakeholders, build public awareness of local, regional, and state efforts, and drive participation in utility and non-utility resource programs.
- Expand the implementation of cost-effective energy efficiency projects.

EE PDP Program Performance

The goal of the SoCalREN EE PDP is to deliver unprecedented energy savings in the public sector by identifying and implementing comprehensive and cost-effective energy efficiency projects while filling gaps in services provided by the IOUs. The Program's 2019 performance is highlighted below.

Table 8. EE PDP 2019 Performance

Project Implementation		
# of completed projects*	67	
% of projects completed on facilities that serve DACs8	48%	

^{*}Projects are defined by 2019 installation reports submitted in 2019 or Q1 2020.

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⁸ As defined by CalEnviroScreen 3.0



Figure 14. 2019 Completed Projects

The table below shows the percentage of 2019 completed projects that received specific Program services.

Table 9. 2019 Completed Projects

Number of Completed 2019 Projects: 67 (by Installation Reports Submitted)		
EE PDP Services ⁹	% of Projects Utilizing Service	
Project Management	100	
Audit/Engineering Calculations	67	
Objective Technical Review	65	
Utility Incentive Application	92	
Financial Analysis	65	
Financial Services	33	
Procurement Support	48	
Construction Phase Support	46	

Projects are identified using a variety of strategies. One of those strategies is a Comparative Energy Analysis (CEA) that evaluates agency-wide energy use across buildings and infrastructure, identifies the highest energy users, and provides a preliminary assessment of potential savings. In 2019, 31 CEAs were delivered to public agencies.

⁹ See Appendix B for definitions



Figure 15. Comparative Energy Analysis Report Sample

For 2019-delivered projects and energy projects expected to be delivered in future years, the program performed 67 investment-grade audits. The audits assessed 74 public agency facilities and 33 non-building facilities, such as parks or water treatment plants.

All energy savings are attributed to and claimed by SCE and SoCalGas because the EE PDP is a non-resource program that funnels projects through utility core and third-party programs. The IOUs track these projects as SoCalREN supported with the following savings.

Table 10. 2019 Construction Complete Savings

Savings Realized: 2019 Construction Complete ¹⁰		
First-year annual gross savings (kWh) and percent of savings within DACs	17,692,420 kWh, 39% within DACs	
First-year annual gross savings (kW) and percent of savings within DACs	707 kW, 47% within DACs	
First-year annual gross savings (therm) and percent of savings within DACs	15,203 therms, 100% within DACs	

Table 11. 2019 Savings by Eligible County

Savings and Projects by Eligible County: 2019 Construction Complete				
Region				
Los Angeles County	9,184,762	52%	28	
Orange County	2,363,261	13%	12	

¹⁰ Construction completed savings includes IR Approved metrics and Project Approval savings or assumed savings for anticipated IR submissions and approval.

Riverside County	447,124	3%	2
San Bernardino County	2,283,885	13%	9
Ventura County	3,413,388	19%	28
Tulare County	0	0	0
Santa Barbara County	0	0	0
Kern County	0	0	0
Imperial County	0	0	0
Kings County	0	0	0
Inyo County	0	0	0
Mono County	0	0	0
TOTAL	17,692,420	100	79

These energy savings will result in a 4,149-ton greenhouse gas (GHG) emissions reduction, equivalent to taking 1,515 cars off the road for one year.

Table 12. Savings Realized

	Savings Realized: IOU Clain	ıs
13.8 million kWh	167 kW	20,779 therms

In addition to the claimed savings shown above, SoCalREN supported the delivery of an estimated 597,021 kWh in additional savings due to associated measures becoming invalid and not attributed to the IOUs in 2019 nor expected to be claimed in 2020.

As a non-resource program, the Program funnels energy savings to SCE and SCG resource programs. The table below highlights the Program's savings contribution to the IOUs' 2019 portfolio.

Table 13. Funneled Energy Savings

Funneled Energy Savings	
SCE Program SoCalREN contribution to SCE's Portfoli	
Local Government Partnerships (LGPs)	53% kWh, 35% kW

Water Infrastructure System Efficiency (WISE)	100% kWh, 100% kW
Customized Solutions Program	10% projects
Public Sector	48% kWh, 23% kW

Enrolled agencies received financial analyses to evaluate the economic viability of projects. They also received financial services to obtain the necessary incentives or financing to make projects a reality. Reducing energy use reduces costs for public agencies, freeing up scarce public resources for services like public safety, firefighting, and educational resources. Projects completed in 2019 provide the following financial savings to public agencies:

Table 14. Financial Benefits to Public Agencies

Financial Benefits to Public Agencies		
Annual utility bill savings (\$) and percent of savings within DACs	\$4.1M, 44% within DACs	
Total utility incentives captured (\$)	\$6.5M	
Total utility On-Bill Financing (OBF) captured (\$)	\$2.3M	
Total non-IOU financing (Prop 39, CEC ECAA)	\$4.1M	

The Program strives to support construction jobs. This Program goal is measured by completed projects' gross construction costs. The 2019 gross construction costs of \$24M¹¹ translate to the following jobs supported.

Table 15. Construction Jobs Supported

Workforce Development: Construction Jobs Supported			
Performance Target Program Performance			
150	260		

In addition to supporting projects completed in program year 2019, the Program developed projects that represent a significant pipeline of savings for 2020 and beyond. The development of the pipeline is essential to long-term program success since the average timeline from project identification to completion for public agencies participating in the SoCalREN programs is approximately 23 months. Project pipeline savings are defined by the incentive application submitted values. These savings are projected to be as follows:

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¹¹ Construction conversion to jobs = Gross Project Cost/\$92,000

Table 16. Project Pipeline

	Project Pipeline	
22,418,161 kWh	2,045 kW	161,577 therms

The EE PDP also supported agencies with the below services to drive project implementation.

Table 17. Additional Services on Project Pipeline

Additional Services on Project Pipeline		
Number of utility rebate/incentive applications supported (based on Incentive Submitted Date)	105	
Total rebate/incentives reserved (\$)	\$1,276,385	
Total zero-percent interest OBF reserved (\$)	\$481,170	

EE PDP Program Modifications

In 2019, the Program continued to streamline its systems and processes and improve cost-effectiveness while responding to the evolving needs of the market. There were no significant modifications to the Project Delivery Program design. See *Sector Modifications* for modifications that impacted all Public Agency Programs.

EE PDP 2019 Strategies

The following are noteworthy 2019 strategies that built on SoCalREN's record of successful program design.

1. Continued to meet market gaps

- In anticipation of a reduction of funding and services for Local Government Partnerships (LGPs), SoCalREN engaged with nine regional groups, many LGP implementers, to continue to offer valuable services to public agencies through the SoCalREN as **Regional Partners** in place of LGPs. This effort was led with the goal of continuing leadership and action by local governments in the SCE/SoCalGas territory.
- Ensured uninterrupted services to water/wastewater projects in place of SCE's third-party Water Infrastructure and System Efficiency (WISE) Program, which was discontinued in 2019.
- Coordinated with an electric municipal utility and established a Memorandum of Understanding (MOU) with Los Angeles County. The MOU, with an anticipated execution in 2020, allows the municipal utility to provide funding (electricity customers) that complements the CPUC funding (SoCalGas ratepayers) for comprehensive services.

2. Developed strategies to identify and capture savings

- Improved processes and **data integrity controls** on the platform that receives agency-wide SCE Green Button 15-minute interval data. This service streamlines the Program's ability to collect and analyze data and identify potential projects.
- Streamlined and enhanced the **Comparative Energy Analysis** to identify project opportunities and help agencies monitor facility energy use over time.
- Developed a process to identify, track, and disseminate information on proven technology applications with the potential for energy savings. Named the Technology Application for Program Savings (TAPS), the initiative supports implementation of industry best practices for high performing projects.
- Managed the investment of program resources in projects with a high likelihood of successful implementation. Only projects with acceptable agency buy-in throughout project development continued to receive program services.
- 3. Developed tools to streamline services and reduce costs as part of an ongoing effort to streamline the Program and incorporate lessons from on-the-ground experience. Examples of continuous improvement and incorporating lessons learned in 2019 for cost-effective program implementation include:
 - Enhanced initial measures list (IML) report provided after audit and before detailed analysis to **align agencies' plans and expectations.** The IML discussion with agencies dictates the services necessary to complete the project and helps the Program manage where resources are invested.
 - Improved project feasibility analysis through financial analysis that includes tariff-based project cash flows and additional financing mechanisms. These and other enhancements to the project proposal and financing calculator help communicate the business case and demonstrate various financing options available to public agencies to pursue project implementation.
 - Added features to the Program's customer relationship management (CRM) software that allow technical consultants to collaborate with project managers (CRM Consultant Community) for streamlined project milestone coordination and deliverable approval.
 - Aligned with IOU downstream intervention strategies and programs and ensured IOU offerings (such as the upstream, midstream, direct install, and IOU third-party programs) are leveraged, when feasible. This makes for cost-effective program delivery and a simplified customer experience.

EE PDP Program Optimization/2020 Outlook

The EE PDP will continue to address the unique needs of the public sector, customizing at the public agency and project level. The Program will continue refining services to enable agencies to overcome barriers to project implementation and improve cost-effectiveness while increasing program penetration throughout the eligible service territory. Optimization strategies include:

- Continue to expand regional reach and contract with additional regional partners;
- Develop strategic partnerships with school, water, and public works membership
 organizations and leverage their networks to engage in peer-to-peer learning activities
 and get the word out about the EE PDP's offerings;

- Expand the dedicated project manager role to include more **strategic energy planning** and the integration of all SoCalREN public sector program services with other market resources:
- Expand support to identify and secure project construction funding and financing opportunities;
- **Improve project screening** and continue efforts to obtain project commitment from public agencies to implement projects based on mutually agreed upon schedules;
- Create targeted marketing and outreach strategies to educate public agencies on the value of program services; and,
- Leverage and market IOU Programs and provide public agencies with the best available information on the fast-changing industry to support project development decision making.

DER DAC Public Agency Project Delivery Program

DER DAC Program Description

Pathway to Zero (the publicly facing name for the DER DAC Project Delivery Program) was created to maximize energy efficiency opportunities while driving the integration of Distributed Energy Resources (DERs). The Program supports public agencies on a path toward zero net energy (ZNE), which means producing all the energy needed on-site.

