



CONTENTS

BACKGROUND	1
SOCALREN PORTFOLIO OVERVIEW	2
Summary of Portfolio Performance	2
Portfolio Optimization and 2022 Outlook	10
FINANCE SECTOR	11
Overview of Finance Sector Performance	11
Residential Loan Loss Reserve Program	13
Public Agency Revolving Loan Fund	16
PUBLIC SECTOR	19
Overview of Public Sector Performance	20
Energy Efficiency Project Delivery Program	29
Public Agency DER DAC Project Delivery Program	38
NMEC Public Agency Program	45
External Funding Leveraged by the Public Sector	50
RESIDENTIAL SECTOR	55
Overview of Residential Sector Performance	55
Multifamily Program	58
Kits for Kids Program	66

The Southern California Regional Energy Network is administered by the County of Los Angeles and funded by California utility ratepayers under the auspices of the California Public Utilities Commission.

WORKFORCE EDUCATION AND TRAINING SECTOR	74	
Overview of WE&T Sector Performance	74	
Workforce Education and Training Program	78	
APPENDIX A: SOCALREN PORTFOLIO SUPPORTING DATA	85	
APPENDIX B: SOCALREN PROGRAM SUPPORTING DATA	86	
APPENDIX C: 2023 JOINT COOPERATION MEMORANDUM	95	

CONTENTS

Tables

Table 1. Multifamily Financing Program Performance	14
Table 2. Revolving Savings Fund Program Performance	17
Table 3. 2021 Installed Projects Leveraging PDP Services	
Table 4. Project Pipeline Developed	34
Table 5. Additional Financing Support Services	34
Table 6. 2021 Installed Savings	40
Table 7. 2021 Pathway to Zero kWh Savings by Eligible County	40
Table 8. 2021 Installed Projects Leveraging Pathway to Zero Services	41
Table 9. Financial Benefits to Public Agencies	41
Table 10. 2021 DER and Sustainability Strategies	42
Table 11. Project Pipeline	42
Table 12. Underserved Groups by County	43
Table 13. Completed Projects and Pipeline Developed	47
Table 14. BMCTA Program Performance Metrics	53
Table 15. Frequency of DER Strategies Supported	
Table 16. EE and DER Audit Metrics	54
Table 17. Residential Sector 2021 Performance	57
Table 18. Project Implementation Performance	
Table 19. Regional Residential Energy Savings Results	60
Table 20. Financial Benefits to Multifamily Properties	61
Table 21. Kits for Kids Program Performance	69
Table 22. Kits for Kids Email Marketing Campaign Performance	72
Table 23 WFT Sector 2021 Performance	82

Figures

Figure 1. SoCalREN's Environmental Impacts	2
Figure 2. 2021 SoCalREN Portfolio of Programs	3
Figure 3. Cumulative Public Agency Enrollments	4
Figure 4. Underserved Public Agency Support	4
Figure 5. SoCalREN Public Sector Contributions to Resource Programs	5
Figure 6. Public Sector Programs Additional Services	6
Figure 7. Residential Sector Highlights	7
Figure 8. Revolving Savings Fund Results	9
Figure 9. WE&T Sector Highlights	10
Figure 10. Finance Sector Impacts	11
Figure 11. Multifamily Finance Program Sample Marketing Collateral	15
Figure 12. How SoCalREN's Revolving Savings Fund Works	16
Figure 13. RSF Commitment Pipeline	17
Figure 14. Revolving Savings Fund Fact Sheet	18
Figure 15. SoCalREN Public Sector Collaborators	19
Figure 16. SoCalREN Core Value Achievements in the Public Sector	20
Figure 17. SoCalREN Public Sector Evolution	21
Figure 18. Projects in Underserved Communities	22
Figure 19. Enrolled Agencies by County	22
Figure 20. SoCalREN Regional Partner Areas of Influence	23
Figure 21. Regional Partner Impacts	23
Figure 22. Public Sector Marketing Highlights	24
Figure 23. SoCalREN Public Sector Website	25
Figure 24. Most Popular Network Toolkit Resources	25
Figure 25. Sample Collateral and Social Media Posts	26
Figure 26. Usefulness of SoCalREN Services: Survey Results	26
Figure 27. Public Sector Gaps from IOU Program Closures to New Applications	27
Figure 28. PDP Project Services and Delivery Approach	29
Figure 29. Network Toolkit Website	30
Figure 30. Screenshot of Anonymized Comparative Energy Analysis	31
Figure 31. Breakdown of Facility Types Audited through PDPP	32
Figure 32. PDP Savings Installed by Construction Completion DateDate	33
Figure 33. 2021 PDP kWh Savings by County	33
Figure 34. Covid Impact CEA Appendix	35
Figure 35. Sample Agency Energy Action Plan Highlights in CEACEA	35
Figure 36. Sample Project Savings Report	36

Figure 37. Overview of Pathway to Zero and BMCTA Combined Offerings	38
Figure 38. Pathway to Zero Program Performance	39
Figure 39. Breakdown of Facility Types Audited through Pathway to Zero	40
Figure 40. Metered Savings Program Addresses Stranded Savings	45
Figure 41. Quarterly Savings Report	46
Figure 42. LA County Case Study	47
Figure 43. BMCTA Facility Benchmarking Snapshot	50
Figure 44. Wastewater Treatment Facility Being Investigated through BMCTA	51
Figure 45. Resilience Map Sample	52
Figure 46. BMCTA GHG Reduction Equivalencies	54
Figure 47. SoCalREN Residential Sector Core Value Achievements	56
Figure 48. SoCalREN Multifamily Program Outreach Flyer in Simplified Chinese	59
Figure 49. Sample 2021 Program Marketing Collateral (Multilingual)	63
Figure 50. Multifamily Direct Mail Letter	63
Figure 51. Regional Partner Locations	64
Figure 52. Photograph of Kits for Kids Box	66
Figure 53. Kits for Kids Parent Letter with Image of Verification Postcard	67
Figure 54. Kits for Kids Overview in Spanish	68
Figure 55. Kits for Kids Online Scavenger Hunt	68
Figure 56. Kits for Kids Holiday Email Marketing Campaign	71
Figure 57. WET Sector Supporting SoCalREN's Core Values	74
Figure 58. ACES College Courses	79
Figure 59. ACES Internship Data	80
Figure 60. GPC Eligibility Status	81
Figure 61. GPC Online Interest Form	83



BACKGROUND

The Southern California Regional Energy Network (SoCalREN) provides energy efficiency (EE) programs and services to customers of Southern California Edison (SCE) and/or SoCalGas® in an area encompassing all or portions of 13 counties and with a population of more than 20 million people.

In D. 12-11-015 (2012), the California Public Utilities Commission authorized SoCalREN to:

- 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 (HTR)** markets that the IOUs are not serving.
- 3. **Pilot new, innovative approaches** to programs that can potentially scale and offer an avenue to greater energy savings.

SoCalREN has sought to deliver these results while conforming to guidance provided in R. 13-11-005, D. 15-10-028, and D. 18-05-041. In this report, we present the results of the programs offered by SoCalREN during the 2021 program year.

All energy savings are recoded in the California Energy Data and Reporting System (CEDARS). Environmental impact equivalencies noted throughout were calculated using the U.S. Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator.



SOCALREN PORTFOLIO OVERVIEW

Southern California communities collectively faced another year of challenges in 2021—the ongoing destructive impacts of climate change, rising inflation, and economic uncertainty—all wrapped in a pandemic. These issues were exacerbated in underserved communities, where residents are burdened by pollution and are often excluded from the decarbonization activities that can fight climate change, drive economic growth, and create jobs.

A transition to a clean energy future is imperative to preserving our natural resources, protecting our health, and providing opportunities for individuals and communities to thrive. SoCalREN's 2021 portfolio resulted in measurable environmental and economic impacts and progress toward a clean energy future for all Southern Californians.

Summary of Portfolio Performance

In 2021, SoCalREN's programs achieved **5,699,347 kilowatt hours (kWh)** and **214,720 therms** of net first-year energy savings. These savings equate to **5,175 metric tons CO2e** and provide approximate environmental equivalencies as displayed in Figure 1.

Figure 1. SoCalREN's Environmental Impacts



GHG emissions from 12,099,508 miles driven by a gas-powered vehicle



80,601
tree seedlings grown
for 10 years



CO₂ emissions from the energy used to power **614** homes for a year

Sectors and Programs

The 2021 SoCalREN portfolio comprised four sectors and offered a total of nine programs to eligible customers. Activities conducted through each sector and program supported SoCalREN's core values: **Deliver Energy and Climate Impacts**, **Build Energy Capacity and Economic Resilience**, and **Expand Access to Energy Efficiency**. Programs delivered in 2021 are displayed in Figure 2.

Figure 2. 2021 SoCalREN Portfolio of Programs



Public Sector

SoCalREN's Public Sector programs benefit a geographically, socially, and economically diverse region, encompassing all or portions of: Los Angeles, San Bernardino, Riverside, Ventura, Inyo, Imperial, Mono, Orange, Kern, Tulare, Santa Barbara, San Luis Obispo, and Kings Counties. 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 and public charter schools
- Water/wastewater agencies/districts
- Other public agencies (does not include State or Federal agencies)



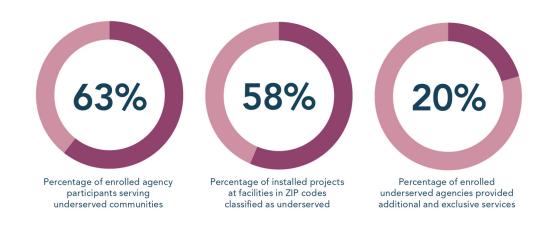
Figure 3. Cumulative Public Agency Enrollments

Public Sector Programs

In 2021, SoCalREN offered three Public Sector programs: the Energy Efficiency Project Delivery Program (EE PDP), Pathway to Zero (PTZ), and the Metered Savings Program (MSP). Member agencies completed construction on 58 projects in 2021, achieving 11,249,521 annual kWh savings¹ and 19,535 annual therms savings (over 9 million kWh and 19,000 therms in underserved communities). SoCalREN also identified 58.8 million kWh and 252,459 therms of potential savings pipeline for future years.

The SoCalREN Public Sector programs prioritize support to underserved agencies. In 2021, 63 percent of enrolled agencies served rural, very low-income, and DACs, 58 percent of installed projects were at facilities in underserved ZIP codes, and over 20 percent of enrolled underserved agencies received additional services designed exclusively for hard-to-reach customers.





¹ Gross savings figures noted; savings are delivered through non-resource programs. Final numbers may change based on final savings reported by SCE and SoCalGas.

SoCalREN recognizes the importance of contributing real and persistent energy savings to help California meet its climate and energy goals as well as the State's resource planning needs. Because the EE Project Delivery Program and Pathway to Zero are non-resource programs, SoCalREN channels projects into existing resource programs to make sure our concrete impacts and savings that benefit California are recorded. In 2021, SoCalREN Public Sector programs channeled savings to SCE, SoCalGas, and SoCalRENs EE resource portfolio as depicted in Figure 5.

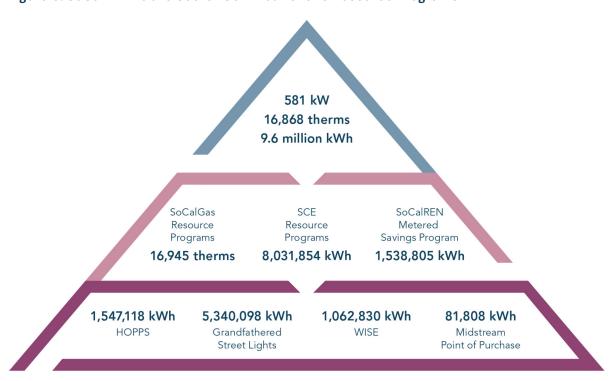


Figure 5. SoCalREN Public Sector Contributions to Resource Programs

In addition to energy savings, the Public Sector programs delivered additional services such as outreach activities and Comparative Energy Analysis reports to help participating agencies lead their communities toward a clean energy future.

Some services, such as on-site benchmarking, Pathway to Zero DER reports, DER energy audits, and DER technical services, were provided exclusively to agencies in underserved communities. Benchmarking support was expanded to identify high-value energy efficiency opportunities and outreach activities to educate public officials on how to use SoCalREN's support to implement energy projects. These services are summarized in Figure 6.

Figure 6. Public Sector Programs Additional Services



DER Project Audits*

*Underserved agencies only



On-site and Enhanced Benchmarking Reports*

New efforts were launched in 2021 to address specific challenges posed by COVID-19, including an enhanced portfolio-level energy analysis with a COVID-19 impact index; strategies to mitigate program performance uncertainty caused by supply chain issues and changes in agency budgets; and an ongoing eye toward possible impacts to facility and energy use due to stay-at-home orders—and how to mitigate those impacts.

SoCalREN also prioritized expanding reach and supporting underserved communities by:

- Leveraging non-ratepayer funds to supplement and enhance sector offerings
- Expanding PTZ eligibility to include very low-income and rural communities
- Enhancing portfolio-level energy analysis by integrating agency Climate Action Plan goals, GIS mapping of CalEnviroScreen, and indicators such as high fire threat zones
- Providing a post-completion summary to highlight agency and community benefits
- Streamlining program coordination protocols and deliverables with the IOUs
- Addressing and adapting to uncertainty surrounding IOU program closures and the transition to third-party programs

In 2022, the Public Sector will continue to optimize its portfolio to fill market gaps and overcome barriers. SoCalREN will offer a new program, the Streamlined Savings Pathway, to provide agencies with an incentive pathway to overcome financial hurdles to moving projects forward. The Public Sector programs will also integrate new Regional Partner-led initiatives to best serve the diverse needs of agencies across the region.

Residential Sector

SoCalREN's Residential Sector helps makes energy efficiency more accessible throughout the areas served by SCE and SoCalGas, with an emphasis on underserved and disadvantaged communities. Through a targeted focus on multifamily complexes and elementary school students, each measure installed—at no cost to residents—delivers impacts to entire households.

Figure 7. Residential Sector Highlights









Multifamily Program

SoCalREN offers a Multifamily Program to property owners in its territory, providing comprehensive solutions and financial incentives (including higher incentives for DAC/HTR customers) that motivate program participants to maximize energy savings. Despite numerous hurdles resulting from the COVID-19 pandemic, ongoing supply chain challenges, and material cost increases, SoCalREN was able to adapt and continue to deliver energy savings, including offering a new Electric Measure Path that allowed contractors to install measures less impacted by supply chain disruptions (e.g., LED lighting) and continue to provide EE retrofits.

In 2021, SoCalREN delivered **4,312,867** net kWh and **214,720** net therms savings through its Multifamily Program (**2,351,337** net kWh and **114,405** therms in DACs). More than **12,000** tenant units across **59** properties in **24** Southern California cities were impacted by EE improvements, including new central water heating systems that deliver hot water more efficiently. Most importantly, **51** percent of the SoCalREN Multifamily Program projects completed in **2021** were in DACs, furthering SoCalREN's mission to promote energy equity and environmental justice.

In 2022, the SoCalREN Multifamily Program will focus on driving program growth in DACs, among HTR customers, and particularly in rural areas. Regional Partners will continue to support outreach to property owners and contractors via local, community-based

groups. The Program will also seek to leverage external funding sources to expand clean energy options for multifamily property owners and the tenants who call the participating property home. In addition, the Program will coordinate with the Public and WE&T Sectors to recruit and train EE contractors who can provide services to customers throughout the region.

Kits for Kids Program

In 2021 SoCalREN launched the Kits for Kids Program, providing energy-saving measures to households with third or fourth grade students attending eligible public schools. Kits for Kids worked directly with schools to enroll 250 classrooms in the program during 2021, serving more than 6,500 students. Kits featuring energy-saving measures and educational materials are provided for each student in each participating classroom. In addition, students gain access to an online scavenger hunt that helps them learn more about how to save energy in their homes. The program features cartoon "Energy Monsters"



led by Fuzzy (displayed at right) who help students learn about energy efficiency.

Teachers provide a key role in the program—not just as educators sharing the lessons and information, but as program participants. Their support is vital in gaining access to installation verification from students and their families. Classrooms that verify a minimum of 65 percent of students completed the energy–saving installations and activities are awarded a \$1,000 grant to purchase instructional materials.

The 2022 program year will focus on two primary areas:

- Celebrating participating schools with onsite events to generate excitement around and retention of the concepts taught through the program.
- Facilitating the expansion of participation among additional communities, school districts, and neighborhoods through coordination with the Public Sector programs and SoCalREN's Regional Partners.

Finance Sector

Revolving Savings Fund

SoCalREN's Revolving Loan Fund, publicly known as the Revolving Savings Fund (RSF), provides up-front construction financing for energy projects at facilities utilizing SoCalREN's services. The RSF aims to accelerate energy upgrades that would otherwise

be delayed pending budget allocation by providing the funds for approved but not-yet-budgeted projects.

RSF provides cross-cutting, short-term, up-front construction financing for small-to-midsize projects at zero percent interest. Standalone financing is eligible; RSF can also be paired with other financing options such as on-bill financing (OBF), incentives or rebates, or California Energy Commission (CEC) loans. The RSF is a catalyst for agency enrollment in SoCalREN and for project development that prioritizes serving DACs.

Figure 8. Revolving Savings Fund Results



Throughout 2021, the RSF focused on agency outreach and engagement to increase participation. By the end of 2021, \$1,749,211 in RSF funds were disbursed to two public agencies. One public agency received its offer to finance, accepted, and executed their loan agreement, with \$450,789 in funds disbursed in January 2022. SoCalREN also developed an additional RSF pipeline for two public agencies totaling \$1,211,772.

Multifamily Financing Program

The Multifamily Financing Program was designed to help property owners and managers gain access to funding for energy efficiency projects completed through the SoCalREN Multifamily Program. Market demand for the program's services was lower than expected due to the ongoing economic and social impacts of the pandemic, so the program was closed in 2021.

SoCalREN's Financing Sector will focus on supporting additional public agencies in 2022, as part of an overall effort to increase direct energy savings achieved through installed projects. These provide benefits to ratepayers throughout the communities served, and support achievement of California's clean energy goals.

Workforce Education and Training (WE&T) Sector

The initiatives offered through SoCalREN's WE&T sector address barriers and gaps faced by disadvantaged and hard-to-reach workers when entering the clean energy workforce. During 2021, SoCalREN offered three unique workforce development pathways that helped provide opportunities to vulnerable and underserved groups.

Figure 9. WE&T Sector Highlights







- Architecture Construction Engineering Students (ACES) Pathway Program. A
 comprehensive youth workforce development model combining structured
 academic pathways to STEAM careers, access to pre-apprenticeship construction
 training, and paid summer internships.
- **E-Contractor Training Program.** Gives small and diverse contractors with knowledge to compete for energy efficiency projects and increase their capacity. The program offers contractors access to bonding, capital resources, introduction to sustainability, public contracting requirements, and how to bid on energy efficiency projects.
- **Green Path Careers.** Helps opportunity youth and adults enter the growing clean energy workforce. GPC provides certification training, supportive services, and the coaching needed to successfully enter the workforce.

Portfolio Optimization and 2022 Outlook

The stay-at-home orders and shutdowns may be mostly over, but the economic impacts of the pandemic continue to affect Californians. SoCalREN believes its programs can be a part of the solution and path forward to help communities—particularly vulnerable and underserved communities—continue to recover. Planned 2022 portfolio strategies will drive the development and implementation of innovative program offerings that respond to market needs and support our core values.

SoCalREN will also place emphasis on obtaining additional outside funding sources to bolster and expand the types of clean energy solutions available to customers in support of California's urgent need to reduce demand and usage of energy.



FINANCE SECTOR

Lack of access to capital resources is a primary barrier that prevents the implementation of energy efficiency (EE) projects throughout the region. SoCalREN offered two financing programs in 2021, focused on supporting public agencies and multifamily property owners interested in obtaining financing for EE improvements.

SoCalREN's Finance Sector places an emphasis on increasing the number of impactful energy efficiency projects completed throughout the territory, particularly in underserved areas.

Overview of Finance Sector Performance

The two programs offered through the Finance Sector helped 30 multifamily property owners and 17 public agencies explore how financing could help them fund desired EE improvements at properties and facilities. The upgrades completed through these projects led to **758,270 net kWh** attributable to SoCalREN efforts and funding support.

Figure 10. Finance Sector Impacts

Delivering Climate and Energy Impacts



758,270

Net kWh Savings Attributed to Revolving Savings Fund Projects **Building Energy Capacity** and Economic Resilience



\$1,749,211

Total Funding Issued for EE Projects

Expanding Access to Energy Efficiency



16

Unique Project Proposals Delivered to Agencies

Sector Modifications

The Multifamily Financing Program was closed in September 2021.

New Program Offerings

No new Financing programs were offered in 2021.

Optimization and Outlook

SoCalREN will continue to adapt its program services for customer needs amid ongoing impacts from COVID-19 and inflation. Public agencies rely on SoCalREN as they face challenges that impede the implementation of EE projects, including access to funding. This barrier is particularly harmful in underserved communities. For this reason, in 2022, the Finance Sector's Revolving Savings Fund will focus exclusively on Public Sector projects in disadvantaged and underserved communities. In addition, SoCalREN will continue to seek external funding sources to bolster seed funds, increasing the number of projects that are able to leverage funding for projects.

Residential Loan Loss Reserve Program

Description

The Multifamily Finance Program—the public facing name for the Residential Loan Loss Reserve 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.
- Offer credit enhancements to decrease market-based interest rates.
- 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 EE measures recommended through an energy assessment. The credit enhancement absorbs any losses before the lending partner does and funds revolve as loans amortize.

Services

The Program offers three financial products: Capital Lease, Equipment Finance Agreement (EFA), and Energy Service Agreement (ESA). A Capital Lease is a lease-agreement in which the lessor ("financial institution") agrees to transfer the ownership rights to a lessee ("borrower") at the end of the lease term. 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. Alternatively, an Equipment Finance Agreement is a financing option where the borrower retains ownership of the financed equipment throughout the term of the loan. For an Energy Service Agreement, 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.

Objectives

For 2021, the Program goals were to fund a total of 40 projects with 25 percent (10 financial projects) to disadvantaged communities (DAC). Additional goals included

delivering 100 finance proposals for multifamily energy efficiency projects, holding five educational webinars for contractors, financial institutions, and multifamily owners/managers, and conduct 10 one-on-one contractor sales training webinars.

Performance

The Program launched in June 2021 and held a series of general program overview sessions plus additional one-on-one training sessions with each of the Multifamily Program contractors. Following these sessions, several contractors identified potential projects that may benefit from project financing. Finance proposals were developed for these projects.

Table 1. Multifamily Financing Program Performance

Program Goals	Goal	Results
Funded Financial Projects	40	0
Funded DAC Financial Projects	10 (25%)	0
Finance Proposals	100	31
Educational Webinars	4	4
Contractor Sales Webinars	10	10
Website	1	1

Modifications

The Program was closed in September 2021.

2021 Strategies

Program Training

The Program team spent the first month after launch conducting multiple training sessions with individual contractors to familiarize them with the finance offering and how financing could be used to motivate decision makers to act. The primary benefits of the Multifamily Finance offering were 1) below market rate financing terms and 2) the ability for property owners to construct retrofit projects while keeping project costs "off balance sheet" which provides additional cash flow and tax advantages.

Training materials were made available to all contractors through the Contractor Portal as were additional training opportunities in the Energy Efficiency Learning Center (EELC). Combined, these materials provided sufficient information to contractors about how to integrate financing into their conversations with property owners.

Program Marketing

The Program provided frequent messaging to contractors and property owners through all program marketing channels. Prior to launch, information was included in monthly newsletters from June 2020 through April 2021. Information promoting the launched program was included in every contractor newsletter from May through September 2021. Unique marketing collateral pieces were developed by the Program to help contractors offer financing to their multifamily customers.

Figure 11. Multifamily Finance Program Sample Marketing Collateral



Regional Partners promoting the Multifamily Program were also informed of the Financing Program launch with program collateral and information to include in their monthly newsletters to contractors and property owners in their territories.

SoCalREN's four social media platforms promoted the Financing Program with up to four posts a month. In the SoCalREN July Q2 quarterly newsletter an announcement was made to readers informing them that the Program had launched.

Program Support

Given that project financing was new to contractors, the Program team provided additional support resources to help contractors communicate to their customers. Representatives from the lending institution, as well as the Program's external consultant were made available to contractors to assist with sales calls and present financing proposals to property owners.

Optimization and Outlook

The Program has ended and is no longer offered to customers.

Public Agency Revolving Loan Fund

Description

SoCalREN's Revolving Loan Fund, publicly known as the Revolving Savings Fund (RSF), is a financing program that supports energy upgrades to buildings and facilities in underserved communities owned by public agencies. With RSF, public agencies can overcome budgetary barriers and complete projects faster.

Services

RSF offers up-front construction financing for small to midsize projects at O percent interest, providing financing for approved but not-yet-budgeted projects that would otherwise be delayed pending budget allocation. RSF can be paired with other financing options such as on-bill financing (OBF), incentives, rebates, and other external financing. Loans are financed with \$2.2 million in seed capital provided through LA County using American Reinvestment and Recovery Act (ARRA) funds already granted by the CEC.

Figure 12. How SoCalREN's Revolving Savings Fund Works



The Program provides financial analysis and support developing financing strategies, ensuring agencies have the support they need to secure long-term financing and pay back the loan successfully. To help agencies build buy-in for taking the RSF financing approach, the program provides a project proposal, template board resolution, and other resources that make the program easy to understand and easy to use for all stakeholders and decisionmakers within an agency.

Objectives

- Stimulate participation in SoCalREN programs and drive more energy projects in underserved communities to completion through financing solutions.
- Help SoCalREN program participants in underserved communities overcome barriers to accessing capital due to funding and budget challenges.
- Increase awareness of low-cost of capital and low-risk financing for underserved SoCalREN participants' energy efficiency projects.

- Build awareness of the lifecycle financial benefits of low-cost financing options for energy efficiency projects and services.
- Increase the availability of financing resources for underserved communities.

Performance

SoCalREN's 2021 engagement and outreach activities successfully built a pipeline of projects and reserved all RSF seed funds. SoCalREN disbursed \$1,749,211 in total to two public agencies in 2021 and provided an offer to finance one additional public agency, which they accepted. The loan, totaling \$450,789, will be disbursed in January 2022.

Table 2. Revolving Savings Fund Program Performance

Tad	otic	In	dicator	20	D21 Performance
1.	Deliver RSF "loan informational overviews" to potential borrowing agencies	•	Number of touchpoints where RSF is presented	•	17
2.	Deliver project proposals that present project economics with an RSF loan	•	Number of project proposals delivered	•	16
3.	Evaluate an agency's ability to take advantage of the RSF loan	•	Number of RSF loan applications	•	3
4.	Provide eligible agencies an opportunity to use an RSF loan	•	Number of agency- approved loans	•	3 (4 projects)
5.	Enable savings by funding projects with RSF loans	•	Loans awarded RSF dollar amount issued Energy savings attributed to RSF-funded projects	•	2 \$1,749,211 758,270 kWh O therms

SoCalREN has a pipeline of two public agencies with potential projects valued at more than \$1.2M interested in leveraging RSF in the future. One of these applications has been submitted and is awaiting approval.

Figure 13. RSF Commitment Pipeline



Modifications

In 2021, SoCalREN expanded RSF criteria to allow agencies to take out multiple loans, with a maximum of one loan per project, to maximize the number of projects funded. The program also extended its offer to waive the 1 percent administration fee for all

18

participants to increase uptake. Finally, SoCalREN improved program tools and templates based on agency feedback to streamline the application process.

Figure 14. Revolving Savings Fund Fact Sheet



2021 Strategies

SoCalREN continued to focus on promoting the Revolving Savings Fund (RSF) to public agencies through multiple project touchpoints:

- Enhanced RSF marketing collateral to conduct targeted outreach to agencies.
- Temporarily suspended the 1 percent admin fee through the end of 2021.
- Created a waitlist based on DAC status, disbursement timeline, and date of application submission.
- Incorporated agency feedback to modify program templates and streamline the application process.

Optimization and Outlook

RSF optimization initiatives for 2022 include:

- Equity focus offering RSF only for projects located within underserved communities.
- Seek additional external funding to add more seed funds and increase the number of projects able to leverage the fund.



PUBLIC SECTOR

SoCalREN empowers public agencies to lead their communities toward a safe, secure, resilient, affordable, and sustainable clean energy future. Programs offer a comprehensive approach to helping agencies complete energy efficiency projects and focuses on ensuring equitable access to programs in underserved communities. From initial energy benchmarking through project closeout, SoCalREN works alongside agency staff—all at no cost to the agency.

Customized support helps agencies understand building energy use and improve a wide range of facilities and assets, including schools, libraries, streetlights, water and wastewater facilities, parks and recreational facilities, data centers, police departments,

city halls, senior centers, and community centers. As displayed in Figure 15, the team works collaboratively with engineering firms, contractors, regional partners, Southern California Edison (SCE), and SoCalGas to ensure seamless and streamlined "one-stop" services to the broad variety of eligible agencies served throughout the region.

Figure 15. SoCalREN Public Sector Collaborators



Overview of Public Sector Performance

Figure 16. SoCalREN Core Value Achievements in the Public Sector

Delivering Climate and Energy Impacts



11.249.521

kWh Savings, **9,000,000+** in Underserved Communities



714

kW Savings, **648** in Underserved Communities



19,535

Therms Savings, **19,052** in Underserved Communities



2,375

Metric Tons GHG Reduction, 2,068 in Underserved Communities **Building Energy Capacity** and Economic Resilience



\$1,600,000+

in Energy Bill Savings

\$2,100,000M+

in Incentives

\$378,360

in OBF Reserved



58

Completed Projects

157

Jobs Supported



30

Unique Outreach Materials

35

New Agencies Enrolled

21 Outreach Events Expanding Access to Energy Efficiency



147

Total Underserved Agencies Enrolled in SoCalREN

22

New Underserved Agencies Enrolled in 2021



34

Completed Projects in Underserved Communities in 2021



37

Pathway to Zero Reports Delivered to DACs

18

DER Audit Reports Delivered to DACs



Regional Partners

The 2021 suite of Public Sector programs delivered significant value both in energy savings and other benefits to in 2021. SoCalREN's performance is based on both energy and non-energy related values, such as building public agency capacity and expertise, economic resilience, and delivering benefits to underserved communities across the territory. Together, SoCalREN's network of agencies achieved 11,249,521 first-year annual kWh (gross), 714 kW, and 19,535 therm savings in 2021.

Customized technical support helps public agencies implement thorough, yet costeffective, energy upgrades and energy management practices. SoCalREN builds agencies' capacity to lead communities toward a sustainable energy future by supporting public agency energy projects, offering educational opportunities, and creating connections among agencies for peer-to-peer learning. SoCalREN offers three energy efficiency programs and works collaboratively with the Finance sector to offer a Revolving Loan Fund to public agencies (see *Finance Sector* for more information). Despite continued challenges presented by COVID-19, inflation, and a changing energy efficiency program landscape in 2021, these programs made a difference for California communities, as they have done since launch in 2013.

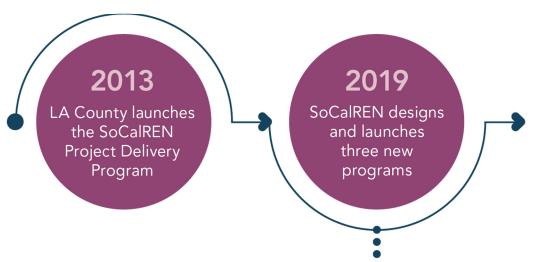


Figure 17. SoCalREN Public Sector Evolution

- Public Agency Normalized Metered Energy Consumption (NMEC) Program (publicly known as the Metered Savings Program)
- Distributed Energy Resources (DER) for DAC's Projects Delivery Program (publicly known as Pathway to Zero)
- SoCalREN's Revolving Loan Fund (publicly known as Revolving Savings Fund)

All programs focused on delivering services to communities most in need. The Public Sector aims to maintain a minimum of 50 percent of installed projects within underserved communities² across all programs. In 2021, 56 **percent of completed projects (32) were in underserved communities**. Figure 18 reflects the breakdown of projects by DAC, very low-income, rural, and Title I schools.

In addition, 63 percent of 2021 enrolled agencies support underserved communities, and 20 percent of underserved agencies participated in the Pathway to Zero program. To further support underserved communities, SoCalREN secured non-ratepayer funds for a Subprogram to Pathway to Zero called Benchmarking Call to Action (BMCTA). The Subprogram was launched in 2020 and provides enhanced benchmarking and technical assistance for audits that evaluate DERs as part of energy efficiency upgrades.

² Underserved is defined as Communities in the 25th percentile of CalEnviroscreen 4.0, very low-income communities (as defined by California Department of Housing and Community Development), Title 1 schools, and rural communities (based on rural-urban commuting area).