Offered in conjunction with the services of SoCalREN's energy efficiency programs, Pathway to Zero provides a comprehensive view of energy opportunities for facilities in disadvantaged communities¹², including a customized high-level review of Distributed Energy Resource (DER) options. It gives agencies the information needed to get started choosing the DERs that are right for their facilities. The program offers project management support throughout the project lifecycle, including support with incentive applications, assessing and applying for financing, and obtaining the technical assistance agencies

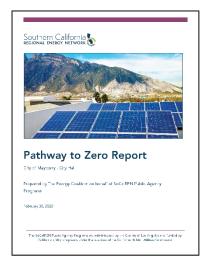


Figure 16. Pathway to Zero Report Screenshot

need to complete energy efficiency projects. DER audit technical assistance and enhanced benchmarking support via non-ratepayer funding enhances Pathway to Zero for complete and comprehensive services.

DER DAC Program Services

All program services offered through the SoCalREN EE PDP are also available through the DER DAC (Pathway to Zero) Program. Additional services offered include:

 Conducting education and outreach regarding DER portfolio services, including the integration of distributed generation, energy storage, demand response, energy management, and water efficiency optimization for public agencies.

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¹² As defined by CalEnviroScreen 3.0

- Identifying the technical expertise required for each of the DER resource areas and assisting public agencies with managing a competitive process to assemble the best team of expert consultants and practitioners.
- Building public agency expertise networks through training and development workshops.
 Workshops cover best practices protocols across all DER energy service areas and are offered to current and potential SoCalREN enrolled public agencies.
- Providing on-site benchmarking support and comprehensive technical services for DER project implementation.
- Influencing public agencies that serve DACs to go beyond EE retrofits toward ZNE by utilizing benchmarking data and tools.

DER DAC Program Objectives

- Increase the percentage of public agencies serving DACs engaging in EE and DER energy actions and strategies, thereby reducing overall community energy consumption.
- Increase the ability of public agencies to meet local, regional, and state DER and DAC energy goals.
- Increase the number of public agencies participating in SoCalREN's EE programs, with an emphasis on DACs.
- Enroll agencies and encourage them to engage their constituents about EE and DER programs and strategies, with a focus on disadvantaged and hard-to-reach communities.

DER DAC Program Performance

The Program was launched mid-2019 and therefore does not have metrics for completed projects. Nonetheless, the Program provided support on numerous pipeline projects. In 2019, Pathway to Zero delivered 12 comprehensive DER reports as appendices to the Project Proposal and developed nine projects. As of April 2020, two reports have been delivered, with seven additional reports on track to be delivered during 2020. The Program also provided energy efficiency audits, developed future pipeline, and provided agencies with benchmarking support services.

Table 18. Pathway to Zero Program Performance

Pathway to Zero Program Performance		
Metric	Performance	
Supported projects with DER education and information	12	
Identified pipeline of projects to receive EE + DER project reports	9	
Delivered EE Audit reports	12	
Delivered energy use analysis CEA report	18	

In 2019, SoCalREN secured \$1,000,000 of non-ratepayer funds for the design and launch of a Pathway to Zero companion sub-program. Part of SoCalREN's strategy of complementing CPUC funds, the sub-program will utilize money from the California Energy Commission (CEC) to provide enhanced benchmarking support and technical assistance for audits that evaluate various Distributed Energy Resources (DERs) as part of energy efficiency upgrades.

DER DAC Program Modifications

There were no modifications as the Program was launched in mid-2019. Pathway to Zero was conceived and designed based on feedback from public agencies. The Program focused on developing internal systems and operational processes during the second half of 2019. See *Sector Modifications* for modifications that impacted all Public Agency Programs.

DER DAC 2019 Strategies

Following a successful program launch, the Program succeeded due to proactive strategies driven by a vision of long-term Program success and meeting customer needs. The following are noteworthy strategies from 2019:

- Created a tool to target facilities serving DACs. The tool includes a portfolio-wide energy analysis that helps identify high opportunity projects and differentiate DAC facilities for each eligible agency and a webpage (https://socalren.org/agencies/dac) where agencies can determine facility eligibility by ZIP code.
- Established a relationship with existing program resources. Pathway to Zero combines all available DER programs to support project development and execution.
- **Developed DER subject matter expertise (SME)** through qualifications of existing trade allies and partners that support SoCalREN's energy efficiency project delivery.
- Identified and developed a process to capitalize on open source DER tools such as ReOPT, which supports high-level solar+storage analysis. These tools do not require technical assistance or analysis but are a great first step to guide an agency to possible project options.
- Developed **marketing collateral** to communicate how Pathway to Zero helps agencies meet state climate policy goals and its own resilience strategies.
- As part of the program launch, staff received training to identify Pathway to Zero
 opportunities and effectively communicate the value of the program offering.
- Created a partnership with the Los Angeles Cleantech Incubator (LACI) to tap into clean technologies and other regional sustainability programs.
- Developed analysis, reporting, and marketing tools to communicate Pathway to Zero's ability to address GHG reduction goals via energy savings.

DER DAC Program Optimization/2020 Outlook

After a successful launch in mid-2019 and a period of developing tools and processes, the 2020 program year for Pathway to Zero will focus on continued pipeline development and increased market penetration. Optimization strategies are centered on scaling up the Program and continuing to incorporate customer feedback to maximize the value of Program services. Pathway to Zero optimization initiatives for 2020 include:

- Integration of the Benchmarking Call to Action (BMCTA) subprogram funded by the California Energy Commission (CEC) to enhance Pathway to Zero services and move DER projects from preliminary identification to implementation. The new subprogram will support public agencies through the following activities:
 - On-site benchmarking and increased agency compliance with AB802.
 - Enhanced benchmarking analyses to identify EE and DER opportunities.
 - o Technical assistance with DER strategies and audits.
 - Technical support to facilitate implementation of DERs post audit completion.
- Increase Program participation through a two-pronged approach:
 - Targeted marketing and outreach to educate public agencies on the value of DER integration and how to best maximize energy efficiency.
 - Streamline enrollment in underserved areas and DACs by leveraging regional partners throughout the eligible territory. New SoCalREN partners will help overlay program offerings with other community equity issues of interest.
- **Host a DAC focus group** with diverse public agency types to inform program outreach strategies and effective communication strategies.
- Leverage non-ratepayer funding to help public agencies address barriers through the project process.
- Enhance financing options through the DER integration and optimization for energy efficiency. Potential financing vehicles could include leveraging the SoCalREN Revolving Loan Fund, third-party financing through ESCOs, PPA strategies, and the Energy-as-a-Service model.

NMEC Public Agency Program

NMEC Program Description

California has an ambitious goal of doubling energy efficiency savings by 2030. At the same time, public agencies need resources to improve their aging buildings and infrastructure and contribute to statewide efficiency goals. Existing energy efficiency programs require bringing facilities above Title 24 standards, which can deter public agencies from acting due to financial constraints—leaving below-code facilities with the largest energy efficiency opportunities "stranded." SoCalREN's Metered Savings Program (the publicly facing name for the NMEC Public Agency Program) offers a new way to access "stranded" savings and project delivery support. It uses normalized metered energy consumption (NMEC) to measure energy savings at the meter, unlocking new project opportunities to go beyond utility incentive eligible measures. This comprehensive approach reduces the complexity of multi-measure projects, allowing for deeper savings with expedited project completion.

This program provides an alternative to the existing utility incentive process for stranded potential savings in exterior lighting, public agency facilities, and buildings. Metered Savings is a resource program, so energy efficiency savings from these projects contribute to SoCalREN sector goals, state energy efficiency goals, and energy efficiency portfolio cost-effectiveness calculations.

NMEC Program Services

Identification of high-impact energy efficiency measures

- Development of weather-normalized facility energy usage model
- Financial assistance via a wide range of non-IOU financing offerings and grant options
- Procurement support, including technical specifications and scope of work review
- Construction management support to ensure proper installation and commissioning
- Post-installation training for facility maintenance staff
- Project savings reporting to track persistence of savings and provide facility managers with ongoing energy use monitoring

NMEC Program Objectives

- Ensure savings persistence
- Reduce multi-measure project complexity
- Support the goals of AB802 to support and capture stranded, to-code savings measures
- Improve project completion timelines in the public sector
- Contribute resource savings through the Public Sector programs of the SoCalREN
- Achieve a minimum project savings threshold of 10% of overall facility energy usage
- Provide training and educational materials to facility personnel to ensure persistence of savings well beyond installation completion

NMEC Program Performance

In 2019, the Program focused on developing a strong project pipeline and the tools and templates needed to seamlessly deliver those projects in 2020 and beyond. Customer feedback from initial presentations has been incorporated into processes and marketing materials to improve the participant experience, communicate value, and remove barriers to customer participation.

Table 19. Metered Savings Program

Metered Savings Program				
Metric Performance				
Pipeline developed*	2,502,803 kWh291 kW14,590 therms			
Potential Projects Identified	• 21			

^{*}Savings are based on forecasted construction completion timelines. Includes total savings projected for 2020 and beyond.

NMEC Program Modifications

There were no modifications as the Program was launched in mid-2019. The Metered Savings Program was conceived and designed based on feedback from public agencies. After launch, the Program focused on developing internal systems and operational processes, tools, templates, and future project pipeline through the second half of 2019. See *Sector Modifications* for modifications that impacted all Public Agency Programs.

NMEC 2019 Strategies

Following a successful launch, the Program succeeded due to proactive strategies driven by a vision of long-term success and addressing customer needs. The following are noteworthy 2019 strategies:

- Developed NMEC participation coordination protocol for a Public Agency strategy with the IOUs. The strategy calls for a coordinated and customer-centric presentation of Program services that facilitate unbiased review to ensure successful project support. The coordination document includes agreed-upon communication and presentation materials for the agency that avoid confusion and empower the customer decisionmaking process.
- As part of the program launch, developed marketing collateral and provided staff training to identify opportunities for the Metered Savings Program and effectively communicate the value of the Program offering.