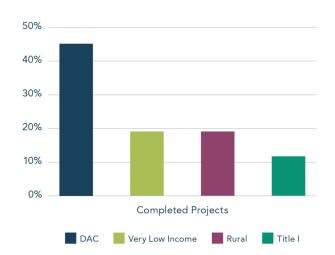
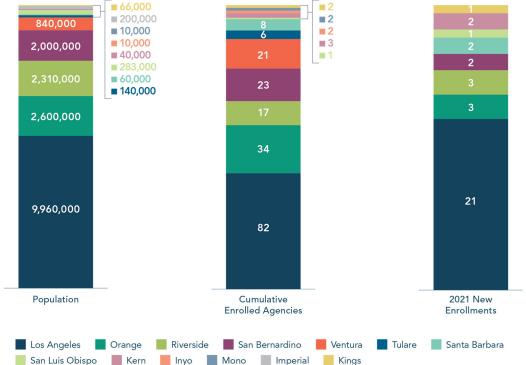


Figure 18. Projects in Underserved Communities

Regional Reach Achievements

In 2021, SoCalREN continued to expand its reach and maintain diverse agency representation across the territory. Goals are to: 1) demonstrate delivery of valuable services to the entire service territory; 2) strengthen communication among SoCalREN agencies and partners; 3) seek opportunities to enhance services in sub-regions; and 4) identify new opportunities and initiatives to meet specific sub-regional needs. In 2021, SoCalREN enrolled 35 agencies, bringing total enrollment to 201 agencies. Regional Partners facilitated enrollment of 23 of these agencies.





Other key successes of the Regional Reach strategy in 2021 include enhanced resources through the **Network Toolkit** and continued coordination with five **Regional Partners** to enhance engagement efforts and increase local energy action and projects. Regional Partners serve as key engagement liaisons to expand local agency enrollment, identify service gaps and training opportunities, and ensure agency participation in programs.

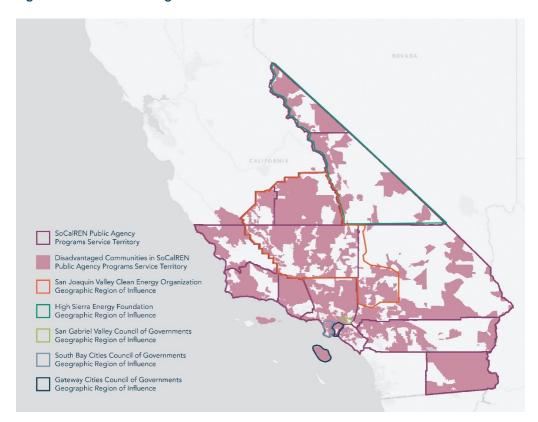


Figure 20. SoCalREN Regional Partner Areas of Influence

Throughout 2021, the Regional Partners focused on new enrollments, marketing, energy analysis, and education and outreach efforts. This scope will continue into 2022 with the launch of three new initiatives.

Figure 21. Regional Partner Impacts



24

Marketing and Advertising Achievements

SoCalREN's communications efforts in 2021 were focused on **encouraging enrollment** for eligible public agencies and **increasing the engagement and capacity** of agencies enrolled in the programs. Marketing and outreach efforts in 2021 included:

- Promoting online agency registration to build a pipeline to agency enrollment.
- Building agency capacity and expertise with a focus on region-specific engagement via SoCalREN's regional partners.
- Developing unique outreach materials, including email marketing campaigns, website, online and printed materials, and social media campaigns to provide informational and educational program materials to agencies.
- Ensuring a high customer satisfaction rating.

Figure 22. Public Sector Marketing Highlights

Unique Collateral

Materials Developed



In 2021, SoCalREN's online registration page (socalren.org/register) received 984 page views with 38 new agency registrations, 25 of which went on to enroll in the Public Agency Programs. To build agency capacity and expertise, SoCalREN offers registered agencies a network toolkit upon registration that includes tips to get started on energy efficiency projects, marketing tools like web-badges and social media posts for agencies to share their commitment to energy efficiency with their community, and access to webinars and SoCalREN's resource library. Public agencies downloaded 86 resources from the toolkit in 2021.

Impressions

Figure 23. SoCalREN Public Sector Website

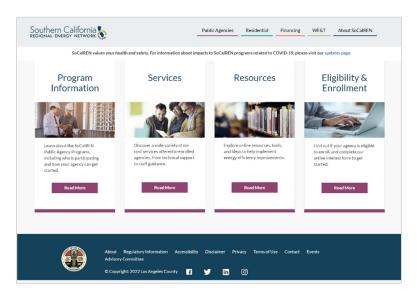


Figure 24. Most Popular Network Toolkit Resources



To continue to build public agency capacity and expertise beyond initial registration, SoCalREN conducted a total of 21 outreach activities including workshops, webinars, and conferences in 2021, with a focus on region-specific engagement to promote awareness, drive enrollment, and build agency capacity and expertise. All events were held remotely due to the COVID-19 pandemic.

Southern Collisions

In this issues Large foundation Bird of the second of the second

Figure 25. Sample Collateral and Social Media Posts

SoCalREN also developed 30 new unique outreach materials including email marketing campaigns, newsletters, and print materials to support these outreach efforts. SoCalREN also continued to grow its social media presence on LinkedIn, Facebook, Twitter, and Instagram and the public sector programs were consistently featured as the top performing posts across all sectors in 2021.

SoCalREN did not conduct an annual satisfaction survey in 2021. As a proxy, we can look at responses to SoCalREN's project closeout survey (n=6). In the closeout survey, respondents indicated that all services they used for their project were either some benefit or high benefit. Figure 26 highlights agencies' satisfaction with SoCalREN services. See Appendix A for additional details on all marketing and outreach activities.

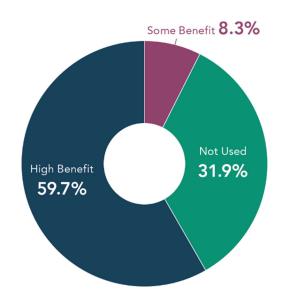


Figure 26. Usefulness of SoCalREN Services: Survey Results

Modifications

To serve agencies faced with challenges from COVID-19 and the uncertainty of the changing energy program landscape, SoCalREN focused on tailoring services to serve the needs of its agencies efficiently and effectively in 2021. SoCalREN mitigated COVID-19 impacts on installed projects and incorporated COVID-19 factors into service offerings, including an added COVID-19 impact analysis in the Comparative Energy Analysis (CEA) report. The public sector programs also enhanced tools, templates, and deliverables to make it easier for agencies to choose a program pathway by removing unnecessary steps and reformatting materials for the remote/virtual settings. Additionally, SoCalREN developed a hub for third-party program information and coordination processes to track solicitations and awards of statewide energy efficiency programs. These strategies and sector modifications are discussed in more detail further in this report.

In 2021, SoCalREN also demonstrated its commitment to serving hard-to-reach populations and DACs and developed a working definition of "underserved" agencies to address communities of concern including: communities in the 25th percentile of CalEnviroscreen 3.0, very low-income communities (as defined by California Department of Housing and Community Development), Title 1 schools, and rural communities (based on rural-urban commuting area). All "underserved" agencies are eligible for the Pathway to Zero program and its EE and DER services.

Optimization and Outlook

SoCalREN will continue to adapt its program services for customer needs amid ongoing impacts from COVID-19 and inflation. Public agencies still rely on SoCalREN as they face challenges such as reduced staffing and equipment delays caused by supply-chain disruptions. The energy program landscape changed drastically in 2021 with the transition to statewide third-party energy efficiency programs. SCE program closures to new applications caused confusion and frustration for public agencies. With new third-party programs not set to launch until late 2022 (see Figure 27), SoCalREN will continue to provide reliable support to guide agencies through uncertainty.



Figure 27. Public Sector Gaps from IOU Program Closures to New Applications

To fill gaps left by IOU program closures, SoCalREN developed the new Streamlined Savings Pathway program and modified the Metered Savings Program. The Streamlined Savings Pathway was created to offer a viable pathway for public agencies to complete energy projects and save energy through measures that are no longer supported or incentivized through SCE programs.

SoCalREN modified the Metered Savings Program to include incentives, filling the gap left behind by SCE's public sector performance-based retrofit program. Both SoCalREN programs will launch in early 2022 and will offer incentives based on lifecycle GHG emission reductions, with up to twice the incentives for underserved communities. Additional portfolio level optimization strategies include the following:

- Regional Partner Initiatives. SoCalREN expanded its regional partner initiative in 2021 to better address the diverse needs of public agencies across the territory. Regional partners help SoCalREN to test innovative intervention strategies that can then be scaled as appropriate to other regions. In 2021, SoCalREN developed a simple application process for regional partners to submit initiative ideas for consideration. Regional partners submitted seven applications in 2021, three of which will be offered in 2022.
- Continue to identify and leverage external non-ratepayer funding to enhance program offerings, support agencies with funding and financing, and deliver energy and GHG savings.
- Strategic water/wastewater initiative. SoCalREN will launch a targeted effort to deliver significant savings to agencies delivering water services. SoCalREN is working to identify "quick win" measures through the Streamlined Savings Pathway program, such as pump overhaul and sequencing opportunities, at water/wastewater agencies. The initiative will include a comprehensive effort to review pump tests and Capital Improvement Plans to identify opportunities for energy efficiency.
- Continue to **explore opportunities to collaborate** with community choice aggregators, other Program Administrators, IOU third-party program implementers, community-based organizations, and other stakeholders in the territory.

Energy Efficiency Project Delivery Program

Description

SoCalREN's Energy Efficiency Project Delivery Program (PDP) provides public agencies with customized energy efficiency services so they can become proactive stewards and leaders in energy action. The program identifies energy saving measures and works side-by-side with public agency staff to overcome barriers throughout the energy efficiency project lifecycle, from performance specification to construction completion.

Enrolled agencies can also access peer expertise, resources, shared procurement strategies, best practices, and lessons learned to leverage the collective knowledge and expertise of the SoCalREN network, reduce costs, and address common barriers. The program provides access to project managers, technical advisors, engineering firms, contractors, financial advisory services, utilities, peer-to-peer sharing (e.g., newsletters, workshops) and other industry participants.

Services

SoCalREN offers comprehensive services to help public agencies implement energy efficiency projects, including:

- Project management support from project identification through construction completion.
- Energy consumption benchmarking and comparative energy usage analyses.
- Technical support, including identification of energy efficiency improvement measures, facility energy audits, and energy efficiency measure performance specifications.
- Analysis of financing options, financial advisory services, financing application support (e.g., CEC, CalSHAPE) and assistance with rebate and incentive applications.
- Proposal and construction support, including procurement guidance, staff approval support, construction management support, and third-party objective review.

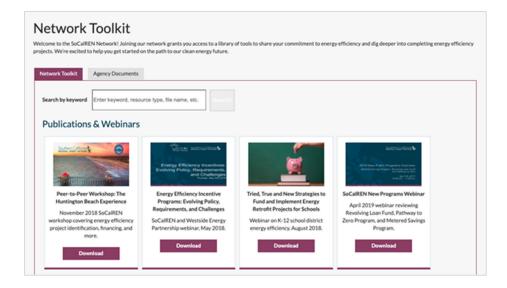
Figure 28. PDP Project Services and Delivery Approach



SoCalREN also provides public agencies with tools, resources, webinars, and more to help increase energy expertise, build buy-in, and demonstrate leadership to their communities, including:

- Peer-to-peer collaboration and learning opportunities through online and in person webinars and workshops.
- A Network Toolkit that includes:
 - Seven guidebooks with topics including benchmarking, procurement, building project support, and working with ESCOs.
 - Access to and development of case studies to demonstrate agency leadership and promote EE across the region.
 - PDFs of presentations delivered during webinars and other events.
- Support with recognition of leadership in EE, such as incentive check presentations, trade group award nominations, and social media content development.

Figure 29. Network Toolkit Website



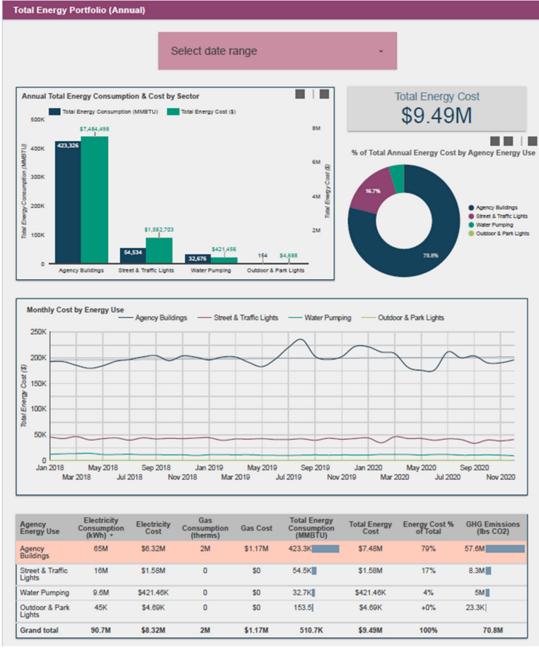
Objectives

- **Fill market gaps** in the public sector and provide public agencies with comprehensive energy efficiency support for their facilities and other infrastructure.
- Increase the ability of public agencies to meet local, regional, and state energy targets, climate targets, and policy goals.
- Increase the number of participating public agencies in the SoCalREN public sector programs, with an emphasis on underserved communities.
- Position public agencies to lead community awareness campaigns, engage stakeholders, build public awareness, and drive participation in utility and SoCalREN resource programs to reduce overall community energy consumption.
- Deliver persistent energy savings through resource programs.
- Expand the implementation of cost-effective energy efficiency projects.

Performance

PDP fills market gaps to help public agencies identify and implement energy efficiency projects. To identify energy-saving projects, PDP uses a variety of strategies, including comparative energy analysis reports (CEAs). CEAs evaluate agency-wide energy use across buildings and infrastructure, identify the highest energy users, and provide a preliminary assessment of potential savings. In 2021, PDP delivered eight (8) CEAs.

Figure 30. Screenshot of Anonymized Comparative Energy Analysis



In 2021, the program supported the delivery of 55 projects while developing and supporting a pipeline of 153 projects. Agencies select and take advantage of a variety of

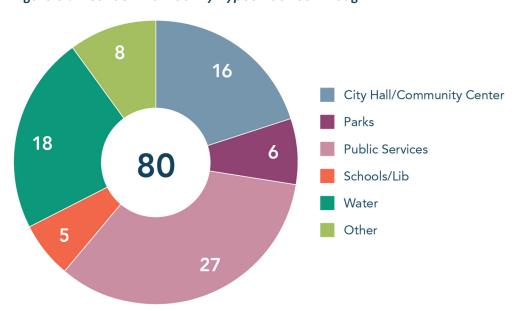
no-cost program services to overcome common barriers they face when it comes to moving a project forward. Table 3 shows the percentage of 2021 projects that received specific Program services.

Table 3. 2021 Installed Projects Leveraging PDP Services

Percent of Installed 2021 Projects by Service Type		
PDP Service Type ³	Percent of Projects Using Service	
Project management	100%	
Audit/engineering calculations	61%	
Objective technical review	68%	
Utility incentive application	83%	
Financial analysis	66%	
Financial services	39%	
Procurement support	36%	
Construction phase support	41%	

For projects delivered in 2021 and those expected to be delivered in future years, the Program performed 43 investment-grade audits at 80 public agency sites. The audits assessed 48 public agency buildings and 32 non-building facilities, such as parks or water treatment plants.

Figure 31. Breakdown of Facility Types Audited through PDP



SoCalREN recognizes the importance of contributing persistent energy savings to help California meet its climate and energy goals and resource capacity needs. While PDP is a non-resource program, it seeks to channel projects through claimable resource program pathways. Figure 32 reflects savings channeled to through IOU or SoCalREN

 $^{^{\}rm 3}$ See Appendix B for definitions.

33

resource programs. These energy savings will result in a 2,194 MT CO2e GHG emissions reduction, equivalent to taking 474 cars off the road for one year.