Figure 17. Metered Savings Program Fact Sheet

- Presented Program pathways to agencies through the delivery of Agency Services
 Plans. These plans outline energy efficiency measures identified, financial metrics, and
 program services available to agencies through the Metered Savings Program.
- Enhanced benchmarking and project prescreening. The Program developed an
 enhanced benchmarking tool via a software platform that leverages smart meter energy
 usage data that will allow for advanced prescreening of an agency's facilities for NMEC
 project potential. This tool reduces the cost of new project identification and ensures
 NMEC-based projects are implemented successfully.
- Leveraged open-source tools that benefit participating agencies and advance the industry as a whole. Through a pilot project with engineering and software development partners, SoCalREN designed and tested an open-source statistical modeling tool, NMEC-R, that provides an accurate baseline energy usage model essential to NMEC-based project delivery. NMEC-R improves program delivery in several ways. It ensures savings are captured accurately during the reporting period and makes it easier for the Energy Division to evaluate the model and issue guidance; time is saved, and accurate savings are captured. Open-source tools also remove barriers to CPUC approval of projects and help advance the industry by promoting collaborative development of essential tools and resources.
- Developed Project Savings Reports. The Metered Savings Program Project Savings Report, which is provided to participating agencies quarterly after energy efficiency measures are installed, was developed and tested in 2019 and is ready for use in 2020. This tool utilizes the NMEC baseline energy model to capture and visualize weather-

adjusted energy savings and is intended to ensure the persistence of savings well beyond installation.

NMEC Program Optimization/2020 Strategies

After a successful launch year in which tools, processes, and pipeline were developed, 2020 for the Metered Savings Program will focus on delivering the projects currently on-track for installation in 2020, scaling up program participation for future years, and continuing to incorporate customer feedback to maximize the value of Program services. Metered Savings Program optimization initiatives for 2020 include:

- Improve project screening using enhanced benchmarking tools. The Program will continue 2019 efforts to develop cost-effective strategies to identify and obtain project buyin from public agencies. Due to the new and still developing NMEC framework, this approach provides an opportunity to educate customers on project potential.
- Enhance non-IOU financing options to counter the lack of IOU on-bill financing and support project financials that capture the true value of stranded energy savings. Potential financing vehicles include the SoCalREN Revolving Loan Fund and the evolving Energyas-a-Service model.
- Develop savings persistence strategies that engage facility engineers, tenants, and decision makers on the project and establish commitment for long term project success.
 Broad stakeholder support will ensure target savings are captured over the life of the project and will serve as a catalyst for expanding the project pipeline.
- Create targeted marketing and outreach strategies to educate public agencies on the value of the NMEC approach.
- Continue close collaboration with CPUC staff and industry experts to ensure Program design and processes are aligned with the evolving NMEC guidebook, and to actively participate and provide feedback based on customer experience.
- Streamline project approval and implementation by leveraging the Metered Savings Program's freedom from incentive application delays, equipment requirements, and sunsetting incentives. The transparency and certainty for the customer will allow for faster project implementation and realization of savings.

2019 Sector Strategies

SoCalREN Public Agencies Programs implemented the below strategies in 2019 and delivered on the work described on the sections that follow:

Grow the Program and Expand Reach

SoCalREN's Public Agency Programs and services are available to public agencies within SCE and SoCalGas service territories. The territory includes the counties of Los Angeles, San Bernardino, Riverside, Ventura, Inyo, Imperial, and Mono, and portions of Orange, Kern, Tulare, Santa Barbara, and Kings. The types of public agencies eligible for SoCalREN services include:

- City governments and townships
- Tribes

- County governments, including unincorporated areas under county jurisdiction
- K-12 school districts
- Water/wastewater agencies/districts
- Other public agencies (non-State and non-Federal)

To ensure comprehensive services to the Southern California region, including services to DACs, SoCalREN engages agencies within diverse climate zones and with various population sizes, population densities, rural versus urban characteristics, and other factors. Agencies targeted for enrollment are identified based on a variety of factors including designation as a disadvantaged or hard-to-reach community, energy savings potential, existing relationships, potential funding and grant opportunities, and energy efficiency measure opportunities.

Engage and Enroll

Eligible public agencies can engage with SoCalREN in a multitude of ways. Public Agencies seeking comprehensive, turnkey project delivery support services can "enroll" in the Program to take advantage of the full array of no-cost offerings. The enrollment process requires participation in an initial Program kick-off meeting where utility partners and LGP representatives are invited to participate and agencies are asked to sign a non-binding enrollment form. The enrollment form simply acknowledges the agency's commitment to drive energy efficiency projects forward and identifies a single point of contact to act as the agency's "Energy Champion" and coordinate with SoCalREN.

SoCalREN is committed to expanding reach across the territory and growth in savings. In 2019, SoCalREN enrolled 19 agencies, bringing the total number of enrolled agencies to 137 or approximately 20% of the eligible agencies within the SoCalREN's territory. The tables below reflect the program's reach across counties in the service territory. Table 20 shows cumulative agency enrollments, Table 21 shows cumulative enrollments by agency type, and Table 22 shows 2019 enrollments.

Table 20. Enrolled Agencies by County (Cumulative)

Enrolled Agencies by County					
# of Enrolled Agencies (Cumulative)	County (by eligible population)	% of Enrolled Agencies			
48	Los Angeles	35%			
27	Orange	20%			
14	Riverside	10%			
18	San Bernardino	13%			
21	Ventura	15%			

2	Tulare	2%
6	Santa Barbara	4%
1	Kern	1%

Table 21. Enrolled Agencies by Type

Enrolled Agencies by Type of Public Agency						
# of Enrolled Agencies	Type of Agency % of Enrolled Agencies					
87	City	64%				
22	Water/Wastewater District	16%				
18	School District	13%				
5	County	4%				
4	Other Special District	3%				

Table 22. Enrolled Agencies by County (2019)

Enrolled Agencies by County (2019)						
# of Enrolled Agencies (in 2019)	County (by eligible population)	# of Enrolled Agencies (Cumulative)	% of Enrolled Agencies (Cumulative)			
9	Los Angeles	48	35%			
4	Orange	27	20%			
0	Riverside	14	10%			
3	San Bernardino	18	13%			
3	Ventura	21	15%			
0	Tulare	2	1%			
0	Santa Barbara	6	4%			
0	Kern	1	1%			

Services to Rural Hard-to-Reach (HTR) and Disadvantaged Communities (DACs)

To demonstrate SoCalREN's commitment to serving DACs, as defined by the latest CalEnviroScreen criteria, the program aims to maintain a minimum of 50% of completed projects within communities that serve DACs. In 2019, 48% of the 67 projects completed support DACs.

The current definition of HTR does currently allow for the classification of rural public agencies as HTR, but in 2019, SoCalREN collaborated with SCE and the Rural-Hard-to-Reach Working Group to support expanding the definition of HTR to include public agencies. In lieu of a formal definition for HTR for rural public agencies, SoCalREN is defining rural as agencies serving ZIP codes having at least 20% of the population defined as rural per the US census. Based on this definition, the program provides services to 12 public agencies in rural and hard to reach communities in the service territory.

The table below details target versus actual performance metrics.

Table 23. Completed Projects Serving DACs

Completed Projects Serving DACs				
Performance Target	Program Performance			
50% of completed projects serving DACs	48% of IR submitted projects serving DACs (32/67)			

In 2019, the Program enhanced its coordination with Local Government Partnership (LGP) implementers, councils of government (COGs), and other organizations that primarily serve disadvantaged communities.

Regional Reach

SoCalREN developed and launched a new four-pronged strategy in 2019 that 1) demonstrates regional reach and delivery of valuable services to the entire service territory, 2) strengthens communication processes among SoCalREN agencies and partners, 3) seeks opportunities to enhance services in subregions, and 4) identifies new opportunities and pilot programs to meet specific sub-regional needs. The four-pronged strategy is described below.

• Market SoCalREN through Agency Registration. SoCalREN developed a process to register as many as possible of the 715+ eligible agencies within its territory to expand its network and funnel registered agencies into applicable programs. By registering on socalren.org/join, public agencies can now gain access to an extensive library of information, tools, templates, and case studies and will also be introduced to new program opportunities. Adding this "pre-enrollment" step to the project delivery process is not only a strategy to expand the Program's reach, but also provides opportunities to build agency capacity and expertise. It also supports the overall SoCalREN brand by introducing not just the SoCalREN Public Sector programs, but also other non-Public Sector SoCalREN programs.

• Engage Regional Partnerships. In 2019, SoCalREN began partnering with regional community-based organizations and COGs to provide on-the-ground outreach and engagement to promote and enhance program services. Many of these organizations have established relationships with agencies working on energy efficiency efforts through Local Government Partnerships. This approach brings SoCalREN to eligible cities that are not yet enrolled. Regional partners enhance SoCalREN's expertise and reach by leveraging their local knowledge, existing relationships with member agencies, and professional relationships that often extend beyond energy efficiency.



Figure 18. SoCalREN Regional Partners' Regions of Influence

- Strengthen Ongoing Regional Participation and Guidance. SoCalREN reconvened
 and formalized the SoCalREN Advisory Committee to get input from local leaders and
 ensure SoCalREN is delivering maximum benefit across all communities. Quarterly
 meetings offer an avenue for committee members to provide advice, guidance, and
 support for SoCalREN's portfolio. The Advisory Committee will also review program
 performance, receive regulatory updates, offer feedback, and engage in discussions on
 topics critical to SoCalREN's ongoing success.
- Identify Sub Regional Needs. SoCalREN laid the foundation for potential new SoCalREN programs or existing program modifications that address local needs. New programs and program enhancements could be piloted and proposed through the CPUC Annual Budget Advice Letter (ABAL) process then launched, as appropriate.

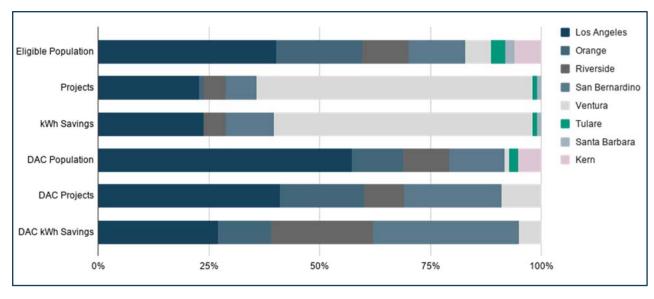


Figure 19. Program 2019 Regional Reach by Eligible County

Conduct Marketing and Outreach

SoCalREN's communications efforts in 2019 were focused on **encouraging enrollment** for eligible public agencies and **increasing the engagement of agencies already enrolled in the program to build their energy capacity and expertise**. SoCalREN's marketing and outreach activities focused on identifying and executing outreach activities, developing distributing informational materials (printed materials, newsletters, eblasts, website, and social media), and ensuring the programs maintained a high level of customer satisfaction.