Figure 32. PDP Savings Installed by Construction Completion Date⁴

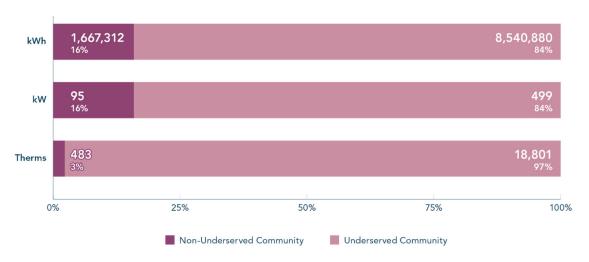
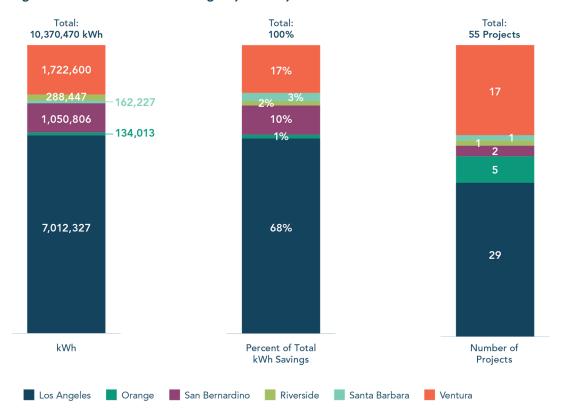


Figure 33. 2021 PDP kWh Savings by County



In addition to supporting projects that were installed in 2021, the PDP developed new projects for 2022 and beyond. Developing a pipeline of future energy-saving projects is essential to long-term program success since it takes approximately 24–48 months for

⁴ Not all installation reports submitted in 2021 are claimed by resource programs in 2021. Metrics also include 2021 installed projects that are channeled through the Metered Savings Program, which does not require Installation Reports.

SoCalREN agencies to complete projects. These pipeline projected savings are shown in Table 4.

Table 4. Project Pipeline Developed

Project Pipeline by kWh, kW, and Therms		
kWh	kW	Therms
46,978,098	3,665.35	215,586

The PDP provided the financing support services identified in Table 5 to help agencies make their projects financially viable and thus drive project implementation.

SoCalREN offers financial analyses to help agencies evaluate the economic viability of projects and provides application support to obtain the incentives or financing agencies need to make their projects a reality. By helping agencies reduce project costs and save on their utility bills, SoCalREN frees up scarce public resources for services like public safety, firefighting, and educational resources.

The Program supports economic development and construction jobs in the energy efficiency industry. SoCalREN agencies had gross construction costs of over \$14 million in 2021 PDP projects, supporting 155 jobs⁵ across California.

Table 5. Additional Financing Support Services

Based on 2021 Construction Completed Projects				
Utility rebate applications supported	Total rebates/incentives reserved	Total zero-percent interest OBF reserved	Annual utility bill savings	Total Non-IOU Financing*
29	\$2,199,539	\$378,369	\$1,594,489	\$2,200,000

^{*}Prop 39, CEC Energy Conservation Assistance Act

Modifications

In 2021, the program continued to streamline its processes, improve cost effectiveness, and respond to the evolving needs of the market, particularly long-term impacts associated with COVID-19. There were no significant modifications to the PDP design in 2021. See the *Sector Modifications* section for modifications across the Public Sector programs.

⁵ Construction conversion to jobs = Gross Project Cost/\$92,000 per the American Recovery and Reinvestment Act of 2009 Guidance to Agencies on Estimating Job-Years from Government Spending. (https://obamawhitehouse.archives.gov/administration/eop/cea/Estimate-of-Job-Creation/).

2021 Strategies

Optimized CEA deliverable by adding sections focused on COVID-19 impacts and agency-specific climate/energy action plans

 COVID-19 Impact Analysis. SoCalREN recognizes that the pandemic resulted in significant energy use changes in public sector facilities. To better understand these changes, SoCalREN developed an appendix to the CEA to analyze COVID-impacted data compared to a pre-pandemic baseline. With this addition, agencies can review energy consumption and cost changes at both a portfolio and facility level. Further, this appendix provides insight into which facilities have continued to operate under normal conditions despite the pandemic.

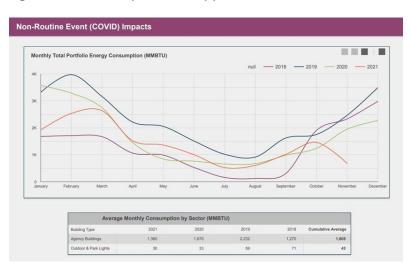


Figure 34. Covid Impact CEA Appendix

• Climate and Energy Action Plans. SoCalREN has incorporated climate and energy action plan data into the CEA to align the deliverable more explicitly with agencies' long-term climate and energy goals. This addition allows for early identification of agency funding and financing needs, as many energy action plans highlight the need for incentives or financing support to implement projects. Figure 35 provides a sample Energy Action Plan as highlighted in a CEA.



Figure 35. Sample Agency Energy Action Plan Highlights in CEA

36

Developed Project Savings Report to celebrate agency success

Upon EE project completion, agencies receive a Project Savings Report which showcases project benefits, including energy savings, incentives secured, GHG reductions, and utility cost savings.

The Report quantifies the project's contributions to the agency's energy/climate action plan, further aligning SoCalREN's services with agency-specific goals. SoCalREN will deliver this report alongside the Project Closeout Survey for every completed project.

Developed strategies to mitigate pipeline uncertainty

- Continued work with Los Angeles County on service alignment with its Facilities Reinvestment Program (FRP). The multi-year pipeline has pre-identified funding. SoCalREN works to ensure targeted facilities incorporate EE into their designs to maximize energy and cost savings.
- Provided training and resources to better align project development milestones and subsequent deliverables with agency fiscal cycles and funding opportunities.
- Formalized marketing and outreach strategies to engage additional school districts and support their application submissions to the CalSHAPE Ventilation Program. This support enabled Districts to apply for Phase 1 funding and secured the opportunity to apply for future funding.
- Streamlined project and program selection by removing unnecessary steps and modified materials for a virtual setting, removing barriers to enrollment.

Figure 36. Sample Project Savings Report



Addressed and adapted to changes in the IOU incentive landscape

- Prioritized support of projects through the sunset of multiple IOU-administered programs to maximize savings and incentives secured by enrolled agencies.
- Developed an internal resource hub for Third Party Program information and coordination processes. The hub helped inform SoCalREN's pipeline development and helped agencies identify projects, even with limited opportunities for incentives and/or associated funding.

Optimization and Outlook

The PDP continuously improves and integrates feedback to refine services. Program activities and optimization strategies for 2022 include:

- Streamlining IOU coordination protocols to proactively communicate with SCE and SCG regarding coordination efforts to minimize customer confusion.
 - In addition to convening monthly program coordination meetings to share updates, SoCalREN has invited both utilities to a Q1 2022 meeting to discuss optimizing coordination, given the evolving third-party incentive program landscape.
- Focus on service deployment within in all regions of the territory:
 - Launch new offerings identified in 2021 to meet the unique needs of each region.
 - Support public agencies with longer term, strategic energy action planning to create (1) a pipeline of future energy projects and (2) a long-term vision and plan for agencies.
 - Facilitate region-wide education and training opportunities.
- Coordination with Third Party Program implementers to align project delivery services with new incentive programs. This will include identifying opportunities to simplify deliverables and separate SoCalREN deliverables from the IOU incentive process where needed.

Public Agency DER DAC Project Delivery Program

Description

Pathway to Zero (the public-facing name for the Public Agency DER DAC Project Delivery Program) maximizes EE opportunities while driving the integration of Distributed Energy Resources (DERs) in the public sector, particularly in DACs⁶. The Program helps public agencies on a path toward Zero Net Energy⁷ (ZNE) through a comprehensive evaluation of energy opportunities for facilities in DACs, very low-income⁸, and rural⁹ communities, including EE measures and DER options. Pathway to Zero empowers agencies to get started choosing the right DERs for their facilities.

Rate-payer funding supports EE project process.

Enrollment & Portfolio Project Design & Construction Hand-off Procurement & Audit

Figure 37. Overview of Pathway to Zero and BMCTA Combined Offerings

Starting in 2020, SoCalREN enhanced Pathway to Zero with non-ratepayer funding to expand offerings and services for underserved communities. SoCalREN leveraged funds from the CEC to design and implement a companion Subprogram: Benchmarking Call to Action (BMCTA). BMCTA provides enhanced benchmarking support and critical technical assistance to implement DERs. See additional details in *External Funding Leveraged by the Public Sector*.

Services

CEC Funding

Supports DER

Project Process

CEC Funding

Supports Enhanced

Energy Analysis

All energy efficiency program services offered through the PDP are also available through the Pathway to Zero Program. Additional services uniquely offered to underserved communities through Pathway to Zero include:

⁶ As defined by CalEnviroScreen 3.0.

⁷ Per SoCalREN's adopted definition, ZNE means that the annual energy consumed on site and the annual energy losses from generation, transmission, and distribution are offset by the annual production of on-site renewable energy.

⁸ As defined by California Department of Housing and Community Development.

⁹ As defined by Rural-Urban Commuting Area.

- Education and outreach regarding DER strategies on topics such as the integration of distributed generation, energy storage, demand response, energy management, and water efficiency optimization for public agencies.
- An enhanced CEA to identify and prioritize project opportunities based on specific community characteristics, energy consumption, and energy needs.
- Training/development workshops covering best practices across all DER energy service areas; offered to current and potential SoCalREN enrolled public agencies.
- BMCTA Subprogram services.

Objectives

- Increase the percentage of underserved communities' public agencies engaging in holistic EE and DER energy strategies, reducing community energy use and reducing peak demand energy consumption.
- Empower public agencies to meet local, regional, and state climate and energy goals.
- Increase the number of public agencies participating in SoCalREN's EE programs, with an emphasis on DACs
- Encourage agencies to lead by example through agency EE and DER projects.

Performance

In 2021, Pathway to Zero continued to help underserved communities achieve their energy resilience goals. The program expanded, adding 22 more underserved public agencies to the network. The program delivered 37 comprehensive Pathway to Zero reports, developed 43 new EE projects in underserved communities, and provided 21 investment–grade audits. The program also continued supporting 96 existing pipeline projects. Additional benefits achieved through BMCTA support are detailed under External Funding Leveraged by the public sector below.

Figure 38. Pathway to Zero Program Performance



43 New Project



3/ Pa

Pathway to Zero Reports Delivered



23 ⁰

CEA's Presented



2'

EE Audit Reports Delivered

SoCalREN provided investment grade audits that assessed 11 public agency facilities and 14 non-building facilities, such as parks or water treatment plants, in 2021. Pathway to Zero provided underserved communities with the support services they needed to overcome barriers to address their climate and energy goals.

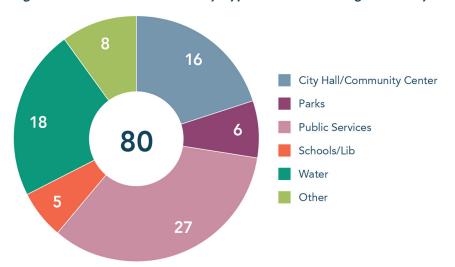


Figure 39. Breakdown of Facility Types Audited through Pathway to Zero

Table 6. 2021 Installed Savings

2021 Construction Complete Savings ¹⁰	
First-Year Annual On-Bill Savings	
kWh	879,051
kW	110
Therms	251

Many Pathway to Zero projects' energy savings are attributed to and claimed by resource programs. Of these kWh savings, 478,290 were channeled into resource programs. These energy savings will result in a 181 MT CO2e GHG emissions reduction, equivalent to taking 39 cars off the road for one year.

Table 7. 2021 Pathway to Zero kWh Savings by Eligible County

Each County Completed One (1) Project		
County	kWh	Percent of Total kWh
Orange	49,000	6 percent
Riverside	478,290	55 percent
San Bernardino	351,761	39 percent

¹⁰ Not all installation reports submitted in 2021 are claimed by resource programs in 2021. Metrics also include 2021 installed projects that are channeled through the Metered Savings Program, which does not require Installation Reports.

Table 8 below shows the percentage of 2021 installed projects that received specific program services.

Table 8. 2021 Installed Projects Leveraging Pathway to Zero Services

Percent of Installed 2021 Projects by Service Type			
Pathway to Zero Service Type ¹¹	Percent of Projects Using Service		
Project management	100%		
Audit/engineering calculations	61%		
Objective technical review	69%		
Utility incentive application	85%		
Financial analysis	67%		
Financial services	39%		
Procurement support	33%		
Construction phase support	41%		

Table 9 lists the financial savings to public agencies from projects installed in 2021.

Table 9. Financial Benefits to Public Agencies

Financial Benefits	
DAC Public Agencies	
Annual Utility Bill Savings	\$129,554
Total Utility Incentives Captured	\$101,596

Pathway to Zero goes beyond energy efficiency to provide agencies with comprehensive support to identify and implement DER projects. To meet this objective, Pathway to Zero provides agencies with an overview of DER strategies in the Pathway to Zero report, which includes DER measure descriptions and next steps to pursue them.

These reports were customized to the specific site and the agency's interest and could include any of the DER and sustainability strategies in Table 10. Thirty-seven Pathway to Zero reports were delivered in 2021. Table 10 also shows the total instances each DER measure type was presented.

¹¹ See Appendix B for definitions.

Table 10. 2021 DER and Sustainability Strategies

Strategies Identified and Shared with Participants		
DER/Sustainability Strategy	Number of Instances Shared in Pathway to Zero Reports	
Battery Storage	27	
Demand Response	12	
Electric Vehicles	18	
GHG Reductions	11	
Permanent Load Shifting	11	
Solar Photovoltaic	28	
Self-Generation Incentive Program	7	

In 2021, Pathway to Zero developed a significant pipeline of energy-saving projects for 2022 and beyond (see Table 11 below). Pipeline development is essential to long-term Program success, and once identified, a project may take up to four years to complete.

Table 11. Project Pipeline

Project Pipeline by kWh, kW, and Therms		
kWh	kW	Therms
11,875,083	1,900	36,873

Modifications

SoCalREN heard from enrolled agencies and regional partners that the DAC designation to determine program eligibility excluded communities of concern, such as low-income or rural communities, from much-needed services. In 2021, the program analyzed DAC population distribution across SoCalREN territory to identify potential gaps.

As shown in , several counties with rural and low-income populations do not classify as DACs. For example, while San Luis Obispo County does not have any DACs, 51 percent of the population is classified as rural, and 22 percent is classified as low-income. In addition, Inyo County does not have any DACs, but 100 percent of the population is classified as rural. Under the original eligibility criteria, such communities would not receive Pathway to Zero's services.

Based on these findings and stakeholder feedback, SoCalREN updated program eligibility to include rural, very low-income¹² communities, and Title I schools as well as DACs to better serve populations most in need.

¹² Low Income was initially considered, however, SoCalREN determined a very low income population enabled Pathway to Zero to target key populations.

Table 12. Underserved Groups by County

DAC, Rural, and Very Low-Ir	ncome Population by Cou	unty		
County	Total Population	DAC	Rural	Very Low- Income
Imperial	164,648	76%	57%	46%
Inyo	14,574	0%	100%	0%
Kern	836,404	72%	32%	38%
Kings	141,645	100%	100%	0%
Los Angeles	9,964,639	65%	7%	31%
Mono	8,127	0%	100%	0%
Orange	3,103,190	45%	0%	23%
Riverside	2,307,548	53%	11%	28%
San Bernardino	1,996,622	73%	14%	27%
San Luis Obispo	236,542	0%	51%	27%
Santa Barbara	440,584	0%	22%	26%
Tulare	392,745	78%	67%	24%
Ventura	843,645	21%	18%	34%
Total Pop Avg. %	20,450,913	58%	12%	29%

2021 Strategies

All strategies outlined in the PDP Strategies section were co-developed and implemented by the Pathway to Zero Program. Strategies unique to Pathway to Zero and delivered specifically to DACs include:

- Delivered DAC agency facilities Pathway to Zero reports. These reports provide a
 high-level review for several DER and sustainability strategies such as photovoltaics
 and battery storage, demand response, electric vehicle charging, and water
 efficiency, meant to provide initial guidance for the facilities. Information on rebates
 and incentives available for the DER or sustainability strategy are also included in the
 report.
- Leveraged external funds from the CEC to design and implement the BMCTA Sub-Program.

Optimization and Outlook

The Pathway to Zero Program will continue to provide customized solutions that address the unique needs of underserved communities. The Program integrates feedback on an ongoing basis to refine services, improve cost-effectiveness, and increase Program penetration throughout the service territory. SoCalREN will pursue the below optimization strategies in 2022:

- Offer no-cost electric vehicle equipment installation services through a new subprogram for available DAC public agency sites also pursuing energy efficiency. The EV Ready DAC sub-program leverages CEC grant funding to expand access to electric vehicle charging stations in DAC communities and promote energy efficiency projects at public agencies.
- Follow strategies from the Community Equity Action Plan developed in 2020, including:
 - Offer internal agency workshops to provide EE and DER education on planning, financing, procurement, and project implementation across agency departments and decision-makers;
 - Deliver peer-to-peer mentorship and networking opportunities to facilitate best practices sharing among agencies serving underserved communities;
 - Enhance SoCalREN's website and network toolkit to make case studies and program resources more accessible;
 - Explore enhancements to funding and financing services to bring more energy efficiency and DER financing resources to the communities that need them most, and;
 - Pursue continuation of non-ratepayer funded DER project support through the CEC's Benchmarking Call to Action or other alternative funding sources.

Note: all Project Delivery Program project level support strategies will also be available through Pathway to Zero.

NMEC Public Agency Program

Description

Traditional California energy efficiency incentive programs require bringing facilities above Title 24 standards, which can be cost-prohibitive for public agencies that need to improve their aging infrastructure. This results in below-code facilities with large energy efficiency opportunities and "stranded" energy savings. SoCalREN's **Metered Savings Program**—the public facing name for the Normalized Metered Energy Consumption (NMEC) Public Agency Program—offers a way for agencies with "stranded" savings to access SoCalREN's project delivery support, making projects possible that were previously inaccessible because they are not eligible for traditional custom and/or deemed measure incentives.

EEM 4

EEM 3

EEM 2

T24 Code

T24 Code

Stranded Savings

No Energy Efficiency Upgrades

Above-code Measures

Recommended Upgrades
(Measured at the Meter)

Figure 40. Metered Savings Program Addresses Stranded Savings

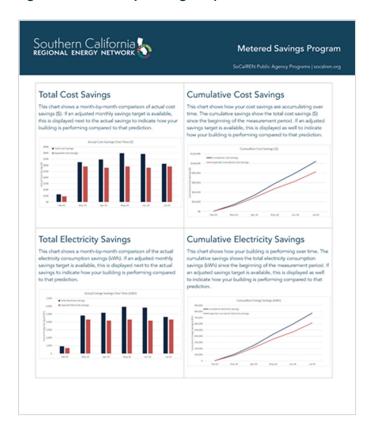
The Metered Savings Program uses NMEC to measure energy savings at the meter before and after project implementation (see In 2021, the program focused on implementing projects and developing a strong project pipeline for 2022 and beyond. It also focused on modifying the program to fill gaps left by closing IOU programs (see 2022 strategies section below).

Table 13). This reduces the complexity of multi-measure projects, allowing for deeper savings with expedited project completion. Because the Metered Savings Program is a resource program, energy efficiency savings from these projects contribute to SoCalREN sector goals, state energy efficiency goals, and energy efficiency portfolio cost-effectiveness calculations.

Services

- Weather-normalized facility energy usage model.
- Technical analysis for energy program participation program participation applications.
- Third party technical review of program participation applications.
- Post-installation training for facility maintenance staff.
- Project energy savings reports to make sure savings do not diminish over time and to provide ongoing energy monitoring for facility managers.

Figure 41. Quarterly Savings Report



Objectives

- Ensure savings persist for the useful life of the energy efficiency measures.
- Reduce multi-measure project complexity.
- Support the goals of AB 802 to capture stranded, to-code savings measures.
- Improve project completion timelines in the public sector.
- Contribute resource savings through SoCalREN's public sector programs.
- Achieve a minimum savings threshold of 10 percent of overall facility energy usage.
- Provide training and educational materials to facility personnel to ensure persistence of savings well beyond installation completion.

Performance

In 2021, the program focused on implementing projects and developing a strong project pipeline for 2022 and beyond. It also focused on modifying the program to fill gaps left by closing IOU programs (see 2022 strategies section below).

Table 13. Completed Projects and Pipeline Developed

Metered Savings Program Savings			
2021 Completed Projects (7 projects) Pipeline Developed* (7 projects)			
1,386,479 net kWh	53% DAC	3,766,340 kWh	76% DAC
315 net kW	80% DAC	745 kW	100% DAC
O Therms	N/A	4,584 Therms	63% DAC

^{*}Savings are based on forecasted construction completion timelines. Includes total savings projected for 2022 and beyond. Net and gross kWh and kW are the same for this program.

MSP also supports capacity building across public agencies through various marketing and outreach activities. In 2021, two case studies featuring Los Angeles County (sample shown in Figure 42) and Culver City were developed to highlight project successes.

Figure 42. LA County Case Study



Centro Maravilla Service Center Lifetime Cost Savings* \$456,000+ \$383,000+ \$383,000+ \$29,000+ Annual Cost Savings 246,000+ kWh 132,000+ kWh 132,000+ kWh Annual Electricity Savings 4,640+ therms 1,750+ therms Completion Date November 2020 November 2020 Full Project Timeline 1 year 1 year Construction Timeline 3 months Estimated Useful Life 13 years 11 years Project Funding Internal Internal *Includes utility and maintenance savings. Lifetime cost savings are in present value. Centro Maravilla Service Center Upgrades Controls Cont

Modifications

Although there were no substantial modifications to the Metered Savings Program in 2021, program tools and templates were improved based on lessons learned from project implementation. The Program improved marketing materials to enhance the participant experience, communicate the value of the Program, and remove barriers to customer participation.

2021 Strategies

- Anticipated and addressed ongoing challenges from COVID-19 and impacts on Metered Savings Program projects as a non-routine event (NRE) and identified non-routine adjustment (NRA) solutions to mitigate project risks.
- Streamlined coordination protocols with the IOUs to improve the public agency experience. The improved process minimizes agency confusion and decision fatigue by removing the agency services plan (ASP) and moving program pathway selection to after a full project proposal is presented to the agency. The Joint Cooperation Memo (JCM) agreed upon by SoCalREN, SCE, and SoCalGas has been updated accordingly.
- Developed tools and templates for efficient and timely project review, approval, and close-out (i.e., M&V plan data request).
- Explored opportunities to improve the project screening timeline and costeffectiveness by leveraging open-source tools such as Energy Charting and Metrics (ECAM) and NMEC-R to analyze simple energy load profiles.
- Actively participated in statewide working groups and industry groups to drive NMEC policy and ensure the policy guidance is in the best interest of public agencies and their projects.

Optimization and Outlook

In 2022, the Metered Savings Program will focus on completing the projects on track for installation, scaling up program participation for future years, and filling gaps left by IOU program closures. Metered Savings Program optimizations for 2022 include:

- Add monetary incentives based on lifecycle avoided GHG emissions resulting from the project.
- **Focus on equity** by offering enhanced incentives for projects in underserved areas, including low-income and hard-to-reach communities.
- Explore opportunities to further enhance early project screening protocols to ensure engineering services fully assess a facility's NMEC potential and use program funds efficiently.
- Develop and distribute marketing and communication materials such as case studies on completed projects to continue to educate agencies on the benefits of an NMEC approach.
- Continue close collaboration with Commission staff and industry experts to share feedback based on agency experiences and ensure program processes align with the evolving NMEC guidebook.

• Continue to utilize Project Savings Reports to inform agencies of their realized savings quarterly and after the one-year monitoring period post energy efficiency measure installation. The report ensures the persistence of savings and allows agencies to track actual savings on the meter.

External Funding Leveraged by the Public Sector

Description

Benchmarking Call to Action (BMCTA), which is offered as a sub-program¹³ to the SoCalREN Pathway to Zero Program, was launched in 2020 in response to agency interest in comprehensive energy services beyond EE to increase reliability, resiliency, and sustainability. Los Angeles County identified external non-ratepayer funding from the California Energy Commission (CEC) to expand Pathway to Zero's support for DERs to comprehensive support including audits, procurement assistance, financing support, and construction support.

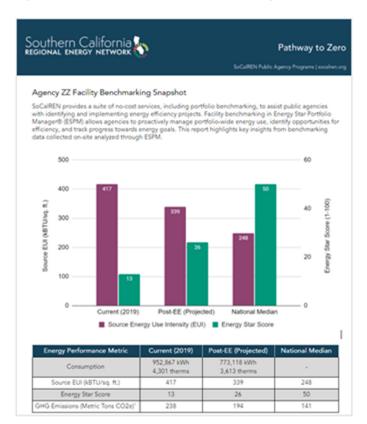


Figure 43. BMCTA Facility Benchmarking Snapshot

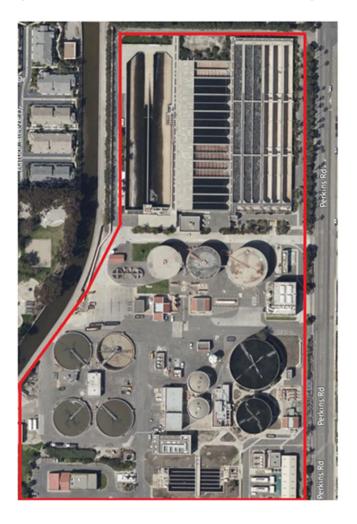
DER audits help agencies determine which DERs and energy interventions would benefit them most while helping them achieve local and state energy, environment, and climate goals. In addition to DER and sustainability strategy technical support, SoCalREN offers enhanced benchmarking services through BMCTA to empower agencies to make informed decisions about energy management. Through these services, SoCalREN can assist agencies with AB 802 compliance, calculate facility ENERGY STAR® Portfolio Manager scores, and analyze a facility's pre- and post-retrofit energy performance metrics. In 2021, SoCalREN's BMCTA program expanded its focus of underserved communities beyond DACs to include very low-income and rural communities.

¹³ Contract term is 2020-2021.

In 2021, BMCTA received additional CEC funding to focus on facilities throughout LA County and provide additional AB 802 compliance support, including at facilities that are served by the Los Angeles Department of Water and Power (LADWP). This supplemental funding enables SoCalREN to provide comprehensive electric and gas energy audits for facilities served by SCG and LADWP. The sub-program also offers EE and DER technical services to LADWP facilities owned by LA County and supports the county's resiliency goals.

Services

Figure 44. Wastewater Treatment Facility Being Investigated through BMCTA



Through Pathway to Zero's enhanced benchmarking subprogram, SoCalREN offers the following services:

Custom facility energy use report. a comparison of energy use intensity (EUI)
between facilities of different sizes, demonstrating how EUI has changed over time
and comparing a facility's EUI with similar facilities within the agency and across
other agencies.

- On-site benchmarking. SoCalREN conducts a site visit to collect property and utility meter information, eliminate data gaps, and reduce the data collection burden on agency staff.
- AB 802 benchmarking regulation fulfillment. SoCalREN ensures the agency is fulfilling AB 802 benchmarking regulations, a requirement for select California facilities larger than 50,000 square feet.
- ENERGY STAR certification support. SoCalREN helps agency facilities earn ENERGY STAR certification to demonstrate that facilities are operating at maximum energy efficiency.
- Resilience Map. In 2021, SoCalREN piloted a GIS map service to outline community characteristics and prompt discussions about resilience.

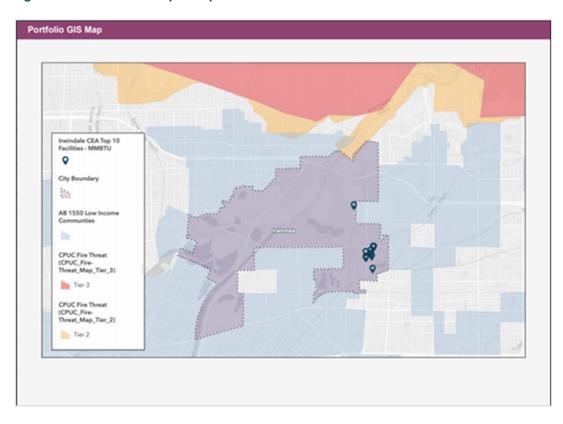


Figure 45. Resilience Map Sample

BMCTA offers technical services, with a focus on DER audits, for the following DER and sustainability-related strategies:

- Demand response (DR)
- Electric vehicle charging infrastructure
- Solar water heating
- Photovoltaic (solar) and battery storage systems
- Green rate options
- SCE's 50% Green Rate or 100% Green Rate Programs

53

- Clean Power Alliance's Clean Power rate option (50 percent) or 100 percent Green Power option
- · Permanent load shifting
- Water efficiency

The BMCTA Subprogram is seamlessly integrated with the Pathway to Zero Program and layers DER measures into the energy efficiency audit and project proposal. It provides savings and cost estimates as well as financing solutions for the recommended DER strategies.

Objectives

- Increase the ability of public agencies to meet local, regional, and state climate and energy goals by supporting agencies with comprehensive technical services to implement DER projects.
- Influence DAC public agencies to go beyond energy efficiency retrofits by utilizing benchmarking data and tools.
- Influence DAC public agencies to talk to their facility operators about energy usage and monitoring.
- Increase the number of DAC public agencies that engage communities in DER energy actions and strategies, thereby reducing overall community energy consumption.

Performance

The BMCTA Subprogram resulted in the following successes in 2021:

Table 14. BMCTA Program Performance Metrics

2021 BMCTA Program Metrics				
Metric	Goal	Completed		
Site supported with on-site benchmarking	30	65		
DER audits provided	18	18		
Additional DER technical services provided	5	5		
EE audits completed for LA County's LADWP facilities	2	2		
AB 802 compliance and disclosure supported	N/A	158		
LA County facility benchmarked square feet	N/A	32 million sq ft.		
GHG reductions identified (MT CO2e)	N/A	3,796		

Note: MT CO2e = metric tons of carbon dioxide equivalent.

The 3,796 MT CO2e identified through BMCTA result in environmental impacts¹⁴ as displayed in Figure 46.

¹⁴ Source: EPA GHG Equivalencies Calculator (https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator)

Figure 46. BMCTA GHG Reduction Equivalencies



Passenger Vehicles Driven for One Year



62,768 690
Tree Seedlings Home's Electricity
Grown for Ten Years Use for One Year



Table 15. Frequency of DER Strategies Supported

Strategies Recommended to Public Agencies			
Strategy	Frequency of Inclusion in DER Report		
Photovoltaic (solar) and battery storage systems	11		
Electric vehicle charging infrastructure	3		
Water efficiency	7		
Other	2		

Table 16. EE and DER Audit Metrics

Identified Savings			
Metric	Value		
Water	3,147,271 Gallons		
Annual Electric Savings	4,886,111 kWh		
Peak Demand Savings	1,575 kW		
Annual Gas Savings	55,796 Therms		



RESIDENTIAL SECTOR

SoCalREN prioritizes achievement of goals that drive progress toward our overall mission to support a clean energy future for Southern California communities. As directed by our core values, SoCalREN programs seek to expand access to energy efficiency through activities that build economic resilience and result in measurable climate impacts. Our Residential Sector programs achieve this by a focus on two unique groups—multifamily communities and elementary school students—to maximize impacts and promote clean energy in the neighborhoods that need it most.

Through our Multifamily and Kits for Kids Programs, SoCalREN provided energy efficiency improvements, measures, and education to thousands of homes and families at no cost to the household. Impacts of 2021 program efforts are discussed below.

Overview of Residential Sector Performance

In 2021, energy efficiency retrofits were completed at 59 properties in the territory, impacting nearly 13,000 tenant units. More than half of the projects were completed at properties located in DAC ZIP codes benefiting many of the region's HTR customers. The Whole Building and Comprehensive Common Area paths achieved combined net energy savings of **4.3 GWh and over 210,000 therms** with approximately 50 percent of these net savings delivered in DACs. The savings achieved equates to greenhouse gas (GHG) emissions savings of 10.2 million miles driven by an average passenger vehicle.

In addition, the Kits for Kids program enrolled 250 classrooms in 6 counties and delivered energy savings kits to more than 6,500 school children. Students were supported with interactive educational materials that guided them through in-home energy efficiency activities including installing simple, self-install efficiency measures that were provided in the kits. The participation levels achieved resulted in \$250,000 of grant funding reserved for 66 different schools.

Figure 47 highlights more of the environmental, economic, and social benefits that SoCalREN produced in 2021. As anticipated heading into the year, there was pent up demand following the economic slowdown resulting from the 2020 COVID-19 pandemic. Program results reflect that increased demand with a high level of achievement in many of the key program metrics shown in Table 17.

Figure 47. SoCalREN Residential Sector Core Value Achievements



Delivery of gas energy savings underperformed relative to electric savings in 2021, due in part to persistent supply chain issues that impacted the ability of contractors to procure central boilers which are a common therm saving measure for the program. Many projects expected to complete installation of boilers in 2021 were delayed into 2022 as products manufactured oversees were delayed in port.

The Program mitigated these project delays by essentially bifurcating projects into two distinct scopes allowing construction of electric measures such as lighting to complete in 2021 while pushing gas measures into 2022.