SoCalREN tracked the following metrics to measure/report on the success of communications efforts:

- 1. Completed 24 informational outreach activities, including peer-to-peer workshops and other speaking engagements.
- 2. Ensured 100% of participating agencies received information and educational materials in 2019. Forty-three unique materials, such as fact sheets, newsletters, and case studies were developed and shared with agencies.
- Obtained a 94% overall customer satisfaction rating from enrolled agencies in the Public Agency Program, as measured by a mid-year survey. Survey and analysis were conducted from June to August.

See **Appendix B** for additional details on 2019 marketing and outreach activities conducted.

Sector Optimization/2020 Outlook

In addition to the optimization strategies outlined in each program-specific section, the strategies outlined below will support the successful implementation of all SoCalREN Public Sector Programs.

Strategic marketing and outreach initiatives

- Form new partnerships with industry and regional stakeholders, such as trade, school, and water organizations, to continue to tailor program offerings based on customer needs and to provide access to decision makers.
- Develop and implement strategies that support agency interdepartmental education on Program offerings and alignment of Program services with agency and state sustainability goals.
- Continue to expand the ways SoCalREN collects feedback from agencies, partners, and industry stakeholders for improved cost-effectiveness and customer experience.
- Explore additional opportunities to collaborate with CCAs and IOUs:
 - o Consider new program services and approaches to address unique regional needs
 - Pilot programs/activities
 - Expand regional partnerships and regional reach strategy
 - Communicate the value of SoCalREN program services in health, safety, and reliability of public agency facilities and community at large
 - Track impacts on critical facilities
 - Increase reliability via additional DER strategies

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Finance Sector Programs

Overview of Sector Performance

During 2019, SoCalREN worked to develop Finance offerings to serve both the Public and Residential sectors. The Public Sector Revolving Loan Fund provides a mechanism to accelerate the completion of energy efficiency projects at facilities owned by SoCalREN enrolled public agencies. Similarly, the Residential Loan Loss Reserve is designed to help address the market barriers preventing multifamily property owners/contractors, including HTR and DAC customers, from completing comprehensive energy retrofits. Both offerings are described in detail below.

Public Agency Revolving Loan Fund

RLF Program Description

The Revolving Loan Fund (RLF) is a cross-cutting financing program designed to support energy upgrades to facilities owned by enrolled public agencies via loans that accelerate project implementation. The Revolving Loan Fund offers a unique form of short-term and up-front construction financing for small to midsize projects at 0% interest to bridge the gap left by utility On-Bill Financing (OBF) or other funds made available after project completion.

The RLF aims to accelerate the implementation of energy projects that would otherwise be delayed pending budget allocation by providing the funds for approved but not-yet-budgeted projects. Loans are financed with a \$2.2 million, non-ratepayer initial seed capital account secured from the California Energy Commission (CEC). CPUC ratepayer funds support program management and marketing.

The RLF is a catalyst for agency enrollment and project development that prioritizes serving disadvantaged communities.



Figure 20. SoCalREN's RLF: How it Works

RLF Program Services

- **Financial analysis** and project proposal that showcases project economics and helps structure the RLF loan as part of a project's funding and financing strategy.
- Long term financing strategy and support that ensures that the RLF loan is successfully paid back and that the agency secures any applicable long-term financing.
- **Short-term loan** at zero-percent interest with a streamlined approval process and board resolution template to facilitate the approval process.
- **Project management and financial advisory support** to present the financing structure and support agency stakeholder buy-in.

RLF Program Objectives

- Stimulate agency enrollment, encourage project development, and increase public agency participation in energy efficiency programs.
- Increase energy efficiency project savings by helping public agencies overcome rigid funding and budget requirements/restrictions.
- Provide a low-cost solution for EE short-term project financing for public agencies.

RLF Program Modifications

There have been no modifications since the Program was launched in mid-2019. The RLF was conceived and designed based on feedback from public agencies. The Program focused on developing internal systems and operational processes throughout the second half of 2019. See *Sector Modifications* for modifications that impacted all Public Agency Programs.

RLF Program Performance

After launching in mid-2019, the Revolving Loan Fund focused on outreach and developing internal tools and templates to optimize program performance. Specifically, an internal program manual was created to support SoCalREN project managers on RLF outreach. Customer feedback from initial presentations of program services has been incorporated into processes and marketing materials to improve the participant experience, communicate value, and remove barriers to customer participation.

Table 24. Revolving Loan Fund Program Performance

Revolving Loan Fund Program Performance					
Tactic	2019 Performance				
Deliver RLF Program "loan informational overviews" to potential borrowing agencies	Number of touchpoints where RLF Program is presented	45			
Deliver Project Proposals that present project economics with an RLF loan	Number of Project Proposals delivered	67			
Evaluate an agency's ability to take advantage of the RLF loan	Number of RLF loan applications	1			

Provide eligible agencies opportunity to use an RLF Loan	Number of Agency-approved loans	4 agencies expressed an interest in leveraging RLF for projects	
Enable energy savings by funding projects with RLF Program loans	Number of RLF Program Loans Awarded, Dollar Amount Issued, and Energy Savings attributed to the Project	 \$1,472,870 in pipeline developed Attributable pipeline energy savings: 1,526,441 kWh 206 kW 1403 therms 	
Manage the RLF Program for repeated use of seed capital funds	Number of RLF Program Loans with full, on-time repayment	Developed loan tracking system to support oversight of available funds	

Table 25. Revolving Loan Fund Commitment Pipeline

Revolving Loan Fund Commitment Pipeline						
Funds Project Funds Preliminary Loan kWh kW therm						On-Bill therm Savings
\$2,200,000	4	\$1,472,870	\$1,122,000	1,526,441	206	1403

Table 26. Revolving Loan Fund Project Details

Revolving Loan Fund Project Details						
Agency Name	Project Name	On-bill Energy Savings (kWh)	On-bill Energy Savings (therms)	Constructio n Value Estimate	Audit Completio n Date	Application Status
Huntington Beach	Huntington Beach Central Library	188,241	1,403	\$153,299	6/6/2017	Preliminary application in development
Costa Mesa	Costa Mesa City Hall	1,150,000	0	\$1,122,000	1/24/2019	Preliminary application submitted
Los Angeles County	LAC North Agency	99,272	0	\$68,000	11/26/2018	Preliminary application in development
Costa Mesa	Costa Mesa Ext. Lighting	88,928	0	\$129,571	5/1/2017	Preliminary application in development

RLF 2019 Strategies

Following a successful program launch, the Program gained traction due to proactive strategies driven by a vision of long-term program success and addressing customer needs. The following are noteworthy strategies from 2019:

- Created a financing analysis tool to incorporate the RLF loan option on energy efficiency project proposals.
- Incorporated feedback from a pilot project and updated program processes and external marketing documentation.
- Identified options for long-term financing that, when needed, would replace the two-year term RLF loan.
- Developed a system to track financing assumptions to support financial analysis that includes discount and loan/lease rates, inflation rate, and utility escalation.



Figure 21. RLF Fact Sheet

RLF Program Optimization/2020 Outlook

After a successful launch year in which tools, processes, and pipeline were developed, the 2020 Program year for the Revolving Loan Fund program will focus on scaling up participation and continuing to incorporate customer feedback to maximize the value of program services. RLF Program optimization initiatives for 2020 include:

• Increase Program participation via

- Targeted marketing and outreach to educate public agencies on RLF's value and how it can get efficiency projects off the wish list and into implementation.
- Educational campaigns and strategies that encourage energy champions (the agency's point of contact for SoCalREN projects) and finance staff to collaborate on project financing and project development.
- Outreach to disadvantaged communities throughout the SoCalREN service territory, taking into consideration the overlay of program offerings with other community interests.
- Support broader and more strategic energy planning by incorporating RLF project financing strategy support.

Residential Loan Loss Reserve (Multifamily Financing Program)

Program Description

The Residential Loan Loss Reserve Program, or Multifamily Financing Program (MFF Program or Program) broadens access to finance for more multifamily property owners/contractors for energy efficiency upgrades by allowing a financial institution partner to modify its underwriting criteria and accept more risk than it would otherwise on qualified projects. The Program design incorporates a credit enhancement that will reduce the borrowing rate for the borrower and the design incorporates features that make the program process easy for the borrowers, financial institutions, contractors, and the administrator, therefore, encouraging investments in energy efficiency.

This Program addresses the funding market barrier, thus promoting more long-term energy benefits for multifamily housing through funding the implementation of comprehensive energy efficiency upgrade measures. The Program aims to (1) assist property owners and property managers with making informed decisions about the cashflow associated with energy efficiency improvements, (2) offer credit enhancements to decrease market-based interest rates and (3) facilitate additional whole-building energy efficiency measure installations, further encouraging investments and market participation in energy efficiency.

The Program provides a credit enhancement for loans to fund the installation of a set of energy efficiency measures recommended through an energy assessment conducted by the Multifamily Program staff and property owner's contractor. The credit enhancement absorbs any losses before the lending partner does and funds revolve as loans amortize.

Program Services

The MFF Program offers customers three types of loan products:

- Capital Lease: A capital lease is a lease-agreement in which the lessor agrees to transfer the ownership rights to a lessee at the end of the lease term, although the lessee still benefits from any rights to tax benefits or depreciation. In many ways the capital lease resembles a closed-end loan where the financial institution is the owner of the installed energy efficiency equipment until the capital lease is paid in full. Rates typically range from 5%-12%, and application process can be as little as a single page. Due to its convenience, the capital equipment lease is an ideal instrument for many types of efficiency upgrades in the appropriate sectors. This financial product works best for equipment replacement and other lower capital projects (<\$250,000 project cost).
- Equipment Finance Agreement (EFA): An Equipment Finance Agreement is a financing option that differs from traditional lease operating agreements. While there are similarities between EFAs and traditional lease-purchases, in this case the lessee retains ownership of the equipment financed throughout the term. This contrasts with most equipment leases in which the lessor retains ownership of the equipment and leases it to the lessee. The underwriter of the agreement simply files a U.S. Uniform Commercial Code (UCC) lien

- with the appropriate agency, using the equipment as collateral throughout the term of the agreement, but for the most part, EFA's serve the same function as a lease-purchase.
- Energy Service Agreement (ESA): For this product, the borrower enters into an agreement with a service provider (contractor) and in return receives the output (saved energy) from the energy equipment. The service provider is paid back for its investment through a portion of the energy cost savings that the project incurs over a specified period. The borrower typically realizes savings immediately with no up-front cost and the project is generally considered off balance sheet. Underwriting is based on the energy savings potential of the project as well as creditworthiness of the borrower. This product is for projects where borrowers may not want to carry debt and for larger projects that require significant expenditures (>\$250,000 project cost).