Table 17. Residential Sector 2021 Performance

	Goal	Achieved	Percent of Goal
Key Metrics			
Number of Installed Projects	60	59	98%
Number of Residential Dwelling Units Impacted	12,000	12,812	107%
Energy Savings (gross kWh)	5,621,367	5,160,851	92%
Demand Savings (gross kW)	319	722	226%
Energy Savings (gross therms)	502,033	259,374	52%
Energy Savings (net kWh)	4,411,881	4,312,867	98%
Demand Savings (net kW)	246	596	242%
Energy Savings (net therms)	383,791	214,720	56%

Sector Modifications

The sector was relatively stable, and no modifications were implemented in 2021.

New Program Offerings

There were no new program offerings in 2021.

Residential Sector Optimization and Outlook

There is optimism for growth in the Residential Sector over the next few years as pentup demand is expected to drive increased energy efficiency activity. In addition, increased emphasis on electrification will drive property owners to explore options to integrate IDSM and DERs into future facility renovations and leverage the multitude of program resources and incentives to facilitate this transition. Being fuel agnostic, SoCalREN is in an ideal position to work with customers and help develop the best energy strategy for their needs and act as a single point of contact to help customers access all the resources focused on this sector.

Multifamily Program

Description

The SoCalREN Multifamily Program helps property owners upgrade facilities through EE retrofit projects that improve living conditions and reduce energy costs for residents. The Program provides business opportunities for contractors who complete upgrades at participating properties. In addition to the cost-saving benefits of EE, residents benefit from a safer, healthier, and cleaner living environment while building owners enjoy increased property values. The successful completion of a Multifamily project that addresses the needs of stakeholders at all levels is an effort that is both meaningful financially and helps California meet long-term GHG reduction goals.

The target audiences for the Multifamily Program are owners and managers of eligible multifamily properties located within the SoCalREN territory. This includes a wide range of property types, from large corporate operations with multiple property sites to individual owners of single properties. Secondary audiences include contractors who serve multifamily properties in SoCalREN territory. 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.

Incentives are based on the percent energy savings achieved over baseline conditions and the number of units at the property. EnergyPro Lite and EnergyPro 5 are used to calculate energy savings. As-built conditions are captured during the initial assessment, and recommendations are made based on observations. All potential opportunities are modeled in EnergyPro or EnergyPro Lite with the intent to provide a package of recommendations that maximize energy savings. Incentives for the Whole Building Path are capped at 60 percent of the total project cost unless the project is in a DAC ZIP code, where incentives are capped at 75 percent of the total project cost.

Services

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

- Technical support, including energy assessments, identifying energy efficiency improvement measures, and EnergyPro or EnergyPro Lite modeling of energy savings.
- Project management and other staff support throughout EE projects.
- Contractor training to install Program measures and deliver Program savings.
- Project inspection to validate all equipment is installed and operational.
- Multifamily customer and tenant educational materials in a variety of languages to support outreach and EE adoption at properties.

Figure 48. SoCalREN Multifamily Program Outreach Flyer in Simplified Chinese



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

- Training and education on EE measures.
- Marketing materials for customer sales meetings.
- Lead generation for projects through targeted direct mail and digital advertising.
- Technical support on project scope and installation.

Objectives

- Drive SoCalREN Portfolio Cost Effectiveness: The Multifamily Program offers a streamlined approach to achieving energy savings to ensure the overall SoCalREN portfolio 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 that include electric, gas and water efficiency measures.
- Achieve High Participation in HTR and DAC Customer Groups: Achieve at least 50
 percent participation by HTR customers or properties located 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 properties (minimum size of five 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 to facilitate the installation of comprehensive projects.

Performance

The SoCalREN Multifamily Program helps property owners learn about EE opportunities at their properties. Part of that education includes providing property owners with a comprehensive energy assessment. Data is collected about the property, including its size, number of units, and existing equipment information. This information is input into energy modeling software to estimate the amount of savings that can be achieved at the property by participating in the Program.

In 2021, the Program completed Energy Assessment Reports at a total of 93 multifamily properties throughout the SoCalREN territory. The number of Assessment Reports completed is indicative of the interest in the program and project sales cycles as many of those 93 properties will translate into projects that will be completed in 2022.

Table 18. Project Implementation Performance

Project Implementation Performance		
Projects are defined by 2021 construction completion with installation reports submitted by Q1 2022.		
Number of Completed Projects	59	
Percent of projects completed at properties located in DACs	51%	

In 2021, the SoCalREN Residential Program claimed over 4.1 net GWh and 200,000 net therms. The regional results by county are displayed in Table 19.

Table 19. Regional Residential Energy Savings Results

	Population	Projects	Net kWh	Net Therms
County				
Los Angeles	10,283,729 (54%)	18	1,369,687	63,083
Orange	3,284,468 (17%)	21	1,287,682	58,834
Riverside	2,415,955 (13%)	1	223,241	O ¹⁵
San Bernardino	2,174,938 (11%)	14	1,075,919	72,604
Ventura	859,073 (5%)	5	356,338	20,199
Total	19,018,163	59	4,312,867	214,720

¹⁵ The project completed in Riverside County was an electrification project and all therm savings are reported as kWh.

By replacing older and inefficient equipment, property owners can reduce their ongoing energy and water costs and respond to fewer tenant maintenance calls. Projects completed in 2021 provided significant financial savings as displayed in Table 20.

Table 20. Financial Benefits to Multifamily Properties

Financial Benefits	
Projects are defined by 2021 construction completion with insta	llation reports submitted by Q1 2022.
Annual utility bill savings for all properties (and DACs)	\$743,695 (\$434,611 in DACs) ¹⁶
Total value of projects completed	\$10,337,343
Total incentives paid	\$5,429,128

The Program strives to support construction jobs. This Program goal is measured by completed projects' gross construction costs. The 2021 gross construction costs of \$10.3 million translate to **100 construction jobs supported**.

Modifications

In 2020, the Program revised its QC process in response to the COVID-19 pandemic that prevented on-site activities. With reduced risk of COVID-19 due to increasing vaccination rates the Program was able to reestablish on-site verification with an improved a two-stage inspection approach to address pre- and post-construction.

Pre-Construction

- For projects >75 units, 50% have an on-site inspection.
- For projects ≤75 units, 20% have an on-site inspection.
- 100% of projects have a desktop review to verify baseline inputs for energy model.

Post-Construction

- 100% of projects with \$100,000 incentives or greater have an on-site inspection.
- 50% of projects with incentives >\$50,000 and ≤\$100,000 have an on-site inspection.
- 10% of projects with incentives ≤\$50,000 have an on-site post-inspection.
- 100% of projects undergo a desktop review to verify final installation quantities and confirm that equipment specifications comply with workpaper requirements.

2021 Strategies

2021 Contractor Kick-Off

The Multifamily Program started 2021 with a successful Virtual Contractor Kick-Off event. More than 50 attendees were provided lunch with a DoorDash e-gift card and a welcome bag featuring SoCalREN promo materials. The event covered:

Overview of SoCalREN Multifamily Program for 2021

¹⁶ Based on U.S. Energy Information Administration average California utility costs of \$0.1800 per kWh.

- Whole Building Program and Comprehensive Common Area Program
- Accepted measures, enrollment processes, and updated collateral overview
- Overview of the Energy Efficiency Learning Center (EELC)
- QA/QC dos and don'ts
- Financing programs available
- 2020 Contractor Award acknowledgment

Email Marketing Newsletters

Direct email marketing newsletters are sent to contractors monthly to inform them of Program changes, updates, and diverse ways to be successful in the Program. During 2021, different contractors were asked questions to highlight their business; that information was featured in each monthly newsletter as a contractor spotlight.

In April's monthly newsletter, the Program introduced a new contractor contest, *Race to 500,000 kWh*. This contest was set in place to drive achievement of program goals. Two prizes were offered with special terms and conditions based on achieving kWh targets. The guidelines as presented to the contractors for the contest were:

- \$50,000 Bonus: The first contractor to complete a new project, or multiple projects, that delivered 500,000 worth of kWh savings. Either one or multiple projects can be used to reach the 500,000-kWh benchmark. Project(s) must be installed and completed in 2021 and cannot have been included in the project pipeline prior to April.
- \$25,000 Bonus: The first contractor to complete an existing project, or multiple projects, that delivered 500,000 worth of kWh savings. Either one or multiple projects can be used to reach the 500,000-kWh benchmark. Contractors were able to use projects already in progress and enrolled in the Program to reach the 500,000-kWh goal.

Program Marketing Collateral

The Multifamily Program updated seven contractor and customer facing flyers at the beginning of 2021 to align with Program updates.

- Property Owner Agreement
- Contractor Participation Agreement
- 2021 Intake Form
- Whole Building Flyer
- Comprehensive Common Area Flyer
- Multifamily Contractor Manual
- Project Incentive Estimation Sales Tool

SoCalREN& SoCalREN & SoCalREN & Actualice su propiedad de forma simple y segura 以安全和简单的方式为您的物业升级,同时保持 Upgrade Your Property in a Safe and Simple Way tiene el distanciamiento so While Maintaining Social Distancing 通过四个简单的步骤参加 享受益处 使用我们简单的登记流程,最大限度地减少计划团队成员在现场花费的时间。 京受給任的运费和维护成本。 确认您的资格 如需参加本项计划,您的多户型项目必须符合以 下标准: ・ 位于由南加州黄連生公司 (SCE) 提供服务的 物心内。 位于至少包含五套连体单元的建筑 至少节约10,000千五小时或1,000千十能源。 从预订之日起12个月内完成项目并获得批准。 开始行动!

Figure 49. Sample 2021 Program Marketing Collateral (Multilingual)

The Whole Building and Comprehensive Common Area flyers were also available to contractors in Spanish and Simplified Chinese. Contractors were also provided cobranded versions of both flyers to use in the field. On the Request Marketing Materials section of the website, contractors were able to request customized marketing materials that are delivered to their business after their order is placed. All Program materials were available for contractors to download directly from the website to ensure easy access when needed. Figure 49 displays sample marketing collateral.

Direct Mail: Property Owner Letter

In April 2021, the Program created a formal letter for use as in a direct mail campaign targeting Property Owners. This letter went to over 900 property owners and informed them about the Program, financial incentives, recommended upgrades, and the benefits if they participated in the Program. The call to action was to visit the website or call to determine the best approach for their property. The campaign contributed to a more than 30 percent increase in direct contacts in the two months following distribution.

Figure 50. Multifamily Direct Mail Letter



Regional Partners

To expand awareness and outreach throughout the region served by SoCalREN, the Program began working with four Regional Partners who were already familiar with SoCalREN due to their collaboration with the Public Sector programs. The Program meets with each Regional Partner separately to review new outreach plans, discuss upcoming events, and marketing tactics. The Program provides each Regional Partner with monthly social media posts, newsletter content, cobranded marketing flyers and other Program materials to support local promotion.

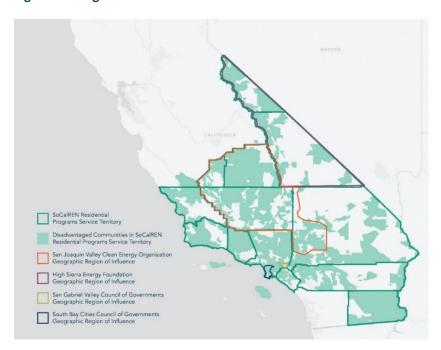


Figure 51. Regional Partner Locations

Electric Measure Path

During the 2021 program year, the Multifamily Program observed widespread disruptions to equipment supply chains resulting from COVID-19. This led to increased difficulty for participating contractors to receive and install certain equipment types (e.g., boilers) in accordance with planned construction timelines. In response to these impacts, an electric measure path was offered to contractors during the fourth quarter of 2021. This path allowed contractors to install measures that were less impacted by supply chain disruptions (e.g., LED lighting) and continue to provide energy efficient retrofits to multifamily properties within the service territory.

The existing rules of the SoCalREN Multifamily Program were modified to accommodate the measure types and their associated energy savings:

1. Electric-only projects do not need installed measures to achieve a minimum of 10 percent energy savings during the fourth quarter of the 2021 program year.

- 2. Electric-only projects that have installed measures below 10% energy savings will receive an incentive at an average rate of \$0.90/kWh (net).
- 3. Electric measure only path projects that achieve 10% energy savings will be subject to the regular program incentive rates.
- 4. Electric measure only path projects do not need their retrofits to include a minimum of three energy efficient measures.

This strategy was successful at bringing eight additional projects into the pipeline in Q4 and delivering 980,000 net kWh of energy savings. These temporary program rules expired on 12/31/2021.

Optimization and Outlook

Since inception, Program incentives have been tied to property size with incentive rates set on a per residential unit basis. For example, a project that achieves 15 percent savings over a modeled baseline achieved an incentive of \$715 per residential unit. This created a built-in bias towards larger properties as larger properties can capture higher incentives based solely on the number of residential units located at the property.

The program has consistently delivered savings from properties that have an average of more than 200 residential units. Smaller properties have a more difficult time meeting the minimum percentage threshold and qualifying for a meaningful incentive amount.

In response to these challenges, a new structure has been developed for the 2022 program year based on the unit energy savings achieved (\$/therm and \$/kWh). This pathway allows contractors and customers to better understand how incentives tie directly to energy savings actions and encourages equity of participation across all customer types. Using \$/therm and \$kWh incentive rates allows the program to individually adjust rates for each end use as needed in response to market signals or program initiatives without impacting the other end use. Existing SoCalREN multifamily Program rules will be modified to accommodate the new structure and requirements.

- Incentive Structure
 - Properties located in DACs will receive: \$0.57/kWh and \$6.00/therm
 - Non-DAC Properties will receive: \$0.33/kWh and \$3.50/therm
- Project Eligibility
 - The 10 percent energy savings minimum will no longer be required and is replaced with a 10,000 kWh OR 1,000 therm energy savings minimum.
 - The three-measure minimum requirement will remain.
 - The 60 percent and 75 percent of project cost incentive cap for Non-DAC and DAC respectively will remain.
- Comprehensive Common Area (CCA) Path
 - Customers will still be allowed to submit common area only projects under the CCA Path, but the incentive structure and project eligibility requirements will be the same as the requirements for the Whole Building path

Kits for Kids Program

Description

In 2021 Kits for Kids successfully launched, providing energy-saving measures to families who have third and fourth grade students attending schools within the SoCalREN service area. The program enrolled **250 classrooms serving more than 6,500 students** in 2021, achieving 100 percent of its participant goals.

The primary market participant for this program was the students themselves along with their Parent/Guardian and other members of their household. The program selected third and fourth grade classrooms because at these grade levels energy efficiency aligns well with other concepts the students are learning.

Existing school-based energy efficiency programs offered by investor-owned utilities (IOUs) focus on other grade levels, so the Kits for Kids home-based energy efficiency education program does not duplicate IOU programs.

Each participating student received a Kit from the program, at no cost, filled with a set of measures to help provide energy savings for each household. In addition to the energy and cost savings achieved by the student, Kits for Kids provided educators with a classroom incentive grant. Kits for Kids generates energy savings and provide relief to families and educate future household decision-makers to continue prioritizing energy efficiency (EE) in the future.

Figure 52. Photograph of Kits for Kids Box



The no-cost measures are designed to help households save energy and money. The at-home activity is intended to build on what has already been taught in the classroom, helping the student make connections between concepts learned through third and fourth grade science class and how the members of their household use energy at home, in a fun, hands-on fashion.

Students in participating classrooms have access to a free, online home-based educational activity with games, puzzles, and a tip sheet. These are designed to educate the participating student and other household members about energy efficiency and

the positive financial and environmental impacts associated with participating and committing to EE behaviors.

Students return the postcards to the teachers who aggregate the information in an online information form. This includes information on home, the existing light bulbs they are replacing, as well as what measures from the kit they installed. If 65 percent of the students within a given participating classroom return the completed postcard to their teachers and the teachers submit their online teacher verification form, their classroom will receive a \$1,000 incentive grant.

Figure 53. Kits for Kids Parent Letter with Image of Verification Postcard



In 2021, 250 classrooms signed up to participate in the program, achieving 100 percent of the program's goals. The Program is actively distributing kits, verifying classroom participation, and issuing grant checks to schools.

Services

Once classrooms are enrolled, the Kits for Kids Program mails the kits to each school so that the teachers can distribute the kits to the students to take home. Each kit is filled with two LED bulbs, one efficient showerhead, and two faucet aerators for families to install. The Program also offers electric-only kits that contain two LED bulbs and a Wi-Fi enabled smart plug.

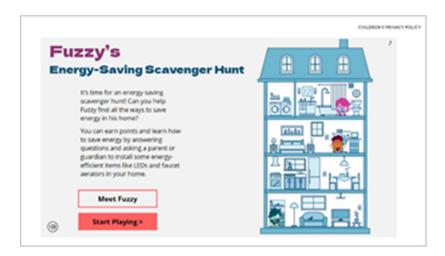
In addition, the kits include a sticker, magnet, pencil, shower timer, detailed directions on how to install each item, and a verification postcard that teachers will use to track the percentage of completed kits. The kits also include an insert for parents with more information and one for students.