Program Objectives

- Provide free customized assistance to meet the finance needs of property owners and their contractors/consultants
- Provide finance proposals for Multifamily Program projects based on proposed scope of work (plans and specifications), validate project for finance eligibility, and offering financial products to meet individual project needs
- Increase installation of energy efficiency projects by providing competitive financing terms to overcome barriers related customer's access to capital

Program Performance

In 2019, development of the MFF Program was initiated. Key activities accomplished included:

- Designing the core program elements;
- Soliciting stakeholder feedback through a public forum and comment period;
- Preparing the program Implementation Plan and uploading to CEDARS;
- Developing marketing materials for account managers and contractors; and,
- Initial build out of financing application portal.

The key program design element completed was the overall program process which is shown in **Appendix D: Multifamily Financing Process Flowchart**.

Program Modifications

There were no modifications as the Program was launched in mid-2019. The MFF Program was designed in consultation with the Program's financing consultant, National Energy Improvement Fund, who has developed similar utility financing programs and was the primary consultant behind the California Alternative Energy and Advanced Transportation Financing Authority (CAETFA) and the California Hub for Energy Efficiency Financing (CHEEF). Stakeholder feedback was solicited through a public presentation held on November 22, 2019 and subsequent two-week comment period. No feedback was received during that comment period.

2019 Strategies

Given that the MFF Program was developed late in 2019, there was no program activity in terms of financing proposals or applications. Key strategies completed included:

- Evaluated multiple Loan Loss Reserve financing solutions and identified the ones that would work best with the Multifamily Program design;
- Surveyed existing financing programs and developed solutions that would not compete with existing market offerings;
- Reviewed Multifamily Program processes to determine how best to manage the financing process;
- Established clear roles and responsibilities for LA County, program implementer and financing consultant for the program implementation phase; and,
- Initiated work on financing portal including definition of required data fields to share between program implementation database and financing portal.

Program Optimization/2020 Strategies

- After conceptual development of the MFF Program in late 2019, program strategies for 2020 will include:
- Formalize contractual relationships with financing institutions to offer project funding;
- Finalize development of MFF portal functionality and SoCalREN branding;
- Conduct financing training for internal program staff and program contractors including in depth review of financing options and navigation of financing portal;
- Finalize development of all MFF Program marketing materials;
- Initiate marketing campaign to support program launch;
- Provide customer support to review and evaluate financing options; and,
- Assist customers with submitting financing applications.



Overview of Sector Performance

The SoCalREN Workforce Education and Training (WE&T) Program was initially launched as a offering under its flagship Public Sector program. In 2018, under the newly adopted Rolling Portfolio Business plans, the SoCalREN WE&T Program was fully developed and implemented as a stand-alone program with a vision to provide a reliable, diverse, and highly skilled workforce.

SoCalREN WE&T strives to build a local workforce that is able to deliver high-quality energy efficiency (EE) services to all segments of the Southern California ratepayer community as a result of a comprehensive regional and effective workforce education and training infrastructure for local high school students and diverse contractors. SoCalREN facilitates the participation of underrepresented individuals and businesses in the EE sector through workforce and business development and capacity building.

These efforts build upon the workforce development infrastructure and alignment created to support a pathway from pre-apprenticeship training to apprenticeship and the support services required to eliminate barriers to participation. In addition, the Program offers continued capacity building support for diverse Small Business/Disabled Veteran Business Enterprise (SB/DVBE)

Southern California

Achieving Energy Efficiency Through
Small Contractor Participation.

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Figure 22. E-Contractor Academy Flyer

contractors through the E-Contractor Academy Program.

The skilled labor demands of the energy sector, specifically skills wanted for entry-level positions, are largely unmet. This is due to the increased levels of technology incorporated into building systems and facilities that require a combination of aptitudes and technical skills. The current market demand for skilled labor in public work and commercial development also challenges the availability of a skilled workforce for the energy sector.

SoCalREN WE&T serves as a response to that unmet demand by building a supply of well-skilled workers through aggressive youth workforce education and training, and small business training regarding current EE programs and local public agency opportunities.

WE&T Program Services

This non-resource program provides many services to support participants by building partnerships specific to each WE&T program intervention.

- Provides RFP bidding training for small business contractors and Women-, Minority-, Disabled Veteran-Owned Business Enterprises (WMDVBE) for specific local public agencies with upcoming EE project RFP solicitations.
- Implements an E-Contractor Academy which prepares small and diverse contractors to compete and perform energy efficiency retrofit projects through a series of six weekly seminars. These seminars introduce contractors to green building standards, contractor

prequalification, Request for Proposal (RFP) bidding and estimating principles, as well as proper labor compliance and EE project management.

 Provides disadvantaged youth Science, Technology, Engineering, the Arts, and Mathematics (STEAM) education and career technical education in its workforce model, to help cultivate the skilled workforce necessary to operate and maintain energy efficiency investments in the public sector. This is achieved through the Architecture, Construction and Engineering Students (ACES) Pathway Program, described further below.



Figure 23. 2019 ACES Pathway Program Participants

WE&T Program Objectives

- 1. Increase Southern California regional workforce and training infrastructure/partnerships, comprising community-based training organizations, K–12 and higher educational institutions, apprenticeship programs, and workforce investment boards.
- 2. increase the quantity and skills of entry-level and incumbent workers in all levels of the demand-side management (DSM) and EE industry.
- 3. Increase entry-level skills training and job opportunities for disadvantaged workers.
- 4. Develop a regional energy management training program to increase the operational efficiencies of energy efficiency retrofit projects.
- 5. Standardize local contracting policies and protocols into public bid/solicitation documents across the SoCalREN region to increase capacity and the participation of WMDVBE businesses in EE work.

WE&T Program Performance

The SoCalREN WE&T Program strives to help build a skilled workforce in Southern California, through a variety of training resources for local students and diverse contractors. SoCalREN takes a comprehensive approach to helping local industry build capacity within the EE workforce to support energy efficiency retrofit projects, both in the residential and public sectors.

Disadvantaged Youth Career Technical Education

The ACES Pathway Program provides disadvantaged youth with the opportunity to build a pathway to a brighter future with a career in a STEAM field. Participation in ACES improves educational achievement and removes barriers to higher education by co-enrolling high school students in community college courses. The credits they earn are transferable to campuses within the California State University and University of California systems.



Figure 24. 2019 ACES Pathway Program Participation Process

In addition, ACES participation offers students paid summer internships that pave the way for secure employment in well-paid careers by providing hands-on work experience alongside industry professionals in the engineering, construction, and municipal sectors.

During 2019, the SoCalREN WE&T Program established three new partnerships and provided 29 paid internships to ACES participants. Figure 25 provides additional data regarding cumulative student enrollment and success.

Table 27 provides examples of organizations who work in partnership with ACES to provide students with paid internships.

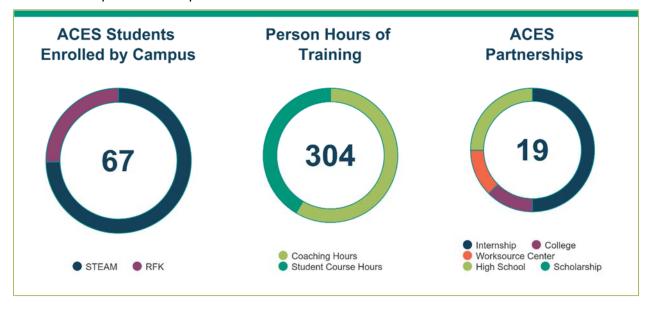


Figure 25. 2019 ACES Pathway Program Cumulative Performance

Table 27 provides examples of organizations who work in partnership with ACES to provide students with paid internships.

Table 27. ACES Internship Partner Organizations

Partner Organization	Description			
Englekirk Structural Engineers	Englekirk provides structural engineering services for the public and private sectors.			
IMEG Corp.	IMEG Corp. is a firm made up of consulting engineers serving as design engineers for high-performance buildings and infrastructure.			
PCL Construction	International group of independent general contracting companies.			
Skanska	Multinational construction and development company ranked as the fifth largest construction company in the world.			
City of Montebello Engineering Department	The City of Montebello's Engineering division is responsible for the development and management of various Capital Improvement Projects in the City.			
City of Huntington Park Public Works Department	The City of Huntington Park's Public Works Department monitors and maintains the City's infrastructure.			

Contractor Training and Support

SoCalREN offers standardized and customized training support services to help existing small businesses identify and participate in EE project and program opportunities. In 2019, the SoCalREN program hosted three in-person workshops educating local contractors about working with Los Angeles County and with specific SoCalREN programs under the Public and Residential Sectors.

These courses offered a detailed look at how each program works, how programs can help contractors grow their business, and next steps to participate. Of training attendees, nearly 60% subsequently enrolled in



Figure 26. SoCalREN WE&T Multifamily Workshop Invitation

a SoCalREN program. Table 28 provides data from 2019 events, and Figure 27 provides demographic and participation information for contractors who enrolled in SoCalREN courses.