Figure 54. Kits for Kids Overview in Spanish



The insert for students encourages them to go on an energy-saving adventure online—Fuzzy's Energy-Saving Scavenger Hunt—to learn more about energy, how their family uses it, and more ways to save. If 65 percent of the students within a given participating classroom return the completed postcard to their teachers, their classroom will receive a \$1,000 incentive grant. The Program is in the process of receiving teacher submission forms to provide QA/QC and distribute the incentive grant funding.

Figure 55. Kits for Kids Online Scavenger Hunt



Objectives

• Generate energy savings (kWh and therms) through the installation of measures in the homes of participating students.

- Provide financial relief to families/households through both energy cost savings and the no-cost measures provided to households.
- Educate students, parents, and guardians about energy efficiency to help household members make informed decisions now, and to encourage the continuation of EE behaviors by the students in the future.
- Drive climate action within residential communities.
- Reward students for participating by giving a classroom grant. This \$1000 grant can be used by each participating teacher to help fund educational materials, supplies, field trips, and other experiences that help students learn and engage.

Performance

SoCalREN met the 2021 goal of enrolling 250 classrooms to participate in the Kits for Kids Program. The 250 classrooms are in 23 school districts and 66 schools in 6 counties throughout SoCalREN. The Program has effectively distributed the kits to 6,109 participating students.

Table 21. Kits for Kids Program Performance

	School Districts	Participating Schools	Enrolled Classrooms	Total Students	DAC Classrooms
County					
Los Angeles	11	54	201	5,041	167
Mono	1	1	1	23	O
Orange	3	3	10	265	2
Riverside	1	1	11	257	11
San Bernardino	5	6	17	416	11
Ventura	4	4	10	255	1
Total	25	69	250	6,257	192

Note: No schools in Imperial, Inyo, Kern, Santa Barbara, or Tulare Counties participated during 2021. SoCalREN will prioritize outreach to these areas in 2022.

Modifications

Modifications were made throughout 2021 to improve the Program, including:

- Expanded eligibility from school districts currently enrolled in the SoCalREN Public Agency Energy Efficiency Project Delivery Program (PDP) to all school districts located within SoCalREN territory.
- Expanded eligible participants from fourth grade classrooms to include third and fourth grade classrooms.
- Updated SoCalREN's privacy policy and created a children's privacy policy to ensure that all participants knew that SoCalREN was not collecting any identifiable information from children.

- Shared electronic postcards and materials to teachers at their request since many students lost or misplaced the postcards they needed to return to their teachers.
- Modified marketing to be comprehensive and have all the necessary information for participants to easily enroll.
- Changed registration portal from "interest form" to "enrollment form" eliminating unnecessary barriers to sign up.
- Expanded outreach from teachers to include school principals and district staff/management.

2021 Program Successes

An outreach strategy that aligned the Kits for Kids team, the SoCalREN Public Sector programs, and our Regional Partners led to achievement of goals as described in the **Performance** section. In addition:

- A total of 59 teachers returned program verification forms as of the close of 2021.
- Nearly 90 percent—52 classrooms total—met the 65 percent participation threshold and earned their classroom the \$1,000 grant.
- Teachers report using the grant funds for investments in educational materials that can be used now and by future generations of students, including books and technology tools such as 3D printers.

The Program receives verification forms and distributes grant checks to participating schools on a regular basis. Many classrooms experienced delays in distributing kits due to the onset of the Omicron variant of COVID-19 and associated impacts.

2021 Strategies

Throughout 2021, SoCalREN used a variety of strategies to encourage participation. This included targeting third and fourth grade teachers to participate in the Kits for Kids Program. Program staff worked with SoCalREN's Public Agency Regional Partners that have had historically low participation in utility programs in DAC and rural HTR school districts. In addition, program staff conducted direct outreach to school districts in SoCalREN territory to promote the program.

The Regional Partners helped facilitate classroom enrollment in the program. Because of their location and affiliations with local municipalities, these organizations were in a unique position to target DAC and HTR participants. The four regional partners, as described and displayed in the Multifamily Program section, are:

- The High Sierra Energy Foundation (Northeast areas of SoCalREN territory)
- The San Joaquin Valley Clean Energy Organization (Northern Central Valley)
- San Gabriel Valley Council of Governments (San Gabriel Valley)
- South Bay Cities Council of Governments (South Bay)

The regional partners helped to promote the program to local school districts and facilitated introductions to school districts.

To further support participation from DAC and HTR participants, the program provided in-language content targeting specific communities who are often overlooked in energy efficiency programs. Providing educational materials, activity sheets, and measure instructions in key languages spoken throughout the region helped customers directly connect with the content and concepts and fostered connections between parents/guardians and students who worked on the activities together. Based on this effort, these communities likely adopted energy efficiency at a higher level than their historic participation levels.

Methods of direct outreach are described below.

Email Marketing Campaign

A total of six email marketing campaigns were created and sent out to nearly 2,000 public school contacts. Initial outreach was completed to inform schools within the SoCalREN territory of the new Kits for Kids Program and how to enroll. Open rates were between 20–56 percent and click rates were between 4–17 percent. A more curated email marketing campaign launched during the holidays promoting the program with a unique opportunity those classrooms that enrolled by mid-December.

Figure 56. Kits for Kids Holiday Email Marketing Campaign



The first 50 classes to enroll would receive a pizza party for their classroom. This campaign was sent out to our list of 1,800 contacts three times and had our highest engagements rates for the Program to date.

Table 22. Kits for Kids Email Marketing Campaign Performance

	Open Rate	Click Rate
Email Campaign		
San Bernardino Targeted Eblast	56.1%	17.1%
Holiday Eblast	29.6%	0.8%
Holiday Eblast Reminder #1	15.3%	0.8%
Holiday Eblast Reminder #2	13.0%	0.7%

Direct Phone Canvassing

The program team recruited a group of skilled customer care representatives to reach out by phone directly to over 3,000 contacts at districts and schools. Follow up emails with program information were then sent to 1,077 contacts. The sheer volume of this outreach, along with the direct email campaigns is what ultimately allowed us to achieve the goal of enrolling 250 classrooms.

Addressing Market Barriers

Market barriers faced by Residential customers in the SoCalREN service area are addressed through Kits for Kids:

- Households in the targeted areas have a historic lack of participation in energy
 efficiency programs and may be unaware of the availability of such programs. By
 providing a no-cost entry point to energy efficiency that is accessible to all members
 of the household, Kits for Kids helps address this critical market barrier.
- For Multifamily customers, property owners and managers may be hesitant to
 perform upgrades or installations in tenant units due to the spread of COVID-19. Kits
 for Kids provides measures directly to tenant households, allowing them to enjoy the
 benefits of energy efficiency without the risk of encountering a contractor or service
 provider.
- Due to high unemployment and increased energy costs, many households in the
 Disadvantaged Communities (DAC) and Hard-to-Reach (HTR) areas served by
 SoCalREN currently face economic hardship. The measures and incentives provided
 by Kits for Kids can help alleviate this burden while providing information and
 guidance on how households can continue to save on an ongoing basis.

Optimization and Outlook

Throughout the implementation of the first year of this program, the program faced some unforeseen barriers and challenges that were mitigated by modifying the program as noted above. The program became more effective once we started targeting the

right decision makers at the schools and districts. Initially SoCalREN targeted teachers but most teachers needed to get the approval of their principals and/or the district before they could commit to participating. As a result, the program started targeting the key decision makers directly such as principals, school administrators and school district offices. This approach was successful since schools signed up multiple classrooms at once. A huge success occurred when one interested school district enrolled every third and fourth grade classroom in the district. The district has also been very helpful in following up with principals and teachers to encourage teachers to submit the teacher verification forms. These kinds of partnerships will help spread the program's benefits throughout entire communities.

The program plans to conduct several surveys/opportunities for feedback from teachers to understand what worked and how we can improve the program in 2022. The program will also translate more documents into Spanish to help students and their caregivers understand more about the program.

The program is also seeking referrals from participating schools and will incorporate testimonials into marketing and communications during the 2022 year. The program produces large foam core checks for presentation; several schools are interested in holding an event at school to talk about their participation in the program and showcase them "receiving" the check. This will help generate word-of-mouth buzz from early adopters to their counterparts at other classrooms, schools, or districts that we can use to encourage additional classroom signups.

With a goal of 50 percent DAC participating classrooms in 2022, the program is focusing on schools and districts in DAC communities and reaching out to all SoCalREN counties to ensure broad participation in 2022. We will continue to utilize email, social media, and direct outreach to enroll classrooms.



WORKFORCE EDUCATION AND TRAINING SECTOR

The Workforce Education and Training Program (WE&T) strengthens the demand and supply-side of the clean energy labor market. SoCalREN WE&T is focused on increasing the number, skills, and diversity of the energy efficiency labor force in the SoCal region to ensure the effective implementation of the State's energy efficiency goals in an inclusive manner.

The initiatives offered through SoCalREN's WE&T sector address barriers and gaps faced by disadvantaged and hard-to-reach workers when entering the energy efficiency labor force. During 2021, SoCalREN offered three WE&T pathways for Southern Californians, described further below.

Overview of WE&T Sector Performance

Figure 57. WET Sector Supporting SoCalREN's Core Values



Contractors Trained on Clean Energy Topics



\$27,000+
Total Wages Paid to
ACES Pathway Program Student Interns



12Workforce Partnerships
Providing EE Jobs

The E-Contractor Training Program is designed to provide small and diverse contractors with knowledge and guidance in competing for energy efficiency projects and to increase their skills and capacity. Training and technical assistance provide contractors with access to bonding and capital resources and an introduction to sustainability, public contracting requirements, and how to bid on energy efficiency projects.

Contractors undergo training through a curriculum designed to achieve maximum outcomes and provide ample preparation to complete real-world projects. In 2021, SoCalREN trained 114 small and diverse contractors by having them participate in a series of workshops and trainings. The E-Contractor Program also served 44 contractors by providing the one-on-one individual coaching and technical assistance tailored to their business and capacity.

Since 2015, more than 10 high schools have engaged in a strong partnership with the Architecture Construction Engineering Students (ACES)
Engineering Pathway Program. ACES is a comprehensive youth workforce development model that combines structured academic pathways to science, technology, engineering, art, and mathematics (STEAM) careers, access to pre-apprenticeship construction training, and paid summer internships. ACES exposes

SoCalREN's WE&T Program 2021 Partnerships

Partnerships with employers, industry groups, and other stakeholders helps SoCalREN expand opportunities for WE&T program participants. The following organizations supported SoCalREN's efforts in 2021 through participation in our Regional Workforce Alliance or as an ACES and/or E-Contractor program partner.

- Archdiocesan Youth Employment (AYE)
 Services Los Angeles
- Chambers of Commerce: California African American Chamber of Commerce (CC), California Hispanic CC, Crenshaw CC, Greater LA African American CC
- CNC Engineering
- Community Colleges: Build LA Community College District, East LA Community College Engineering and Technologies Department, LA Community College District
- CSULB Institute for Innovation and Entrepreneurship
- GoEngineer/SOLIDWORKS®
- High Schools: STEAM Legacy, Alhambra, Mark Keppel, San Gabriel, SouthEast
- HUB Cities Consortium
- IMEG Corporation
- LA County Department of Consumer and Business Affairs, Office of Small Business
- LA County Workforce Development Aging and Community Services
- LA Mission College
- NAACP Inglewood-South Bay Chapter
- National Association of Minority Contractors SoCal Chapter
- National Electrical Contractors Association
- PCL Construction
- SKANSKA
- Swinerton Builders
- USGBC-Los Angeles

and engages disadvantaged high school students to explore careers in architecture, engineering and construction by capitalizing on local design and construction projects, concurrent college enrollment in STEAM-related course offerings, and strong industry participation.

In 2021, the ACES Pathway Program trained 149 students in community college courses focused on ACE EE career pathways. Paid summer internships reinforce student learning and increase future employment in a quality STEAM career. ACES engages industry partners who are working on Los Angeles' multi million and multi-billion-dollar projects to identify summer internships. To date, ACES students have worked on the LAUSD \$27B school construction program; Metro's \$120B transportation program; Los Angeles Community College District's \$9B college campus construction program; Los Angeles World Airports' \$14.4B capital improvement program; and other projects within SoCalREN service territory. Through partnership, ACES leverages existing agency resources to incentivize industry partners to hire high school interns. The internships are paid through the County of Los Angeles and City of Los Angeles youth workforce systems that enable students to earn the minimum wage while performing their internship. The County and City also provide financial literacy and workforce readiness training that helps prepare student the responsibilities of going to work and earning wages. By coordinating employment resources and experiential learning opportunities, ACES has enabled 23 students in 2021 to participate in paid internships who have collectively earned \$27,127.50 in wages.

The **Green Path Careers (GPC)** Program provides opportunity youth and adults access to the emerging Energy Efficiency (EE) sector by offering education, training, and work experience in the field. This initiative is made possible through collaboration between SoCalREN and LA County Workforce Development, Aging, and Community Services (WDACS).

In 2021, GPC targeted 17 opportunity youth and adults to begin their BPI training course and certification pathway by offering Building Analyst, Envelope Professional, Multifamily Building Analyst, and Infiltration and Duct Leakage (IDL) training. Participants also received the opportunity to participate in the Paid Work Experience component of the program, which serves as an internship, with SoCalREN partner employers.

Sector Modifications

No modifications were made to offerings in 2021.

New Program Offerings

No new programs were offered in 2021.

Optimization and Outlook

As we continue to navigate the pandemic and adapting to new guidelines, the WE&T Sector will continue a hybrid approach to training for all program offerings. Partnerships will continue to be leveraged to provide the maximum output in terms of support and resources needed for contractors, opportunity youth and adults.

Workforce Education and Training Program

Description

SoCalREN believes in building meaningful, long-term employment opportunities for Southern Californians that will also help to prepare the region for the workforce needs of the future. Through our Workforce Education and Training (WET) Program, SoCalREN impacted the lives of 280 individuals participating in the three participation pathways offered in 2021:

- Support for small and diverse contractors through the E-Contractor Training Program
- STEM career education, college credit, and paid internships for disadvantaged youth through the Architecture, Construction, and Engineering Students (ACES)
 Pathway Program
- Technical career education and supportive services for opportunity youth and adults through the Green Path Careers (GPC) Program

Services

Contractor Training and Support: E-Contractor

The E-Contractor Training Program is designed to prepare small and diverse contractors with the knowledge to compete for energy efficiency projects and increase their capacity. The program offers customized training and technical assistance to contractors and access to bonding, capital resources, introduction to sustainability, public contracting requirements, and how to bid on energy efficiency projects.

Contractors undergo training through a curriculum designed to achieve maximum outcomes and preparation. Curriculum includes:

- Bonding and Insurance
- Access to Capital
- Green Building/Construction Standards and Requirements
- Overview of Market Opportunities
- Worker and Site Safety Programs
- Project Management & Construction Administration
- Project Labor Agreements and Joint Venture
- Marketing/Networking

Helping Small and Diverse Contractors Work with Public Agencies

- A dozen contractors are going through one-on-one financial coaching to help them gain access to capital to grow their businesses and create jobs
- Bonding capacity is the biggest barrier for small and diverse contractors. The contractors participating in the SoCalREN WET Program E-Contractor Academy have a combined bonding capacity of more than \$24M, allowing companies that are often excluded from the public agency contract bidding process to participate and earn business.

- GPRO Certification Training
- Fundamentals of Building Green

In 2021, the E-Contractor program hosted six workshops and two G-PRO series to educate contractors on the fundamentals of the EE construction sector.

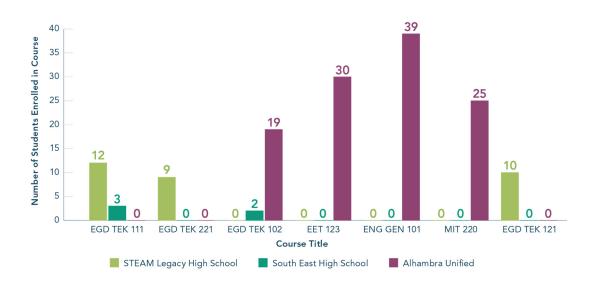
Disadvantaged Youth Career Technical Education: ACES



ACES works closely with high school leadership to conduct middle school outreach for the program, thereby managing a sequence of college coursework that begins in the summer prior to the start of the students' freshman year. ACES coordinates concurrent college enrollment and coursework offerings through East Los Angeles Community College (ELAC).