Table 28. 2019 SoCalREN WE&T Contractor Training Courses

Course	Contractors Registered	Contractors Attended	Contractors Enrolled in Program
Doing Business with SoCalREN	53	22 (42%)	12 (55%)
SoCalREN Multifamily	41	19 (46%)	7 (37%)

SoCalREN Public Sector	43	17 (40%)	15 (88%)
Total	137	58 (42%)	34 (59%)

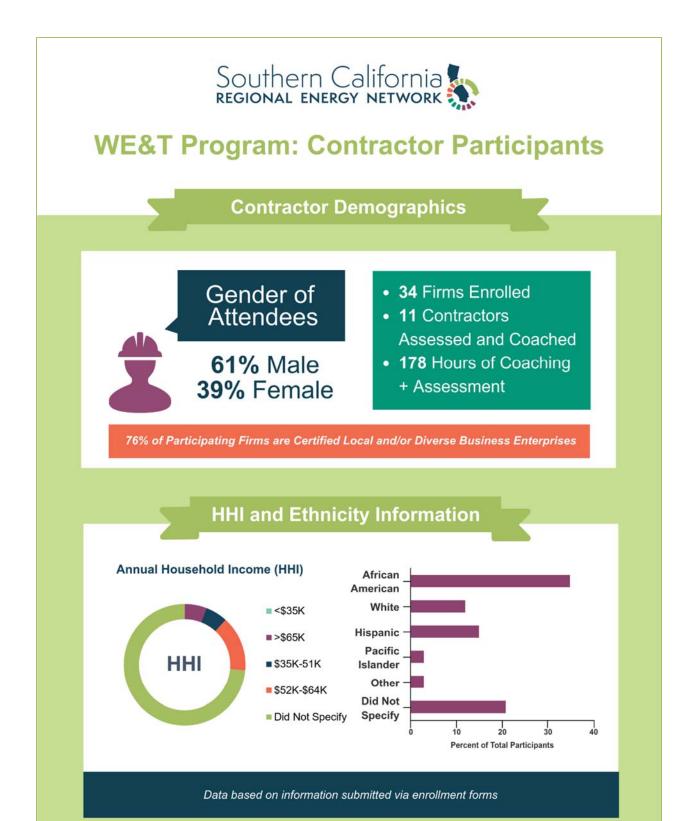


Figure 27. WE&T Program Contractor Demographic Information

By supporting residential and public agency energy efficiency projects, offering educational opportunities, and creating connections among agencies for peer-to-peer learning, SoCalREN is building the capacity of the local workforce to support current and future needs for skilled workers in the EE sector.

WE&T Program Modifications

In 2019, the Program continued to streamline its systems and processes and improve cost effectiveness while responding to the evolving needs of the market. There were a few critical modifications to the WE&T Program design that further leveraged local government agency capacity to drive the EE market and objective of utilizing a holistic approach in program offerings. Specifically, these modifications were:

- Offered training courses specific to SoCalREN programs so that new small businesses contractors could more easily participate in program offerings.
- Leveraged existing public agency partners who currently actively participate in SoCalREN's public sector programs to develop RFP training opportunities for upcoming EE RFP project solicitations.
- Convened with SoCalREN IOU partners on a monthly basis to develop a coordinated "team" approach and leveraged alignment across program administrators and across REN programs.
- Developed a detailed program dashboard so that all necessary data points for the program's performance can be monitored and tracked.

WE&T 2019 Program Strategies

The following are noteworthy 2019 strategies that built on SoCalREN's record of successful program design.

- 1. Continued to meet market gaps.
 - Coordinated with local public agencies to identify opportunities for potential WMDVBE EE contractors and established a training protocol so that the program could offer training courses on upcoming EE RFP opportunities.
- 2. Developed strategies to build capacity within SoCalREN programs and support trade ally networks.
- 3. Developed tools to streamline services and reduce costs as part of an ongoing effort to streamline the Program and incorporate lessons from on-the-ground experience. Examples of continuous improvement and incorporating lessons learned in 2019 for cost-effective program implementation include:
 - Improved data collection and program performance management. These and other enhancements will help identify best practices and improvements needed within the existing programs. In addition, these will act as the necessary data for further REN program evaluation.
 - Aligned with IOU downstream intervention strategies and programs and ensured IOU offerings (such as the upstream, midstream, direct install, and IOU third-party programs) are leveraged, when feasible. This makes for cost-effective program delivery and a simplified customer experience.

WE&T Program Optimization/2020 Outlook

After a successful year in which materials, processes, and partnerships were developed, the 2020 program year for the WE&T program will focus on scaling up program participation and continuing to identify strategies that support the overall EE industry workforce, as well as all trade ally networks. WE&T program optimization initiatives for 2020 include:

- Develop additional offerings for training workshops that bring local contractors into SoCalREN Public and Residential sector programs.
- Provide capacity building support, helping contractors expand their offerings and gain valuable certifications that can lead to additional, more lucrative work.
- Increase availability of virtual and online training courses to provide expanded availability to contractors located outside the Los Angeles metro area.
- Provide support to existing SoCalREN program contractors in hiring individuals or working with subcontractors who have gained EE training and technical expertise through SoCalREN WE&T offerings.

APPENDIX A: 2019 EE Annual Report Technical Appendices

A	В	C	D		
Table 1.					
Electricity and Natural Gas Savings and Demand Red	luction (Net)				
Annual Results	2019 Installed Saving	CPUC 2019 Adopted Goals (D.15-10-028) [3]	% of Goals (2019)		
2019 Energy Savings (GWh) – Annual	5.73006	5.474356	105%		
SoCalRE	N 5.73006	5.474356	105%		
TOTAL Energy Savings (GWh) - Annual	5.73006	5.474356	105%		
2019 Energy Savings (GWh) – Lifecycle [2]	69.01690	n/a	n/a		
SoCalRE	N 69.01690	n/a	n/a		
TOTAL Energy Savings (GWh) – Lifecycle	69.01690	n/a	n/a		
2019 Natural Gas Savings (MMth) – Annual	0.351418	0.154741	227%		
SoCalRE	N 0.351418	0.154741	227%		
TOTAL Natural Gas Savings (MMth) – Annual	0.351418	0.154741	227%		
2019 Natural Gas Savings (MMth) – Lifecycle [2]	4.58799	n/a	n/a		
SoCalRE	N 4.58799	n/a	n/a		
TOTAL Natural Gas Savings (MMth) – Lifecycle	4.587994	n/a	n/a		
2019 Peak Demand savings (MW) [4]	0.36200	n/a	49%		
SoCalRE	N 0.36200	0.735000	49%		
TOTAL Peak Demand savings (MW)	0.36200	0.735000	49%		

^[1] Installed savings are from SoCalREN Multifamily Program, the only SoCalREN resource program.

Advice Letter Submission.

[4] Peak Demand Savings Goal is not provided because 2019 ABAL Peak kW goal was calculated based on EnergyPro Average kW baseline outputs, but 2019 Savings are based on CPUC Peak kW definition.

Table 2						
Environmental Impacts (Net)						
Annual Results	Annual tons of CO2 avoided	Lifecycle tons of CO2 avoided	Annual tons of NOx avoided	Lifecycle tons of NOx avoided	Annual tons of PM10 avoided	Lifecycle tons of PM10 avoided
2019Portfolio Targets[1]	378	n/a	n/a	n/a	n/a	n/a
SoCalREN	2,557	32,724	781	9,401	385	4,633
2019 Total	2,557	32,724	781	9,401	385	4,633
[1] Goals do not reflect public secto non-re	source programs in 201					

^[2] Lifecycle goals not given in D.15-10-028.

^[3] CPUC approved goals for the 2019 Annual Budget

Table 3. 2019 Expenditures, including expenditures on past cycle commitments paid in 2019.

		On Bill	Financing Loan Pool														•	
	EM&V		019 Expendanes 2019 from pre 2019 Expendanes from bungets 2019 Bunget												٠	٠		
	EM		2019 Expendiums from pre, 2019 budgets												٠	٠		
	PA Administered ME& O		2019 Expendures from 2013 Budget		300,340	9,021	51,477	15,085	430,410	95,276	9/0/69	6,923		609'226	•	•		909'226
(aour	PAA		2019 Expendiums from pre 2019 budjets															
Total 2019 Expenditures (broken out by budget-year funding source)	Dřect Implementation	Incentives & Rebates	2019 Expendiurs from 2019 Budget		4,977,487									4,977,487	•			4,977,487
			2019 Experiotors from pre-2019 budgets		2,183,556									2,183,556				2,183,556
		Non-Incentive	Expendiums from 2029 Budget		2,353,928	97,116	177,396	74,632	8,331,665	471,049	558,220	296,618		12,360,624	•	•	•	12,360,624
		Non	2019 Expendiures from pre-2019 budgets															
		101	109 Expendures 2019 2009 Expendures from pre-2019 Expendures from pre-2019 budgets 2019 Budgets budgets															
	Administrative																	
		Non-10U Implementer	036 Expenditures 2009 from pre-2009 Expenditures from budgets 2009 Budget		449,062	35,212	36,311	132,586	772,524	239,916	144,588	16/01		1,826,291	•	•	•	1,826,291
			2019 Expenditures from pre-2019 Es budgets															
Authorized/Forecast Budget	0019Adogred Budget 2019 Administrative Cost (FE.D.15.10.02) (florexat as per budget Advice Letters) Advice Letters) 6-A)				622,100	50,000	45,000	178,700	026,800	283,200	210,000	28,400		2,074,200				
Authorized/	2019Adopted Budget (FE. D. S. 10.038 Advice Letter 8-EA/8- G-A)				6,221,000	200'000	450,000	1,787,000	6,568,000	2,832,000	2,100,000	284,000		20,742,000				
	Program Name (Add rows to include all programs)			RENs and CCA (Non-IOU Programs)	Multifamily Program	Residential Community Coordinator	Public Agency Revolving Loan Fund	Loan Loss Reserve Fund	Energy Efficiency Project Delivery Program	DER DAC Public Agency Project Delivery Program	Public Agency NMEC Program	Workforce Development		Subtotal	EM&V - IOU	EM&V - CPUC Staff	OBF Loan Pool	Total EE Portfolio Expenditures
	IOU Program ID			SCR-RES-A1	SCR-RES-A2	SCR-FIN-C1	SCR-FIN-C2	SCR-PUBL-B1	SCR-PUBL-B2	SCR-PUBL-B3	SCR-WET-D1							

Table 4									
Cost Effectiveness (Net)								
								PAC Cost	
		Total Savings to						per kWh	per therm
	Total Cost to	Billpayers	Net Benefits to	TRC			PAC Cost per kW	Saved	Saved
Annual Results	Billpayers (TRC)	(TRC/PAC)	Billpayers (TRC)	Ratio	T. A. I DACC C A	PAC Ratio	Saved (\$/kW)	(\$/kWh)	(\$/therm)
Aimuai Acsuits	bilipayers (TKC)	(INC/FAC)	bilipayers (TKC)	Katio	Total PAC Cost	PAC Ratio	Saveu (5/KW)	(5/KVVII)	(s/therm)
SoCalREN 2019			\$ (16,983,908.45)		\$ 21,928,040.42			\$ 4.07	
	\$ 29,431,631.69	\$ 12,447,723.24	\$ (16,983,908.45)	0.42			\$ 64,323.97	\$ 4.07	

Table 6. Annual Savings By End	d-Use 2019	9 Only (1)	(2)			
Twere of Thinnan survinge by thin	. 000 2019		(-)			
Use Category	GWH	% of Total	MW	% of Total	MMTh	% of Total
Commercial Refrigeration						
Codes & Standards						
Food Service						
HVAC						
Irrigation						
Lighting						
Non-Savings Measure						
Process Distribution						
Process Drying						
Process Heat						
Process Refrigeration						
Recreation						
Service						
Service and Domestic Hot Water						
Whole Building	5.73006	105%	0.362	49%	0.351418	227%

Table 7				
Commitments				
Commitments Made in the	Past with Expected Impleme	ntation after December	2010-2012	
	Committed Funds ¹		Expected Energy Sa	vings
2010-20121	\$	GWH	MW	MMth
Resource	0	0	0	0
Non-Resource		0	0	
Codes & Standards				
SoCalREN Total	\$0	0.0	0.0	0.00
Commitments Made in the	Past Year with Expected Imp	plementation after Dece	ember 2015	
	Committed Funds ²		Expected Energy Sa	vings
2013-2015 ²	\$	GWH	MW	MMth
Resource	0	0	0	0
Non-Resource				
Codes & Standards				
SoCalREN Total	\$ 0	0.0	0.0	0.00
G 4 1 1 1 1 1	D 477 24 E 4 17	1 () () () () ()	1 2015	
Commitments Made in the	Past Year with Expected Imp	plementation after Dece		•
20152	Committed Funds ³	CHAIL	Expected Energy Sa	0
20173	\$	GWH	MW	MMth
Resource	0	0	0	0
Non-Resource Codes & Standards	+			
SoCalREN Total	0.00	0.00	0.00	0.00
Socalitery Total	0.00	0.00	0.00	0.00
Commitments Made in the	Past Year with Expected Imp	plementation after Dece	mber 2018	
	Committed Funds ³	•	Expected Energy Sa	vings
2018 3	\$	GWH	MW	MMth
Resource	2,183,556	0.995	0.063	0.0
Non-Resource	2,200,000	0,555	0.002	
Codes & Standards				
SoCalREN Total	2,183,556	0.99	0.06	0
Commitments Made and in	the Past Year with Expected	l Implementation after l	December 2019	
	Committed Funds ⁴		Expected Energy Sa	vings
2019 4	\$	GWH	MW	MMth
Resource	3,775,415	3.332	0.170	0.
Non-Resource				
1 ton Resource				
Codes & Standards				0
	3,775,415	3.33	0.17	
Codes & Standards SoCalREN Total				
Codes & Standards SoCalREN Total				
Codes & Standards SoCalREN Total 1 Note: Committed funds	3,775,415 are associated with the 201 ork permitted per Ordering I	0-2012 program cycle.	These funds are rese	rved or
Codes & Standards SoCalREN Total 1 Note: Committed funds encumbered for future wo	are associated with the 201 ork permitted per Ordering I	0-2012 program cycle. T Paragraph 13 and Conc	These funds are reser lusion of Law 12 of D.	rved or 12-11-015.
Codes & Standards SoCalREN Total 1 Note: Committed funds encumbered for future wo 2 Note: Committed funds	are associated with the 201 ork permitted per Ordering I are associated with the 201	0-2012 program cycle. T Paragraph 13 and Conc 3-2015 program cycle. T	These funds are reser lusion of Law 12 of D. These funds are reser	rved or 12-11-015. rved or
Codes & Standards SoCalREN Total 1 Note: Committed funds encumbered for future wo 2 Note: Committed funds	are associated with the 201 ork permitted per Ordering I	0-2012 program cycle. T Paragraph 13 and Conc 3-2015 program cycle. T	These funds are reser lusion of Law 12 of D. These funds are reser	rved or 12-11-015. rved or
Codes & Standards SoCalREN Total 1 Note: Committed funds encumbered for future wo 2 Note: Committed funds encumbered for future wo	are associated with the 201 ork permitted per Ordering I are associated with the 201 ork permitted per the EESTA	0-2012 program cycle. T Paragraph 13 and Conc 3-2015 program cycle. T TS CPUC Guidence Doc	These funds are reser lusion of Law 12 of D. These funds are reser ument and EE decisio	rved or 12-11-015. rved or nn (D.15-10-025).
Codes & Standards SoCalREN Total 1 Note: Committed funds encumbered for future wo 2 Note: Committed funds encumbered for future wo 3 Note: Committed funds	are associated with the 201 ork permitted per Ordering I are associated with the 201 ork permitted per the EESTA are associated with the 201	0-2012 program cycle. The Paragraph 13 and Conconconconconconconconconconconconconco	These funds are reser lusion of Law 12 of D. These funds are reser ument and EE decisions of the funds are reserved.	rved or 12-11-015. rved or on (D.15-10-025).
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Codes & Standards SoCalREN Total 1 Note: Committed funds encumbered for future wo 2 Note: Committed funds encumbered for future wo 3 Note: Committed funds encumbered for future wo	are associated with the 201 ork permitted per Ordering I are associated with the 201 ork permitted per the EESTA are associated with the 201 ork permitted per the EEST	0-2012 program cycle. The Paragraph 13 and Conconstant Concons	These funds are reser lusion of Law 12 of D. These funds are reser ument and EE decision of the funds are reserved. Document and EE decision of the funds are reserved.	rved or 12-11-015. rved or on (D.15-10-025). d or cision (D.15-10-025).
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APPENDIX B: Public Agency Programs Marketing & Outreach

Outreach Activities

Early in 2019, SoCalREN set a target to complete at least six informational outreach activities in 2019, including peer-to-peer workshops and other speaking engagements. The SoCalREN engagement team exceeded this goal by hosting the following events throughout the year.

	2019 Outreach Activities						
	Event Type	Event Name	Date	Presentation Title	Location		
1	Conference: Exhibitor Sponsorship	Empowerment Congress: 27th Annual Empowerment Congress Summit	1/29/19	N/A	Los Angeles		
2	SoCalREN Workshop	SoCalREN Benchmarking Lunch and Learn at San Gabriel Valley Energy Wise Partnership	3/18/19	Benchmarking Lunch and Learn	Monrovia		
3	Conference: Presentation	American Water Works Association (AWWA) Spring Conference	3/26/19	Leveraging Utility Programs: Achieving Energy Efficiency in Water Sourcing & Distribution Systems through Optimized Operational Performance	Sacramento		
4	Working Group: Presentation	SCE & SoCalGas All Partners Meeting	3/27/19	(1) SoCalREN Program Updates (2) Lunch & Learn: Best Practices for Bridging Gaps with Snacks (3) Energy Analysis for Project Development	Los Angeles		
5	Working Group: Presentation	Association of California Water Agencies (ACWA) Ventura County Training Luncheon	3/27/19	Energy Efficiency Strategies to Maximize Savings	Ventura		
6	SoCalREN Webinar	2019 New Public Programs Overview	4/24/19	2019 New Public Programs Overview: Metered Savings Program, Pathway to Zero & Revolving Loan Fund	Online		

7	Conference: Exhibitor Sponsorship /Presentation	U.S. Green Building Council (USGBC) LA: Municipal Green Building Conference and Expo (MGBCE)	4/28/19	Pathways to ZNE for Public Agencies through Metered Savings and Pathway to Zero Programs	Downey
8	Conference: Presentation	California Street Light Association (CALSA) Conference	4/29/19	SoCalREN Streetlight Project Support New services through the Metered Savings Program	Los Angeles
9	Conference: Exhibitor Sponsorship	Southern California Associated Governments (SCAG) Conference	5/2/19	N/A	Palm Springs
10	Conference: Exhibitor Sponsorship /Presentation	Statewide Energy Efficiency Collaborative (SEEC) Forum hosted by LGC	6/26/19 - 6/27/19	TRC for the Rest of Us RENs: Lessons Learned & the Future of EE	Long Beach
11	Working Group: Presentation	San Gabriel Valley City Staff Energy Work Group	7/16/19	2019 New Public Programs Overview: Metered Savings Program, Pathway to Zero & Revolving Loan Fund	Monrovia
12	SoCalREN Workshop and Presentation	SoCalREN and Westside Partnership: Resiliency & Energy for Public Agencies	8/29/19	Resiliency & Energy for Public Agencies	Long Beach
13	Conference: Attendance	California Water Environment Association (CWEA): Biosolids & Renewable Energy Innovation Seminar	9/10/19	N/A	Los Angeles
14	Conference: Exhibitor Sponsorship	SCE Annual Water Conference - Irwindale	9/10/19	N/A	Irwindale
15	Conference: Attendance	Verdical Group, LLC: Net Zero Conference	10/2/19 - 10/4/19	N/A	Los Angeles
16	Conference: Presentation	UC Santa Barbara: Central Coast Sustainability Summit	10/16/19	Pathway to Zero Net Energy for Public Agencies	San Luis Obispo

17	Conference: Exhibitor Sponsorship /Presentation	Green Technology: Green CA Schools & Community Colleges Summit		Lunch n' Learn: "Bond, School Bonds - Leveraging Bond Funding to Achieve your District's Energy Goals"	Pasadena
18	Conference: Exhibitor Sponsorship	League of California Cities Annual Fall Conference	10/16/19 - 10/17/19	NA	Long Beach
19	Conference: Exhibitor Sponsorship /Presentation	American Water Works Association (AWWA) CA- NV Fall Conference	10/21/19 - 10/23/19	United Water Conservation District	San Diego
20	Conference: Presentation	Central California Local Government Partnership's Meeting "CenCal Workshop 2019" hosted by SCE, SoCalGas, VIEW, SLOEW, & PG&E	11/7/19	Where Have We Been and Where Should We Go?	Fresno/ Tulare
21	Conference: Exhibitor Sponsorship /Presentation	SCE Annual Water Conference - Tulare	11/7/19	Exhibitor Showcase Presentation	Tulare
22	Conference: Attendance	Kern Economic Development Corporation: Kern Energy Summit	11/13/19	N/A	Kern County
23	SoCalREN Webinar	SoCalREN Workforce Development	11/19/19	SoCalREN Workforce Development Webinar	Online
24	Conference: Exhibitor Sponsorship	League of California Cities Municipal Finance Conference	12/11/19	N/A	Garden Grove

These events helped to build the energy efficiency capacity and expertise of public agencies. SoCalREN is committed to providing information and capacity building program-related educational materials to participating agencies.