By managing a strong and consistent sequence of courses for each student, ACES students have earned college skills certificates for Programming and Engineering Graphics at a higher level than any other school. Students have completed 1-3 courses each school year from a selection of seven individual college courses (each course is offered multiple times per year).

Figure 58. ACES College Courses



Through completion of a sequence of thematically grouped courses, six students earned the Programming Skills Certificate and seven earned the Engineering Graphics Skills Certificate. ACES is working to help students also earn the Sustaining Energy Skills Certificate. Students with an Engineering Graphics Skills Certificate are prepared

through examination to earn the Certified SolidWorks Associate Mechanical Design (CSWA) industry certification and the Certified SolidWorks Professional (CSWP).

ACES Program Goals

- Facilitate college enrollment and transferable college credit during high school;
- Increase diversity of students entering the STEAM design and building industries;
- Experiential learning and industry mentorship through paid summer internships;
- Provide access to scholarships to assist students with the high cost of higher education.

ACES Partnerships and Internships

ACES established a scholarship program to support students pursuing STEAM-related degrees at 4-year universities. **Through LAX Integrated Express Solutions (LINXS)**, the joint venture building the \$4.9 billion LAX Automated People Mover Project, \$120,000

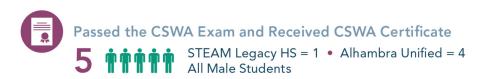


is

made available for scholarships. In partnership with the non-profit **California Community Connection Corporation (C4)**, ACES students are awarded \$2,500 to \$5,000 annually.

The ACES Program facilitated four employer partnerships and provided 23 internships to participants along with the opportunity to participate in the online SOLIDWORKS CSWA where students can achieve an internationally recognized industry certification.

Figure 59. ACES Internship Data







Opportunity Youth Career Technical Education: GPC



The GPC program is designed to address the barriers opportunity youth and adults face when moving into the growing workforce, while also addressing the EE workforce expansion needs. GPC aims to assist opportunity youth and adults by eliminating the barriers of the EE workforce sector by providing certification training, supportive services, and the coaching needed to emerge successful by providing the resources and support needed.

During 2021, GPC enrolled 2 cohorts of 17 participants for the BPI Energy Auditor career pathway training. GPC also formed a partnership with CCC to facilitate streamlined enrollment of participants in the SoCalREN territory by leveraging existing training and resources. Participants in the paid work experience portion of the program were given 120 hours through WDACS and the ability to participate in OJT for additional hours.

23%

Foster (former)

Justice Impacted

TAY

Homeless

Low Income (DAC/HTR)

Figure 60. GPC Eligibility Status

Objectives

The WE&T Sector Programs addresses the market barriers of entry for small and diverse contractors, opportunity youth and adults entering the EE sector workforce. The WE&T sector aims to:

- Develop a multi-entry and multi-pathway education and training curricula into the EE sector for and within DACs.
- Involve direct engagement of the EE/RE industry and employers (e.g., building trade unions, USGBC, major contractors, public agencies) in program design and

implementation to create a more robust hiring and contractor training, hiring and contractor network within DACs. This can be achieved through the Regional Workforce Alliance membership.

- Increase EE career awareness within DACs
- Expand the technical, financial, and organizational capacity of small and disadvantaged contractors to acquire and perform EE projects that support REN's residential and public sector programs and other projects within the IOU service area
- Strengthen jobs and business opportunities for disadvantaged communities by establishing regional Clean Energy (EE/RE) HUBS (virtual and physical) as resource centers that connect/network workers and contractors to on-going information, resources, training, jobs, and project opportunities
- Increase building operational efficiencies through a capacity building program and a regional energy management training program

Performance

Despite the continued challenges presented by COVID-19 and the limits it placed on performing in-person training and events, the SoCalREN WE&T Program was able to enrich the lives of more than 200 individuals with career education and supportive services. These individuals can go on to fill vital positions in the clean energy industry.

Table 23. WET Sector 2021 Performance

E-Contractor Program	ACES Pathway Program	Green Path Careers
Contractor Support	STEAM Career Training	Transitional Support
44 contractors combined bonding capacity \$24,350,000	6 Students completed SOLIDWORKS certification	2 inaugural cohorts with 17 total participants
12 participants in one-on-one financial coaching	13 students received community college skill certificates	Permanent work placement for 2 TAY the clean energy industry in SoCal
100% of contractor participants report that their knowledge and skills in the clean energy sector improved due to participation	149 participants at five schools; 100% of schools located in underserved (DAC/HTR) communities	Case management and supportive services for 17 individuals

In 2021, the WE&T Sector programs enhanced online presence and efficiency by creating the GPC online enrollment portal and interest forms for both the E-Contractor Program and ACES Pathway Program. These efforts helped streamline the process for interested participants to obtain program information and reduced the need for inperson enrollment events.

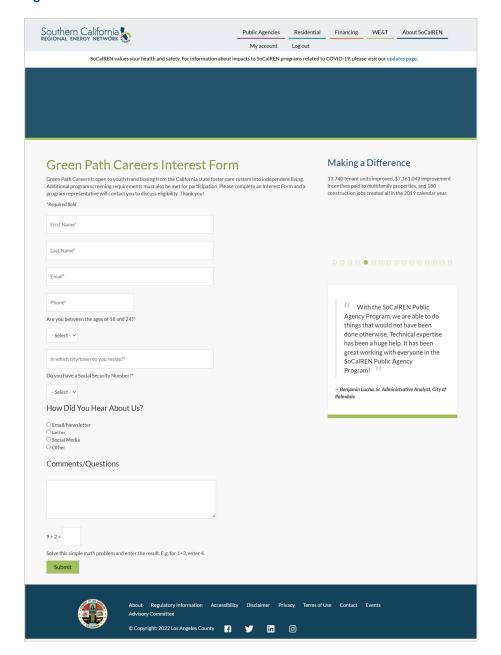


Figure 61. GPC Online Interest Form

Modifications

- Training courses specific to new and emerging technologies in the EE sector for small and diverse contractors
- Leverage partnerships for additional resources and one-on-one technical assistance
- Convened SoCalREN IOU partners to develop and coordinate training opportunities for small and diverse contractors
- Launched the Regional Workforce Alliance to strengthen and align public, private, and community-based programs to develop quality career jobs and business opportunities for disadvantaged communities of color in the clean energy sector.

2021 Strategies

- Align workforce ecosystems in EE sector: Continue to increase participation and partnership in the Regional Workforce Alliance.
- Improved data collection and program performance: Launched new ACES platform to create student portal aligned with community college curriculum.
- Build capacity within SoCalREN Programs through collaboration: Identify entry level opportunities for opportunity youth and adult placements; continued collaboration for training.



APPENDIX A: SOCALREN PORTFOLIO SUPPORTING DATA

Please review the file "Final SoCalREN 2021 Annual Report.xlsx," uploaded to the California Energy Data and Reporting System (CEDARS, located at https://cedars.sound-data.com/), to view 2021 Supporting Data.

Final SoCalREN 2021 Annual Report

Tab name	Applies to SoCalREN?
T-1 Savings&Goals	Υ
T-2 Fuel Sub	Υ
T-3 EnvImpacts	Υ
T-4 Expenses	Υ
T-5 Programs	Υ
T-6 Net CE	Υ
T-7 Bill Impacts	N
T-8 SavingsUseCategory	Υ
T-9 Commitments	Υ
T-10 ESPI	N
T-11 Cap& Target	Υ
T-12 BP Metrics	Υ
T-13 3P Calculation	N
T-14 PG&E Marketplace Metrics	N



APPENDIX B: SOCALREN PROGRAM SUPPORTING DATA

- 1. Public Sector Programs Marketing and Outreach
- 2. Public Sector EE Project Delivery Program Services Descriptions

Public Sector Programs Marketing and Outreach

SoCalREN's communications efforts in 2021 were focused on **encouraging enrollment** for eligible public agencies and **increasing the engagement and capacity of agencies** already enrolled in the Programs.

Agency Registration

In 2021, SoCalREN continued our online registration strategy to build a pipeline to agency enrollment. Due to continued COVID-19 restrictions in 2021, online registration via events and public outreach was limited. However, SoCalREN adapted by emphasizing the benefits of our library of resources in the online network toolkit and by using registration as a "foot-in-the-door technique" in early interest meetings and other engagement opportunities. Referrals from SoCalREN's regional partners also played an important role in 2021 to increase agency registrations.

The following key metrics document the registration strategy's success:

- Socalren.org/join, the webpage for registration, received 984 page views.
- 38 agencies registered for the network toolkit in 2021
 - 25 went on to enroll in SoCalREN (as of 3/1/2022)
 - o 10 agencies who registered are not yet enrolled (as of 3/1/2022), and;
 - 3 agencies automatically registered after enrollment (<10% of registered agencies)
- The network toolkit received 633 page views including:
 - o 49 resources made available to registered agencies, and;
 - Agencies downloaded 86 resources from the network toolkit.

The average number of days that agencies moved from online registration to enrollment in the Public Agency Programs was 47 days.

Table B-1. Agency Registrations

Agency Name	Date Registered	Date Enrolled (if applicable)
Azusa Unified	4/15/21	6/15/21
Beaumont Cherry Valley Water District	4/27/21	
Bell Gardens	3/16/21	5/18/21
Bellflower Unified	3/30/21	5/3/21
Crescenta Valley Water District	7/9/21	7/20/21

Agency Name	Date Registered	Date Enrolled (if applicable)
East Kern Health Care District	4/12/21	5/19/21
East Valley Water District	8/27/21	12/7/21
El Segundo	8/25/21	10/29/21
El Segundo Unified	3/11/21	6/25/21
El Toro Water District	3/16/21	5/6/21
Elsinore Valley Municipal Water District	1/26/21	3/5/21
Foothill Transit	2/23/21	3/23/21
Fullerton Joint Union High	3/31/21	4/22/21
Green Dot Public Schools	4/7/21	
Guadalupe	5/18/21	
Indian Wells	5/20/21	6/17/21
Kings County	2/12/21	3/16/21
LA Metro	1/6/21	
Laguna Beach	9/20/21	
Lawndale	9/13/21	9/14/21
Los Nietos School District	1/14/21	
Manhattan Beach	5/18/21	6/7/21
Monrovia Unified	4/1/21	5/10/21
Montebello	2/1/21	3/8/21
Montecito Sanitary District	9/15/21	10/6/21
Northern Inyo Healthcare District	8/30/21	
Palmdale Water District	8/25/21	8/2/21
Pomona Unified	1/12/21	1/20/21
Rancho Palos Verdes	5/6/21	4/30/21
Rosemead	3/1/21	2/25/21
San Luis Obispo	5/17/21	5/18/21
Santa Barbara School District	9/23/21	

Agency Name	Date	Date Enrolled
	Registered	(if applicable)
Santa Fe Springs	3/22/21	
South Coast Air Quality Management District	4/14/21	5/19/21
Stallion Springs CSD	6/1/21	9/16/21
Twentynine Palms	3/10/21	
Upper San Gabriel Valley Municipal Water District	3/3/21	3/3/21
Val Verde Unified	4/7/21	10/13/21

Capacity and Expertise

Outreach Activities

In 2021, SoCalREN focused outreach activities on region-specific engagement via our regional partners. Table B-2 below details 2021 outreach activities. A total of 21 workshops, webinars, and conference presentations were conducted to promote awareness, drive enrollment, and build agency capacity and expertise. All events were held remotely due to COVID-19.

Table B-2. Outreach Activity Details

Outreach Activity Name	Date	Туре
SGVCOG Energy Efficiency Funding and Financing Webshop	1/21/21	Regional Partner Workshop
Products & Services: Reaching Institutional Buyers	2/18/21	Presentation: Other
What's Your Pathway to Zero?	2/24/21	Presentation: Webinar/Workshop
GCCOG Energy Working Group	3/16/21	Regional Partner Workshop
SBCCOG Energy Managers Working Group	3/25/21	Regional Partner Workshop
SGVCOG Energy Champions 101 Workshop	4/20/21	Regional Partner Workshop
Green Technology - Sustainable Facilities Forum	5/20/21	Conference: Presentation
HSEF Energy Efficiency Resources Webinar	6/15/21	Regional Partner Workshop

Outreach Activity Name	Date	Туре
GCCOG Energy Working Group	6/15/21	Regional Partner Workshop
San Gabriel Valley COG EENR Committee Presentation	6/16/21	Regional Partner Workshop
South Bay Cities COG Energy Managers Working Group	6/17/21	Regional Partner Workshop
2021 Summer Study on Energy Efficiency in Industry	7/13/21	Conference: Presentation
CCEC Forum Webinar 1	8/4/21	Conference: Presentation
CCEC Forum Webinar 2	8/12/21	Conference: Presentation
SGVCOG Energy Working Group	8/24/21	Regional Partner Workshop
GCCOG Energy Management Working Group	9/21/21	Regional Partner Workshop
SBCCOG Energy Management Working Group	9/30/21	Regional Partner Workshop
LA Regional Partner Joint Webinar	10/7/21	Regional Partner Workshop
VCREA - Road to Net Zero: For Rural, Very Low-income, and Disadvantaged communities	10/13/21	Workshop
ACEEE Session 1 - National Conference on Energy Efficiency as a Resource	10/26/21	Conference: Presentation
ACEEE Session 2 - National Conference on Energy Efficiency as a Resource	10/27/21	Conference: Presentation

Unique Outreach Materials

SoCalREN develops unique outreach materials, including email marketing campaigns and printed materials, to provide informational and educational program materials to agencies. The SoCalREN public sector programs developed 30 unique materials in 2021, as shown in Figure B-2.

Email Campaigns

Audiences

SoCalREN's mailing list currently has approximately 1,200 subscribers (as of 3/2/2022). The primary contact (as listed in SoCalREN's customer relationship management system) for each enrolled agency is added to the mailing list, ensuring 100 percent of enrolled agencies receive educational materials and information about the Programs (Figure B-3). Additional subscribers are added from sign-ups at conferences and events and via the SoCalREN website.

Newsletters

SoCalREN distributed a newsletter most months in 2021, typically distributed during the first week of the month. Newsletters focused on agency success stories, SoCalREN services, recent and upcoming events, financing opportunities, and relevant regulatory and legislative updates.

Social Media

In 2021, SoCalREN public sector programs continued their social media presence on LinkedIn, Facebook, Instagram, and Twitter.

SoCalREN audiences grew steadily over the course of 2021, with the exception of Facebook fans, which took a slight dip. Facebook saw the most audience engagement, but Instagram had the highest ratio of audience engagement to follower count. This may indicate that SoCalREN's Instagram audience, though small, is highly interested in SoCalREN content.

Table B-3. Social Media Audience Sizes & Engagement (as of December 2021)

Platform	Number of Followers	Number of Posts	Engagement
Twitter	414 (+34 from 2020)	350	304
Facebook	9,755 (+143 new fans and -241 existing fans from 2020)	334	1,881
LinkedIn	161 (+61 from 2020)	328	521
Instagram	138 (+36 from 2020)	296	707

Website

The Energy Coalition managed the public sector programs pages of the SoCalREN website in 2021.

Audiences

The majority of visitors (87.45 percent) to the public agency pages of the SoCalREN website come from the United States and 78.29 percent of those visitors come from California, with the remaining traffic spread across the country with less than 3% of traffic per state. This is consistent with the previous years' traffic trends. Figure B–7 shows California public agency page website users by location. This map indicates that most website users are in our target geographic area.

Figure B-7. Map of California SoCalREN Public Agency Web Page User Locations



Approximately 82% of visitors to the public agency pages of the SoCalREN website are new visitors. Website traffic transitioned in 2021 from primarily desktop to primarily mobile; 69.75% of users on public agency pages of the SoCalREN website in 2021 were on mobile devices. SoCalREN should continue to design webpages to be responsive to all devices.

Public Sector EE Project Delivery Program Services Descriptions

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 activities such as 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 Programs as a whole. The needs of every agency are served through this high-touch Program service and the trusted Project Manager is seen as a reliable, impartial advisor.

Audit/Engineering Calculations

The PDP and Pathway to Zero provide 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 PDP and Pathway to Zero offer 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 implementation of measures and optimal energy savings for public agencies.

Utility Incentive Application

The PDP and Pathway to Zero 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 Savings 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, provide contract language support, and discuss 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 that includes the selected contractor, subconsultant, agency representative, and SoCalREN 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 and responsibilities.

Energy Use Analysis

The SoCalREN public sector 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 Utility API 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 C: 2023 JOINT COOPERATION MEMORANDUM

Attached is the 2023 SoCalREN, 3C-REN, SCE, SoCalGas, and I-REN 2023 Joint Cooperation Memorandum (JCM).