Informational Materials

Early in 2019, SoCalREN set a target to distribute at least 15 unique outreach materials, such as fact sheets, newsletters, and case studies, to our network of enrolled agencies. Our goal was to ensure that 100% of participating agencies receive information and educational materials in 2019.

The chart below shows a summary of SoCalREN's production of 43 unique outreach materials throughout the year¹³.



Printed Materials

The following new print collateral resources were developed in 2019:

- Case Study: Culver City Energy Management Systems
- ESCO Fact Sheet V2: Fact Sheet for SoCalREN enrolled agencies, explaining how SoCalREN can support and complement ESCO services
- Procurement Fact Sheet
- Financing Related Services
- Updated Services Fact Sheet
- Public Agency Programs Fact Sheet
- SoCalREN Program Fact Sheets
 - Project Delivery Program Fact Sheet
 - Metered Savings Program Fact Sheet
 - Revolving Loan Fund Fact Sheet
 - Pathway to Zero Program Fact Sheet
- Water/Wastewater Fact Sheet
- Pump Overhaul Fact Sheet
- Portfolio Energy Analysis Fact Sheet
- Metered Savings Behavior Change Fact Sheet
- Disadvantaged Community Services Fact Sheet

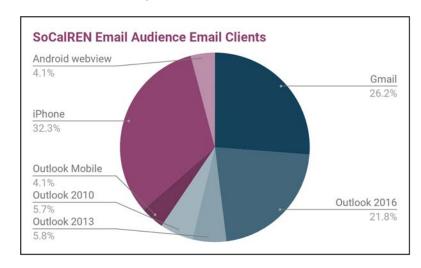
¹³ Spike in material development in April 2019 due to the launch of new Public Agency Programs (Pathway to Zero, Metered Savings Program, and Revolving Loan Fund).



Newsletters and Eblasts

SoCalREN's mailing list has 1,518 subscribers (as of 12/12/2019). The primary contact (as listed in SoCalREN's CRM system) for each enrolled agency is added to the mailing list, ensuring 100% of enrolled agencies receive educational materials and information about the programs. The SoCalREN Public Agency Programs also receive mailing list subscribers from sign-ups at conferences and events and via the SoCalREN website.

Most receive their email on desktop computers, but a significant portion of newsletter subscribers view emails on the go. The pie chart below shows the SoCalREN audience email clients in detail.



SoCalREN distributed a monthly newsletter every month in 2019, typically distributed in the first week of the month. Newsletters focused on agency success stories, recent and upcoming events, financing opportunities, and relevant regulatory and legislative updates.

SoCalREN sent 13 eblasts throughout 2019. The top three 2019 subject lines by open rate were:

- 1. 02.2019 SoCalREN Water Survey, "Make Your Voice Heard! Water Provider Survey" (25%)
- 2. 08.2019 Scholarship Opportunity for School Districts, "Scholarship Opportunity for School Districts Green CA Schools Summit" (18%)
- 3. 10.2019 CATALENA Workshop, "10/29 Webinar! New Energy Data Access Tool for Local Governments" (17%)

These relatively successful subject lines convey themes of giving agencies something or wanting to hear their voices. SoCalREN will continue to use variations of these themes when possible to encourage audiences to open emails.

Website

The Public Agency Programs team managed the Public Agency Programs pages of the SoCalREN website in 2019 and added several new features, including pages on each of the public agency programs and a resource library.

The vast majority of visitors (94%) to the public agency pages of the SoCalREN website come

1 249

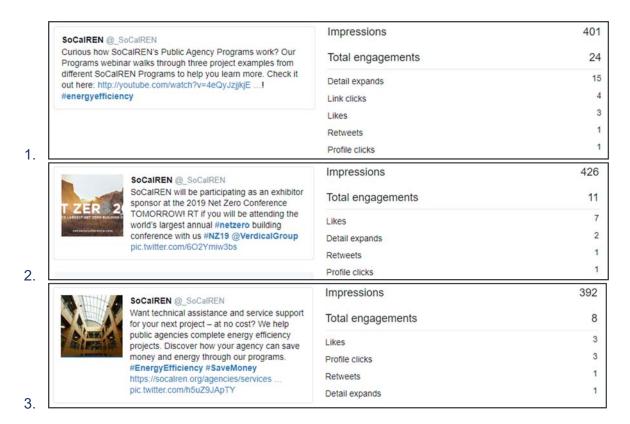
from the United States. 84% of United States website visitors come from California, with the remaining 16% of United States traffic spread across Virginia, Washington, Florida, Oregon, Arizona, New York, Texas, Colorado, and Massachusetts with less than 2% of users each. The map featured to the right shows California public agency page website users by location. This indicates that most website users are in SoCalREN's target geographic area.

Approximately 75% of visitors to the public agency pages of the SoCalREN website are new visitors, and 25% of visitors are returning visitors. 86% of website visitors view the website on desktop browsers, 12% are on mobile platforms, and 2% view the public agency pages of the website on tablets.

Social Media

SoCalREN Public Agency Programs focused social media efforts in 2019 on Twitter, where SoCalREN has an audience of 344 accounts (as of 12/17/19). SoCalREN conducted minimal engagement (e.g. interacting with enrolled agencies, responding to followers' tweets) in 2019. The majority of tweets provided information about the Programs, linked to the latest publications/newsletters, and shared Program participation at conferences and events.

The top three Public Agency Programs tweets (based on engagement) are listed below for further insight into successful SoCalREN tweets.



Maintain High Levels of Customer Satisfaction

SoCalREN has an annual goal of achieving at least 80% customer satisfaction, measured via an annual satisfaction survey. The customer satisfaction survey was distributed in Q3 of 2019, achieving a 94% satisfaction rate. The customer satisfaction metric serves as an indicator that the agency's expectations and their needs throughout the life of the project were met. The survey had a response rate of 34%. The table below highlights the 2019 customer satisfaction ratings.

Customer Satisfaction		
Performance Target	Program Performance	
80% Overall Satisfaction Rating	94% Overall Satisfaction Rating	

Additional findings include:

- Nearly 91% of respondents stated that the Program helps fill gaps in their current efforts to identify, procure and install energy efficiency projects
- 61% of agencies rated 100% satisfaction with SoCalREN Public Agency Programs
- 96% of respondents say they would recommend SoCalREN to other agencies

APPENDIX C: Project Delivery Program Services Description

Project Management

A Project Manager is assigned to each agency to provide customized services that are either agency-wide or project specific. Agency-wide support includes identifying projects through energy and benchmarking analysis across portfolios of buildings and infrastructure assets. Start to finish project-specific support services include: project development, coordination of technical services, financial analysis and financial services support, obtaining buy-in for projects, ensuring successful implementation of measures for any applicable incentives, and celebrating the success of implemented projects through case studies and webinars or workshops. Ensuring the appropriate level of project management support continues to be a key to the success of every project and the Program as a whole. The needs of every agency are served through this high-touch Program offering and the trusted Project Manager is seen as a reliable, impartial advisor.

Audit/Engineering Calculations

The Project Delivery Program provides water/wastewater, lighting, mechanical, and whole building energy audits to help public agencies identify energy efficiency opportunities at their facilities. After discussing potential projects with the Agency's assigned Project Manager, a qualified engineering consultant will conduct a targeted energy audit at the facility, providing project cost and energy savings estimates for identified energy efficiency measures.

Objective Technical Review

The Project Delivery Program offers objective third-party expertise for reviewing technical performance specifications and providing guidance on energy efficient equipment selection when other parties have taken lead on project development. This service ensures successful measure implementation and optimal energy savings for public agencies.

Utility Incentive Application

The program will prepare and submit applications for any utility incentives available for each energy efficiency project, including leading the management of all related documentation and ensuring utility requirements are satisfied at project completion.

Financial Analysis

The assigned Project Manager works with the Agency to select the most cost-effective and desirable energy savings measures based on agency requirements and expected available budget. SoCalREN's comprehensive financial analysis includes key financial metrics such as a project's Net Present Value (NPV), Savings to Investment Ratio (SIR), and Simple Payback Period (SPP). The Agency also receives a project cash flow analysis covering the lifetime of the selected energy efficiency measures. The financial analysis evaluates eligible funding and financing options and helps the agency choose the best method for paying for the project.

Financial Services

SoCalREN services help make the best use of Agency funds by pursuing available external financing options including utility incentives, interest-free On-Bill Financing, the SoCalREN Revolving Loan Fund, external grants, and low-interest Energy Lease Financing through support services from PFM Financial Advisors LLC (PFM). Enrolled agencies also have access to PFM for financial advisory services.

Procurement Support

SoCalREN customizes services to support the agency's preferred procurement approach. Tailored services begin with a Procurement Kick-off Meeting to discuss and evaluate procurement options, align on construction phase roles and responsibilities, contract language support, and other agency requirements to move the project forward. If the agency selects the simplified procurement path through Sourcewell, a Joint Scope Walk meeting is scheduled which includes the selected contractor, subconsultant, agency representative, and TEC Project Manager to align on the project scope and design.

Construction Phase Support

The program supports the project during the construction phase to ensure identified savings are realized, including a construction kickoff meeting and the distribution of the construction management roles & responsibilities.

Energy Use Analysis

The SoCalREN Public Agency Programs empower agencies to make informed decisions about energy management through energy analysis services, including a Comparative Energy Analysis Report, ENERGY STAR® Portfolio Manager assistance, and Green Button Data-powered insights. These tools analyze and compare agency-owned assets such as buildings and streetlights to identify opportunities for cost-saving energy efficiency projects.

APPENDIX D: Multifamily Financing Program Process Flowchart

